



Government of Odisha

Odisha Economic Survey 2020-21



Odisha Economic Survey

————— 2020-21 —————

February 2021

Planning and Convergence Department
Directorate of Economics and Statistics
Government of Odisha

© Copyright 2021
Government of Odisha

Published by
Planning and Convergence Department
Government of Odisha

This Report does not necessarily reflect the
views of the Government of Odisha

All Rights Reserved. No part of this publication
may be reproduced, stored or transmitted in
any form or by any means without the prior
permission of the Government of Odisha

.....

Price : ₹100

Prepared by
Planning and Convergence Department
Government of Odisha, Bhubaneswar

Printed at:
Odisha Government Press, Madhupatna, Cuttack

FOREWORD



Suresh Chandra Mahapatra, IAS
Chief Secretary
Government of Odisha

Odisha Economic Survey, 2020-21 presents the challenges, opportunities and performance of different sectors of the State's economy. The State endeavours to achieve sustainable and inclusive growth, remove regional disparity, reduce poverty and put in place an effective public service delivery mechanism and fast track infrastructure development. The survey provides an insight into the developmental efforts of the state government to fulfill the rising aspirations of the people for improvement in the quality of their life and realize their dream of a resurgent Odisha.

The economy of Odisha has grown at 7.1 percent per annum during the period 2012-13 to 2019-20 (at constant 2011-12 basic prices) and expected to contract by 4.92 percent in 2020-21 as per the Advance Estimates. The decline in the growth rate between 2019-20 and 2020-21 (Advance Estimate) is attributed to the impact of Covid-19. The measures taken by the State Government to fight Covid-19 has brought about sharp rise in public expenditure on health care to protect lives. Various social protection measures were also taken to save livelihoods. Quick response of the State Government in effectively tackling the pandemic, resulting in low mortality rate, in spite of heavy caseload has set an example for the rest of the country. Proper arrangements were made for provision of free food, shelter, medicine and transportation of the large number of home bound migrant labour force during the Covid-19 period. The State administration has set an example for others on this score.

The Economic Survey Report provides a snapshot of the State's Economy, composition of Gross State Domestic Product, developments in agriculture and allied sector, incidence of poverty and poverty alleviation measures, rural development, development in mining and industries, services sector and its growth prospects, social sector development including social protection measures, education, health and nutrition, governance reform and the state finances.

In view of the unprecedented situation arising out of the global pandemic in early part of 2020, the survey has rightly made an attempt to present the impact of Covid-19 on various sectors of the State's economy highlighting the response of the State Government in effectively fighting the pandemic and has also given out expectations of sharp recovery and growth. The survey concludes with overall development approach of the State Government and outlook for the future. Time series data on important socio-economic indicators has been appended to the Report which will be of use to researchers, policy planners, academicians and members of the civil society.

I compliment the efforts of Planning and Convergence Department and Directorate of Economics and Statistics, Odisha in bringing out Odisha Economic Survey, 2020-21 and wish the publication all success.

(S.C. Mahapatra)

P R E F A C E



Pradeep Jena, IAS

Development Commissioner-cum-Additional Chief Secretary
Government of Odisha

Odisha Economic Survey 2020-21 presents a comprehensive review of the performance and structural changes in major sectors of the economy over the years along with emerging issues and challenges and the developmental strategies of the State Government. It identifies the major growth drivers of the State's economy through precise analysis of the development process. The report also embodies the fiscal performance of the State and chronicles various policy interventions with an outlook for the future.

Covid-19 pandemic has severely impacted the economies all over the globe and economic contraction is experienced by most of the economies. It is estimated that Indian economy will contract by 7.7% during the year 2020-21 as per the Advanced Estimates released by Government of India. Odisha's economy is expected to have a relatively lower contraction of 4.9% during 2020-21.

The Agriculture sector of the State is estimated to contract by 6.54% in comparison to a positive growth of 3.40% at National level. But the industry sector and services sector contracted by 8.83% and 3.18% in Odisha as compared to 9.57% and 8.77% contraction at National level during 2020-21. The stringent measures imposed by the State Government to contain the spread of Covid-19 in earlier phases and the impact of severe cyclone Amphan had greater impact on Rabi crops. Similarly, floods in some parts of the State and long dry spells and pest attack on Kharif paddy was accompanied with contraction of livestock sub-sector by 32.97%. These are the possible reasons for the downward trend in agriculture sector.

The per-capita income of Odisha in 2020-21 is estimated at Rs. 1,02,156 in comparison to Rs. 1,04,566/- in 2019-20. The per-capita income of the State is expected to decline by 2.30% as against the decline of 5.41% at national level. In spite of devastating impact of Covid-19, the sectoral composition of the State follows almost the similar pattern like previous year. The agricultural sector, industry sector and services sectors continue to contribute 21.27%, 36.26% and 42.47% to the Gross State Value Added (GSVA) as against the respective shares of 21.38%, 37.92% and 40.70% during 2019-20. The annual average growth rate of state economy during 2012-13 to 2020-21 is also estimated at 5.72% against

the National average of 5.01%. This points to the fact that the economic base of the state has become stable. It is capable of managing fiscal risks and continues on the path of prudent fiscal management with desired thrust on all round socio economic development for inclusive growth.

Odisha Economic Survey, 2020-21 comprise of ten analytical chapters. The 1st one presents a broad outlook of macro economy of Odisha. The 2nd Chapter on Agriculture, Rural Poverty and Development is a critical analysis of the scenario and performance of the Agriculture Sector along with new initiatives. An in-depth analysis of development of industry and mineral resources and its role in propelling the economy is neatly presented in Chapter-3. Urban development is the challenge of the time. A profile of urbanization and the effort of State in meeting the requirement of housing, power, water, sanitation, transport etc. have been dealt in Chapter-4. Chapter-5 analyses the growth of service sector and its components, which is the key driver of the economy. Achievement on health and human development, water supply and sanitation, welfare of women and children, elderly, disabled, and ST & SC communities have been highlighted in Chapter-6. A snapshot of the governance reforms and institution building is dealt in Chapter-7. The performance of major fiscal indicators, receipts, revenue, liabilities and etc. is lucidly analysed in Chapter-8. The impact of Covid-19 in economy and responses of Government have been presented in Chapter-9. Lastly, development approach for Odisha has been synthesized.

Economic Survey, 2020-21 is the combination of the collective effort of all Departments of the Government. Principal Secretary, Finance Department, Shri Ashok Kumar Meena and Secretaries of various Departments have provided valuable inputs for drafting of the Report. Officers and the staff of the Planning and Convergence Department and Directorate of Economics & Statistics have put up their best efforts in preparing the Odisha Economic Survey 2020-21.

I hope the Economic Survey, 2020-21 will serve as a useful reference document for the economists, policy makers and all those who have an abiding interest on various aspects of the State's economy.



(Pradeep Jena)

INTRODUCTION



Ashok Meena, IAS
Principal Secretary
Government of Odisha

Economy and Finances of the States are intertwined. Economic Survey sets the tone for the ensuing years Budget Estimates. Although it is not a part of the Budget documents, it provides the basic analysis and data on the State's economy and income level to frame the Budget Estimates and provides the base for various fiscal indicators.

Economic Survey, 2020-21 has been prepared during a very unusual time when the entire country is still grappling with the fight against Covid-19. The Survey provides an overview of the State's Economy, dissection of various development sectors, current development strategies, governance and process reform measures undertaken across the State Government structure to improve public service delivery.

The Survey also presents various facets of the public finances of the State, revenue resources and expenditure trends, major fiscal indicators, fiscal discipline and prudent financial management measures and its positive outcomes. The impact of Covid-19 on the State finances and the reforms in budget making process with a view to bring in more transparency, enhance credibility of fiscal policy, and the fiscal Risk Management and reporting exercise at par with international best practices have been highlighted.

The Economic Survey, 2020-21 provides an insight to the economy and finances of the State and will receive wider attention.

A handwritten signature in black ink, appearing to read 'Ashok', with a horizontal line drawn through it.

(Ashok Meena)

ACKNOWLEDGEMENTS



Debendra Kumar Jena, IAS (Retd.)
OSD-cum-Special Secretary to Government
Planning & Convergence Department
Government of Odisha

Odisha Economic Survey: 2020-21 is the culmination of the collective effort of all Departments of the State Government. This task could be accomplished with the willing support, cooperation, guidance and intellectual contributions of various resource persons and stakeholders. Their contributions are highly acknowledged.

We express our gratitude to Shri Suresh Chandra Mahapatra, I.A.S, Chief Secretary & Chief Development Commissioner for his valuable guidance in completion of this assignment.

We are extremely grateful to Shri P. K. Jena, I.A.S., Development Commissioner & Additional Chief Secretary for his continuous support, advice and encouragement in preparation of the document.

We express our gratitude to Sri Ashok Kumar Meena, Principal Secretary, Finance for his guidance in every step.

We sincerely thank the Additional Chief Secretaries, Principal Secretaries and Secretaries of different Departments for their active support and continuous feedback in this exercise without which it would not have been possible to bring out the document.

Our special gratitude to Chair Prof. Asit Mohanty, CEFT, Xavier University, Bhubaneswar and his team of researchers for editing and review of the draft document.

Eminent Resource persons like Dr. R. N. Patra, Retired Reader (Economics) and Honorary Prof, Council of Analytical Tribal Studies, Koraput and Dr. Prof. Jagannath Lenka, Retired Professor and Heads of the Department (Economics), North Odisha University and at present Member, Odisha Sub-ordinate Staff Selection Commission and Sri Gagan Bihari Dash, Retd Joint Director, Directorate of Economics & Statistics, Dr. Dukhabandhu Sahoo, Assistant Professor, IIT, Bhubaneswar were part of the resource team for drafting various Chapters. Their valued contributions are gratefully acknowledged.

Dr. Satya Priya Rath, Joint Secretary, Smt. Supriya Prusty, Deputy Director (Statistics) of Finance Department, Dr. Sujata Priyambada Parida, Deputy Director, (Statistics), Agriculture & Farmers Empowerment Department were part of the resource team for drafting respective chapters. Their valued contributions have enriched the document greatly.

Dr. B. B Nanda, Director, Economics and Statistics and his team of Officers and staff : Ms. Prabhati Rani Pradhan, Joint Director, Dr. Kailash Chandra Pani, Joint Director, Dr. Biranchi Narayan

Mohapatra, Joint Director, Sri P. M. Dwivedi, Joint Director, Sri L.D. Biswal, Deputy Director, Sri Nirmal Kumar Sahoo, Deputy Director, Smt. Jayashree Rath, Assistant Director, Sri Byomokesh Patra, Assistant Director, Sri Aswini Mallick, Assistant Director, Smt. Smrutiranjita Pattnaik, SO, Sri Sarat Chandra Sahoo, SO, Sri Kshiroda Kumar Sahoo, SO and Sri Bishnu Prasad Rath, ASO put in their efforts tirelessly in data collection, compilation and drafting of different chapters of the Economic Survey 2020-21. They have worked ceaselessly and un-hesitantly to bring out this publication.

We thankfully acknowledge the active support provided by Officers of Planning and Convergence Department Smt. Sudhapriya Das, Additional Director, Mrs. Manasi Satapathy, Additional Director and Smt. Sudha Panda, Assistant Director, Sri Debashis Mishra, ASO who actively participated in drafting of the chapter and coordinating the activities to bring out the report in complete shape.

We thank all Officers of Planning & Convergence Department Smt. Kasturi Pradhan, FA-cum-Addl. Secretary, Dr. C. Pasayat, Addl. Secretary, Sri Manish Agarwal, Joint Secretary, Sri K.M. Khatei, Joint Secretary, Smt. M. Samal, Joint Secretary, Sri P. K. Mahakud, Joint Secretary, Sri D. Behera, Joint Director, Sri Amulya Mohanty, Joint Director, Ms. Neeta Mohanty, Joint Director, Sri D. Satpathy, Joint Director, Sri. D.P. Mohanty, Deputy Director, Itishree Pattnaik, Deputy Director, Sri S.N. Rout, Deputy Secretary and Sri Gopinath Mohapatra, Assistant Director for their support and encouragement.

We extend our sincere thanks to M/s. Third Eye for cover design and lay out of the document. We thank all officers and staff of Odisha Government Press, Cuttack for their cooperation in bringing out the print version of the document in time.

In this small space it is not possible to mention the contribution of all those who have helped us in bringing out the document. We extend our sincere gratitude to all of them who have directly or indirectly extended their assistance in this collective endeavour.



(Debendra Kumar Jena)

ODISHA ECONOMIC SURVEY 2020-21

EXECUTIVE SUMMARY

February 2021

Planning and Convergence Department
Directorate of Economics and Statistics
Government of Odisha

The Economy of Odisha

State of the Economy

As per the International Monetary Fund (IMF) assessment the world output is expected to grow at -4.9 per cent in 2020-21. Central Statistical Organization (CSO) in its Advance estimates pegged India's growth at -7.7 per cent during 2020-21.

The economy of Odisha has grown at 7.1 per cent per annum during 2012-13 to 2019-20 and expected growth rate is (-) 4.92 per cent in 2020-21 (AE). The decline in the growth rate for 2020-21 (AE) is attributed to the devastating impact of Covid-19 on the state economy. But for the resilience of the state economy and effective governance measure in managing the pandemic, the decline would have been much sharper.

A comparative analysis of growth performance of Odisha vis-a-vis other states of India during 2012-13 to 2019-20 reveals a positive differential trend in the State's average annual growth rate. It indicates that between 2012-13 and 2019-20, Odisha's economy grew at an average annual rate of 7.1 per cent, a rate faster than the national average of 6.6 per cent and 13 other states of the country. The contraction in Odisha's real GSDP growth in 2020-21 at -4.92 per cent is lower than the contraction of the national economy (-7.7 per cent).

Per Capita Income (PCI)

Per Capita Income (PCI) of Odisha rose from INR. 48499 in 2011-12 to INR. 104566 in 2019-20 (RE) registering an increase of about 115.60 per cent over the period. During this period PCI-India surged from INR.63462 to INR. 134226 i.e. by 111.51 per cent. This suggests that over about a decade Per Capita Income of Odisha has grown faster than PCI-India. PCI-Odisha, which was about 76.42 per cent of the national PCI in 2011-12, increased to 80.46 per cent in 2020-21. Per capita income of Odisha in 2019-20 (1st RE) at current prices is seen to be higher than that of Bihar, Uttar Pradesh, Jharkhand, Meghalaya, Madhya Pradesh and Chhattisgarh.

Share and Growth Performance of various Sectors

The share of agriculture and allied sectors in GVA of the state is estimated at 21.27 per cent, while that of industry is 36.26 per cent and contribution of services is 42.47 per cent in 2020-21 in terms of the Advance Estimates. Overall Agriculture sector contracted by 6.54 per cent as per constant price in which crop sub-sector suffered declined of (-)4.27 per cent and livestock experienced (-)32.97 per cent decreased in 2020-21 (AE) under the impact of Covid-19, flood, & cyclone, AMPHAN in some parts of the State and long dry spells during Kharif season resulting in overall contraction of agriculture sector. Industry sector contracted by 8.83 % in constant prices of (2011-12) as per 2020-21 (AE)

The services sector recorded a decrease of -3.18 per cent in 2020-21(AE) because of decline in Trade & Repair Services; Transport, Storage, Communication; and Real estate activities.

The services sector recorded a negative growth at -3.18 percent in 2020-21(AE) because of negative growth in Trade & Repair Services; Transport, Storage, Communication; and Real estate activities.

Poverty Reduction

During 2004-05 to 2011-12, the state could achieve higher poverty reduction i.e., by 24.6 percentage points, relative to the national level reduction of 15.3 percentage points. This could be possible due to a stable government and its effective interventions.

Exports

The value of goods exported from Odisha exhibits an increasing trend from 2011-12 to 2017-18. Barring patchy declines, exports from the state are moving on sound footing during the period 2011-12 to 2019-20.

Employment Scenario

As per usual status approach (PS+SS) unemployment moderated in 2018-19 (7.0 %) in comparison to 2017-18 (7.1 %) in consonance with National trends as per Periodic Labour Force Survey (PLFS), GOI.

Agriculture, Rural Poverty and Development

Agriculture & Allied Sectors :

- During 2019-20 (1st RE), the percentage share of Gross Value Added (GVA) from this sector in Odisha was about 21.38% (share from subsectors crop 13.62%, livestock 3%, fishery 2.33% and forestry 2.44%). But as per advanced estimate of 2020-21 the share of the sector is 21.27% (share from subsectors crop 13.65%, livestock 2.49%, fishery 2.43% and forestry 2.71%).
- There was a growth in this sector of 11.92% in 2019-20 (1st RE), but in 2020-21(AE), the sector is going for a contraction of 6.54% at 2011-12 constant prices. The impact of covid-19 pandemic, cyclone 'AMPHAN' and heavy flood during first half of 2020-21 and long dry spells in khariff might be the cause of contraction in Agriculture Sector
- During 2019-20, the net sown area (NSA) of the state was recorded as 53.30 lakh ha and Gross cropped area was recorded as 83.15 lakh ha with a cropping intensity of 156 percent.
- The area under fallow land increased to 10.79 lakh ha in 2019-20 from 10.47 lakh Hectar in 2018-19.
- Significant changes in the cropping pattern are noticed in 2019-20 over 2014-15. During 2019-20, around 51.33 % of the gross cropped area was used for production of cereals, 22.66% for pulses, 7.1% for oilseeds, 8.24% for vegetables, 4.14% for fruits and 6.54% for 'other crops' .
- The continuous effort of the State Government to divert more paddy area to non-paddy area is clearly reflected in the negative growth in case of paddy area Compound Annual Growth Rate (CAGR) for rice crop area is found negative i.e (-) 1.10% during 2019-20 over 2014-15 whereas, for wheat, maize and ragi the CAGRs of crop area over last five years are 19.14%, 22.53% and 18.04% respectively. There is a significant growth in area under pulses and the CAGR is 18.40% whereas it was 3.98% for total food grains constituting cereal and pulses. Again the CAGR for area under groundnut was 33.12% against the same for total oilseeds as 23.22%. The share of area under vegetables has increased from 7.42% in 2014-15 to 8.24 % in 2019-20 whereas the share for fruits has been increased from 3.63% to 4.14% during the same period. Also the significant share in 'other crops' indicates the rise of crop area under high value crop like cotton, fibres and spices etc.

- The Government has been continuously taking initiatives for diversification of crops with emphasis on high value crops like cotton, pulses, oilseeds, vegetables, spices and fruits through various developmental schemes like National Food Security Mission (NFSM), Integrated Farming System (IFS), Intensive Agriculture Programme (IAP), Mission for Development in Horticulture (MIDH), Technology Mission on Cotton, Technology Mission on Sugarcane and crop oriented programme for pulses and oilseeds etc. Also as a part of 5T initiatives of Govt. of Odisha, there is special focus to the framework of crop diversification in the State.
- During the year 2019-20, the total Irrigation Potential Created (IPC) was 43.07 lakh hectares and 19.51 hectares for kharif and rabi seasons respectively. From 2015-16 to 2019-20 the utilisation of irrigation is in increasing trend and it has been increased from 32.9 lakh hectares to 38.8 lakh hectares.
- During 2019-20, about 5,82,814 quintal certified seeds have been distributed including 580951 quintal seeds of paddy (HYV).
- During 2019-20, INR.20,432.69 crore and INR.8248.04 crore have been disbursed to the farmers as crop loan and term loan respectively.
- Govt. of Odisha has launched a specific scheme BALARAM (Bhoomihina Agriculturist Loan And Resources Augmentation Model) for sharecroppers in the field of Agriculture Credit during July 2020 with NABARD. Government of Odisha launched SAMRUDHI Agriculture Policy 2020 with greater emphasis on diversity, market linkage, value chain and technology. Other flagship schemes like Krushak Assistance for Livelihood and Income Augmentation (KALIA), Mukhyamantri Krushi Udyoga Yojana (MKUY), Odisha Millet Mission, Farmer Producer Organisation (FPO) Policy etc are being implemented by State Govt. for welfare of the farmers.
- About 70,56,507 MT of paddy procured through 3543 number of mandies during Kharif 2019-20. Bargarh district is in top position followed by Kalahandi and Subarnapur. Among the non-paddy procurement during 2019-20 ragi (94745 qtl.) shows a tremendous growth (426.36 %) over 2018-19.
- The milk production in Odisha has grown from 1784 thousand MT in 2012-13 to 2370 thousand MT in 2019-20.
- In 2019-20, total meat produced in the state was 205.18 thousand MT and the per capita availability of meat was 4.29 kg/ annum.
- Egg production in Odisha has increased significantly from 23,229 lakh in 2012-13 to 23,814 lakh in 2019-20 and the per capita availability of egg was 50 per annum in 2019-20.
- There is a significant rise in total fish production in Odisha with CAGR of 7.8% over the last ten years (i.e from 386.19 thousand MT in 2010-11 to 816.46 thousand MT in 2019-20). Of the total fish production, fresh water fish constitutes 67%, brackish water 14% and marine fish 19%.
- Per-capita consumption of fish was 15.4 kg in 2018-19 and it jumped to 16.2 kg in 2019-20.
- There is a significant rise in crab production in Odisha with CAGR of 3.9 % over the last ten years (i.e from 3.37 thousand MT in 2010-11 to 4.93 thousand MT in 2019-20).It has increased to 4.93 (thousand MT) in 2019-20 from 4.76 thousand MT in 2018-19 with 4% growth.

- There is a remarkable growth with CAGR 14.1% in 2019-20 over 2011-12 in shrimp production of Odisha
- There has been an increase of 274 sq. km. (27,400 ha) of forest cover in the State over last assessment made by Forest Survey of India in 2017.
- The forest cover growth in 2019-20 was highest in Kandhamal district (9.6%) followed by Mayurbhanj (7.3%), Sundargarh (7.2%), Sambalpur (6.6%), Rayagada (5.8%) and Malkangiri (5.8%).

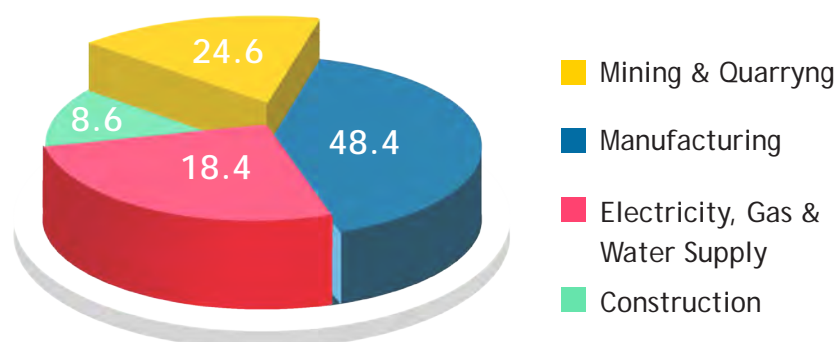
Rural Poverty & Development

- The rural poverty in Odisha reduced by 25 percentage points between 2004-05 and 2011-12 (i.e from 60.8% to 35.69%) which is much higher than the national reduction of 16 percentage points. Similarly the Poverty Gap Ratio (PGR) was reduced by 10.36% for rural Odisha against the rate of reduction for rural India as 4.59%.
- A total of 3,94,212 number of houses completed under Govt. scheme in 2019-20, out of which 3,57,914 numbers were under Pradhan Mantri Awas Yojana (Grameen), 15,567 under Biju Pucca Ghar Yojana, 1,858 under Pucca Ghar Yojana (Mining), 10,983 under Nirman Shramik Pucca Ghar Yojana and 7,890 under BPGY (Titli).
- Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), provides employment of 1115.72 lakh person days during 2019-20 which was 830.3 lakh in 2018-19, which covers 23.27 lakh rural households in 2018-19 and 31.86 lakh in 2019-20. The annual growth rate of providing employment to households in 2019-20 over 2018-19 is 36.9%.
- By 2020 about 460000 tube wells were installed, 1160000 number of tap connections provided to households.
- The State Government has been able to complete construction of 25,70,174 number of houses by end of FY 2019-20 for most deserving rural poor households.

Industrial Development and Mineral Resources

- Industrial development is the engine of economic growth of a nation. The sector currently leads the developmental change of the State, constituting 36% of States' GVA relative to 26% at the All India level as per 2020-21(AE).
- As per 2019-20 Revised Estimate (RE), the growth of the Industry sector was 3.61 % in Odisha as compared to 0.92% at All India. This is due to significantly large share of Mining sector in Odisha.
- The Annual Average growth rate of the Industry sector during the last 9 years has been 5.36% as against 3.77% at National level.
- However, due to disruptions caused by COVID-19 pandemic in early 2020 and continuing till date, the expected growth of the Industry sector in Odisha at Constant(2011-12) prices is (-)8.83 % as against (-) 9.57% at All India level as per 2020-21(AE).

Share of Sub-Sectors
in Industry GVA in
Odisha, 2020-21



- The state accounts for Country's 96% Chromite, 92% Nickel, 51 % Bauxite, 33% Iron Ore, 43% of Manganese Ore and 24% of Coal Reserves as on 1.4.2019.
- Odisha contributed around 25 % of total major mineral produced in the country.
- Mining Revenue collection during 2019-20 was INR 11020.02 Cr shows a growth of 90% over 2015-16.
- Mineral Exploration programmes have been executed by the Directorate of Geology for minerals like Coal, Manganese, Chromite, Limestone, Graphite, Chinaclay, Fireclay, decorative stones etc. for upscaling of resources during 2019-20.
- The Integrated Mines & Mineral Management System (i3MS) Project serves as one of the primary drivers of "ease of doing business" and a classic example of good governance under 5T principles adopted by the State Govt.
- Under i3MS Project, INR 49309.60 Cr. of Mining Revenue and INR 292.45 Cr. of User Fees/Application Fees were collected. Besides, more than 8.02 lakh e-permits and 6.82 Cr. e-passes were issued. More than 98405 Thousand User Registration were made during 2019-20.

- During 2019-20, Odisha Mining Corporation has produced 123.86 lakh MT of Iron Ore & 8.35 lakh MT of Chrome Ore. The Annual Turnover, Profit and Dividend paid by OMC were INR 4092.95 Cr., INR 1137.30 Cr. & INR 250.00 Cr. Respectively.

1. Manufacturing

A. Large industries

- In the Steel Industries, Odisha stands today as the largest steel and stainless steel producer in the country. The State has 2 large PSUs i.e., Rourkela Steel Plant & Neelachal Ispat Nigam.
- Also, Odisha is the highest producer of Aluminium in the country today with 2 number of largest Aluminium plants viz., Nalco and Vedanta Ltd.
- The State needs to diversify its industrial portfolio with those characterized by greater infusion of value addition.
- The strategy for this sector would be to promote domestic industry, reduce dependency and feed into the Make in Odisha Initiatives.
- Besides above, the use of technology in industrialization plays a vital role in value addition in the output accelerating the growth in the State.

B. MSMEs

- In MSME Sector, a total of 16.92 lakh persons employed by creation of 449352 number of MSME units with an investment of INR 21801.51 Crore by end of 2019-20.
- Repairing & Services Sector alone covers 62 % of units with an employment of around 49 % & investment of 64% of that in total MSMEs followed by Food & Allied sector and Miscellaneous Manufacturing.
- As per Handloom Census in 2019-20, there were 65391 weaver households having 55790 looms. The productivity per loom per annum in the co-operative fold is 435 Sq. Mtrs during 2019-20 as against 378 Sq. Mtrs in 2018-19.
- During 2019-20, total of 1303.34 lakh reeling cocoons and 13.33 MT of raw silk were produced in the State, witnessing an increase over 2018-19 owing to prevalence of good weather condition.

C. Electricity

- The total installed capacity of Power Sector in Odisha during 2019-20 was 7647.69 MW which is hiked by 27% over 2018-19.
- In Power Sector, Industrial & Domestic consumption together share about 49.60% of total power consumption of the State. The Domestic Sector is the largest consumer of electricity in Odisha accounting for about 37.41%(7327 MU) of total consumption. Rural consumers alone constitute 78% of total consumers of energy during 2019-20.

- During 2019-20, the milestone “ 100% villages electrification” is achieved by the State.
- Odisha is the first state in India to notify “ Odisha Energy Conservation Building Code.”

D. Export Performance

- Owing to high concentration metal related industries in the State, Metallurgical products, Mineral products, Electronics products, Engineering Chemical & Allied and Marine Products are the key exports from Odisha.
- The share in value of these top five exports stood at 99% in total exports viz., Metallurgical (48%), Mineral (28%), Electronics and software (9%), Engineering Chemical & Allied (8.5%) and Marine Products (6%).

Impact of COVID-19 pandemic and measures taken

- Due to restrictions caused by series of shutdown & lockdown, the estimated growth of all sub-sectors of industry witnessed a negative growth as per 2020-21(AE).
- The reduction rate is higher in Construction Sub-Sector(-)10.79% followed (-)9.90% in Manufacturing Sub-Sector.
- Govt. of Odisha have declared special package to support MSMEs during Covid-19 as follows
 - i. Provision of INR 108 Cr. interest subvention
 - ii. Provision for grant of INR 27 Cr. towards promoters’ contribution.
 - iii. Provision of INR 100 Cr. to enterprises with integration of Covid-19 assistance package during 2020-21
 - iv. Provision for INR 10 Cr. Top Up subsidy
 - v. Provision for INR 38 Cr. for reimbursement of State GST.
 - vi. Provision for waiver of Annual Maintenance charge amounting to INR 5.84 Cr payable to IDCO benefitting 5000 MSMEs in industrial estate/area

Urban Development

- As per 2011 Census, total 223 number of towns in Odisha reported urban decadal growth rate at 26.94%.
- As per 2011 census, 23.09% of the urban population of the State lives in slum without any security of tenure.
- The total slum population of the State constitutes 3.72% of the total population which is the lowest in comparison to all other States of the country.
- There has been a remarkable reduction in urban poverty between 2004-05 and 2011-12. The PGR reduction rate of the State is higher than the National level during the said period.
- State achieved a remarkable milestone in urban water supply by adopting the mission “Drink from

Tap”. Water Corporation of India (WATCO) has started a unique reform i.e., “JalaSathi” at Puri & Bhubaneswar.

- To transform the lives of urban residents, the Hon’ble Chief Minister has initiated ‘5T’ with close alignment of UN SDGs such as No Poverty, Zero hunger, Good Health & Well-being , clean water and sanitation, Decent work and Economic Growth, Industry, Innovation and infrastructure, sustainable cities and communities.
- To achieve SDGs the number of programmes such as Slum Development Programmes, Urban Housing Schemes (PMAY - Urban), Energy efficient Street lighting system, Smart City Projects, Equitable, efficient and sustainable urban water supply projects, Drink from Tap-Mission, BASUDAA and convergence with other scheme like UIDSSMT, AMRUT, DMF, OMBADC to ensure water through universal coverage of piped water supply, Revamping of urban road transport system, Urban sanitation programmes, JAGA Mission, AHAAR Programme, DAY-NULM for deduction of poverty and vulnerability of the urban poor households and modernization of CSCs are initiated.
- Odisha won the “World Habitat Award” for global recognition of its ambitious unique initiative - Jaga Mission for granting land right certificate to urban poor family living in slums.

Growing Services Sector

- The Services Sector continued as the largest contributor to the State’s economy since 2011-12. Its share to the GSDP has been estimated to be at 42.5% in 2020-21(AE) against 40.7% in 2019-20 (1st RE).
- The Trades, Repair, Hotels & Restaurants is the leading sub-sector under services with share of about 22% to services GSVA as per advance Estimates of 2020-21.
- Tourism sector has been accorded important status in odisha as it has the potentiality for foreign exchange earning, employment and value addition for the state.
- During 2019-20, about 151.37 lakh domestic tourists & 1.01 lakh foreign tourists visited Odisha with total earnings of INR.15388.98 crore.
- The road transport, with its share of over 65% in 2020-21(AE),contributes the largest share of GSVA in transport sector, providing support for growth of mining and manufacturing industries.
- Total road length of the state is 2,69,799 kms by the end of 2019-20, growing at a rate of 0.43% over 2018-19. Odisha is among the top five non-special category status in terms of surfaced road density while it lags behind in Rail density.
- As on March,2020, the State has 2,652 km of railway lines with 243 railway stations , 60 passenger halts and 2,422 kms of broad gauge electrified tracks. The revenue of INR 20,904.34 Cr. was collected during 2019-20.
- The Paradip, the only major port in odisha, has been declared as the 8th major port in Odisha, handling a total Cargo 112.69 MMT during 2019-20.

- The State has 20 Airports & 16 Helipads across districts. The state has taken proactive steps for improvement of Raurkela Airport, Utkela Airport & Jaypore Airport into full-fledged airports under RCS-UDAN scheme.
- The tele-density of Odisha is 76.46 percent against the National average of 87.37 as on March'2020. Similarly, internet subscriber per 100 population of the state is 43.95 in comparison to National average of 55.12.
- The Financial Services sub-sector accounts for a share of 9.07% in the GSVAs arising from services sector in 2019-20 & is expected to increase to 9.96% in 2020-21(AE).
- The banking sector, playing the pivotal role in delivering financial services, has performed impressively as the number of bank branches, deposits & advances increased notably by 4.86%, 10.47% & 11.50% respectively during 2019-20 over the previous year.
- The share of priority sector advances in total advances stood at 59.34%, remained higher than the benchmark (40%).
- During 2019-20, the overall gross NPA & Overdue were 6.76% & 24.14% in the total advances of the banks, which were significantly less as compared to 2017-18 level i.e., 10.60% and 36.70%, but still alarming. The credit deposit ratio is 60.41, marginally above the benchmark of 60.
- Till 2019-20, to ensure inclusive growth & financial inclusion and to encourage public saving habits, 1.54 crore bank A/Cs has been opened in the state under the Jan Dhan Yojana.
- Odisha is the first State in the country to adopt the model of Self-Help Group to extend banking services in un-banked areas for financial inclusion. In 2019-20, a total of 2,02,604 SHGs have been credit-linked with banks, availing a total credit of INR. 2,315.53 crore.

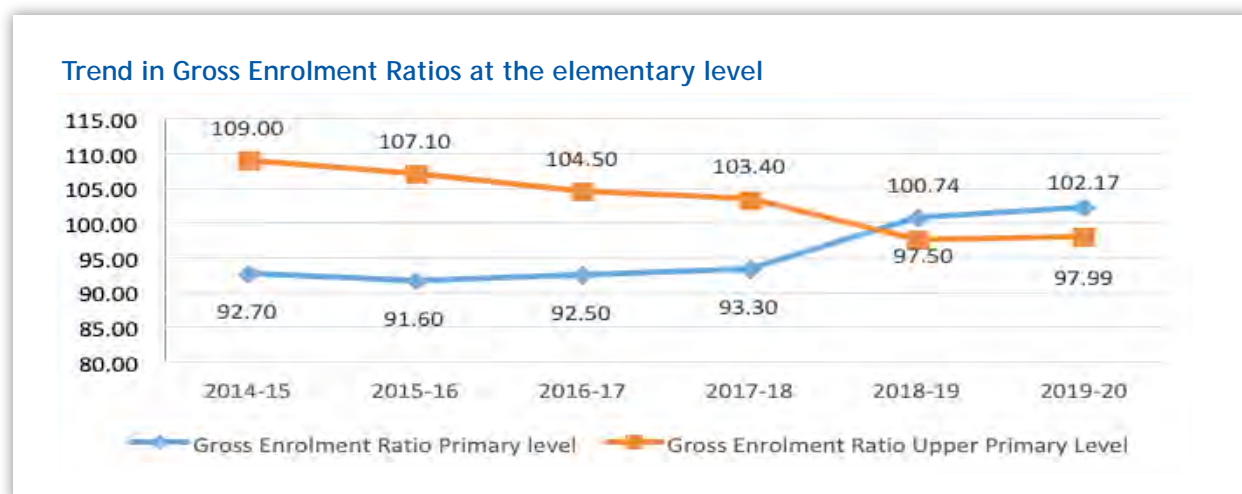
Social Sector, Human Development and Quality of Life

- The Life expectancy at birth in Odisha is comparable at the national level. There is a significant improvement in life expectancy at birth from 64.8 years during 2009-2013 to 69.3 years during 2014-18. As per SRS Bulletin 2018, the IMR of Odisha is 40 whereas the rate for India is 32. Odisha performed well in comparison to the States like Assam, Madhya Pradesh etc.
- The maternal mortality rate is consistently reducing. As per SRS 1997-98 it was 346 in 1997-98 and gradually reduced to 150 during 2016-18 (SRS -2016-18). The rate of MMR for all India is 113.
- As per the SRS data 2018, the birth rate in Odisha is 18.2 as against the national average of 20. The State has a lower birth rate in comparison to the big States like Madhya Pradesh, Assam, Bihar, Haryana, Rajasthan and Uttar Pradesh.

Key Maternal and Child Health (MCH) Indicators: India vs. Odisha

Indicators (%)	Odisha (NFHS:2015-16)	India (NFHS:2015-16)
Mothers who had antenatal check up in the first trimester	64	58.6
Mother who had at least four full antenatal care	61.9	51.2
Mother who had full antenatal care	23	21
Registered Pregnancies for MCP card	97.2	89.3
Children born at home taken to health check up with in 24 hrs of birth	6.9	2.5
Mothers who received financial assistance under JSY	72.6	36.4
Under-5 mortality rate	48	50
Institutional Delivery Rate	85.3	78.9
Anaemia rate among children in the age group of 6-59 months	44.6	58.6

Gross enrolment ratios at primary and upper primary level stood at 102.17% and 97.99% respectively. The trend from 2014-15 to 2019-20 shows the stability of enrolment at the Elementary level in the State



- Dropout rates for primary education improved to 1.55 in 2019-20 from 5.42 in 2018-19.
- The Pupil Teacher Ratio (PTR) for the primary and upper primary level stood at 18:1 and 20:1 respectively during 2019-20, which are better than the Right to Education (RTE) prescribed norms of 30:1 and 35:1 at primary and upper primary level, respectively. At the secondary level, PTR in Odisha was 18:1 during this period.
- The Gender Parity Index (GPI) of primary education, upper primary education and secondary education are 0.94, 0.92 and 0.93 respectively during 2018-19.
- Under Odisha Girls Incentive Programme (OGIP) 1.96 lakh students have been benefitted during 2019-20 with financial assistance of INR. 18.88 Crore.

Governance Reforms and Institution Building

Good governance is associated with efficient and effective administration in a democratic framework which is citizen-friendly, citizen caring and responsive administration. In general, good governance is perceived as a normative principle of administrative law, which obliges the State to perform its functions in a manner that promotes the values of efficiency, non-corruptibility, and responsiveness to civil society. The Government of Odisha is making continuous effort to improve the quality of Governance. through adoption of 5T charter based on the philosophy of optimal utilization of Technology, Teamwork, Transparency and Time leading to Transformation, is a Citizen centric governance model intended to provide effective service delivery. 'MoSarkar,' which literally translates into "My Government", is an important transformative initiative under the 5T programme.

Key Dimensions of Governance Reforms

Participatory Budget initiative by Finance Department, (ii) Delivery of Public Services through "Odisha Right to Public Services Act, 2012", (iii) Right to Information (iv) Law and order through Crime and Criminal Tracking Network and Systems (CCTNS) and Emergency Response Support System (ERSS), (v) Tackling corruption through registration of cases, (v) Maintenance of transparency through E-abhijoga, (vi) Major e-Governance and ICT interventions by different Departments, (vii) Improved Governance through 5T & 'Mo Sarkar' and (viii) Litigation management System to ensure better management of court cases.

Empowering Panchayati Raj Institutions

Devolution of power to the Panchayati Raj Institutions for empowering the Local Self- Government has been a priority of the State Government for which assets of four Departments namely; School &ME, Health & Family Welfare, Fisheries & ARD and Women, Child Development & Mission Shakti have been transferred to Panchayati Raj Institutions for operation, maintenance and upkeep of assets.

State Finance

- Revenue receipts of the State maintained at 16% of the GSDP since 2011-12, and it was 21.44% in 2019-20RE. Revenue receipts for 2019-20 are more than 2.5 times from the level in 2011-12, growing at an annual average rate of 13.7%.
- A double-digit growth (14.9%) is witnessed in expenditure of the State over the period from 2011-12 to 2019-20 RE. Total expenditure to GSDP ratio has increased from 18.2% in 2011-12 to 25.9% in 2019-20 RE. Further, 74% of total expenditure is utilised for developmental purposes focusing on education, healthcare, rural development, irrigation, transportation, etc.
- Capital outlay has been growing at an annual average of 24.3% during the period 2011-12 to 2019-20 RE. Capital outlay to GSDP ratio has increased from 1.95% in 2011-12 to 4.54% in 2019-20 RE. Capital outlay has been in tandem with the developmental needs of the State. 64% of total outlay has been allocated for developmental sectors such as major and medium irrigation, flood control, transport infrastructure, etc

- The State has successfully managed to maintain revenue surplus during the last 5 years (2015-16 to 2019-20 RE) and gross fiscal deficit is under 3.5% of GSDP indicating additional resources for financing for capital outlay.
- The State has successfully been able to contain debt-GSDP ratio since 2008-09, below the FRBM stipulated limit of 25% and is consistently maintaining within the limit.
- Interest Payments to Revenue Receipts ratio (IPRR) is 5.8% which is much lower than the target of 15% stipulated by FRBM Act, showing a significant rise in debt servicing capacity of the State.
- The outstanding liabilities-to-GSDP ratio is expected to come down to 23% as on 31st March 2021 (B.E) from 57% as on 31st March 2003 because of the consistent efforts of the State Government which is also lower than the all-states' average.

Scenario of COVID -19

- As on 31st January 2021, Odisha had 3,35,151 number of Corona virus cases (3.11 % of India), 33239 number of cases recovered (3.18 % of India), 935 active cases (0.56 % of India) and 1906 death cases (1.23 % of India).
- The first confirmed case of COVID - 19 in Odisha was detected on 16th March 2020.
- The rate of positive cases increased till September' 2020 where after it showed a decreasing trend.
- As on 20th November 2020, 97.29 % (3,06,727 out of 3,15,271 Cases) have recovered while less than 3 % cases remained active which includes only 0.53 % who have succumbed to COVID -19.
- Despite a high positive caseload, the very low and insignificant mortality rate indicates towards astounding efforts of Government in tackling the situation. There was Worldwide appreciation to the State's preparedness to combat COVID-19.

State's Response

- Establishment of State's 1st COVID-19 testing facility centre at Regional Medical Research Centre (RMRC) on 9th March 2020, a week before reporting of the first confirmed case on 16th March 2020.
- Odisha became the first state in the country to get ready with 1000 bed COVID Hospital with the record time of seven days.
- Declaration of COVID -19 as a State's disaster by the Hon'ble Chief Minister one day before declaration by Government of India as a National disaster.
- The Govt. Of Odisha was first to announce a weeklong lockdown from 22nd March to 29th March (till 9 p.m.) of 2020 in the evening of Prime Ministerial Janata Curfew on 21st March 2020.

- State Government paid INR 9.00 crore to East Coast Railways towards return of 853777 migrants of Odisha from 3 States (Gujrat, Tamilnadu and Kerala) during April - September 2020.
- Delegation of Power of District Collector to Sarapanch's of concerned Gram Panchayat to take care of home migrants in local quarantine centre.
- State Government paid INR 9.00 crore to East Coast Railways towards return of 853777 migrants of Odisha from 3 States (Gujrat), Tamilnadu and Kerala) during April - September 2020.
- Delegation of Power of District Collector to Sarapanch's of concerned Gram Panchayat to take care of home migrants in local quarantine centre.
- The State's early action an mechanism for successfully managing the COVID-19 situation earned it the label "Odisha Model".

Looking Forward - Development Approach for Odisha

- The State of Odisha with pristine beauty and glorious culture has emerged as a leading state of the country with a promising growth trajectory over the last two decades. This has been possible because of a sound governance policy.
- The Covid-19 pandemic exerted heavy pressure on the economy of the state. The timely and effective response of the State Government could handle the pandemic, has set an example for the rest of the country.
- The 5T and the 'Mo Sarkar' initiatives of the state has ushered in a new era for people friendly governance and development which needs to be carried forward.
- The state needs to make a long stride in economic growth with much faster pace than the national average over a long period of time.
- There is need for substantial increase in financial allocation in the health sector through public and private investment.
- Agriculture and allied sector is the main stay of the economy since more than 60 % of people depend on it for livelihood. In order to make it a vibrant sector the thrust should be on augmentation of irrigation facilities, crop diversification, integrated farming and development of animal husbandry and fisheries.
- Natural disaster mitigation measures and mechanism need further strengthening to minimise adverse impacts of recurring natural shocks on the State.
- In view of large avenues for development of tourism sector in the state, special attention needs to be given for the sector with special focus on eco-tourism.
- KBK areas and marginalised classes including SC, ST and women need special attention in order to substantially reduce regional, social and gender disparities and to promote human development.
- In view of large avenues for development of tourism sector in the state, special attention needs to be given for the sector with special focus on eco-tourism.

contents

Introduction	
Foreword	
Preface	
Acknowledgements	
Acronyms	
State Profile	
Overview	3
Chapter 1: Odisha's Economy: A Macro Glance	10
1.1 The World Economy : 2020-21	10
1.2 The Indian Economy in 2020-21	10
1.3 State of the State Economy	10
1.4 Infrastructure	21
1.5 Poverty and Human Development	22
1.6 Social Sector	23
1.7 Public Finance	25
1.8 External Trade of Odisha	25
1.9 Labour and Employment	27
1.10 Consumption Pattern	42
1.11 Inflation	
1.12 Natural Calamities	46
1.13 COVID - 19 Shock	48
1.14 Outlook	50
Chapter 2 : Agriculture and Rural Development	52
2.1 Land Utilization	54
2.2 Land Holding	56
2.3 Cropping Pattern	58
2.4 Factors influencing Agricultural Production	62
2.5 Agricultural Inputs	64
2.6 Post-Harvest Management	72
2.7 Government Initiatives in Agriculture and Post-harvest Sector	77

2.8	Fight against covid-19 pandemic situation with respect to crop sector	85
2.9	Trend in GSVA share (%) and growth of Crop sub-Sector	87
2.10	Income of Agricultural Household	87
2.11	Livestock	91
2.12	Fisheries	96
2.13	Forestry and Environment in Odisha	106
2.14	Rural Poverty	116

Chapter 3	: Industrial Development and Mineral Resources	129
3.1	Introduction	130
3.2	Overview of industrial performance	130
3.3	Mining sector	133
3.4	Policy and promotion initiatives	137
3.5	Manufacturing sector	143
3.6	Performance of industries by size	150
3.7	Micro, Small and Medium Enterprises (MSME)	154
3.8	Handloom sector	160
3.9	Sericulture sector	161
3.10	Export performance	162
3.11	Major State level institutions	163
3.12	Electricity, gas, water supply and other utilities	169
3.13	Construction sector	184

Chapter 4	: Urban development-tackling urban poor and infrastructure	189
4.1	Profile of Urban Odisha	189
4.2	Urbanisation in Odisha	190
4.3	Urban Poverty	190
4.4	Slum Development	192
4.5	Urban Housing	193
4.6	Urban Power	193
4.7	Smart City	194
4.8	Urban Water Supply	194
4.9	Urban Road Transport	197
4.10	Urban Sanitation	197
4.11	JAGA Mission	198
4.12	Zero Hunger- AAHAAR	199
4.13	Dindaya Antodaya Yojana: National Urban Livelihood Mission (DAY-NULM)	200
4.14	Government Interventions, Plans & Policies	201
4.15	Tackling of Covid-19 in Urban Areas	203

Chapter 5: The Growing Services Sector	207
5.1 Introduction	208
5.2 Trade and Repair	208
5.3 Inter-state trade of goods	210
5.4 Tourism	210
5.5 Transport	216
5.6 Telecommunications	222
5.7 Financial Services	225
5.8 Financial Inclusion	229
Chapter-6: Social Sector, Human Development and Quality of life	237
6.1 Introduction	237
6.2 Health and Human development	238
6.3 Education: Way to Human Development	261
6.4 Poverty measurement	278
6.5 Water Supply and Sanitation	283
6.6 Welfare of Women and Children, Elderly, Disabled and SC/ST Communities	284
6.7 COVID - 19 and Response under Mission Jeevika	300
Chapter-7: Governance Reforms and Institution Building	309
7.1 Features of Good Governance	309
7.2 Delivery of Public Services	311
7.3 Right to Information	314
7.4 Law and Order	314
7.5 Tackling Corruption	315
7.6 Transparency	317
7.7 e-Governance	319
7.8 Improved Governance through 5T	320
7.9 Decentralisation: Empowering Panchayati Raj Institutions	332
Chapter-8 : State Finances	341
8.1 Introduction	342
8.2 Major fiscal indicators	343
8.3 State's receipts	344
8.4 Key revenue indicators	349
8.5 State's expenditure	350
8.6 Quality of Expenditure	353
8.7 State's liabilities	355
8.8 Debt stock	356
8.9 Impact of Goods and Services Tax	358
8.10 COVID-19 and its impact on State finances	359

Chapter-9 : COVID-19: Impact, Response and Challenges	365
9.1 Introduction	366
9.2 Status of COVID-19 in Odisha	366
9.3 COVID-19 in Odisha: A Comparative Perspective	366
9.4 State's Response	367
9.5 Lives or Livelihoods vs. Lives and Livelihoods	371
9.6 Impacts on the Economy	372
9.7 Social Impact	378
9.8 Challenges	378
9.9 Lessons Learnt	379
9.10 Implications and the way forward	379
Chapter-10 : Looking Forward: Development Approach for Odisha	383
10.1 Development approach	384
11. Annexures :	385
11.1 Value of Consumption of Food and Non-Food Items of a Person for a Period of 30 Days in Rural & Urban Areas	
11.2 Key aggregates of state domestic product at current prices	
11.3 Key aggregates of state domestic product at constant (2011-12) prices	
11.4 Gross State Value Added by economic activity at current basic prices	
11.5 Percentage share of Gross State Value Added by economic activity at current basic prices	
11.6 Growth Rate of Gross State Value Added by economic activity at current basic prices	
11.7 Gross State Value Added by economic activity at constant (2011-12) basic prices	
11.8 Percentage share of Gross State Value Added by economic activity at constant (2011-12) basic prices	
11.9 Growth Rate of Gross State Value Added by economic activity at constant (2011-12) basic prices	
11.10 Growth Rate of Net State Value Added by economic activity at current basic prices	
11.11 Net State Value Added by economic activity at constant (2011-12) basic prices	
11.12 Land Utilization Pattern in Odisha	
11.13 Cropping Pattern in Odisha	
11.14 District wise Irrigation Area (Potential Created) Up to March, 2020 (Provisional)	

- 11.15 Production of Foodgrains across States
- 11.16 District wise Forest Area in 2018-19
- 11.17 Veterinary Institutions and Personnel in Odisha, 2019-2020
- 11.18 Production of Fish across States
- 11.19 IIP of Odisha during 2017-18 & 2018-19 along with its growth rate
- 11.20 Districtwise MSME Scenario in Odisha during 2018-19 and 2019-20
- 11.21 STATE-WISE EASE OF DOING BUSINESS RANK
- 11.22 Abstract of Village electrification status of all 30 Districts as on 31.03.2020
- 11.23 State-wise Installed Capacity of Power
- 11.24 State-wise Percapita availability of Power
- 11.25 Bank-Wise Key Indicators by the end of 31.03.2020
- 11.26 Market Share of Commercial and Cooperative Banks in Dispensing Crop Loan
- 11.27 Tourist Composition and Inflow of money via Tourist spending in Odisha
- 11.28 Total Road Length since 2000-01 to 2019-20
- 11.29 Interstate comparision of IMR (2001-2018)
- 11.30 Interstate comparision of under -5 mortality rates (2010 to 2018)
- 11.31 Interstate comparision of Institutional Delivery (2005-06 to 2015-16)
- 11.32 Progress of Immunization Programme in Odisha
- 11.33 Interstate comparision of Maternal Mortality Rate
- 11.34 COVID HOSPITALS IN ODISHA
- 11.35 District-wise COVID-19 Confirmed Cases in Odisha (Absolute Series)
- 11.36 District-wise COVID-19 Recovered Cases in Odisha (Absolute Series)
- 11.37 District-wise COVID-19 Deceased Cases in Odisha (Absolute Series)
- 11.38 COVID-19 Scenario in India: National and Sub National Perspective
- 11.39 Comparison of COVID-19 Cases among the State in India as on 9th December
- 11.40 Recovery and Mortality Rates in Odisha (as on 14 November 2020)
- 11.41 District-wise COVID Hospitals, COVID Care Centres & TMCs in Odisha
- 11.42 Impact of COVID on Government Revenue

Acronyms

AASHA	Annadata Aay Sanrakshan Abhiyan
ACGR	Annual Compound Growth Rate
AE	Advance stimate
ALFA	Automation of Local Fund Audit
APPA	Automated Post Allotment Application
ASER	Annual Status of Education Report
ASHA	Accredited Social Health Activist
ASSA	Automation of Small Savings Activities
AYUSH	Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy
BALARAM	Bhoomihina Agriculturist Loan And Resources Augmentation Model
BBBSA	Bhima Bhoi Bhinnakshyama Samarthya Aviyan
BETA	Budget Execution Technique Automation
BGJY	Biju Gram Jyoti Yojana
BGJY	Biju Gram Jyoti Yojana
BGREI	Bringing Green Revolution to Eastern India
BGY	Biju Gram Jyoti
BKOGY	Biju Kandhamal O Gajpati Yojana
BKRY	Biju Kanya Ratna Yojana
BLRC	Bank Linkage and Recovery Committee
BNRGSK	Bharat Nirman Rajiv Gandhi Seva Kendra
BNY	Bharat Nirman Yojana
BPNSI	Biju Pattnaik National Steel Institute
BRLF	Bharat Rural Livelihoods Foundation
BSCL	Bhubaneswar Smart City Limited
BSVY	Biju Saharanchal Vidyutikaran Yojana
BSY	Biju Setu Yojana
CAGA :	Compound Annual Growth Aggregate
CAGR	Compound Annual Growth Rate
CAMPA	Compensatory Afforestation Fund Management and Planning Authority
CAPA	College Accounting Procedure Automation
CCTNS	Crime and Criminal Tracking Network and Systems
CDR	Crude Death Rate
CEA	Central Electricity Authority
CIDF	City Infra Development Fund
CMEGP	Chief Minister's Employment Generation Programme
CPI	consumer price index
CPP	captive power plants
CPP	Captive Power Plant
CRUT	Capital Region Urban Transport
CWWB	Construction Worker Welfare Board
DCCB	District Co-operative Central Bank
DIC	District Industries Centres
DLFC	District Level Facilitation Cell
DLSWCA	District Level Single Window Clearance Authorities
DSM	Demand Side Management
DWPS	Drinking Water Pump System
ECCE	Early Childhood Care and Education
e-NAM	The electronic National Agricultural Marketing
FBNC	Facility Based New born Care
FPO	Farmers' Producer Organizations
FRP	Fair and Remunerative price
FSCS	Farmers' Service Cooperative Societies
FSI	Forest Survey of India
GDP :	Gross Domestic Product
GEM	Government e-Market
GFR	General Fertility Rate
GGY	Gopabandhu GraminYojana
GNOAP	Gandhi National Old Age Pension
GPI	Gender Parity Index
GPLP	Gram Panchyat Level Federation
GSDP	Gross State Domestic Product
GSVA	Gross State Value Added
GVA	Gross Value Added
HFAPOA	Housing For All Plan Of Action
IAP	In-App Purchase

ICT	Information & Communication Technology
IFMS	Integrated Financial Management System
IFS	Integrated Farming Systems
IGNDPS	Indira Gandhi National Disability Pension Scheme
IGNWPS	Indira Gandhi National Widow Pension Scheme
IMR	Infant Mortality Rate
IPPS	Integrated Power Development Scheme
ISBT	Inter State Bus Terminal
ISC	Indian Sanitation Coalition
IWMP	Integrated Watershed Management Programme
JSSK	Janani Sisu Surakshya Karyakram
JSY	Janani Surakshya Yojana
KALIA	Krushak Assistance for Livelihood and Income Augmentation
KBPS	Kalahandi Buffalo Producers Society
KCBs	Khariar Cattle Producers Society
KGBV	Kasturba Gandhi Balika Vidyalaya
KMC	Kangaroo Mother Care
LEC	Land Entitlement Certificate
LFPR	Labour Force Participation Rate
LMS	Litigation Management System
MAM	Moderate Acute Malnutrition
MBPY	Madhu Babu Pension Yojana
MDPVPY	Maiti Devi Prak Vidyalaya Poshak Yojana
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
MHRD	Ministry of Human Resource Development
MHRD	Ministry of Human Resource Development
MIDH	Mission for Integrated Development of Horticulture
MKSP	Mahila Kisan Sashaktikaran Pariyojana
MKUY	Mukhyamantri Krushi Udyog Yojana
MMDR	Mines and Mineral Development and Regulation (Act)
MMMSY	Mukhya Mantri Mahila Sashakti Karana Yojana
MMR	Maternal Mortality Rate
MOHUA	Ministry of Housing Urban Affairs
MoSPI :	Ministry of Statistics & Programme Implementation
MPCE	Monthly Per Capita Expenditure
MSP	Minimum Support Price
MSPGY	Nirman Shramik Pucca Ghar Yojana
MSW	Municipal Solid Waste
NACO	National AIDS Control Organisation
NAFIS	National Automated Fingerprint Identification System
NALCO	National Ispat Nigam Limited
NDRF	National Disaster Response force
NEERI	National Environmental Engineering Research Institute(CSIR)
NFBS	National Family Benefit scheme
NFHS	National Family Health Service
NFSM	National Food Security Mission'
NHED	Nutritional and Health Education
NIMZ	National Investment and Manufacturing Zone
NMAY	Namak Majdoor Awaas Yojana'
NMS	National Mineral Statistics
NPA	Non Performing Asset
NPP	National Panchayat Portal
NRDWP	National Rural Drinking Water Supply Programme
NRETP	National Rural Economic transformation Project
NRLM	National Rural Livelihood Mission
NSAP	National Social Assistance Programme
NULM	National Livelihood Mission
NWMP	National Water Quality Monitoring Programme
OCAMP	Odisha Central Audit Management Portal
OCTMP	Odisha Community Tank Management Project
ODR	Other District Road
ODRAF	Odisha Disaster Rapid Action Force
OECD	Organisation for Economic Co-operation and Development
OGIP	Odisha Girls Incentive Programme

OGLS	Orissa Government Land Settlement
OMBADC	Odisha Mineral Bearing Areas Development Corporation
OMECL	Odisha Mineral Exploration Corporation Ltd.
ONAP	Odisha Nutrition Action Plan
OPLA	Odisha Prevention of Land Encroachment
OREDA	Odisha Renewable Energy Development Agency
ORMAS	Odisha Rural Development and Marketing Society
ORSAC	Odisha Remote Sensing Application Centre
ORTPS	Odisha Right to Public Services Act
OSAM	Odisha State Agricultural Produce Marketing
OSDA	Odisha skill Development Authority
OSWAS	Odisha Secretariat Workflow Automation System
OTDS	Odisha Tribal Development Society
OUHM	Odisha Urban Housing Mission
PAS	Procurement Automation System
PCI	Per Capita Income
PGR	Poverty Gap Ratio
PHCR	Poverty Head Count Ratio
PIU	Project Implementation Units
PMAY	Prime Minister Awas Yojana
PMKKKY	Pradhan Mantri Khanij Kshetra Kalyan Yojana
PMSMA	Pradhan Mantri Surakshit Matritva Abhiyan
PMU	Project Management Unit
PPK	Pada Prusti Karyakram
PPP	Public Private Patnership
PRADAN	Professional Assistance for Development Action
PSS	Price Support Scheme
PwC	Price Water house coopers
RBSK	Rastriya Bal Swasthya Karyakram
RGVY	Rajiv Gandhi Grameen Vidyutikaran Yojana
RGM	Rastriya Gokul Mission
RICs	Regional Industries Centres
RICs	Regional Industries Centres
RKSK	Rastriya Kishor Swasthya Karyakram
RMC	Regulated Market Committees
RMSA	Rashtriya Madhyamik Shiksha Abhiyan
RSETI	Rural Self Employment Training Institute
SAM	Sevare Acute Malnutrition
SAS	Situation Assessment Surveys
SCRIPS	State Capital Region Improvement of Power System
SDC	State Data Centre
SDMIS	School District Management Information System
SIDAC	State Institute for Development of Arts and Crafts
SLBC	State Level Banker's Committee
SMB	She Means Business
SMC	Soil and moisture conservation
SNCU	Special New Born Care Unit
SOP	Standard Operating Produce
SPV	Solar Photo-Voltaic
SPV	Solar Photo Volatic
SRS	Sample Registration System
STPI	Software Technology Parks of India
SUH	Shelter for Urban Homeless
SUY	Shilpi UnnatiYojana
SWAN	State Wide Area Network
TPDS	Targeted Public Distribution System
TRAI	Telecom Regulatory Authority of India
TVET	Technical and Vocational Education and Training
UHCHR	United Nations High Commissioner for Human Rights
UNDP	United Nations Development Programme
UPSS	Usual Principal and Subsidiary Status
USHA	Urban Slum Household Area
WAMIS	Works and Accounts Management Information System
WATCO	Water Corporation of Odisha
WPR	Worker participation ratio
WPR	Worker Population Ratio

STATE PROFILE

Sl. No.	Indicator	Year	Unit	Amount/ value
1	Geographical Area		Sq. KM	155707
2	Districts		Number	30
3	Subdivisions		Number	58
4	Tehsils		Number	317
5	C.D. Blocks		Number	314
6	Urban Local Bodies		Number	114
7	Gram Panchayat		Number	6798
8	Villages (Inhabited)	2011Census	Number	47677
9	Total Population	2011Census	000'	41974
10	Urbanisation	2011Census	Percent	16.7
11	Sex Ratio	2011Census	Female per 000' Male	979
12	Literacy Rate	2011Census	percent	72.9
13	Density of Population	2011Census	Sq.K.M.	270
14	GSDP at current price	2019-20 (1st R)	Rs.in Crore	521274.65
15	GSDP at current price	2020-21(A.E)	Rs.in Crore	509574.29
16	GSDP at constant price (2011-12)	2019-20 (1st R)	Rs. in Crore	396499.43
17	GSDP at constantprice (2011-12)	2020-21(A.E)	Rs. in Crore	376998.43
18	Growth Rate of GSDPat constant price(2011-12)	2019-20 (1st R)	percent	5.21
19	Growth Rate of GSDP at constant price(2011-12)	2020-21(AE)	Percent	(-)4.92
20	Share of Agriculture sector to GSDP at current price	2020-21 (AE)	percent	21.27
21	Share of Industry sector to GSDP at current price	2020-21 (AE)	percent	36.26
22	Share of Service sector to GSDP at current price	2020-21 (AE)	percent	42.47
23	Per Capita Income			
	2020-21 (AE)	Rupees	1,02,156	
24	Un employment Rate(UPS)by labour Bureau	2018-19	percent	7.0
25	Poverty Ratio	2011-12	percent	32.6
26	Poverty Ratio(projected)	2017	percent	26.9
Sl. No.	Indicator	Year	Unit	Amount / value
27	Production of Food grains	2019-20	000,M.T	11571
28	Net Irrigation potential created till	2019-20	000, hect.	4307
29	Per hectare consumption of fertilizer	2019-20	Kg/hect.	82.8
30	Per capita Milk consumption	2019-20	Gm/day	136
31	Per capita egg consumption per Annum	2019-20	Number	50
32	Per capita meat consumption per Annum	2019-20	Kg.	4.3
33	Per capita fish consumption per Annum	2019-20	Kg.	16.2

Sl. No.	Indicator	Year	Unit	Amount/value
34	Total No. of Micro, Small and Medium Enterprises(MSME)	2019-20	Number	57651
35	Employment Generated under MSME	2019-20	Lakh Number	16.3
36	Index of Industrial Production(IIP)	2018-19 March	Base 2011-12 = 100	225.2
37	Installed Capacity of Power by GRIDCO	2019-20	Megawatt.	7647.7
38	Villages Electrified	2019-20	Percent	100%
39	Number of Primary of Schools	2019-20	Number	33,340
40	Number of Upper Primary of Schools	2019-20	Number	21,719
41	Pupil Teacher Ratio(Primary)	2019-20	Ratio	18:1
42	Pupil Teacher Ratio(Upper Primary)	2019-20	Ratio	20:1
43	Pupil Teacher Ratio(Secondary)	2019-20	Ratio	18:1
44	Percentage of GER of girls at Primary level	2019-20	Percent	101.6
45	Percentage of GER of girls at Upper Primary level	2019-20	Percent	98.3
46	No. of Govt. Elementary Schools with Drinking Water Facility	2019-20	Number	47247
47	No. of Govt. Elementary Schools with Toilet Facility (Girl)	2019-20	Number	46830
48	Dropout Rate at Primary Schools	2019-20	percent	1.6
SI.No.	Indicator	Year	Unit	Amount/value
49	Dropout Rate at Upper Primary Schools	2019-20	percent	4.6
50	Dropout Rate at High Schools	2018-19	percent	5.4
51	Credit Deposit Ratio	2019-20	percent	60.4
52	Number of Bank Branches	2019-20	Number	5450
53	No. of Accounts under Pradhan Mantri Jan Dhan Yojana	March' 2020	Lakh	154
54	Number of registered vehicles	2019-20	Lakh Number	91.2
55	Road density per 100 sq.km	2019-20	Km.	173
56	IMR	2015-16 (NFHS-4)	Per 000, live births	40
57	MMR	2016-18(SRS)	Per 000, live births	150
58	Life expectancy at birth	2014-18 (SRS)	Years	69.3
59	Under 5 Mortality Rate	SRS- 2018	Per 000, live births	44
60	Number of PHCs	Up to March' 2020	Number	1324
61	Number of CHCs	Up to March' 2020	Number	381
62	Number of Sub-Divisional Hospitals	Up to Oct,2016	Number	32
63	Number of District Hospitals	Up to Oct,2016	Number	32
64	Institutional Delivery	2015-16(NFHS-4)	percent	85.3
65	Percentage of Forest area to States Geographical area	2019 (FSI)	percent	33.2
66	Tele density (over all)	2019-20	Ratio	76.5

Overview

Economy of Odisha exhibited rapid strides in growth trajectory in last two decades. The annual average growth rate of the state economy during 2012-13 to 2019-20 was 7.1% as against the National average of 6.6%.

In line with the scenario at National and global level, the economy of Odisha also suffered set backs due to Century Crisis of COVID-19 pandemic resulting in negative growth rate in 2020-21 as per advance estimate. The GSDP of the state is expected to contract by 4.92% in 2020-21(AE) against an estimated contraction level of 7.7% at National level during the same period. However growth rate of GSDP in 2019-20 (RE) is estimated at 5.21 %.

The agriculture sector of the state contracted by 6.54% percent as against a positive growth rate of 3.38% percent at National level during 2020-21. Similarly GSDP of Industry sector and Services sector of Odisha contracted by 8.83% and 3.18 % in comparison to 9.57% and 8.77% contraction at National level during the same period.

Prioritising life to livelihood, the Stringent stipulations imposed by the state government to contain the spread of covid-19 in earlier phases had a greater impact on Rabi crops and flood in some parts of the state, long dry spells in panicle initiation stage and pest attack on Kharif Paddy are the reasons for negative growth rate of agriculture sector of Odisha in comparison to India. However overall economic base of the state has emerged stronger which resulted in a significantly less contraction of the overall state economy in comparison to National scenario. With a stable governance system along with suitable and timely government interventions the situation will mitigate and the state will take the path of development in post pandemic period.

Per-capita income of Odisha in 2020-21 (AE), is expected to reach INR 1,02,156 from INR 1,04,566 in 2019-20 (RE). As per advance estimate of 2020-21, per-capita income of Odisha at current priced is expected to decline by 2.30 % in comparison to 2019-20. However, during the same period, the per capita income at national level is estimated as INR 126968 registering a decline of 5.41% over 2019-20. The converging trend between per capita income of Odisha and India which has just started since some years is also pronounced in the Covid hit year of 2020-21.

Services sector is the largest contributor to Odisha's GVA with 42.47 % share followed by Industries sector with 36.26 % and Agriculture & allied sector with 21.27 % share in 2020-21 as per the advance estimate. In consideration of sectoral share it may be stated that industry sector, by and large, contributes about 40% of GVA of the state but during 2020-21 the net share of industry sector has significantly contracted to 36%.

The retail inflation in Odisha (as measured by CPI) exhibited a downward trend from 2014 to 2019, in line with the pattern observed at All India level. In 2020, the average annual inflation of Odisha increased to 8.49 %. Inflation in rural Odisha has been higher than urban inflation in the past years except in 2017 and 2018. Further, the difference between rural and urban inflation has been higher for 'non food' items. The inflation in urban Odisha driven by miscellaneous groups followed by Housing and food items.

The core sub-sectors of broad agriculture sector are crop, livestock, fishery and forestry. Recurring natural shocks in the state like drought, flood and cyclone led the fluctuations in growth of crop sector and value addition as well. Despite such inherent constraints in stepping up agricultural production, State Government continues to give high priority to this sector due to its huge physical resources, high labour intensive nature and being the main stay of rural livelihood sustenance. Formation of State Agricultural Policy - 2020 "SAMRUDHI" and Odisha Fishery Policy 2015 show the way for sustainable development in Agriculture sector.

During 2019-20, the food grains production in the state reached record level of 115.71 lakh MT registering growth of about 20% over 2018-19. Similarly rice production also increased by 25% and vegetables by 10% during the same period. The Irrigation Potential Created (IPC) during 2019-20 is 43.07 lakh hectares and 19.51 lakh hectares in kharif and Rabi seasons respectively. The Kharif season IPC increased by 3 % over 2018-19 where as IPC of Rabi season remained almost same.

The Government has adopted a multi-pronged strategy to ensure pucca houses that is affordable and disaster resilience to all eligible households living either in kutcha houses or homeless through different Programmes like Pradhan Mantri Awas Yojana (Grameen), Biju Pucca Ghar Yojana, Pucca Ghar Yojana (Mining) and Nirman Shramik Pucca Ghar Yojana. The State Government has been able to complete construction of 25,70,174 number of houses by the end of 2019-20, out of which 3,94,212 number of houses have been completed during 2019-20 financial year. An androidapp, called “Ama Ghar” has been developed by the Government to track the progress of construction work by Government officials and the beneficiary. The commitment of the state government in providing primary need like housing to the needy poor is really admirable.

The share of the Industry sector in State Gross Value Added (GVA) has remained around 40% since 2011-12 but it is expected to 36.26% s per 2020-21 (AE). The manufacturing sector is the largest contributor with a share of 17.55 % to GSDP in 2020-21(AE), followed by mining & quarrying (8.98%). To impart momentum to State’s industrialization process, the State Government organizes “Make in Odisha Conclave” since 2016 and has emerged as number one State in the country in terms of attracting investments during April-Sep’ 2019 as per CMIE. The state has the largest share in total mineral reserves in India i.e. 96% of Chromite, 92% Nickel, 51 % Bauxite, 33% Iron and 43% of Manganese. Odisha produces 25.0% of total minerals produced in India. The contribution of Micro, Small & Medium Enterprises (MSMEs) in Industry Sector of Odisha is encouraging, generates maximum employment with minimum investment next to Agriculture. To overcome the negative impacts of COVID-19 Pandemic, Odisha Government has declared special credit linkage and interest subvention special packages to MSMEs.

“Electricity to All ” is the mission to provide uninterrupted power supply to all. The mission has achieved a great goal by achieving 100% electrification of villages by the end of March 2020.

Odisha won the “World habitat Award” agobal recognition of it’s ambitious unique initiative, “Jaga Mission”. Odisha is steadily heading towards transforming the lives of urban poor with provision of liveable habitats and to improve the lives of the poor through JAGA Mission, being acclaimed as world’s largest slum land titling project. Government of Odisha and Tata Trusts were awarded “ India Geospatial Excellence Award” for technological innovation in “Odisha Land Rights and Jaga Mission Programme by Geo Smart India”.

The Government has embarked on an ambitious ‘Drink from Tap’ mission, a 5T initiative under “SUJAL” programme. Odisha is the first state to launch “SUJAL”. It aims to provide 24x7 drinking water supply to all urban households through metered connections. Bhubaneswar becomes the first city in India to achieve 100% household water supply connections. In the year 2019-20, a pilot study has been initiated in 8 zones across 2 ULBs (Bhubaneswar and Puri) covering approximately 22,000 households and a population of approximately 1.2 lakh urbanites. Through “Jal Jogan Melas”, the Government aims to cover all the ULBs in the State to achieve 100% coverage of all Urban Households under the Piped Water Supply Scheme in the State by providing new connections in the project area with exemption of connection fee for the urban poor where distribution networks have been laid and also in those areas where distribution network is existing but sufficient connections have not been given. “Jalasathi” is also a transformative initiative under 5T for water supply management with a partnership with “Mission Shakti” SHG’s.

Services sector contributes 42.47 % of GSDP as per 2020-21(AE). Trade and repair sector is the largest contributor to the service sector's output in the State and constitutes about 21.15 % share of service sector and its contribution to GSDP is estimated to be 8.98 %. Tourism sector is also a major engine of economic growth in services sector that contributes significantly in terms of GSDP, foreign exchange earnings and employment. About 150.36 lakh domestic tourists and 1.01 lakh foreign tourists visited Odisha during 2019-20, registering a decline of (-) 3.06% and (-) 11.57% respectively. This potential sub sector of the state need to be harnessed with focused attention. Road transport accommodates an overwhelming proportion of passenger and freight traffic among all major modes of transport in Odisha. The total road network of 2.70 lakh km. accommodate a vehicle population of 91.23 lakh by the end of March 2020. The growth in vehicle population is much more (9.26%) in comparison to the growth of road network (0.43%) over the previous year.

Odisha owns the glorious pride of becoming the first State in the country to adopt Self Help Groups (SHG) based model for financial inclusion to extend banking services in the unbanked areas. The SHGs formed under the Odisha Livelihood Mission (OLM) will provide banking services. OLM has entered into an agreement with SBI, Odisha Gramya Bank (OGB), Utkal Gramya Bank (UGB) and other banks for financial inclusion. During 2019-20, a total of 1,54,639 SHGs have been credit linked with banks, availing a total credit of INR 230793.73 lakh. The State bagged national award for outstanding performance in Financial Inclusion under DAY-NRULM in 2018.

In State Government Budget, the share of social sector expenditure in total Revenue expenditure has been increasing steadily. The consistent improvement in share of Government expenditure in social sector has resulted in substantial progress on human development, long and healthy life, knowledge and decent standard of living. In 2020-21 (BE) it is 41.2 % of total expenditure of Government, which was 43.6 % in 2019-20 (RE).

Odisha has made significant strides in improving health outcomes through emphasis on health sector reforms. Key indicators in health sector like IMR, under 5 mortality, institutional birth, children age(12-23 months) fully immunized, nutritional status of children and women have improved significantly over the decades. Odisha is among one of the best performing State as far as Infant Mortality Rate (IMR) is concerned. IMR in state has declined from 41 points from 1998-99 to 40 in 2015-16 (NFHS 4). Maternal Mortality Rate (MMR) also declined from 303 (2004-2006) to 150 (2016-18), institutional Delivery improved from 35.6% (2005-06) to 85.3% in 2015-16 due to new Government policies, initiatives and suitable interventions in health sector. The State Government accorded high priority to nutrition by increasing total allocation for nutrition. The budget for supplementary nutrition increases from INR1035.88 crore in 2019-20 to INR 1122.28 crore in 2020-21. The supplementary nutrition budget is 45.02% of total ICDS budget during 2020-21.

PTR (Pupil Teacher Ratio) is defined as the average number of pupils per teacher in a school in a given year. The RTE Act prescribes that the PTR should be 30:1 and 35:1, at the primary and upperprimary level, respectively. Odisha's PTR for the corresponding levels stood at 18:1 and 20:1 during 2019-20, which are better than the prescribed norms. At the secondary level, PTR in Odisha is 23:1 during this period.

Odisha's Gross Enrolment Ratio (GER) in higher Education has been increasing since last decade. During 2018-19, total GER was 22.10 whereas the National average was 26.30. The GER of SC, ST and women were 20.00, 12.80 and 20.00 respectively during 2018-19.

Gender Parity Index (GPI) in education reflects the discrimination against girls in access to educational opportunities. Closer the GPI is to one, higher is the State to achieving gender equality. The GPI of primary education, upper primary education and secondary education are 0.94, 0.92 and 0.93 respectively during 2018-19, which is encouraging particularly in secondary education level.

Dropout rate in the Primary and Upper Primary level is an important indicator of Education. During 2019-20, dropout rate declined drastically to 1.55 per cent from 5.42 per cent in 2018-19 which shows positive response of children towards education. This is only because of lots of Government interventions, which attracts the tribal and lower income groups to educate their children. At upper primary level, the case is 4.56 during 2019-20 which is equally impressive in comparison to 6.93 in 2018-19. Learning outcomes in Odisha seem to be improved with advancements in the education level in case of Mathematics and Science subjects. The NAS, 2017 for Class VIII indicates that on an average, percentage of correct responses in Mathematics by students in Odisha (44) was higher than the national average (42). In case of science, the scores were same.

Govt. of Odisha played a pioneering role in empowering women by socially and economically by launching "Mission Shakti". Mission Shakti believes in empowerment of women through group strategy in form of SHGs (Self Help Group) mode with thrift and credit as its backbone. During 2019-20, the major focus was on SHGs upscaling financial inclusions, marketing of their products and adopting digital solution for efficient monitoring and dissemination of information. During 2019-20, SHGs were involved in supply of school uniforms across state. By the end of 2019-20, there were about 6.0 lakh SHG with more than 70.0 lakh members. Mission Shakti is working as a Directorate under the administrative control of Women and Child Development Department. The state government has already taken steps for creation of a separate Department for Mission Shakti which speaks of the concern of Government for women empowerment in the State. In fact the Mission Shakti activities have ushered in a New Era in Women Empowerment and has become a mass movement in the State.

In order to ensure tribal development to become more effective, inclusive and participatory, Government has set up Special Development Council in 9 Districts of the State having the highest concentration of tribal population, such as Mayurbhanj, Kenonjhar, Sundergarh, Kandhamal, Gajapati, Koraput, Rayagada, Nabarangpur and Malkangiri. By the end of 2019-20, projects like 3771 scared groves, 711 tribal weekly markets, 974 tribal cultural clubs, exposure visit of 10724 Tribal delegates have been completed. Around 3019 tribal youth clubs have also been provided with sports kits.

Despite the development expenditure requirements, the State has shown attributes of effective fiscal discipline. The State has successfully managed to maintain an average revenue surplus (as a percentage of GSDP) i.e 2.5% during the last 6 years, from 2014-15 to 2019-20 (RE), while all states average shows a deficit.

Odisha is a lone state which is recurrently affected by natural disasters and is therefore experienced the greatest human and economic impacts. During the last decade, the State has faced one or other forms of disasters like flood, cyclone, tornado or drought year after year. The Government takes various measures to face natural disasters and to minimise loss of life and property by creating disaster resilient infrastructure. Natural disaster management measures, mechanism and system of the state is recognised as a model both at national and global levels. The of COVID -19 pandemic is the greatest disaster of 2020 not only in our State but over the globe. Odisha government created a historic mile stone in facing the challenge of COVID 19. For treatment of COVID 19 patients, 48 dedicated hospitals having 7328 beds, 710 ICUs and 178 COVID care Centres were kept ready.

With the objective of making governance more people centric, the Government has launched 'Mo Sarkar & 5T' programme in which Ministers and higher authorities would dial common citizens to seek feedback on the kind of response they receive during their recent visits to Government offices.

The series of lockdowns and shutdowns due to the pandemic in the first half of 2020 seriously told upon economic pulse of the State and also invited a lot of Public expenditure in the prevention and safe guarding life and livelihood. Challenges are many, opportunities abound and the State with its track record of clear vision and responsive governance is poised to perform better.

Odisha's Economy: A Macro Glance

Odisha has made rapid economic progress in the recent decades by leveraging its huge natural resources, skilled manpower, investment friendly policies, start-up mission, infrastructure connectivity, fiscal discipline, and replicable disaster management. Between 2012-13 and 2019-20, Odisha's Economy has grown at an average annual rate of 7.1 per cent i.e. at a faster rate than the national economy (6.6 per cent). In 2020-21, the year annus horribilis, the economy is headed for negative growth at -4.92 per cent as per the advance estimates released recently by DE&S, Odisha. The deceleration in growth may be understood within the broad frameworks of slowing growth across the globe with the COVID-19 pandemic acting as a powerful drag on the state economy. All sectors of the economy, and its growth engines e.g., agriculture, manufacturing, construction, mining and quarrying, trade, hotels and restaurants, transport, storage and communications, real estate and tourism in particular, registered sharp declines in 2020-21 compared to the growth in 2019-20. But even with this negative growth for 2020-21, the growth rate for the economy during 2012-13 to 2020-21 has averaged 5.72 per cent which is one of the highest among the major states of the Indian union. However, with the Indian economy expected to rebound and to grow at 0.01 per cent and 0.07 per cent respectively in the third and fourth quarters of 2020-21, and with stable governance and effective handling of the COVID-19 pandemic situation in the state, there is now hope for a somewhat better future. It is expected that government will deliver expeditiously on its initiatives like Make in Odisha Conclave, Industrial Policy Resolution 2015, Ease of Doing Business framework, new Agriculture Policy 2019-20 and other measures of development, 5T and 'Mo Sarkar' reforms so that the economy will rebound more vigorously in 2021-22. And if 2020-21 was the worst 'annus horribilis', we can hope 2021-22 to be the best 'annus mirabilis'

1.1 The World Economy: 2020-21

Covid-19 has caused unprecedented damage to the economies around the world in 2020. Recent data in the World Economic Outlook (WEO) published by the International Monetary Fund (IMF) in October 2020 projected world output to grow at -4.9 per cent in 2020. This is the lowest growth since the 2009 global financial crisis and it suggests a persistent downhill trend of growth in world output from 3.8 per cent in 2017, 3.6 per cent in 2018, and 2.8 per cent in 2019. The growth rate of output is projected at -5.8 per cent for the Advanced Economies, at -3.3 per cent for the Emerging Market and Developing Countries, and at -10.4 per cent for the volume of world trade (IMF, 2020). The strong backwash effects of the pandemic reflected in significant decline in manufacturing and trade worldwide and the serious trade tensions between the US and China have been the obvious reasons of such dismal performance of the world economy in 2020. The outlook for the October-December quarter of 2020 is overcast with a surge in second wave of COVID-19 infections across Europe, the US and major emerging market economies, and accompanying lockdowns. Although world trade rebounded in Q3 due to softening of lockdowns and progress on the vaccine front generated a bit of optimism, the world economy is unlikely to return to the pre-pandemic levels in Q4 because of the blighted hope accompanying the second wave (RBI, 2020).

1.2 The Indian Economy in 2020-21

Every Indian citizen will mourn 2020 as the year of Covid-19 mandated great lockdowns and months-long collapse in major economic activities. India's GDP registered a move to rack and ruin during 2020-21. IFM's October 2020 WEO projected a -10.3 per cent output growth for India in 2020. GDP contraction was the highest at 23.9% in Q1 (April-June, 2020-21) which narrowed to 7.5% in Q2 (July-September, 2020-21). For the first time in recorded statistical history, all the eight GDP components, except agriculture in India, exhibited massive contraction in the April-June quarter. The moderation of decline in Q2 reflects the onset of an economic revival. Gross Value Added (GVA) contracted by 7.0% in Q1 while the eight core infrastructure sectors of the economy experienced a 2.5% contraction. The Indian economy was in a technical recession during the first half of the current year (April- September, 2020-21) in the wake of the Covid-19 upsurge. Abrupt stoppage of most economic activities and large-scale supply disruptions due to COVID mandated lockdowns and associated restrictions, extensive demand reduction following huge loss in employment and income, weakening of consumer and business confidence, heightened uncertainties, contraction in world trade and tourism and behavioural changes like voluntary social distancing have been the major forces responsible for the economic decline in India and its states (Kumar, 2020).

Even with a lower rate of contraction in Q2, the economy remains one of the worst performers among the world's major countries with the exception of China that witnessed a 4.9% growth rate. It may be very difficult for the Indian economy to have a positive growth rate during the 2020-21 year as a whole as this would require a growth rate of over 15% in each of the remaining quarters i.e. in Q3 and Q4. Going by the experience during April-December 2020, it is very unlikely for the Indian economy to register positive growth in full 2020-21. This is reflected in RBI's recent projections of real GDP growth at 0.1 per cent in Q3, 0.7 per cent in Q4 and -7.5 per cent for full 2020-21 (RBI, 2020). Advance estimation by Government of India estimated the full year growth at -7.7 per cent for 2020-21 (Press Release of First Advance Estimates on 7 January 2021).

1.3 State Economy

The economy of Odisha is a remarkable journey with green glow, precious natural resources, fertile lands and reasonably high growth like no other. During the period 2011-12 to 2019-20, the size of the economy as measured in terms of Gross State Value Added (GSVA) at constant (2011-12) basic prices has increased by 64.36 per cent. Gross State Domestic Product (GSDP) at constant (2011-12) basic prices (GSVA + Product Taxes - Product Subsidies) increased by 71.65 per cent during the same period. The real GSDP growth rate remains at a level of 5.21% in 2019-20 over 2018-19 with improved growth performance in industry and service sectors. Comparatively services sector could balance the negative impact and growth trends are encouraging. On an average, the share of agriculture in GSDP hovers around 18 per cent whereas industry and services sectors share little more or less 40 per cent each. The performance of these two sectors indicates a comparatively stable trend because they are not prone to violent fluctuations. Together, the duo - services sector and industry sector - which now share more than eighty per cent of GSDP of the state, is going to play a pivotal role in boosting the economy and employment in the state. The state strives consistently to pick up growth momentum in major economic growth trajectory over the years. It also endeavours progressively to achieve sustainable and inclusive higher growth with reduction of regional disparities, faster poverty alleviation, effective public service delivery mechanism and infrastructure development.

1.3.1 Growth in Aggregate Income

Over the past decade, the economy of Odisha has undergone significant structural change and this is helping its transformation from a lagging state to a state on march. The state is exhibiting strong catch up growth. The gross state domestic product at current basic prices increased from Rs. 23098708 lakh in 2011-12 to Rs. 39280367 lakh in 2016 -17 recording an increment of 70 per cent over a span of 5 years. It increased to Rs. 52127465 lakh in 2019 - 20 registering an increase by 33 per cent over 2016- 17 and an increase of 126% over 2011- 12.

The GSDP of Odisha at constant (2011-12) basic prices increased from Rs. 23098708 lakh in 2011-12 to Rs. 39649943 lakh in 2019-20 but fell to Rs.37699843lakh in 2020-21(AE). GVA at constant prices have been recorded at Rs. 22023169 lakh, Rs. 36197694 lakh and Rs33952787 lakh for the three years respectively.

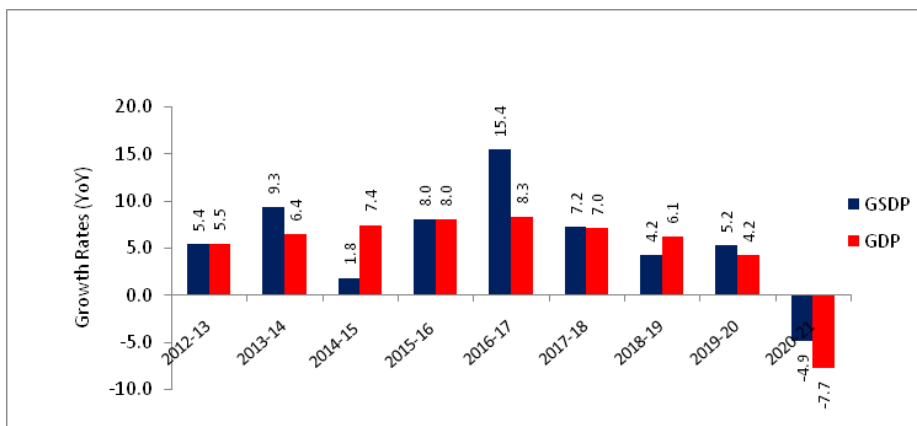
At constant (2011-12) basic prices, the economy of Odisha has grown at 7.05 per cent per annum during 2012-13 to 2019-20 and -4.92 per cent in 2020-21 (AE) in terms of GSDP and at 6.41 per cent and at -6.20 per cent respectively as per GVA. The decline in the growth rate between 2019-20 and 2020-21 (AE) is attributed to the devastating impact of Covid-19 on the state economy. But for the resilience of the state and effective governance in managing the pandemic, the decline would have been much sharper. A comparative picture is given in Table 1.1.

Table 1.1: Growth Performance of Odisha and India at constant (2011-12) basic prices

Year	GDP (India)	GSDP (Odisha)
2012-13	5.46	5.36
2013-14	6.39	9.26
2014-15	7.41	1.80
2015-16	8.00	7.97
2016-17	8.26	15.44
2017-18	7.04	7.18
2018-19	6.12	4.23
2019-20	4.18	5.21
2020-21	-7.73	-4.92
AAGR 2012-13 to 2019-20	6.61	7.05
AAGR 2012-13 to 2020-21	5.01	5.72

Source: DE&S, Odisha, CSO and Government of India Press Release of First Advance Estimates on 7 January

Figure 1.1: Growth Rates (YOY) of GDP and GSDP at Constant (2011-12) Price

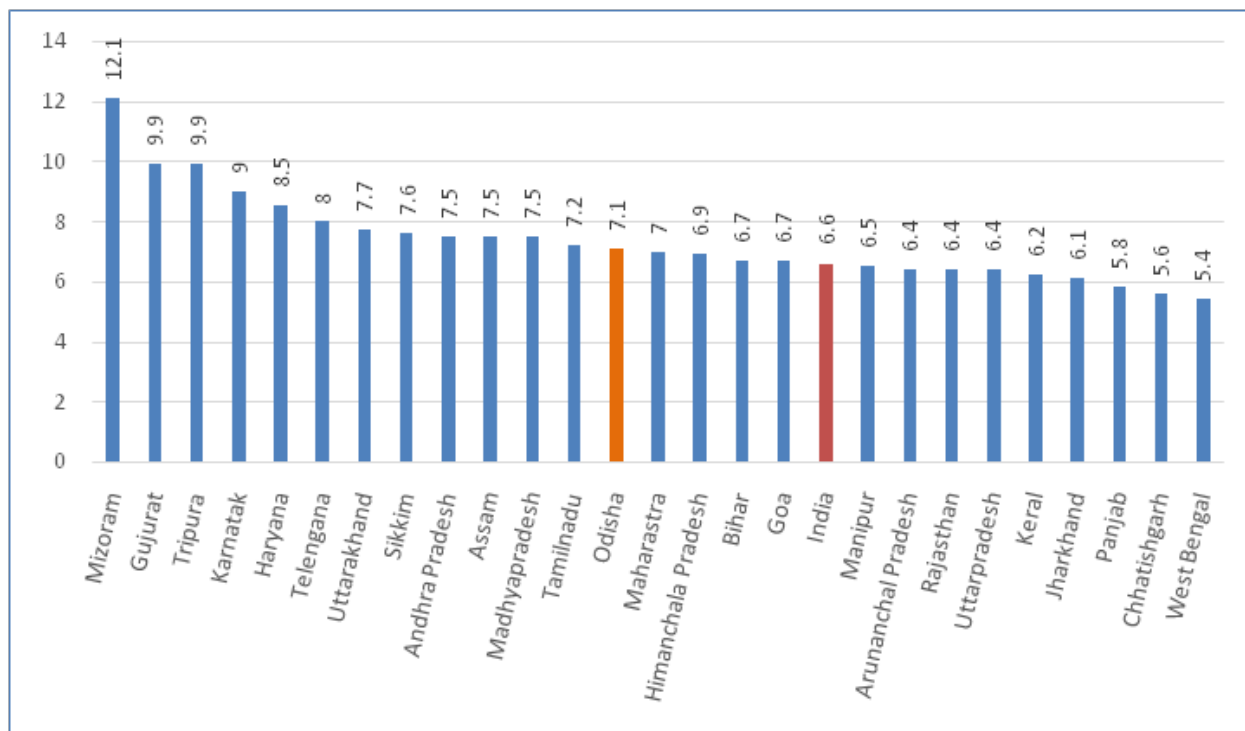


Source: DE&S, Odisha, CSO and Government of India Press Release of First Advance Estimates on 7 January 2021

1.3.2 GSDP Growth Rates across the States

A comparative analysis of growth performance of Odisha vis-a-vis other states of India during 2012-13 to 2019-20 reveals a positive differential trend in the state's average annual growth rate. It indicates that between 2012-13 and 2019-20, Odisha's economy grew at an average annual rate of 7.1 per cent, a rate faster than the national average of 6.6 per cent and 13 other states of the country viz. Maharashtra, Himachal Pradesh, Bihar, Goa, Manipur, Arunachal Pradesh, Rajasthan, Uttar Pradesh, Kerala, Jharkhand, Punjab, Chhattisgarh and West Bengal. Twelve states namely, Mizoram, Gujarat, Tripura, Karnataka, Haryana, Telangana, Uttarakhand, Sikkim, Assam, Madhya Pradesh and Tamilnadu have recorded a higher annual average growth rate than Odisha during this period. Odisha is placed at 5th position among states above the national average and has come out of the Rajan Committee label of being 'one of the least developed States in the country' in 2013. However, alike other states, Odisha's real GSDP growth in 2020-21 declined to -4.92 per cent as compared to 5.21 per cent in 2019-20 due to the Covid impact. Figure 1.2 illustrates the relative growth performance of states.

1.2 Average Growth rates of GSDP of States vs. India during 2012-13 to 2019-20



Source-Central Statistical office (CSO), Government of India

1.3.3 Per Capita Income and Relative Standards of Living

Per capita income (PCI) is an acceptable indicator of cardinally measuring the relative standards of living of the people of a state or a nation. A study of PCI-Odisha vis-a-vis PCI-India and per capita income of people in major states, therefore, has relevance. A summary picture is presented in Table 1.2 with graphic illustration in Figures 1.3, 1.4 and 1.5.

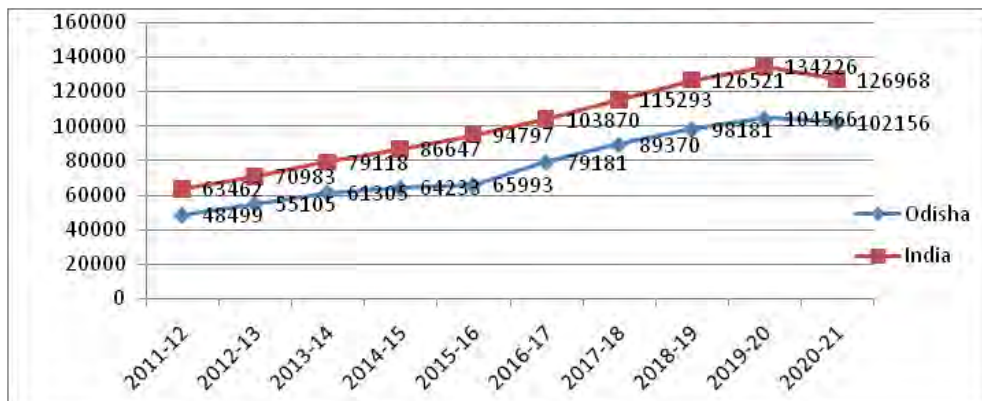
A close look at data given in Table 1.2 reveals that PCI-Odisha rose from Rs. 48499 in 2011-12 to Rs.104566 in 2019-20 (RE) registering an increase of about 116 per cent over the period. During this period PCI-India surged from Rs. 63462 to Rs. 134226 i.e. by 111.51 per cent. This suggests that over about a decade PCI-Odisha has grown faster than PCI-India. However, Odisha's real per capita income has consistently remained below the national average and worse still, the gap between PCI-India and PCI-Odisha has widened over the years. It swelled from Rs. 14963 in 2011-12 to Rs. 29660 in 2019-20 or nearly doubled. The good thing is that, PCI-Odisha, which was about 76.42 per cent of the national PCI in 2011-12, increased to 77.90 per cent in 2019-20, the highest over the period, despite some intermittent slowing during 2012-13 to 2015-16. The advance estimates for 2020-21 estimates PCI-Odisha at Rs. 102156 and PCI-India at Rs. 126968 reducing the differential to Rs. 24812 and raising the percentage to 80.46. The impact of Covid-19 is distinctly visible in lowering the per capita income during 2020-21 against 2019-20. But the increase in PCI-Odisha as a percentage of PCI-India is another indication that PCI-Odisha is converging. This long-term increasing trend in per capita income has been possible due to adoption of new age technologies, implementation of new Agricultural Policy-2020, boosting industrial investment and such other growth promoting measures which led to higher GSDP growth in Odisha relative to growth of GDP in the country.

Table 1.2: Per capita income of Odisha and India at current price (Rs)

Year	Odisha	India	Difference (India-Odisha)	PCI-Odisha as per cent of PCI-India	Growth Rate of	
					PCI-Odisha	PCI-India
1	2	3	4	5	6	7
2011-12	48499	63462	14963	76.42		
2012-13	55105	70983	15878	77.63	13.62	11.85
2013-14	61305	79118	17813	77.49	11.25	11.46
2014-15	64233	86647	22414	74.13	4.78	9.52
2015-16	65993	94797	28804	69.62	2.74	9.40
2016-17	79181	103870	24689	76.23	19.99	9.57
2017-18	89370	115293	25923	77.52	12.87	11.00
2018-19	98181	126521	28340	77.60	9.86	9.74
2019-20	104566	134226	29660	77.90	6.50	6.09
2020-21	102156	126968	24812	80.46	-2.30	-5.41

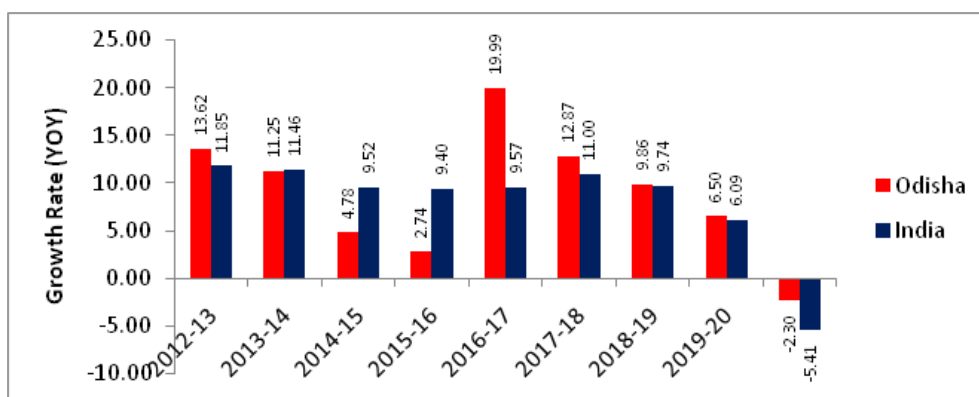
Source: DE&S, Odisha, CSO and Government of India Press Release of First Advance Estimates on 7 January 2021

Figure 1.3: Percapita income of Odisha and India at current price



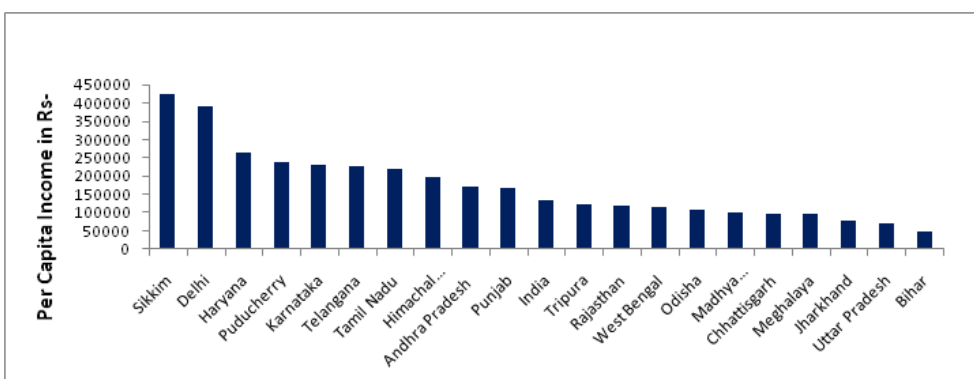
Source: DE&S, Odisha, CSO and Government of India Press Release of First Advance Estimates on 7 January 2021

Figure 1.4: Growth Rates of PCI at Current Prices (2011-12) Odisha & India



Source: DE&S, Odisha, CSO and Government of India Press Release of First Advance Estimates on 7 January 2021
Per capita income of Odisha in 2019-20 at current prices is seen to be higher than that of Bihar, Uttar Pradesh, Jharkhand, Meghalaya, Madhya Pradesh and Chhattisgarh.

Figure 1.5: PCI (2019-20) of major states at Current Price



Source: DE&S, Odisha

1.3.4 Sectoral Dynamics

Sectoral composition of GSDP i.e., its partitioning into agrarian, industrial, and service components portrays the structure of production activity in the economy and the pattern along which development is progressing in the state. It has appreciable implications for employment because employment responds more to growth in less productive and more labour-intensive sectors than otherwise. Changes in the relative sectoral shares manifest the structural changes taking place in the economy over the years.

Analysis of past trends in the three broad sectors of the state economy reveals that the average contribution of agriculture and allied sector to the GSDP of Odisha has declined from 62 per cent in the 1950s to 48 per cent in the 1980s and 22 per cent during 2000 -2010 (at 2004-05 base). It reduced to 20.45 per cent during 2011-12 to 2020-21 at current basic prices. The average share of industrial sector has been increasing from 26 per cent in the 1980s to 34 per cent during 2000-2010. It further increased to 35.48 per cent during 2011-12 to 2020-21 at current basic prices. The services sector also registered spectacular improvement from 27 per cent in the 1980s to 40.44 per cent during 2011-12 to 2020-21 at current basic prices. For 2020-21, the shares of agriculture, industry and services have been estimated at 21.27 per cent, 36.26 per cent and 42.47 per cent respectively. The details for the period from 2011-12 to 2020-21, are shown in Table 1.3.

Table 1.3: Gross (State) Value Added by Economic Activity at Current Basic Prices

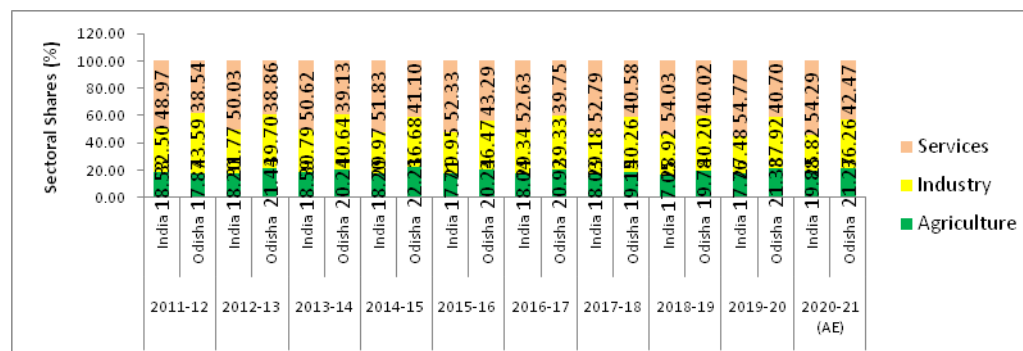
Year	Sector-wise Percentage Shares in GVA/GVA					
	Agriculture		Industry		Services	
	India	Odisha	India	Odisha	India	Odisha
2011-12	18.53	17.87	32.5	43.59	48.97	38.54
2012-13	18.2	21.44	31.77	39.7	50.03	38.86
2013-14	18.59	20.24	30.79	40.64	50.62	39.13
2014-15	18.2	22.21	29.97	36.68	51.83	41.1
2015-16	17.71	20.24	29.95	36.47	52.33	43.29
2016-17	18.04	20.92	29.34	39.33	52.63	39.75
2017-18	18.03	19.15	29.18	40.26	52.79	40.58
2018-19	17.05	19.78	28.92	40.2	54.03	40.02
2019-20	17.76	21.38	27.48	37.92	54.77	40.7
2020-21 (AE)	19.88	21.27	25.82	36.26	54.29	42.47

Source: DE&S, Odisha

A more or less similar pattern is observed in the case of sectoral composition of GDP in India. However, the economy of Odisha is more agricultural and more industrial as compared to the Indian economy. But in both GVA and GSDA, the services sector has the lion's share followed by industry and agriculture. Thus the services sector has emerged as the key driver of the economy.

A graphic illustration of the sectoral composition of GVA/GSDA at the national and state levels is given in Figure 1.7.

Figure 1.6: Trend of Sectoral Shares of GSDP of Odisha from 2011-12 to 2020-21



Source: DE&S, Odisha (2021) done up to here

The long-term growth rate of Odishan economy has been impressive during 2012-13 to 2019-20. A summary picture is given in Table 1.4.

Table 1.4: Growth Rates by Economic Activity at Constant (2011-12) Basic Prices

Year	Sector-wise Growth Rates							
	Agriculture		Industry		Services		GDP/GSDP	
	India	Odisha	India	Odisha	India	Odisha	India	Odisha
2012-13	1.49	15.85	3.27	-0.88	8.33	7.41	5.46	5.36
2013-14	5.57	-4.16	3.79	16.23	7.66	7.79	6.39	9.26
2014-15	-0.22	7.84	7.00	-7.01	9.81	7.75	7.41	1.80
2015-16	0.65	-12.73	9.58	14.42	9.44	9.42	8.00	7.97
2016-17	6.80	19.92	7.72	19.99	8.46	3.99	8.26	15.44
2017-18	5.93	-10.99	6.35	7.94	6.92	9.11	7.04	7.18
2018-19	2.41	7.67	4.88	2.73	7.74	4.48	6.12	4.23
2019-20	4.05	11.92	0.92	3.61	5.55	6.92	4.18	5.21
2020-21 (AE)	3.40	-6.54	-9.57	-8.83	-8.77	-3.18	-7.73	-4.92
AAGR 2012-13 to 2019-20	3.34	4.42	5.44	7.13	7.99	7.11	6.6	7.1
AAGR 2012-13 to 2020-21	3.34	3.20	3.77	5.36	6.13	5.97	5.01	5.72

Source: DE & S, Odisha

At constant (2011-12) basic prices, the average annual growth rates (AAGRs) in agriculture (4.42 per cent), industry (7.13 per cent) and GSDP (7.13 per cent) in Odisha were higher than those in India during this period. Only in services Odisha recorded little lower growth rate at 7.11 per cent as compared to India (7.99 per cent). Even with a Covid impacted negative growth in agriculture in 2020-21 at -6.54 per cent, Odisha exhibited higher long-term growth in GSDP at 5.72 per cent than the national average at 5.01 per cent. The growth contraction in Odisha in 2020-21 over 2019-20 has been lower in industry (-8.83 per cent), services (-3.18 per cent) sectors and in GSDP (-4.92 per cent) in comparison to the decline at the national level at -9.57 per cent, -8.77 per cent and -7.73 per cent respectively. This demonstrates the higher resilience of the state economy to shocks than the national economy.

In this growth dynamics for Odisha, three important aspects stand out. First, in the earlier stages, growth was mainly led by agriculture. Second, in the latter phase, growth has been driven by the non-agriculture sector, and in the recent years, growth is largely triggered by the service sector. Third, in both the phases agriculture's share remained volatile.

1.3.4.1 Agriculture Sector

Following National Industrial Classification (NIC 2008) of economic activities into 21 sections, 99 divisions and 990 groups, crop production, livestock, forestry and logging, and fishing and aquaculture sub-sectors are taken as components of the broad agriculture sector. It is worth noting that despite sharp reduction in the share of agriculture in GSDP/GSVA, about 62 per cent of total workers in the state were engaged in agriculture as cultivators (23.40 per cent) and agricultural labourers (38.43 per cent) (Census 2011). As per PLFS 2018-19, 44.10 per cent of total workers of the state were absorbed in agriculture. It has been seen above that the agriculture and allied activities sector is exhibiting fluctuations in its share over the years. Within the broad agriculture sector, the crop sub-sector is the predominant activity accounting for over 60 per cent of total value added by the sector. Next to crop production lay forestry and logging followed by livestock and fishing and aquaculture in that order. This is clear from the percentage shares of various sub sectors of agriculture in GSVA given in Table 1.5.

Table 1.5: Percentage Share of Value Added by Sub-sectors in Agriculture at Current Basic Prices

Sectoral Activities	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18 (3rd RE)	2018-19 (2nd RE)	2019-20 (1st RE)	2020-21 (AE)
Agriculture & Allied	17.87	21.44	20.24	22.21	20.24	20.92	19.15	19.78	21.38	21.27
Crops	11.60	15.05	13.56	15.03	12.36	13.26	11.32	11.75	13.62	13.65
Livestock	2.45	2.56	2.60	2.72	2.89	2.56	3.04	3.31	2.99	2.49
Forestry and Logging	2.60	2.49	2.80	2.93	3.14	3.12	2.61	2.54	2.44	2.71
Fishing and Aquaculture	1.22	1.34	1.28	1.53	1.84	1.97	2.19	2.19	2.33	2.43

Source: DE&S, Odisha (2021)

The growth rates of various sub sectors of agriculture from 2012-13 to 2020-21 at constant (2011-12) basic prices are given in Table 1.6.

Table 1.6: Growth Rates of Value Added by Sub-sectors in Agriculture at Constant (2011-12) Basic Prices

Year	Agriculture & Allied Activities	Crops	Livestock	Forestry and Logging	Fishing and Aquaculture
2012-13	15.85	23.42	2.12	-3.45	12.44
2013-14	-4.16	-9.17	9.64	9.34	-1.68
2014-15	7.84	10.11	-3.60	5.69	13.52
2015-16	-12.73	-22.19	4.83	5.75	10.58
2016-17	19.92	23.27	3.15	21.81	21.94
2017-18 (3rd RE)	-10.99	-20.12	8.40	-7.72	17.08
2018-19(2nd RE)	7.67	8.42	14.19	-1.31	8.72
2019-20 (1st RE)	11.92	18.49	3.26	0.04	9.19
2020-21 (AE)	-6.54	-4.27	-32.97	4.20	3.25

Source: DE&S, Odisha (2021)

Gross value added by agriculture at constant prices recorded the highest growth rate in 2016-17 (19.92 per cent) followed by 15.85 per cent in 2012-13 and 11.92 per cent in 2019-20. The growth rates were negative in 2013-14 due to 'Phailin', in 2015-16 on account of serious drought conditions, in 2017-18 because of multiple natural calamities like flood, heavy rain, drought, pest attack, unseasonal cyclonic rain and in 2020-21 owing to the Covid- 19 pandemic. In these years, the growth rates in crop production were also negative.

A strong positive association between fluctuations in the crops sub-sector (i.e., in crop production and income therefrom) and overall variation in agriculture's share in GSVA is observed. Negative growth in the crop component in 2020-21 is largely ascribed to reduced demand for farm goods from bulk consumers like hotels and restaurants that had shut down (NCAER) till September, farmers' inability to harvest, difficulties in carrying out agricultural operations due to labour problems and crash in farm gate prices.

The contributions and growth rates in livestock, forestry and logging, and fishing and aquaculture have remained largely positive over the years except for livestock which experienced a -32.97 per cent growth in 2020-21 due to Covid impact. It may be recalled that livestock production and marketing were badly affected due to transportation restrictions, non-availability of feed and reduced demand from households who considered them as carriers of the coronavirus and from hotels and restaurants because their shutters were locked.

Odisha is having favourable and varied agro-climatic conditions, abundant water bodies, 480 kilometres long coastline along the Bay of Bengal and a command over 11 per cent of total water resources of the country spreading over 11 river basins. The state, therefore, has all the conducive conditions for a vibrant and growing agriculture sector. However, there are also constraints like over-dependence on rain fed farming due to inadequate irrigation facilities, low level of capital formation, a paddy-centric cultivation system, slow modernization, small land holdings and above all, frequent occurrence of natural calamities.

These constraints have stood as obstacles for achieving the potential. Increasing public investment in irrigation and agri-infrastructure, and diversification favouring high value products like cash crops, floriculture, livestock, fisheries, horticulture etc. will help improve conditions in farming and doubling income.

1.3.4.2 Industry Sector

The size and pace of industrial development is one of the major determinants of economic development of a state. NIC 2008 stipulated sections B to F are included in the broad industry sector. Accordingly, four sub-sectors namely, mining and quarrying, manufacturing, electricity-gas-water supply and other utility services, and construction constitute the industry sector.

In terms of contribution to GSDP and GVA, industry sector in Odisha has a pride of place in the state economy. As per PLFS 2018-19 report, 29.49 per cent of total workers of the state were engaged in the industrial activities. The percentage share of industry sector in GVA at current basic prices was estimated at 43.60 per cent in 2011-12. Thereafter the highest share was recorded at 40.64 per cent in 2013-14 and the lowest at 36.26 per cent in 2020-21. The shares of various sub-sectors of the broad industry sector in GVA at current basic prices from 2012-13 to 2020-21 are given in Table 1.7.

Table 1.7: Percentage Share of Value Added by Sub-sectors in industry at Current Basic Prices

Sectoral Activities	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18 (3rd RE)	2018-19 (2nd RE)	2019-20 (1st RE)	2020-21 (A)
Industry	43.60	39.69	40.64	36.69	36.47	39.34	40.26	40.20	37.92	36.26
Mining and Quarrying	12.03	10.70	10.23	9.16	9.40	9.28	8.86	9.51	9.02	8.98
Manufacturing	18.69	16.91	18.43	16.00	15.29	18.99	20.45	19.82	18.64	17.55
Electricity, Gas, Water Supply & Other Utility Services	3.52	3.76	3.72	3.42	4.00	3.72	3.36	3.28	3.14	3.07
Construction	9.35	8.32	8.25	8.11	7.79	7.35	7.60	7.60	7.12	6.66

Source: DE&S, Odisha (2021)

With most of the state's manufacturing activities tied to its natural resources, this sub-sector is the predominant activity within the broad industry sector accounting for over 40 per cent of total value added by the sector. In the 43.60 per cent share of industry in GVA in 2011-12, 18.69 per cent were from manufacturing activities. Next to manufacturing comes mining and quarrying, followed by construction. Electricity, gas, water supply and other utility services have the lowest share. However, construction has been a major employer with a 20 per cent employment share as in 2018-19 (PLFS 2018-19).

The growth rates of various sub-sectors of the broad industry sector from 2012-13 to 2020-21 at constant (2011-12) basic prices are given in Table 1.8.

Table 1.8: Growth Rates of Value Added by Sub-sectors in Industry at Constant (2011-12) Basic Prices

Year	Industry	Mining and Quarrying	Manufacturing	Electricity, Gas, Water Supply & Other Utility Services	Construction
2012-13	-0.88	-1.96	-3.19	19.23	-2.43
2013-14	16.23	19.29	21.21	6.78	6.73
2014-15	-7.01	-7.94	-9.43	-6.89	-0.29
2015-16	14.42	28.83	10.66	20.27	0.36
2016-17	19.99	13.76	33.23	7.60	7.19
2017-18 (3rd RE)	7.94	-8.96	20.53	-1.50	8.26
2018-19(2nd RE)	2.73	9.43	-1.31	2.50	5.21
2019-20 (1st RE)	3.61	3.38	5.20	0.36	0.83
2020-21 (A)	-8.83	-7.88	-9.90	-0.78	-10.79

Source: DE&S, Odisha (2021)

It may be seen that the industry sector is exhibiting slow growth in the recent years. It recorded negative growth in 2012-13, 2014-15 and 2020-21. Growth rates in the industry sector were significant only in 2013-14, 2015-16 and 2016-17 but remained abysmally low at 2.73 per cent and 3.61 per cent in 2018-19 and 2019-20 respectively. Mining and quarrying, and manufacturing have been the major drivers of growth in the industry sector. All the four sub-sectors experienced negative growth in 2020-21 due to the Covid- 19 mandated transport restrictions and factory shut downs. Constructions, manufacturing, and mining and quarrying had to bear massive contraction in growth.

With implementation of New Industrial Policy Resolution 2015, SEZ Policy 2015, Start-up policy, Make-in-Odisha conclaves and such other reform measures along with its improved position in ease of doing business Odisha is gradually becoming the industrial gateway of the eastern region of the country.

1.3.4.3 Services Sector

Similar to other states, Odisha's economy has been undergoing a structural change, with non-farm activities, and the service sector in particular, becoming well pronounced. Within a short span of about seven decades, the service sector has emerged as a leading sector with a major share of over 40 per cent in GSV. It has an employment share at 26.4 per cent in 2018-19 (PLFS, 2018-19).

The services sector comprises six sub-sectors such as: i. trade, repair, hotels and restaurants; ii. transport, storage, communication and services related to broadcasting; iii. financial services; iv. real estate and ownership of dwelling and professional services; v. public administration and defence and vi. other services. Data relating to the share of value added by services in GSV at current basic prices are given in Tables 1.9.

Table 1.9: Percentage Share of Value Added by Services at Current Basic Prices

Sectoral Activities	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18 (3rd RE)	2018-19 (2ND RE)	2019-20 (1st RE)	2020-21 (A)
Services	38.54	38.86	39.13	41.10	43.29	39.75	40.58	40.02	40.70	42.47
i. Trade, Repair, Hotels and Restaurants	9.24	9.78	9.88	10.26	11.01	9.97	10.21	10.31	10.17	9.35
a. Trade & Repair Services	8.35	8.91	9.03	9.43	10.12	9.13	9.37	9.46	9.39	8.98
b. Hotels & Restaurants	0.89	0.87	0.84	0.84	0.89	0.84	0.84	0.85	0.78	0.37
ii. Transport, Storage, Communication & Services related to Broadcasting	6.12	6.26	6.32	6.94	7.41	7.05	7.01	6.20	6.16	6.09
a. Railways	0.81	0.94	0.95	1.16	1.30	1.05	1.04	0.99	1.00	0.85
b. Transport by means other than Railways	3.72	3.77	3.71	3.89	4.02	4.14	4.31	3.57	3.59	3.47
• Road transport	3.15	3.22	3.18	3.29	3.40	3.49	3.55	2.89	2.92	2.82
• Water transport	0.19	0.17	0.15	0.16	0.15	0.20	0.22	0.22	0.22	0.24
• Air transport	0.02	0.03	0.02	0.03	0.06	0.06	0.06	0.05	0.04	0.01
• Services Incidental to Transport	0.37	0.35	0.35	0.41	0.41	0.39	0.48	0.41	0.41	0.40
c. Storage	0.06	0.06	0.07	0.06	0.07	0.06	0.06	0.06	0.06	0.06
d. Communication & Services related to Broadcasting	1.52	1.49	1.59	1.82	2.03	1.80	1.60	1.58	1.51	1.71
iii. Financial Services	3.62	3.65	3.43	3.61	3.89	3.24	3.57	3.52	3.69	4.23
iv. Real estate, Ownership of Dwelling & Professional Services	7.75	7.63	7.65	7.87	8.01	7.52	7.20	7.10	6.60	6.31
v. Public Administration and Defence	3.92	3.94	4.96	5.14	5.17	4.53	4.48	4.59	5.03	6.40
vi. Other Services	7.89	7.60	6.89	7.29	7.79	7.44	8.12	8.31	9.05	10.08

Source: DE&S, Odisha (2021)

It is seen in Table 1.9 that the share of services in GSVA increased from 38.54 per cent in 2011-12 to 43.29 per cent in 2015-16. It fell to 39.75 per cent in 2016-17 where after it rose to 42.47 per cent in 2020-21. Within the service sector, the trade, repair, hotels and restaurants sub-sector is dominant followed by real estate, public administration and transport and communications sub-sector. The trade, repair, hotels and restaurants sub-sector holds about 10-11 per cent share in gross value added by services sector. Transport, storage, communication and services related to broadcasting has about 6-7 per cent share, while the share of financial services hovers around 4 per cent and that of real estate about 8-10% and other services at 8-10 per cent each.

The growth rates of various sub-sectors of the service sector from 2012-13 to 2020-21 at constant (2011-12) basic prices are given in Table 1.10.

Table 1.10: Growth Rates of Value Added by Sub-sectors in Services at Constant (2011-12) Basic Prices

Sectoral Activities	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18 (3rd RE)	2018-19 (2nd RE)	2019-20 (1st RE)	2020-21 (AE)
Services	7.41	7.79	7.75	9.42	3.99	9.11	4.48	6.92	-3.18
i. Trade, Repair, Hotels and Restaurants	11.71	7.92	8.07	15.07	3.72	9.78	7.54	4.34	-12.48
a. Trade & Repair Services	12.65	8.38	8.49	15.20	3.33	9.96	7.59	5.02	-9.01
b. Hotels & Restaurants	2.89	3.12	3.58	13.60	8.25	7.76	7.07	-3.19	-54.54
ii. Transport, Storage, Communication & Services related to Broadcasting	12.01	8.61	12.32	10.63	6.47	6.94	-6.85	6.38	-16.18
a. Railways	24.20	11.09	20.05	13.12	-15.04	7.88	3.68	16.50	-27.72
b. Transport by means other than Railways	11.59	5.73	8.19	7.43	15.88	11.89	-13.15	5.89	-18.50
• Road transport	12.57	6.33	6.60	7.58	15.42	9.03	-14.52	6.24	-18.48
• Water transport	-1.30	-3.74	9.55	-5.60	55.41	17.22	6.97	3.06	-6.57
• Air transport	105.53	-29.75	64.86	94.18	9.72	18.45	-18.34	-1.85	-79.42
• Services Incidental to Transport	5.90	7.73	18.92	5.00	6.38	33.85	-11.67	5.89	-18.50
c. Storage	0.51	1.89	-3.25	13.67	26.66	1.68	8.55	7.53	-2.61
d. Communication & Services related to Broadcasting	7.00	14.70	17.90	15.92	-0.06	-4.82	3.67	1.63	-3.61
iii. Financial Services	12.82	3.43	9.60	7.73	-2.85	13.19	1.45	12.89	9.49
iv. Real estate, Ownership of Dwelling & Professional Services	3.72	6.71	5.97	7.62	7.20	6.09	4.93	-1.62	-7.24
v. Public Administration and Defence	6.95	35.35	7.31	6.97	0.80	5.71	9.29	16.09	21.09
vi. Other Services	0.20	-4.37	4.07	4.44	4.50	14.48	9.52	11.21	1.33

Source: DE&S, Odisha (2021)

The service sector registered a growth rate of 7.41 per cent in 2012-13 over 2011-12 which fell to 3.99 per cent in 2016-17 but then rose to 9.11 per cent in 2017-18. It declined to 4.48 per cent in 2018-19 but rose to 6.10 per cent in 2019-20. As per advance estimates by DE&S-Odisha, the services sector recorded a negative growth at -3.18 per cent in 2020-21.

Three things may be noted while passing. First, contrary to received wisdom growth in service sector has not been stable in the past decade. And second, service sector growth is strongly and positively associated with growth in trade and repair services, hotels and restaurants, and transport, storage,

communication sub-sectors. This is why the sharply negative growth in these activities due to Covid restrictions caused the service sector growth to be negative in 2020-21. Again, within the services sector, the hotels and restaurants sub-sector was hit the hardest by Covid with a -54.54 per cent growth in 2020-21 over 2019-20. The third thing is that financial services, public administration and defence, and other services exhibited positive growth over the years. Even in the Covid pandemic year, when most of the economic activities suffered huge contraction they remained strong demonstrating resilience.

The services sector has emerged as the new engine of economic growth. It has the potential to make remarkable contribution to the economy. Within this sector, tourism including eco-tourism is an emerging activity that can be tapped by implementing the right kind of policies. The new Tourism Policy will go a long way in making it a gigantic industry.

The sectoral composition of GSVA at current basic prices for 2020-21 is illustrated in Figure 1.7.

Figure 1.7: Sub-sector-wise share of GSVA at Current Prices, 2020-21



1.4 Infrastructure

1.4.1 The importance of infrastructure (economic infrastructure e.g., energy, transport and communication, railways, roads, ports, airports, dams, power stations etc. and social infrastructure e.g., education, health and medical facilities etc.) for accelerated development is well recognised. The state government has rightly focused on *bijli, sadak and pani*. A number of specific programmes are under implementation to improve road connectivity in both economically backward and unconnected hinterlands as well as industrial hubs, improve rail network, upgrade urban infrastructure and create appropriate IT infrastructure for strengthening e-governance initiatives in the state. Odisha was the first state to introduce power sector reforms and its power sector is accepted as a developed one in the country.

1.4.2 The state's total installed capacity is 7647.69 MW during 2019-20 in which the share of central plants is estimated to be 31.23 per cent. During 2019-20, 3281 MW power was available to the state against a demand for 2819 MW. All the villages of Odisha have been electrified by end March 2020.

1.4.3 With a road density of 195.03 km. per 100 sq. km. of area in 2017, Odisha is ahead of the all-India average of 152.03 km per 100 sq.km of area. But the state has lagged behind in terms of surface-road density and rail way route. The NH density of 3.70 KMs in Odisha is far below 4.03 KMs at the national level. Similarly, Odisha has a railway route density of 168 KMs per thousand square KM of area as against 205 KMs at the all-India level.

1.4.4 Odisha is blessed with 480 kilometres of coastline and has ample scope for shipping. Paradeep is the only major port of the state under the administrative control of Government of India. Two ports have already been set up and operationalized at Gopalpur and Dhamra through state government initiatives. The state government has identified 10 other locations namely Palurand BahudaMuhan in Ganjam district, Bali Hari Chandi and Astaranga in Puri district, Inchuri, Subarnarekha mouth and Bahabalpur in Baleswar district, Chudamani in Bhadrakdistrict and JatadhariMuhan in Jagatsinghpur district for setting up ports in Odisha.

1.4.5 Tele-density has significantly increased in the State. The overall tele-density of the State by the end of March 2019 was 75.74 per cent as against the all-India average of 90.10 per cent. Under the overall scope of Mo Sarkar and 5T, the State has undertaken illustrative initiatives to improve the use of Information Technology especially in public sector and this has expanded the scope for creation of infrastructure on various fronts to keep pace with the future need. E-governance has been taken up and enforced at various levels.

1.5 Poverty and Human Development

1.5.1 Reduction of poverty and development of human resources are the ultimate goalpost for a government. Odisha has achieved spectacular progress both in reducing poverty and improving human development in the state.

1.5.2 Poverty is a multi-dimensional concept encompassing material, social and intellectual deprivations. However, with a view to measuring poverty and assessing its alleviation, material deprivation is usually considered.

1.5.3 The proportion of population living below poverty line in the state was as high as 67.18 per cent in 1973-74 in comparison to 54.88 per cent at the national level as per the Lakadwala Committee methodology. It was reduced to 46.40 per cent in 2004-05 against 27.50 per cent at the all-India level. As per the revised Tendulkar Committee Methodology, the poverty level in the state and at the national level for 2004-05 was reassessed at 57.20 per cent and 37.20 per cent which came down to 32.6 per cent and 21.9 per cent in 2011-12 respectively. Hence, during 2004-05 to 2011-12, the state could achieve higher poverty reduction i.e., by 24.6 percentage points, the highest after Tripura (26.5), relative to the national level (15.3 percentage points). This could be possible due to a stable government and its effective interventions.

1.5.4 Poverty also declined in all regions and among all social classes of population. Poverty among SCs has been reduced by 26.51 percentage points as against 20.88 percentage points in the case of STs. The Northern region experienced the highest poverty reduction i.e., by 30.53 percentage points followed by the Southern region (25.40 per cent) and Coastal region (19.95 per cent). Poverty Gap Ratio that measures the magnitude of deprivation and helps in overall assessment of a region's progress in poverty alleviation, showed significant improvement from 17.7 in 2004-05 to 7.01 for rural areas in 2011-12.

1.5.5 Regional and social disparities still continue to be a major concern for the state. With a view to addressing the problem of regional disparities and accelerating development process in the interior tribal dominated pockets and underdeveloped areas, the government has been implementing a number of development programmes with Central and State funding. The important ones are Revised Long Term Action Plan (RLTAP), Biju KBK Plan, Biju Kandhamal O GajapatiYojana, GopabandhuGraminYojana

(GGY), Programmes funded by Backward Regions Grant Fund (BRGF), Programmes of Western Odisha Development Council (WODC) and the like. In addition, the government has implemented KALIA, a massive agriculture-oriented programme which is expected to go a long way in improving the income of the farmers and people earning their livelihood from agriculture.

Mission Shakti, which has become a mass movement in Odisha, is doing well on socio-economic empowerment of women in the state. Focussed attention on development of eco-tourism, rapid industrialisation and expansion of service sector activities has the ultimate objective of reducing poverty and expanding employment. Under the special problem fund programme, government has taken steps during 2020-21 with large investments for development of infrastructure and creation of modern amenities at 23 heritage sites in Odisha to attract the tourists. The government has already launched many reformative and welfare programmes to ensure economic welfare of the unorganised construction workers. Consistent efforts are also made for expanding irrigation potential of the state along with adoption of modern farming technologies which will supplement the farm income of half of the population that depend on agriculture for livelihood. The government should further strengthen its endeavour for faster reduction of poverty.

1.6 Social Sector

1.6.1 Balancing social and economic growth is crucial for inclusive development. Therefore, development of social sectors is vital. Social sector is an umbrella concept and includes education, health and medical care, water supply and sanitation, poverty alleviation, housing provision well-being of physically and mentally challenged persons, welfare of marginalized groups and backward regions, and social security for the common men.

1.6.2 Education is a core component of social sector. The state government is taking expeditious steps to ensure steady improvement in this essential sector. According to 2011 Census overall literacy rate in Odisha (72.9 per cent) was at par with the national average (73 per cent) exhibiting an increase of 9.8 percentage points compared to Census 2001. Enrolment ratio in elementary (primary and upper primary) schools has perceptibly improved from 97.67 per cent in 2014-15 to 100.40 per cent in 2019-20. Gross enrolment ratio at primary level which was 92.74 per cent in 2014-15 increased to 102.17 per cent in 2019-20 and the dropout rates at Primary and Upper Primary levels were lowered from 41.8 per cent and 57 per cent in 2000-01 to 1.63 per cent and 4.21 per cent respectively in 2014-15 and to 1.55 per cent and 4.56 per cent respectively in 2019-20. The Teacher Pupil ratio improved from 1:26 to 1:18 for primary level and from 1:26 to 1:20 for upper primary level during the period from 2014-15 to 2019-20. The teacher pupil ratio at secondary level has come to a level 1:18 in 2019-20. For providing quality school education the government has established 250 Adarsh Vidyalayas in 250 blocks and 64 more are to be set up in the remaining blocks.

1.6.3 School infrastructure have significantly improved in the recent decades with common and separate girls' toilets in 99 per cent elementary schools, electricity, ramp and playground in 74 per cent, 88 per cent and 53 per cent elementary schools and drinking water in all elementary schools. Under the 'Mo School' initiative of the government, old students are coming forward in large numbers and contributing funds generously for the infrastructural development of their alma maters.

1.6.4 A large number of vocational and technical institutions have come up during the last few years to help equip the youth of the state with technical and soft skills to enhance their employability. A good number of national level institutes like IIT-Bhubaneswar, All India Institute of Medical Sciences-Bhubaneswar, National Institute of Science Education and Research-Bhubaneswar, Indian Institute

of Science Education and Research-Berhampur, Central University of Odisha-Koraput, National Law University-Cuttack and IIM-Sambalpur have been set up in the State which are expected to give a new direction to educational environment of Odisha. Odisha Knowledge Corporation has been established to expand e-education among the youth.

1.6.5 Improving availability, accessibility, affordability and delivery of healthcare has become a mission of the government. Sustained efforts in this direction have led to increased life expectancy at birth in 2011-15 to 65.6, 68.3 and 66.9 years for males, females and persons respectively. Crude death rate which was 8.4 in 2013 has come down to 7.4 in 2017, infant mortality rate lowered from 51 in 2013 to 40 in 2015-16 and maternal mortality rate came down to 168 during the year 2015-17. Institutional deliveries were estimated at 85.3 per cent in 2015-16 up from 35.6 in 2005-06.

1.6.6 Odisha's performance has been satisfactory in respect of access to safe drinking water. Access to safe drinking water stood at 75.3 per cent among the households as per the 2011 Census. Total Sanitation Campaign (TSC) has been implemented to provide toilets in rural areas and encourage people to improve their sanitation conditions. Physical achievements under this programme have been encouraging. By March 2020 the state could be able to construct 66.44 lakh IHLs under Swchha Bharat Mission.

1.6.7 Hunger, malnutrition and mal-nourishment among children have all along been a serious concern of the state government. Government has been implementing a number of programmes to address malnutrition among children, mothers and old, infirm and destitute persons including provision of heavily subsidized rice at the rate of Rs. 1 per kg for the BPL population.

1.6.8 Social security among economically weaker sections remains a priority concern of the government. Programmes / schemes are under implementation both with Central and State funding to provide social security to the poor, old and destitute. For the welfare of the persons with disabilities government of Odishais implementing schemes like skill development, promotion of special schools, self-employment and rehabilitation of persons cured of leprosy/ Hansen's disease, provision of special aids and appliances, Mission Kshyamata, Bhima Bhoi Bhinnakshyama Samarthya Aviyan etc.

1.6.9 A good number of programmes are in place to address the problem of gender inequality, and empower women. About 6.02 lakh Women Self-Help Groups (WSHGs) involving 70 lakh women of the state have been operating with support provided through Mission Shakti programme under the Department of Women and Child Development, Government of Odisha. The State Commission for Women has been functioning with the mandate of protecting the interests of women and preventing violence against them. The Odisha State Social Welfare Advisory Board (OSWAB) provides grants to voluntary organizations for welfare of women and children.

1.6.10 Development of ST and SC communities has received focused attention by the central as well as the state governments. The Tribal Sub-Plan system initiated in the Fifth Five Year Plan is in action in 118 tribal dominated blocks of the state for socioeconomic amelioration of the tribal communities. Special Central Assistance (SCA) is provided for accelerated development of tribal communities and the Particularly Vulnerable Tribal Groups (PVTGs). The SC&ST Development Department of the government is implementing livelihood cluster development program in all the 22 ITDAs to ensure access to improved and sustainable livelihoods for the tribal people in the TSP blocks. MADA scheme is operating since the Sixth Plan for total development of the dispersed tribal population residing outside TSP area.

1.6.11 NITI Aayog has made some rankings of Indian States in respect of SDG goals. In terms of no poverty index, Odisha has secured 19 position and in zero hunger index the position of Odisha is 22 among the

states in the country. Similarly, in respect of good health and wellbeing index, Odisha ranks 13 and in clean water and sanitation the state's position is 12 in the country. It ranks 11 basing on the index relating to reducing inequality as also on the index of sustainable cities and communities. Odisha is ranked 4th in the 'industry, innovation and infrastructure, index.

1.7 Public Finance

Finances of Odisha are on a sound base. They have come a long way from the stage of unsustainable fiscal deficit and debt levels to much below the prescribed threshold deficit and debt levels of 3 per cent of GSDP and 25 per cent of GSDP respectively. This has become possible for two main reasons. First, usually the State does not resort to market borrowings. Second, fiscal reforms and debt write-off mandated by the Finance Commission as a reward for fiscal prudence have also helped.

The State has taken several reform measures for a more effective and efficient management of public finances. Odisha is among few states that present a separate Agriculture Budget and have a surplus on revenue account. Agriculture Budget being prepared since 2013-14 has the principal objective of addressing the twin challenges of rural poverty and regional disparity.

The State has also taken several steps to strengthen appropriate institutional measures for more efficient management of public finances. These measures include maintenance of capital assets through a well-conceived annual management plan, cash management system to reduce inefficient and ineffective expenditures and to avoid rush of expenditure in the last quarter of the financial year, improved classification of revenue and capital expenditures, grants meant for creation of capital assets to be treated as capital expenditure, promotion of outcome budgets in select departments in a phased manner, zero-based budgeting with focus on completion of projects and such other measures.

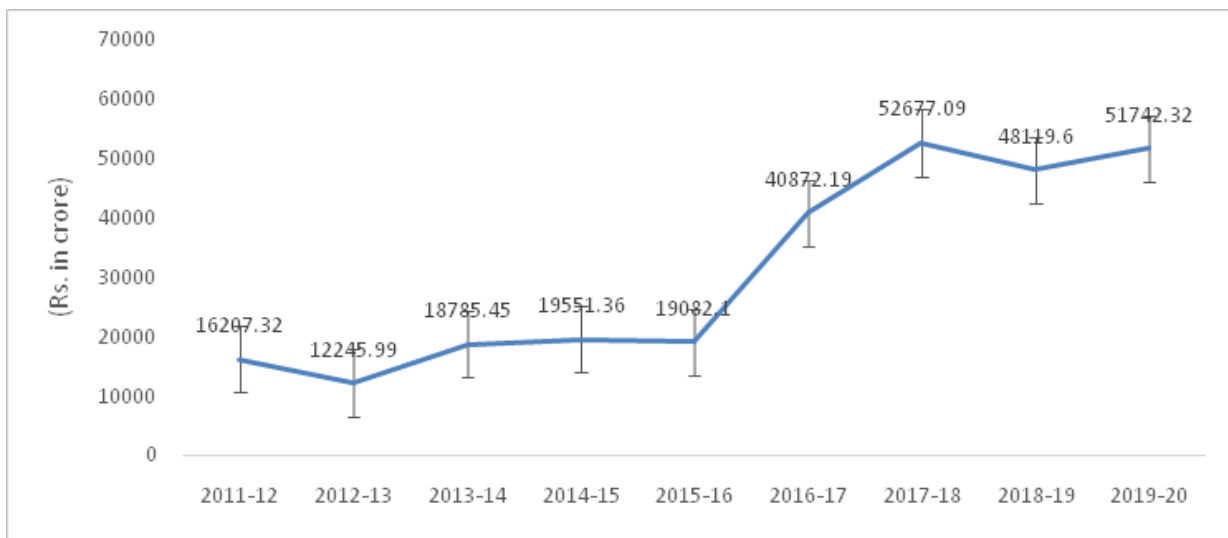
The overall fiscal situation of the state is stable. It is capable of managing fiscal risks and continues with prudent fiscal management policy keeping intact the thrust on socio-economic development for inclusive growth.

COVID-19 is likely to undermine fiscal targets and associated receipts for 2020-21 because of the operation of the scissor effects - loss of revenues due to demand slowdown, and higher expenditure associated with the pandemic. However, the state could manage to have a revenue surplus of Rs. 7086.40 crore and a lower fiscal deficit of -Rs. 1770.71 crore i.e. a fiscal surplus as at the end of December 2020. The details can be seen in Table 9.14.

1.8 External Trade of Odisha

Odisha has a proud heritage of foreign trade spreading to different neighbouring countries in the past and has earned good name in the country for its naval trade. The state has been endowed with diverse agro-climatic zones, a good amount of forest cover and abundant natural resources ranging from a plethora of minerals to marine, agricultural products and large variety of handicrafts and cottage industry products. Due to the liberalization policy, export friendly strategies and approaches, and incentives given by the State Government, Odisha has already emerged as a favourite destination for national and international investors. The potential of external trade of the state is expanding over the years. The broad trend of exports from Odisha is shown in Figure 1.8.

Figure 1.8: Year-wise Value of Exports of goods from Odisha



Source: Directorate of EPM, Odisha

The value of goods exported from Odisha exhibits an increasing trend from 2011-12 to 2017-18. However, it marginally slowed during 2018-19 due to global slowdown. The value of goods exported reached Rs. 40872.19 crore in 2016-17 registering an increase of 152.18 per cent over the exports of 2011-12. It further increased to Rs. 52677.09 crore in 2017-18 recording an increase of 28.88 per cent over 2016-17. But in 2018-19, exports from the state suffered a decline of 8.65 per cent over exports in 2017-18. In 2019-20 the state's exports rose to Rs 51742.32 crore registering an increase of 7.52 per cent over 2018-19. Barring patchy declines exports from the state are moving on sound footing during the period 2011-12 to 2019-20.

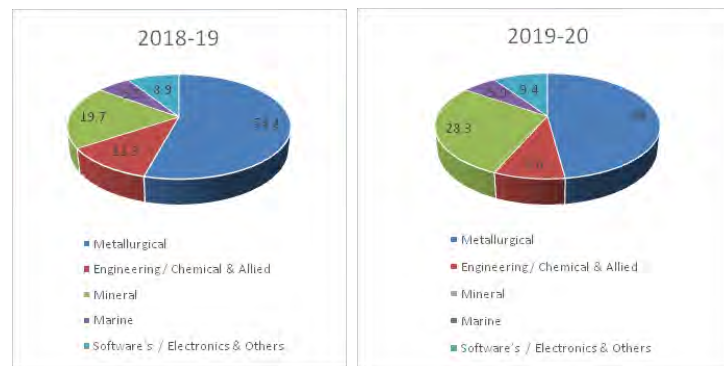
Table 1.11: Export Performance in 2018-19 and 2019-20

No.	Category of Products	2018-19 (Rs. crore)	2018-19 Share (%)	2019-20 (P) (Rs. crore)	2019-20 (P) Share (%)
1	Metallurgical products	26084.97	54.2	24811.40	48.0
2	Engineering / Chemicals & Allied products	5413.62	11.3	4434.18	8.6
3	Minerals	9483.26	19.7	14627.10	28.3
4	Agriculture & Forest produce	210.02	0.4	187.18	0.4
5	Marine products	2825.52	5.9	3028.88	5.9
6	Handloom products	0.07	0.0	0.90	0.0
7	Handicrafts	1.39	0.0	3.08	0.0
8	Textiles	74.14	0.2	131.64	0.3
9	Pharmaceuticals	8.45	0.0	6.34	0.0
10	Others	18.16	0.0	11.62	0.0
11	Softwares / Electronics	4000.00	8.3	4500.00	8.7
	Total	48119.60	100.0	51742.32	100.0

Source: Directorate of EPM, Odisha

During 2019-20, the metallurgical products category has the highest share in total exports from Odisha at 48 per cent followed by minerals (28.3 per cent), software and electronics (8.7 per cent) and engineering and chemicals (8.6 per cent). It may be seen in the table that the share of metallurgical products in total exports has reduced by 6.2 per cent in 2019-20 in comparison to 2018-19. Similarly engineering, chemical and allied which contributed a share of 11.3 in 2018-19 came down to a level of 8.6 per cent in 2019-20. However, the minerals group has made a good contribution to export with a 28.3 per cent share in 2019-20 in comparison to 19.7 in 2018-19 recording an increase of 8.6 per cent in its share. A pictorial view may be had from Figure 1.9.

Figure 1.9: Export Category-wise Share in Value of Exports in 2018-19 and 2019-20



Source: Directorate of EPM, Odisha

It is pertinent to note that there is tremendous potential in fields of software, food and food products, handloom, textiles and handicrafts and various products of cottage industries as well as marine based produce and products which need to be harnessed through proper planning and scientific intervention in addition to the normal exports from the state

1.9 Labour and Employment

Labour is a primary factor of production that supplies the manpower, expertise and skill needed to make goods and provides various services. An overwhelming majority of our population depend on their own labour as the dominant source of livelihood, through its productive use, either in self-employment or in work for wages. Gainful employment of workers is considered as the fundamental basis of sustainable production, income generation, livelihood, food security, standard of living and economic development. The study of labour and employment, therefore, makes sense. Government of Odisha is concerned about creating an enabling environment for generating adequate productive and rewarding employment opportunities for absorbing the expanding labour force in the state. The new agricultural and industrial policies, skill development initiatives, measures of labour welfare, the labour laws, minimum wage legislations and such other steps taken by the government have positive implications for employment generation in the state.

Given the huge size and large diversities in characteristics, labour and employment data are not collected and collated annually except on organised sector employment. Data relating to the size, structure and growth of labour, employment and unemployment are collected by multiple agencies, for different time periods and with heterogeneous coverage, sample sizes and methodologies. The major sources are decennial population Censuses, NSO-NSS of the Ministry of Statistics and Programme Implementation (MoSPI), Labour Bureau of the Ministry of Labour and Employment (MoLE), The Economic Census by

MoSPI, Annual Survey of Industries by MoSPI and Government Departments including Directorate General of Employment and Training.

1.9.1 State of Labour and Employment: Census Data

Census of India is by far the most important source of exhaustive data on the state of labour and employment in the country and its constituents. These data indicate the status of workers defined as those who have participated in any economically productive activity at any time during the reference period, i.e., normally during the year preceding the date of enumeration. Census classifies workers into main and marginal workers implying persons who participated in any economically productive activity for not less than six months and for less than 6 months respectively during the year preceding the date of enumeration. Census 2011 estimated the total population of Odisha at 4.20 crore accounting for about 3.47 of the population of the country.

The total number of workers was 175.42 lakh of which 151.04 lakh (86.1 per cent) were in rural areas and 24.38 lakh (13.9 per cent) in urban Odisha. Male workers were 119.03 lakh with a share of 67.9 per cent and female workers numbered 56.39 lakh constituting 32.1 per cent of the total workers. Of the total workers, 107.08 lakh or 61 per cent were main workers and 68.34 lakh i.e., 39 per cent were marginal workers. Among the marginal workers, 81.9 per cent were engaged for 3 to 6 months and the balances 18.1 per cent were engaged for less than three months during the reference period. Activity-wise, the 175.42 lakh total workers comprised 41.04 lakh (i.e., 23.4 per cent of total workers) cultivators, 67.40 lakh (38.4 per cent) agricultural labourers, 7.83 lakh (4.5 per cent) household industry workers and 59.15 lakh (33.7 per cent) other workers.

In the rural areas, 57.1 per cent of total workers were main workers, but in urban areas main workers had a higher share at 85.5 per cent. The proportions of male workers to male population and female workers to female population in the state stood at 56.1 per cent and 27.2 per cent respectively. Census data estimated a 22.9 per cent increase of total workers in 2011 over 2001. A comparative picture of some stylised facts about the state of workers and employment in Odisha is given in Table 1.12.

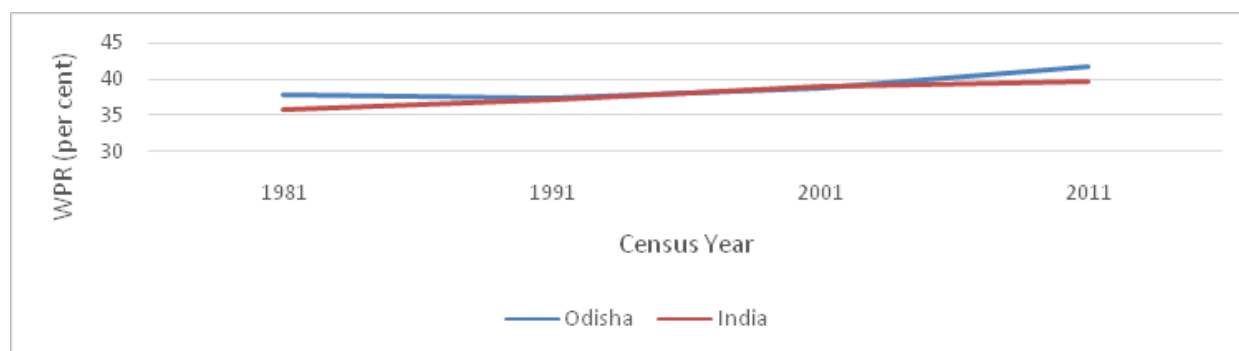
Table 1.12: State of Workers and Employment in Odisha

SL. No.	Item	Unit	2001	2011
1	Total Population	Lakh	368.05	419.74
2	Total Workers	Lakh	142.76	175.42
3	Total Main Workers	Lakh	95.89	107.08
4	Total Marginal Workers	Lakh	46.87	68.34
5	Total Workers to Total Population (WPR)	Per cent	38.79	41.79
6	Main Workers to Total Workers	Per cent	67.17	61.00
7	Male Workers to Male Population	Per cent	52.50	56.11
8	Female Workers to Female Population	Per cent	24.70	27.16
9	Cultivators to Total Workers	Per cent	29.70	23.40
10	Agricultural labourers to Total Workers	Per cent	35.00	38.40
11	Household industry Workers to Total Workers	Per cent	5.00	4.50
12	Other Workers to Total Workers	Per cent	30.30	33.70

Source-Registrar General Census of India

The trend of Work Participation Rate or workers' participation ratio (WPR), which is defined as the percentage of total workers to the total population is a good indicator of the dynamics of the employment situation in a state over the years. It is pertinent to note that WPRs do not mean employment rates plainly because the denominator i.e., the total population includes, among others, the young children and old people who are not in the work force. The comparative perspective of WPRs in the last four Censuses as portrayed in Figure 1.10 shows a higher ratio in 2011 for Odisha compared to the all-India level.

Figure 1.10: Trend of Workers' Participation Ratio, Odisha and India



Source: Registrar General Census of India

In spite of increase in absolute magnitude of both main workers and marginal workers in Odisha over census periods, it is seen that the proportion of a men workers is exhibiting a declining Trend whereas the proportion of marginal workers to total workers in the state of Odisha is showing an increasing trend over the census periods from 1981 to 2011.

Table 1.13 shows the percentage shares of main and marginal workers in total workers in Odisha over the Census years. It is seen in the table that though the number of main and marginal workers has increased in 2011 over 2001 Censuses, the percentage share of the former in the total workers has declined. Second, the absolute number as well as the percentage of cultivators in total workers has also declined. It is disheartening to mention that even though the actual number as well as the percentage share of agricultural labourers has increased, the combined share of cultivators and agricultural labourers in the total workers has sharply declined between 1991 and 2011. The downslide is shown in Table 1.13. This suggests that workers have shifted away from agriculture and allied activities.

Table 1.13: Number and Proportion of main & marginal workers, Cultivators & Agricultural Labourers in Odisha

Year	Main Workers (in. lakh)	Marginal Workers (in. lakh)	Total Workers (in. lakh)	No. of Cultivators & Agricultural Labourers (in. lakh)
1981	86.35 (86.16)	13.87 (13.84)	100.22 (100)	74.86 (74.70)
1991	103.69 (87.34)	15.03 (12.66)	118.72 (100)	86.67 (73)
2001	95.89 (67.17)	46.87 (32.83)	142.76 (100)	92.37 (64.7)
2011	107.04 (61)	68.34 (39)	175.42 (100)	108.41 (61.8)

Note: Figures in parenthesis are in per centages

The most disturbing fact is that the proportion of main workers in total workers in the state is exhibiting a declining trend while that of the marginal workers is showing an increasing trend over the Censuses 1981 to 2011, the increase in the numbers of main and marginal workers notwithstanding. These points to increasing marginalisation of workers in the state.

1.9.2 State of Labour and Employment: NSS and PLFS Data

NSO-NSS is a rich source of extensive and substantial data pertaining to labour force participation rates, workers' participation rates, unemployment rates, levels of under-employment or disguised unemployment, different categories of workers, their living conditions and status of employment, level of wages and earnings, occupational structures, status of informal labour and several other indicators of the quality of the workers based on standardised methods. The latest survey conducted by NSO was the periodic labour survey force survey (PLFS) in 2018-19.

National Sample Survey uses three different methods basing on reference periods preceding the date of survey of a person's activity status to estimate employment and unemployment. They are: the usual status (US) approach with a reference period of 365 days preceding the date of survey, the current weekly status (CWS) approach with a reference period of seven days and the current daily status (CDS) approach with each day of the seven days preceding the date of survey as the reference period. The 'usual status (US) method' has an advantage over the other two in that it is based on the usual activity status, rather than on the existence of activities during a stipulated shorter period of time (for which it is less affected by the reference period). The situation in Odisha, i.e., seasonality of agriculture which absorbs about 62 per cent of total workers - Census 2011, is such that a longer reference period will show a lower unemployment rate and a shorter reference period will yield a higher rate of unemployment. A person who is considered as 'employed' as per 'usual status' method may be shown as 'unemployed' according to the other two methods, if he is intermittently out of work. It also considers both principal activity and subsidiary activity status of a worker. Further, this approach is associated with persons and not with persons-days and is useful in determining head count poverty ratio. The US approach, therefore, has greater analytical relevance in Odisha.

The usual status approach has two variants viz., the usual principal status (UPS) approach and the usual subsidiary status (USS) which combinedly makes the usual principal and subsidiary status (UPSS) or the usual status (ps+ss). A person is classified as usual principal status worker, if he/ she had been either working or looking for work during the longer part of the 365 days preceding the survey i.e., for 183 or more days, h/she was in the labour force. For example, if a person reports as having worked and sought/available for work for a total of 185 days, and out of these 185 days h/she was working only for 60 days and reported seeking/available for work for remaining 125 days, then h/she will be considered as 'unemployed' on the usual principal status basis. According to the USS approach, all individuals who have worked for at least 30 days during the reference year are classified as 'employed' or as subsidiary status workers. Usual status of a person is determined on the basis of his/her usual principal status and usual subsidiary status taken together. Usual status (ps+ss) includes (a) the persons who worked for a relatively long part of the 365 days preceding the date of survey, and (b) those persons from among the remaining population who worked at least for 30 days during the reference period of 365 days in the labour force preceding the date of survey (Papola, 2014).

Labour force consists of those working (i.e., engaged in economic activity) and those who are available for, or seeking work. Three ratios can be worked out to know the state of labour and employment at any point of time. These are: The Labour force participation rate (LFPR) which shows the percentage of

persons in the labour force (unemployed persons+employed persons) in the total population; the Worker Population Ratio or Work Participation Rate (WPR) that measures the percentage of employed persons in the population; and the Unemployment Rate (UR) that gives the percentage of persons unemployed among the persons in the labour force.

A detailed picture of these parameters is furnished in the following table.

Table 1.14: Usual Status (PS+SS) based Labour parameters for Odisha and India

Indicator	Age Group		Rural			Urban			Rural + Urban		
			Male	Female	Person	Male	Female	Person	Male	Female	Person
LFPR	15-59 years	Odisha	85.5	28.2	56.0	81.7	22.2	50.8	84.9	27.2	55.2
		India	80.6	28.3	54.5	79.6	22.5	51.6	80.3	26.5	53.6
	15 Years and above	Odisha	79.8	25.2	52.1	75.0	20.3	47.0	79.0	24.4	51.2
		India	76.4	26.4	51.5	73.7	20.4	47.5	75.5	24.5	50.2
WPR	15-59 years	Odisha	79.3	26.9	52.3	73.0	17.2	44.0	78.2	25.3	51.0
		India	75.8	27.2	51.5	73.7	20.2	47.5	75.1	25.0	50.3
	15 Years and above	Odisha	74.6	24.2	48.9	67.4	15.8	41.0	73.4	22.8	46.6
		India	72.2	25.5	48.9	68.6	18.4	43.9	71.0	23.3	47.3
UR	15-59 years	Odisha	7.3	4.4	6.6	10.7	22.5	13.3	7.9	6.9	7.6
		India	6.6	3.8	5.4	7.4	10.3	8.0	6.5	5.5	6.2
	15 Years and above	Odisha	6.6	4.2	6.0	10.1	21.9	12.7	7.1	6.6	7.0
		India	5.5	3.5	5.0	7.0	9.8	7.6	6.0	5.1	5.8
UR by CWS	15 Years and above	Odisha	12.1	7.6	11.3	12.7	23.5	14.9	12.2	10.3	11.8
		India	8.6	7.3	8.3	8.8	12.1	9.5	8.7	8.7	8.7

Source: Government of India PLFS 2018-19. (2020)

Data pertaining to labour force participation rate and WPR based on usual status approach and unemployment rate based on usual status and CWS methods for 2018-19 are given in Table 1.14. The LFPR for Odisha was estimated at 55.2 per cent and for India it was 53.6 per cent for the 15-59 age group. The figures for male and female labour force stood respectively at 84.9 per cent and 27.2 per cent for Odisha and 80.3 per cent and 26.5 per cent for India.

For the 15 years and above age group, the LFPR for male, female and persons have been observed to be 79.0 per cent, 24.4 per cent and 51.2 per cent respectively in Odisha. The corresponding figures for India have been 75.5 per cent, 24.5 per cent and 50.2 per cent. The LFPR at all-India level was lower relative to the state and lower for female than for male. The LFPR in rural and urban areas for the 15-59 years group were 56 per cent and 50.8 per cent for Odisha as against 54.5 per cent and 51.6 per cent for India. For the age group 15 years and above, the respective figures were 52.1 per cent and 47.0 per cent for Odisha against 51.5 per cent and 47.5 per cent for India.

WPR for the 15-59 age group was 51.0 per cent for Odisha against 50.3 per cent for India. The male and female WPRs were 78.2 per cent and 25.3 per cent in Odisha as compared to 75.1 per cent and 25.0 per cent at the national level. For the 15 years and above age group, WPR-Odisha was 46.6 per cent and 47.3

per cent for India. The gender-wise and rural-urban sector-wise estimates of WPR reflect a more or less similar pattern as LFPR.

The unemployment rate (UR) as derived from the usual status approach was found to be 7.6 per cent for Odisha and 6.2 per cent for India for the 15-59 years age group. These rates were higher at 7.9 per cent and 6.5 per cent for male in Odisha and India than for female at 6.9 per cent and 5.5 per cent at the state and the national levels respectively. In the case of the 15 years and above age group, UR was estimated at 7.0 per cent for Odisha and 5.8 per cent for India. It is 7.1 per cent for males and 6.6 per cent for females in Odisha against 6.0 per cent for males and 5.1 per cent for females at the national level.

Unemployment rate by CWS for the 15 years and above age group were found to be much higher at 12.2 per cent, 10.3 per cent and 11.8 per cent for male, female and persons in Odisha against 8.7 per cent for all at the national Level.

The trend of usual status (PS+SS) based unemployment for 15 years and above age during 2017-18 and 2018-9 is presented in Table 1.15 The estimated rates are higher than those estimated using the usual status approach.

Some salient points may be drawn from the above discussion. First, all indicators for the 15-59 years age group of people show values higher than those for 15 years and above because the later includes the old age people. Second, LFPR is higher than the WPR as the former includes the unemployed also which the latter does not. All ratios are higher for male than for female depicting wide gender gaps. This may be because the employability of women as determined by literacy and level of education, the need for and willingness to work, geographic and occupational mobility etc. are comparatively lower among females. Third, both LFPR and WPR are higher in the rural than in the urban areas. In urban areas a considerable section of the 15 + age group are in studies and they have better opportunities to pursue the same. People in rural areas have limited avenues to earn a higher income and may have limited ability and opportunities for education. These people cannot afford to stay away from labour market. Fourth, the rural and rural-urban combined LFPR and WPR are higher for males and persons in Odisha as compared to the national level. The female LFPR and WPR are higher in rural than in urban areas both at the state and national levels but these rates are lower at the state level relative to those at the national level.

Table 1.15: UPSS Status based Unemployment rate (%) for Odisha and India (15 Years+)

Country/ State	Year	Rural			Urban			Total		
		M	F	P	M	F	P	M	F	P
Odisha	2017-18	7.3	5.3	6.9	7.3	12.7	8.4	7.3	6.3	7.1
India	2017-18	5.7	3.8	5.3	6.9	10.8	7.7	6.1	5.6	6.0
Odisha	2018-19	6.6	4.2	6.0	10.1	21.9	12.7	7.1	6.6	7.0
India	2018-19	5.5	3.5	5.0	7.0	9.8	7.6	6.0	5.1	5.8

Source: Periodic labour force survey 2017-18 and 2018-19, NSSO

It may be seen in Table 1.15 that unemployment moderated in 2018-19 in comparison to 2017-18 in the rural areas and on the whole for males and persons at the state and national levels. However, there has been a large increase in UR for women in urban-Odisha. The decline in UR for male, female and persons has been little more pronounced in rural-Odisha than in rural-India. But it is a matter of serious concern that urban unemployment rate is rising in Odisha in the face of moderation of the rate in the rural areas and as a whole. This calls for a more serious interventionist approach on the part of the Government.

1.9.3 Employment Scenario: Economic census data

The report of sixth economic census, 2013 the latest so far, gives a comprehensive picture of the state of labour and employment in the state. According to this source there were 20.88 lakh establishments in the state engaged in different activities other than crop production, plantation, public administration, defence and compulsory social security services. Total employment in these 20.88 lakh establishments was 43.18 lakh. The annual growth rate (CAGR per cent) in total employment from 2005 (fifth economic census) to 2013 (6th Economic Census) is estimated at 1.93 per cent. The growth rate in employment (CAGR per cent) between 1998 (4th Economic Census) and 2005 (5th Economic Census) was 1.81 per cent. This indicates some good improvement in employment situation in the State during the period 1998-05 and 2005-13.

1.9.4 Employment status of workers in Odisha and India

Status of workers is the mirror of the quality of employment. It reflects on the type of work people are engaged in and the security of their employment. Thus viewed, employed persons are classified into three broad activity groups according to their status of employment viz. (i) self-employed, (ii) regular wage/salaried employees and (iii) casual labour. The distribution of the workers in different employment statuses are discussed below basing on the usual status (ps+ss) approach. Percentage distribution of all usual status (ps+ss) workers at the state and all-India level by status in employment are given in Table 1.16.

Table 1.16: Distribution of Workers by broad status in employment (15 Years+)

Odisha/India	Self-employed			Regular wage/ salaried	Casual labour	All
	Own account of worker, employer	Helper in household enterprise	All self employed			
Odisha	42.1	14.8	56.9	16.0	27.1	100
India	38.8	13.3	52.1	23.8	24.1	100

Note: Based on UPSS Status and all figures are in percentages
Source: Periodic labour force survey 2017-18 and 2018-19, NSO

It is observed from the table that in Odisha 56.9 per cent of the workers are in the self-employment category followed by casual labourers (27.1 per cent) and regular wage/salaried workers (16.0 per cent) in that order. The share of employment in total absorption is higher in Odisha (56.9 per cent) in comparison to the scenario at the national level (52.1 per cent). Sadly, in regular wage and salaried category of workers the state (16.0 per cent) is lagging behind India (23.8 per cent). In the casual workers category Odisha's position is 3 higher than the national average (24.1 per cent). This means that there is greater informalisation and higher casualisation of employment in the state as compared to India.

1.9.5. Employment across broad industry groups

The distribution of workers across broad industry groups highlights the importance of various sectors and sub-sectors of the economy in providing gainful employment opportunities to the workforce. Available information in this regard is presented in Table 1.17

Table 1.17: Percentage Distribution of Usually Working Persons (PS+SS) by broad Industry of Work for Odisha and India

Sl. No.	Industry of NIC-2008	Odisha (Rural + Urban)			India (Rural + Urban)		
		Male	Female	Person	Male	Female	Person
	Industry Sections						
A	Agriculture and Allied Activities	40.73	54.56	44.10	38.33	55.34	42.49
B	Industry (i-iv)	30.99	24.79	29.49	27.20	18.74	25.15
i	Mining and Quarrying	1.00	0.83	0.96	0.49	0.20	0.42
ii	Manufacturing	7.76	9.35	8.15	11.82	12.81	12.07
iii	Electricity, Gas, Water Supply and Other Utility Services	0.52	0.05	0.41	0.66	0.23	0.56
iv	Construction	21.71	14.56	19.97	14.23	5.50	12.10
C	Services (v-viii)	28.27	20.66	26.43	34.46	25.90	32.38
v	Trade, Accommodation and Food service	12.74	6.95	11.33	14.54	6.68	12.62
vi	Transport and Communication	6.63	0.64	5.18	7.51	1.03	5.93
vii	Education	2.41	7.96	3.77	2.69	7.59	3.89
viii	Other Services	6.49	5.11	6.15	9.72	10.60	9.94
	All	100.00	100.00	100.00	100.00	100.00	100.00

Source: Government of India PLFS 2018-19. (2020)

The table mirrors the proverbial predominance of agriculture and allied activities in labour absorption in the state. This sector engages 44.10 per cent of total workers of the state. Gender segregation shows that about 41 per cent of male workers are in agriculture and 54.6 per cent of female workers are in agriculture suggesting feminisation of agricultural workforce. At the all-India level, agriculture absorbs 42.49 per cent of total workers, 38.33 per cent of male workers and 55.34 per cent of female workers. At the state level, the industry sector accounts for 29.49 per cent of total employment and its share in male and female employment are estimated at 30.99 per cent and 24.79 per cent respectively. Within this sector, construction is the single largest employer with a share of 19.97 per cent followed by manufacturing (8.15 per cent). These two sectors engage 21.71 per cent and 7.76 per cent of total male workers and 14.56 per cent and 9.35 per cent of female workers in the state. At the all India level

industry shares 25.15 per cent of total employment, 27.20 per cent of male employment and 18.74 per cent of female employment. The services sector shares 26.43 per cent in total employment 28.27 per cent of male employment and 20.66 per cent of female employment in Odisha. Trade, accommodation and food service; transport, storage and communication; and education are the prominent employment providing sub-sectors within the services sector. The services sector has a relatively greater stake with a 32.38 per cent share in employment at the all-India level in comparison to Odisha. This sector provides employment to 34.46 per cent of male and 25.9 per cent of female workers.

1.9.6 Employment in the Organized Sector

Employment generation in the organized sector is a great indicator of a state's employment situation because this sector provides quality employment with social security. In 2013, the organised sector was 7.95 lakh in which the public sector had a share of 82 per cent and private sector's share was only 18 per cent. Organised sector employment reduced to 6.58 lakh in 2014 and 5.93 lakh in 2015. It is encouraging to note from the table 1.18 that employment in the organised sector rose to 6.58 lakh in 2017-18 and 6.73 lakh in 2018-19 registering an increase of 11 per cent and 13 per cent in the respective years over 2015. Women's share in organised sector employment was only 16.04 per cent in 2017-18 which improved to 16.40 per cent in 2018-19. Women shared more than 17 per cent of employment in the public sector as against their share of little above 9 per cent in the private sector.

Table 1.18: Employment in Organised Sector (in lakh)

Year	Public Sector			Private Sector			All Organised Sector (Public + Private)		
	Men	women	Total	Men	women	Total	Men	women	Total
2017-18	444234	94681	538915	108361	10887	119248	552595	105568	658163
	(82.43)	(17.53)	(100)	(90.87)	(9.13)	(100)	(83.96)	(16.04)	(100)
2018-19	454887	98888	553775	108166	11401	119567	563053	110289	673342
	(82.14)	(17.86)	(100)	(90.46)	(9.54)	(100)	(83.62)	(16.40)	(100)

Note: Figures in parentheses are percentages.

Source: Government of India, PLFS, 2017-18 & 2018-19

1.9.7 Live Register Position in Odisha

The position in respect of live register maintained by employment directorate of the state is given in Table 1.9.

Table 1.19: Live Register Position in Odisha

Year	Total Application	Below Matric	Matriculate and under Graduate	Graduate & Post Graduate (General)	Graduate & Post Graduate (Technical)	Other Diploma Holder	Total Educated Job Seekers (Col.4+5+6+7)
2017	958694	29815	565078	162042	23033	178726	928879
2018	931765	29542	561666	185344	18389	136824	902223
2019	949352	26934	565796	204714	18717	133191	922418
2020 up to 31.5.2020	903297	25645	527749	197045	17399	135459	877652

Source: Directorate of Employment, Government of Odisha

It is observed that 9.59 lakh youth were unemployed in 2017 which came down to 9.49 lakh in 2019. The share of registered educated job seekers in the categories of matriculates and under graduates, graduates and post graduates (general), graduates and post graduates (technical) and other diploma holders are estimated at 60 per cent, 22 per cent, 2 per cent and 14 per cent respectively. As per the live register position in 2019. The proportion of educated job seeker among total job seekers was 97 in the year.

It is seen that during the period 2017 to 2019 there has been significant increase in number of job seekers in the category of graduate and post graduate (general) whereas reverse is observed in same category of job seekers of technical streams. In case of other diploma holders, the number of job seekers has also increased. As on 31 May, 2020, total job seekers in the state numbered 903097 in which 25645 were below matric, 527749 were matriculates but under graduates, 197045 were general graduates and post graduates, 17399 were technical graduates and post graduates and 135499 were other diploma holders. Among the 903097 found live on the register, 877652 were observed to be educated job seekers and the rest were uneducated seekers.

The details of year wise registrations, notification of vacancies and placement for 2017-2020 are given in Table 1.20.

Table 1.20: Registration, Notification of Vacancies and Placement through Employment Exchanges in Odisha

Year	Registration made during the year	Vacancies Notified	Placement				Vacancies Notified as % of Registration	Placement made as % of Registration made
			Total	SC	ST	Female		
1	2	3	4	5	6	7	8	9
2017	222164	182	759	95	226	129	0.081	0.341
2018	175927	209	1674	336	604	279	0.118	0.951
2019	175359	188	1053	327	220	139	0.107	0.600
2020 (up to 31.05.20)	27446	09	52	07	13	06	0.032	0.189

Source: Directorate of Employment, Government of Odisha

The number of registrations made has shown a declining trend over the years while notification of vacancies and placements made do not indicate any definite trend. The number of placements made stood at 759 in 2017 which rose to 1674 in 2018 but then came down to 1053 in 2019 and again to 52 in 2020. The number of placements made as a per centage of registrations increased from 0.34 per cent in 2017 to 0.95 per cent in 2018 but declined to 0.60 per cent in 2019 and to 0.19 per cent in 2020. A similar pattern is seen in terms of vacancies notified as a percentage of registrations made that improved from 0.08 per cent in 2017 to 0.12 per cent in 2018 but lowered to 0.11 per cent in 2019 and further to 0.03 per cent in 2020. The number of SCs, STs and women absorbed shows improvement between 2017 and 2018 but a decline between 2018 and 2019. However, their shares are quite high in total placements, suggesting a fairer treatment and better inclusion in their favour.

In the backdrop of abundance of natural resources including minerals and the educational attainment and skill levels of working age population, it is imperative to further industrialisation and skill development

initiatives in the state. The employment strategy of the Government must be strengthened and focus on creation of productive employment, improvement of quality of employment in different sectors and improvement of skill of the workers through training in a professional manner. In view of the increasing magnitude of unemployment in urban Odisha, it is considered important to focus on all possible steps to address the problem.

1.9.8 Labour Welfare

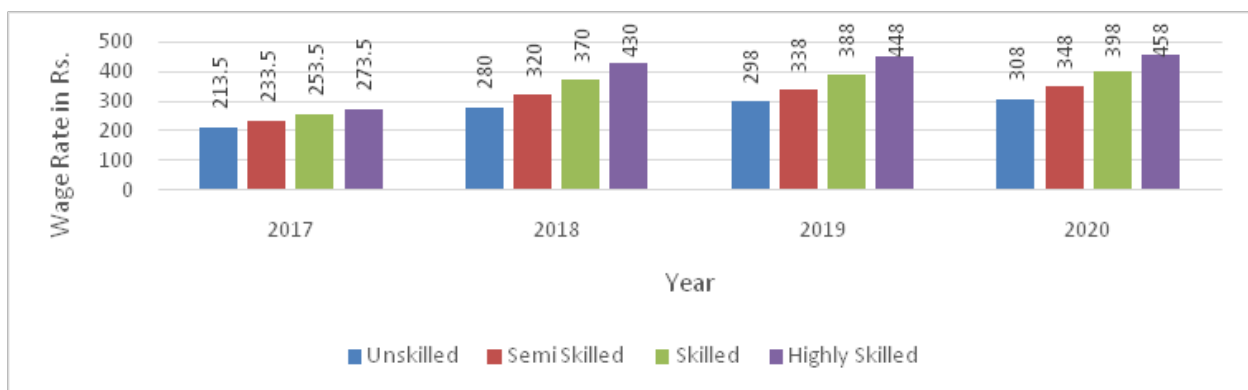
In a welfare State like ours, protecting interests of workers is a constitutional duty of the Government and social responsibility of the employers. It is necessary for ensuring a decent and dignified life to the worker, improving quality of work life, developing loyalty in workers towards their employers, enhance sense of belonging, raise employees' morale, and optimise efficiency. Government of Odisha is implementing a number of schemes and enforcing laws for creating an enabling work environment, ensuring harmonious industrial relations, securing social security and improving welfare of workers.

The Government enforces more than 25 labour legislations/schemes with a view of maintaining industrial peace and harmony, regulating service conditions of workers, preventing exploitation and adoption of unfair labour practices against workers, and ensuring payment of statutory wages. The industrial relations machinery and enforcement machinery of the Labour Directorate of the state are taking effective steps to ensure industrial peace and payment of the prescribed minimum wages to workers.

1.9.8.1 Government has been enforcing the Minimum Wages Act, 1948. So far, 89 employments including agriculture have been scheduled under the Minimum Wages Act for the purpose of fixation/revision of minimum rates of wages for the employees employed therein. The minimum wages are revised upwards at regular intervals keeping pace with inflation to enable workers enjoy a decent minimum living standard. Figure 1.11 illustrates the dynamic character of minimum wage rate in Odisha.

During 2019-20, 7906 inspections (5869 non-agricultural and 2037 agricultural) were conducted, in 174 cases prosecutions have been filed and a sum of Rs. 28.34 lakh paid to the workers towards differential wages.

Figure 1.11: Worker Category-wise Daily Minimum Wage Rate in Odisha



Source: Labour Commissioner, Odisha

1.9.8.2 Under the Payment of Wages Act, 1936, 91,881 establishments have been covered and during the year 2019-20, inspections were conducted in 5654 cases and prosecutions were filed in 212 cases.

1.9.8.3 Under the Payment of Bonus Act, 1965, 3319 establishments have been covered and during the year 2019-20, inspections were conducted in 574 cases.

1.9.8.4 Under the Odisha Shops and Commercial Establishments, Act, 1956, 48,468 establishments have been covered and during the year 2019-20, 1490 inspections were conducted and in 95 cases prosecution were filed.

1.9.8.5 Under the Contract Labour (R&A) Act, 1970, during the year 2019-20, 131 Principal employers were registered, 2006 licences were issued to the contractors, 845 inspections were conducted and in 18 cases prosecution were filed.

1.9.8.6 Under the Beedi and Cigar workers (Conditions of Employment) Act, 1966, 590 establishments have been covered and during 2019-20, 6 licences have been issued and 8 were conducted.

1.9.8.7 Under the Motor Transport Workers Act, 1961, 3136 establishments have been covered and during 2019-20, 193 inspections were conducted and in two cases prosecution were filed.

1.9.8.8 Under the Employees Compensation Act, 1923, 1076 cases were decided and sums of Rs 26.50 Crores were paid as compensation to the affected workmen and their dependents.

1.9.9 Welfare of Migrant Workers

1.9.9.1 Migration of workers from Odisha to other States occurs primarily from the undivided Bolangir, Koraput and Kalahandi districts. At present, 14 districts have been identified as migration prone in Odisha. The Government of Odisha is implementing a State Action Plan for the benefit of migrant workers.

The focus of the State Action Plan is to ensure safety of migrant workers and linkage with livelihood initiatives and welfare schemes through (i) tracking of migrant workers at GP level by developing a database (ii) convergence of various departments to link migrant workers with welfare schemes of the Government for reducing distress migration (iii) coordination between States to improve worksite facilities and facilitate rescue where it is needed and (iv) creating an enabling environment for safe and informed migration through IEC and enforcement of Inter State Migrant Workmen (RE & CS) Act, 1979.

Under this programme, Odisha Migrant Labour Help Desk have been set up in Delhi, Telangana and Andhra Pradesh. Migrant Support and Resource Centres have been set up in Kantabanji (Bolangir), Padmapur (Bargarh), Balugaon (Khordha) and Kendrapara.

For the children of migrant workers, 161 Seasonal Hostels have been opened in 2019-20 in Bolangir, Bargarh, Kalahandi, Nuapada and Khordha districts which accommodated 7288 children. Financial support has been extended to the School & Mass Education Department for ensuring joyful learning in the hostels.

E-Shramik Samadhan" system and the Shramik Sahayata toll free helpline for migrant workers has been operational since January 2020.

Under the Inter State Migrant Workmen (RE&CS) Act, 1979, during 2019-20, a total of 156 inspections were conducted, in 43 cases prosecution were filed and 180 registration certificates were given So far, 2804 licenses have been issued for recruitment of 1,36,447 migrant workers under ISMW (RE&CS) Act, 1979.

1.9.9.2 Reducing Distress Migration in Odisha

A Special Package has been announced by Hon'ble Chief Minister in January 2020 to strengthen socio-economic standards of migrant workers and gradual reduction of stress in migration prone 477 GPs of 20 blocks in the districts of Bolangir, Bargarh, Kalahandi and Nuapada.

1.9.10 Child & Adolescent Labour

The Child & Adolescent Labour (Prohibition and Regulation) Act, 1986 aims to prohibit the engagement of children who is below 14 years of age in all occupations and processes and prohibit the engagement of adolescents who has completed 14 years of age but not completed 18 years of age in hazardous occupations and processes

As per Census 2011, Odisha had 3,35,516 child workers in the 5-14 age group. Poverty and low family income, large family size, heavy debt burden, illiteracy, abandoned children i.e children forced to live without parents are the principal factors responsible for persistence of child labour in Odisha. Many working children are also victims of migration.

Under the Child and Adolescent Labour (Prohibition and Regulation) Act 1986, 2760 inspections have been conducted, 149 child workers were rescued in 26 cases prosecutions were filed.

State Action Plan for Elimination of Child Labour is under implementation in a convergence mode through nine line departments. Orientation-cum- Training Programmes on the Child and Adolescent Labour (Prohibition and Regulation) Act 1986 collaboration with Odisha State Commission for Protection of Child Rights (OSCPCR) has been completed in 15 districts of Odisha.

1.9.11 Building & Other Construction Workers Welfare Board

The Building & Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996 and the Building & Other Construction Workers' Welfare Cess Act, 1996 have been specifically enacted to safeguard the interest of construction workers engaged in different building and other construction work. In accordance with the provisions of the said Act and Rules, the Government vide Resolution dtd.15.12.2008 ordered for collection of cess @1% of the cost of construction incurred by an employer/ builder which shall exclude the cost of land and any other compensation paid or payable to a worker or his kin under the Employees Compensation Act, 1923. The cess collected is being deposited in the Welfare Fund of the Odisha Building and Other Construction Workers' Welfare Board for the welfare of registered construction workers and their family members.

Out of the above fund, the Odisha Building and Other Construction Workers' Welfare Board is extending financial support to the construction workers and their families towards accident, death, funeral, major ailments, education, marriage, maternity, housing under Nirman Shramik Pucca Ghar Yojana and pension under Nirman Shramik Pension Yojana, etc.

1.9.12 Social Security of Unorganized Workers

The Odisha Unorganized Workers' Social Security Act, 2008 is enacted to provide social security and welfare to unorganized workers and for other matters connected therewith or incidental thereto. The Act covers registration of unorganized workers, constitution of State Unorganised Workers' Social Security Boards and extension of social security schemes to the registered unorganised workers. The Odisha Unorganised Workers' Social Security Rules have been framed in 2010 and amended in 2019 to ensure social security to unorganised workers.

Odisha Unorganised Workers' Social Security Board has been constituted to monitor the activities of registration of unorganized workers of Odisha as beneficiaries and extension of social security benefits to them. In the first phase, unorganised workers belonging to the categories of street vendors, small traders, domestic workers, rickshaw pullers, auto drivers, cobblers, agricultural workers, forest workers, newspaper hawkers and safaikarmacharis are being registered under the said Board.

Government of Odisha has formulated and declared various social security schemes e.g. death benefit (in case of accidental death as well as natural death), assistance for disability due to accident and health assistance for the registered beneficiaries under the Board to their family members.

1.9.13 Child Labour

The Child Labour (Prohibition and Regulation) Act, 1986 defines child labour as a worker who is below 14 years of age working full time or part time in any occupation. Child labour is a denial of carefree life of childhood and an obstacle to mental and physical development of children engaged as workers. Despite stringent legislation to stop child labour, children are still found working various sectors of the economy. Child labour is more prevalent in rural than in urban areas and the incidence is higher among boys than girls. The problem is more acute among the lower social groups.

As per Census 2011, Odisha had 335516 child workers in the 5-14 age group. Acute poverty and low family income, large family size, heavy debt burden, illiteracy, abandoned children i.e. children forced to live without parents are the principal factors responsible for persistence of child labour in Odisha. Many working children are victims of migration and are subjected to ruthless exploitation and harassment by their employers. Irregular employment, low or no wages, physical assault, sexual and drug abuse, and physical and mental torture are the serious problems facing children in their work place and shelters.

The state has 24 National child labour Projects in Ganjam, Gajapati, Balangir, Jajpur, Dhenkanal, Cuttack, Khordha, Bhadrak, Rayagada, Keonjhar, Nuapada, Nayagarh, Deogarh, Nabarangpur, Angul, Balasore, Jharsuguda, Baragarh, Sambalpur, Mayurbhanj, Malkangiri, Koraput, Sundargarh and Kalahandi districts. The special schools operating under NCLP are working for directly linking working children in to the formal education system through a close coordination with the Sarva Shiksha Abhiyan for the educational development of rescued children. A dedicated online portal named 'Platform for Effective Enforcement for No Child Labour or PENCIL' is developed in order to make the NCLP successful through better monitoring and implementation ensuring the timely disposal of work with transparency. Under this Scheme, funds are provided directly to the District Project Societies for engaging and allocating the funds to NGOs/Voluntary Agencies/Civil Society Organisation etc. for running of Special Training Centres for the rescued child workers. A grant-in-aid amount of Rs. 138.62 crore was given to Odisha under the NCLP Scheme during 2018-19. The District Project Societies (DPS) set up at the district level under the Chairmanship of the Collector/District Magistrate have the responsibility of implementation of the project.

1.9.14 Wages in informal sector- the case of Agriculture

The average wage received by informal workers engaged in different agricultural activities in the state along with male female break ups are given in Table 1.21. It may be seen that the actual wage received at the end of the labour is getting closer to the minimum wage notified by government. Further the gap between wages of male labour and female labour is significantly being reduced over the years. General awareness and enforcement of labour laws are in the background in bringing this change in the scenario which has resulted in reducing gender disparity in wages.

Table1.21: Gender-wise Average Daily Wage rates (Rs.) of agricultural labourers in Odisha

Sl. No.	Agricultural Occupations	2016-17			2017-18		
		Male	Female	difference	Male	Female	difference
1	Sowing & Broadcasting	233.04	190.82	22.13	245.23	210.09	16.73
2	Weeding	230.06	186.45	23.39	257.08	219.99	16.86
3	Transplanting	236.48	190.04	24.43	267.17	221.27	20.74
4	Reaping & Harvesting	244.89	193.14	26.79	305.92	247.67	23.52
5	Watering in the Field	228.33	184.79	23.56	252.24	217.39	16.03
6	Carrying Load	242.21	195.61	23.82	291.08	241.84	20.36
7	Digging Well	361.62	272.21	32.85	511.82	329.62	55.27
8	Cleaning silt from water ways	239.59	192.16	24.68	255.50	220.58	15.83
9	Preparing Embankment	252.98	200.21	26.36	304.73	248.48	22.64
10	Others	243.38	189.68	28.32	320.31	253.43	26.39
11	Herdsmen	211.36	168.62	25.34	243.01	209.22	16.15

Table1.21: Gender-wise Average Daily Wage rates (Rs.) of agricultural labourers in Odisha (Concl'd.)

Sl. No.	Agricultural Occupations	2018-19			2019-20		
		Male	Female	difference	Male	Female	difference
1	Sowing & Broadcasting	272.50	237.20	14.88	301.89	255.52	18.15
2	Weeding	272.98	238.33	14.54	295.98	251.78	17.55
3	Transplanting	288.86	247.73	16.60	300.65	256.94	17.01
4	Reaping & Harvesting	305.10	258.27	18.13	312.81	262.48	19.18
5	Watering in the Field	274.50	237.86	15.40	281.39	236.48	18.99
6	Carrying Load	302.53	255.29	18.50	306.35	255.29	20.00
7	Digging Well	502.07	326.67	53.70	484.83	312.82	14.99
8	Cleaning silt from water ways	279.02	240.43	16.05	285.43	242.42	17.74
9	Preparing Embankment	313.06	264.73	18.26	312.61	261.14	19.71
10	Others	308.03	258.60	19.11	295.23	245.93	20.05
11	Herdsmen	211.36	168.62	25.34	243.01	209.22	16.15

Source: DE&S, Odisha

1.9.15 Mahatma Gandhi National Rural Employment Guarantee Scheme

MGNREGS is the single largest centrally sponsored scheme for providing wage employment to people throughout the country. The scheme provides guaranteed employment to rural poor households as a means of sustenance since inception 2005. Out of 67.92 lakh registered households in the state, 66.82 lakh households have been issued job cards up to 2019-20. The table below furnishes the information on person days of employment generated under MGNREGS from 2015-16 to 2019-20 along with its women and SC/ST component. It may be seen in the table that in 2019-20 Odisha recorded the highest level of 1115.72 lakh person days of employment generation under the programme in the country out of which 483 lakh person days were for women labourers which accounts for 43.0 per cent of the total person days generated. The SC and ST component constituted 50.84 per cent. It may also be seen that the women component of person-days generated is showing an increasing trend from 2015-16(38per cent) to 2019-20(43per cent). However, the SC/ ST component of person-days generated at state level is showing a declining trend between 2015-16 (57.7 per cent) and 2019-20(50.54 per cent).

Table 1.22: Person days of Employment generated under MGNREGS in Odisha

Year	No. of Person-days generated (in Lakh)					
	SCs	STs	Total	Women	Percentage Share of Women	SC/ST
2015-16	141.8	372.8	892.7	339.4	38.0	57.7
2016-17	124.3	292.3	773.4	307.9	39.8	54.0
2017-18	152.9	338.7	922.1	386.0	41.9	53.3
2018-19	133.7	294.6	830.3	348.6	42.0	51.6
2019-20	171.3	395.98	1115.72	483.0	43.0	50.84

Source: Panchayati Raj & Drinking Water Department, Government. of Odisha

1.10 Consumption Pattern

1.10.1 A like per capita income, per capita consumption expenditure cardinally measures the standard of living of people in a state. But unlike income, both the size and the pattern of expenditure have greater pertinence in determining the standard of life. Perceived knowledge suggests that with economic development and increase in household income, the share of food expenditure in total expenditure declines. Similarly, within the food grains category the share of expenditure on staple foods like rice and wheat etc. reduces and that of processed foods like milk, meat and other items increases.

In Odisha as well as India, the share of food expenditure in total consumption spending has been declining and that of the non-food expenditure is increasing as per 68th NSS round Consumer Expenditure survey data 2011-12. Post 2011-12, a survey was conducted in NSS 75th round in 2017-18 the findings of which have not been released till date. However, "NABARD All India Rural Financial Inclusion Survey" (NAFIS) conducted during 2016-17, in addition to financial and banking parameters, also throws some light on pattern of consumption but, since this study is mainly confined to rural areas, these consumption data are not comparable with the NSS data series. Hence the present analysis is confined to the 68th round NSS data.

1.10.2 It is observed from the results of NSS 68th Round that though the share of food related expenditure in total household expenditure exhibits a declining trend over time both for Odisha as well as for India, the per centage shares of individual items in each broad category of expenditure does not reveal

proportionate changes. Interestingly there are significant rural-urban variations both in Odisha as well as at the all-India level. A summary picture of the findings of the Survey is shown in Annexure 1.1. For in-depth analysis, the component-wise details for Odisha are presented in Tables 1.24 and 1.25 vis-a-vis the broad aggregates at the national level.

1.10.3 It is seen in table 1.24 that the proportion of food expenditure has been declining for both rural Odisha (68.05 per cent in 1993-94 to 51.98 per cent in 2011-12) and rural India (63.2 per cent in 1993-94 to 48.31 per cent in 2011-12). At the same time, the proportion of expenditure on non-food items has exhibited distinct increasing trends over the years for rural areas in Odisha (31.94 per cent in 1993-94 to 48.02 per cent in 2011-12) and India (36.8 per cent in 1993-94 to 51.68 per cent in 2011-12). This clearly indicates change in the consumption pattern over the years both at the state and national level. This has happened due to the increase in income levels of the households. The decline in food expenditure and the increase in non-food expenditure are higher in rural India in comparison to rural Odisha. Again, within the food group, the share of cereals has gone down while those of pulses and pulses products and milk products have increased perceptibly over the years.

Table 1.23: Share of food & non-food items in total expenditure in rural Odisha and India

Year	Food items (Odisha)				India	Non-Food items (Odisha)			India	
	Cereal	Pulses & Pulses products	Milk Products	All Foods	All Foods	Fuel & Light	Clothing & footwear	Pan & tobacco	All Non-Foods	All Non-Foods
1993-94	38.97	2.66	2.4	68.05	63.2	9.23	4.86	2.93	31.94	36.8
2004-05	28.25	2.87	2.55	61.56	55.04	11.81	3.63	2.61	38.42	44.95
2009-10	18.64	3.57	2.27	61.91	56.98	9.84	5.64	2.67	38.09	43.02
2011-12	18.41	3.57	2.99	51.98	48.31	12.19	7.41	2.12	48.02	51.68

Source: NSS 50th, 61st, 66th and 68th round (Central Sample)

1.10.4 A similar pattern has emerged in the urban sector also. As can be seen in table 1.24, the share of food expenditure in total expenditure in urban Odisha declined from 57.78 per cent to 39.26 per cent during 1993-94 to 2011-12. This decline in case urban India has been from 54.7 per cent to 37.26 per cent during the same period. As regards non-food expenditure in urban areas, the share has been increasing both for urban Odisha (42.22 per cent to 60.74 per cent) and urban India (45.3 per cent to 62.74 per cent). Interestingly the decline in share of food expenditure and increase in share of non-food expenditure in urban Odisha is faster in comparison to urban India.

Table 1.24: Share of food & non-food items in total expenditure in urban Odisha and India

Year	Food items (Odisha)				India	Non-Food items (Odisha)				India
	Cereal	Pulses & Pulses products	Milk Products	All Foods	All Foods	Fuel & Light	Clothing & footwear	Pan & tobacco	All Non-Foods	All Non-Foods
1993-94	19.87	2.89	4.93	57.78	54.7	7.43	5.25	2.76	42.22	45.3
2004-05	16.79	2.5	4.74	49.93	42.51	10.39	3.69	1.75	56.06	57.45
2009-10	11.85	2.68	3.5	48.48	44.39	7.24	5.23	1.77	51.62	55.61
2011-12	11.11	2.38	3.39	39.26	37.26	7.94	6.27	1.41	60.74	62.74

Source: NSS 50th, 61st, 66th and 68th round (Central Sample)

1.10.5 It is worth noting that the share of food expenditure is higher in rural areas and that of non-food expenditure is higher in urban areas both for this state and India.

1.10.6 The average MPCE in 2011-12 was estimated at Rs.904.8 for rural Odisha and at Rs.1830.3 for urban Odisha. The corresponding all India estimates were Rs.1287 for rural and Rs.2477 for urban areas. The average MPCE of urban Odisha was about 90 per cent higher than rural MPCE in 2004-05, while in 2011-12 this differential was higher at 102 per cent. Further, MPCE-Odisha has been persistently lower than MPCE-India for rural and urban areas.

However, the MPCE differential in percentage terms does not indicate any definite trend, it depicts erratic behaviour. It may be observed from Annexure that MPCE-rural Odisha was 71.39 per cent of MPCE-rural India in 2004-05 which rose to 73.71 per cent in 2005-06, then fell to 65.96 per cent in 2006-07, then increased to 72.37 per cent in 2007-08 and to 75.08 per cent in 2009-10 but lowered to 70.29 per cent in 2011-12. MPCE-urban Odisha was 71.96 per cent of MPCE-urban India in 2004-05. It consistently rose over the years i.e., in 2005-06, 2006-07, and 2007-08 where after it came down to 79.14 per cent in 2009-10 and further to 73.89 per cent in 2011-12.

1.10.7 Inequality in Consumption Expenditure in Odisha

High levels of economic inequality are a matter of serious concern for a number of reasons. They affect poverty, intergenerational mobility, social solidarity and quality of life. Inequality, therefore, matters. Consumption inequality, measured in terms of MPCE by decile classes, is an important indicator of economic inequality that has implications for corrective policy interventions. Relevant data are given in Table- 1.25.

Table 1.25: MRP based MPCE in Rural and Urban Odisha by deciles classes

Deciles Class	MPCE in Rural and Urban Areas in Rupees			
	2004-05(Rural)	2011-12 (Rural)	2004-05 (Urban)	2011-12(Urban)
1 (0-10)	197.8	458.2	252.2	594.8
2 (10-20)	258.2	593.9	342.2	753.4
3 (20-30)	300.9	687.0	396.6	916.0
4 (30-40)	340.9	774.2	453.0	1107.9
5 (40-50)	381.6	867.2	527.4	1381.2
6 (50-60)	428.0	975.2	640.7	1702.5
7 (60-70)	487.2	1099.2	814.7	2072.2
8 (70-80)	570.0	1272.8	1010.2	2562.5
9 (80-90)	708.5	1559.2	1313.5	3269.2
10 (90-100)	1131.3	2394.8	2243.7	5750.4
All size	422.1	904.8	789.8	1830.3

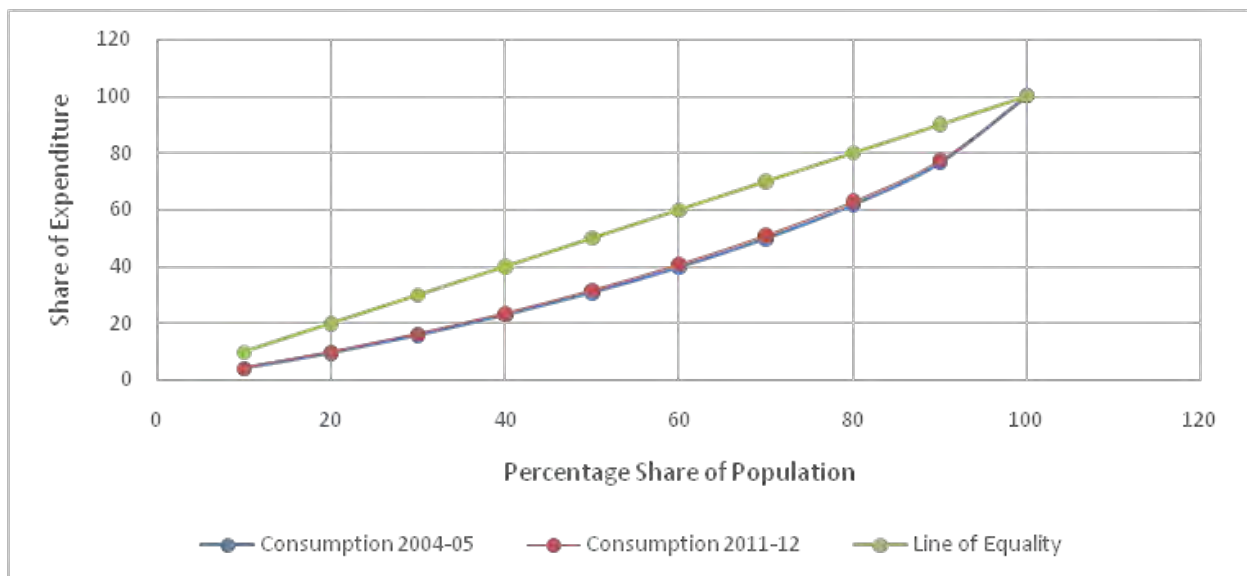
Source: NSS 61st and 68th Round (Central Sample)

It may be read off the table that in 2004-05, the poorest 10 per cent of population of rural Odisha spent on an average Rs.198 per person per month which increased to Rs.458 in 2011-12. The average annual growth for the above MPCE group stood at 12.8 per cent. The top 10 per cent of rural population had MPCE of Rs.1131.30 in 2004-05 and it rose to Rs.2394.80 during 2011-12. The average annual growth rate for the above group was 11.3 per cent during the period 2004-11. This means that the MPCE of the top 10 per cent rural population was about 5.7 times that of the bottom 10 per cent in the year 2004-05. And it is heartening to note that the gap reduced to 5.22 times in 2011-12 though marginally

1.10.7.1 However, in case of poorest 10 per cent of urban population of Odisha, MPCE was Rs.252.20 in 2004-05 and it increased to Rs.594.8 in 2011-12 which grew at an average growth rate of 13.04 per cent during the period 2004-11. On the other hand, the top 10 per cent urban population had MPCE of Rs.2243.70 in 2004-05 which increased to Rs.5750.40 in 2011-12 recording an annual average growth rate of 14.4 per cent during the period 2004-11. The MPCE of the top 10 per cent urban population was found 8.9 times that of the bottom 10 per cent in 2004-05 which increased to 9.7 times in 2011-12.

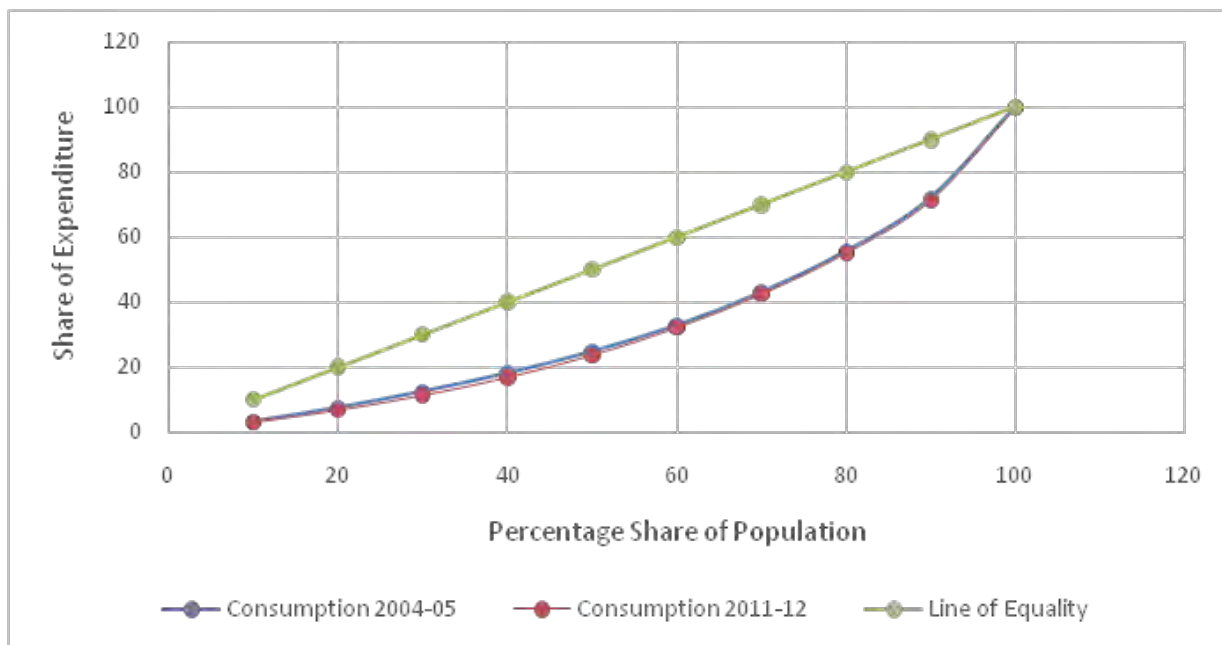
1.10.7.2 Lorenz curve is a tool of measuring inequality. In the instant case the cumulative per centage of population is plotted along the horizontal axis, while the cumulative per centage of consumption expenditure is plotted along the vertical axis. The curves for rural and urban Odisha show the actual relationship between the percentages share of population and their percentage share in of the consumption expenditure (Figure 1.12 and 1.13). The area between the Lorenz curve and the diagonal on line of equality is represented by Gini coefficient, which is a summary statistic. A Gini coefficient of "0" indicates perfect consumption or income equality, while "1" would imply that a single person incurs all consumption expenditure. The distance between the line of inequality and the Lorenz Curve measure the magnitude of inequality.

Figure 1.12 Lorenz Curve for consumption expenditure for Rural Odisha



Source: NSS 61st and 68th round (Central Sample)

Figure 1.13: Lorenz Curve for consumption expenditure for Urban Odisha



Source: NSS 61st and 68th round (Central Sample)

1.10.7.3 Gini coefficients have been estimated to show the incidence of inequality between the rural and urban areas. Summary statistics are given in Table 1.25. The table shows persistence of inequality in per capita household consumption expenditure in both rural and urban areas with some marginal changes. It is seen that inequality is steep in urban than in rural areas. Further, between 2004-05 and 2011-12, inequality in consumption expenditure has slightly moderate in the rural areas while it has marginally increased in the urban areas of the state.

Table 1.25: Gini coefficient of Consumption Inequality in Rural and Urban Odisha

Year	Rural Odisha	Urban Odisha
2004-05	0.26	0.33
2011-12	0.23	0.35

Source: NSS 61st and 68th round

1.11 Inflation and cost of living

The study of inflation is as important for analysing the economic performance of a state as is a patient's chart for the operating surgeon. The way GSDP, inflation and unemployment interact has tremendous influence on economic decision making at the household, business firm and government levels. GSDP figures are normally adjusted for inflation and for any government one of the cardinal goals is to keep inflation at a controlled level. Inflation is measured by the core consumer price index (CPI).

1.11.1 Inflation in Odisha and India

The state as well as the Indian economy suffered high inflation in 2020-21 owing to Covid-19 mandated restrictions induced supply disruptions and increase in oil prices. A clear picture may be seen in Table 1.26.

Table 1.26: Inflation in Odisha and India

year	Rural		Urban		Combined	
	Odisha	India	Odisha	India	Odisha	India
2014-15	7.2	6.2	5.8	5.7	6.8	6.1
2015-16	7.5	5.6	3.6	4.3	6.4	5.0
2016-17	5.5	5.0	3.4	3.8	4.0	4.1
2017-18	2.0	3.6	3.0	3.6	2.2	3.6
2018-19	2.1	3.0	3.7	3.9	2.6	3.4
2019-20	4.1	4.3	6.1	5.4	4.6	4.8
2020-21 (Apr-Nov)	9.3	7.0	6.9	7.0	8.6	6.9

Inflation as per CPI rose to 8.6 per cent in 2020-21 (Apr-Nov) from 4.6 per cent in 2019-20 in comparison to the all-India inflation which rose from 4.8 per cent in 2019-20 to 6.9 percent in 2020-21 (Apr-Nov). Inflation continued to moderate from 2014-15 to 2018-19 for India and from 2014-15 to 2017-18 for Odisha where after it exhibited a rising trend. During the seven-year period from 2014-15 to 2020-21, Odisha experienced lower inflation relative to India for four years from i.e. from 2016-17 to 2019-20 but for the remaining three years i.e. 2014-15, 2015-16, and 2020-21 the state had to bear higher inflation in comparison with India.

1.11.2 Inflation in Rural and Urban Areas

Both rural and urban areas in Odisha and India suffered higher inflation in 2020-21 (Apr-Nov) in comparison to 2019-20 but rural Odisha had to bear a sharply soaring Inflation than urban Odisha. The Inflation rate exhibited a sharp declining trend during 2014-15 to 2017-18 and a gently rising trend from 2017-18 to 2019-20 for rural Odisha. A sharp decline in CPI Inflation is noticed for India from 2014-15 to 2018-19 but a moderate rise is observed from 2018-19 to 2019-20. Rural Odisha witnessed higher inflation from 2014-15 to 2016-17 and 2020-21 but experienced lower inflation during 2017-18 to 2019-20 as compared to rural India shows declining trend from 2014-15 to 2017-18 but an acutely rising trend after 2018-19 in the case of urban areas for both Odisha and India. By and large urban India suffered higher CPI inflation in comparison to urban Odisha, and the rural areas of Odisha suffer a higher Inflation than urban Odisha. This suggests that Government of Odisha should be little more focused in moderating rural inflation.

1.11.3 Cost of Living

How costly is living in Odisha, compared to other states or India? In other words, what is the cost of living in Odisha in relative terms? Data on Consumer Price Index (CPI) published by the Ministry of Statistics & Programme Implementation and the Labour Bureau in the Ministry of Labour and Employment, Government of India presented in Table 1.27 convey a summary picture. It may be seen in the table that, as of December 2020, among sixteen major states, the CPI-General for agricultural labourers in Odisha is the second lowest, higher than only Bihar; CPI-Food is the third lowest, higher than Himachal Pradesh and Bihar. This indicates that the cost of living for agricultural labourers in Odisha is one of the lowest in the country. Both CPI-General and CPI-Food for agricultural labourers in Odisha are below the national level. For all groups of population and considering all groups of goods, the cost of living is relatively higher in Odisha as compared to many states. In the rural areas, it is higher than 11 of the 15 states while it is the seventh highest in the context of urban areas. In the last couple of years, India and Odisha have been experiencing substantial price increases. Inflation and rural inflation in particular, has become a cause of concern for the government of Odisha.

Table 1.27: State-wise Consumer Price Indices for the Month of December 2020

Sl. No.	State Name	Consumer Price Indices for All Groups of Commodities (Base 2012=100)			Consumer Price Indices for Agricultural Labourers (Base 1986-87=100)	
		R	U	C	Food	General
(1)	(2)	(3)	(4)	(5)	(6)	(7)
01	Andhra Pradesh	160.5	161.5	160.9	1191	1174
02	Assam	162.7	162.4	162.6	1011	999
03	Bihar	158.4	160.5	158.7	864	776
04	Gujarat	153.3	148.9	150.8	1060	1064
05	Haryana	150.9	150.0	150.5	1126	1172
06	Himachal Pradesh	150.8	154.5	151.5	823	852
07	Karnataka	159.8	162.8	161.4	1184	1186
08	Kerala	165.6	162.4	164.5	1049	1030
09	Madhya Pradesh	154.9	158.0	156.2	887	833
10	Maharashtra	157.4	151.1	153.2	1177	1228
11	Odisha	163.0	156.2	161.1	912	801
12	Punjab	155.6	148.1	152.2	1097	1141
13	Rajasthan	154.6	154.6	154.6	1093	1049
14	Tamil Nadu	163.3	163.5	163.4	1253	1187
15	Uttar Pradesh	154.9	156.6	155.5	935	928
16	West Bengal	162.6	160.6	161.7	919	819
	All India	158.5	156.0	157.3	1047	1005

Notes: R: Rural, U: Urban, C: Combined

Source: Government of India (2021) and Labour Bureau (2021)

1.12 Natural calamities and their impact

Odisha's vulnerability to natural shocks is well known. Because of its peculiar subtropical littoral location, regular occurrences of cyclones, floods, droughts, and heat waves; occasional incidents of hail storm, whirlwind, tornado, and landslide and the consequential loss of lives, properties and livelihoods are usual in the state. As a matter of fact, the economy of Odisha is a story of the ravages of the recurrent natural disasters. Post-independence, there were two major cyclones - the severe cyclone of 1971 and the super cyclone of 1999 which not only took a heavy toll of about 19660 human lives and thousands of livestock but also badly affected more than half a crore of people in their livelihoods and made lakhs homeless. A series of recurrent floods mostly in the coastal belt of the state and droughts, mostly in western and southern regions, during 2000-2020 adversely affected the economic growth of Odisha.

1.12.1 A major natural shock in Odisha, the very severe cyclonic storm 'Phailin' on 12 October 2013, extensively ruined the economy of coastal, southern and part of western regions of the state. This cyclone followed by flash floods seriously harmed 132.36 lakh people of 195 blocks and 64 ULBs in 19 districts of the state. It not only damaged crops on 11 lakh hectares of land with an estimated loss of about Rs2300 crore but also wrecked innumerable houses, ravaged livelihoods, and destroyed agricultural and physical infrastructure of gigantic magnitude causing negative agricultural growth in 2013-14. During 2014-15 another very severe cyclonic storm 'HUD HUD' hit 16 districts of Odisha and for the first time, the

Southern districts and the tribal districts of this region in particular which had never witnessed a cyclonic storm earlier, experienced such a high-speed wind. About 33.4 lakh people in 99 blocks and 37 ULBs of the state were affected by the cyclone with large-scale house and crop damages as well as massive losses of livelihood of fishermen, rural artisans and handloom weavers. The 2015-16 droughts is yet another natural shock which seriously hit Odisha resulting in huge loss of food grain production in the state.

1.12.2 The year 2017-18 experienced multiple natural calamities like flood, heavy rain, drought, pest attack, unseasonal cyclonic rain, heat wave, hailstorms and whirlwind. The ferocity of the year's first phase flood could be well imagined from the fact that two railway bridges, three bridges on roads and three villages were completely washed away and most of them in the hill locked southern tribal districts. The loss was assessed to be Rs. 218.72 crore. Before the restoration of normalcy, the second phase flood seriously affected 8 districts causing a loss of Rs.115.36 crore. The year also witnessed drought situation in which 6021 villages in 1103 gram panchayats of 70 blocks were affected.

1.12.3 During 2018-19 as many as 18 districts were affected by heavy rain during July, August and September. Cyclones like 'Daye', 'Titli' and 'Pethai' also impacted the state in the year. The very severe cyclone 'Titli' that made landfall near Palasain Andhra Pradesh close to Odisha made its catastrophic impact in southern and coastal Odisha and a population of 60.31 lakh under 128 blocks and 36 urban local bodies in 17 districts of the state were affected and 71 human lives were also lost.

1.12.4 The extremely severe cyclonic storm 'FANI' that made landfall on 3 May 2019 between Satapada and Puri affected 14 districts of the state among which Puri was most severely affected. Prior to land fall, 1557170 people were evacuated from various vulnerable areas to multipurpose cyclone/flood shelters /schools and other safe buildings as a result of which large number of lives could be saved. Due to this cyclone 159.9 lakh people in 20367 villages of 159 blocks and 51 urban local bodies of 14 districts were affected and 64 persons lost their lives. One lakh and eighty-two thousand hectares of agricultural and horticultural crops were damaged. The total loss was assessed to be Rs.9336.27 crore. Government of Odisha submitted a memorandum to the Government of India seeking central assistance of Rs.5227.68 crore from the natural disaster response fund (NDRF) and Rs. 3114.46 crore was released in response.

1.12.5 During 2019-20 as many as 21 districts were affected due to flood and heavy rain in different phases in which 11.1 lakh people were affected and 13 people lost their lives. The very severe cyclone 'Bulbul' over Bay of Bengal which passed close to the coast of Odisha during 8-10 November 2019 caused severe damage to private and public properties in 6 districts of the state. Prior to its occurrence 11458 persons were evacuated from vulnerable pockets and accommodated in 100 shelters. Nearly 38.08 lakh people in 6585 villages of 50 blocks and 13 urban local bodies of 6 districts were affected due to this cyclone.

1.12.6 Cyclone 'Amphan' made landfall on 20 May 2020 in Sundarbans of West Bengal when Covid-19 was moving to its peak. Although the cyclone made a mild attack, Covid brought unprecedented misery for the state.

1.12.7 Capitalising on its own experience and developing model innovative plans, Odisha has emerged as a pioneering state in natural calamity planning and management in the country. It has also got international recognition for its successful management of natural calamities. In all calamities the state government took impressive steps in evacuation and relief operations leading to minimum casualties and loss of property and livelihoods. This could be possible because of successful advance planning and full-fledged preparedness of the state government. Odisha Disaster Rapid Action Force (ODRAF) and National

Disaster Response Force (NDRF), Fire Services teams, and police and forest personnel always acted admirably in evacuation, search, rescue and relief operations and road clearances.

Recurring natural calamities along with their severity and scale of devastation not only hinder the developmental activities but also result in slowdown of growth in agriculture, industry and services sectors of the state over the years. In view of this, it is imperative to further strengthen the natural calamity response forces and upgrade the mechanisms and infrastructure to ensure minimum loss to the properties and zero casualty to precious human lives.

1.13 The Covid- 19 Shock

The coronavirus pandemic has devastating effects on all sectors of the economy as elsewhere in the world and the economic damage has outpaced the health risk. Farmers could not harvest their rabi crop and those who did could do partially and suffered loss of output. Farm prices including prices of vegetables and livestock crashed. Farmers faced difficulties for the kharif cultivation also. Young start-ups were adversely affected. Manufacturing activities were suspended or operations were significantly reduced in a number of factories. Construction work was stopped for a long time. Supply chains were broken down for months and movement of commodities and even medical goods were affected. Daily-wagers lost work, casual labourers lost jobs and migrants were left with no work. Large numbers of migrant workers ended up walking back to their villages and migrants were back in their villages for a substantial period. Business activities received a heavy blow and more so because the pandemic came with and exacerbated uncertainty. Tax collections were drastically reduced and government revenue has been severely affected. The pandemic exposed class and caste barbarities. Women workforce have been disproportionately affected because they work largely in the informal sector without any written job contract and defined wages. The government is optimistic in reviving the economy even in the face of a nascent recovery.

1.14 Outlook

The state economy was in a kind of ‘once in a century crisis’ in 2020 that impacted all the sectors, demand conditions and supply chains. And it is not over. The irony is that policies adopted to address the public health disaster have intensified the economic decline. However, the economy is looking up. With gradual unlocking and support of corrective measures, the economy is reviving. No doubt growth has plummeted, but with a -4.92 per cent decline in GSDP over 2019-20, it has been less steep than at the national level (-7.7 per cent). Fact remains that the tide of recovery has not lifted all boats equally; agriculture proved more resilient and exhibited a V- shaped recovery while industry and services are showing a U- shaped recovery. Overall, the economy is looking up and with the rollout of Covid-19 vaccines gaining traction, normalcy is beckoning on the horizon. It is expected that the upcoming state budget will strengthen the sentiment to enable the economy to grow vigorously to the pre-pandemic level next fiscal. The Covid-19 pandemic disrupted normal life and economic activities, caused agricultural and industrial production to decline, put workers and migrants in distress, increased the fiscal burden on the government and grounded the common man. During April-August 2020 everybody’s prime concern was ‘survive anyway’, with gradual lifting of lockdown it yielded to ‘revive livelihood’ and now with falling cases and arrival of vaccines we need to think of ‘thriving by all means’ to surpass pre-Covid- 19 level of employment, income, consumption, investment and well-being in a year or so.

Agriculture, Rural Poverty and Development

As per the Population Census 2011, about 83.3% people of Odisha are living in rural areas. As an agrarian State, majority of the rural workforce of Odisha are engaged in agricultural activities. Agriculture sector still continues to be the major source of livelihoods for a major part of the population of the state, although the Gross Value Added (GVA) from agriculture and allied sector in Odisha is about 21.27% in 2020-21(A) and 21.38% in 2019-20. Also during the current situation of COVID-19 pandemic, the state could leverage the potential of agricultural sector in reviving the economy.

The core sub-sectors of the broad agriculture sector are of Crop, livestock, fishery and forestry. During 2019-20, Crop sector in Odisha was buoyant and the State experienced transient success in terms of crop diversification, irrigation, crop production, productivity, plant protection, farmers' credit, post-harvest management in and marketing of crop sector terms of paddy and non-paddy procurement leading to rise in farmers' income. The production, productivity and per capita availability of animal husbandry and fishery products and exports of marine products were too impressive in 2019-20. Forestry sector also performed well with the rise in actual forest area during 2019-20.

Formulation of State Agriculture Policy-2020 'SAMRUDHI', Odisha Fishery Policy 2015 and exclusive agriculture budget by the State Government show the way for sustainable practices with higher investment, efficient production technology, post-harvest solutions, effective value addition and remunerative market options in agriculture sector.

Rural Development is strongly associated with two elements like end poverty and improved standard of living. Continuous efforts are being undertaken to uplift the rural areas through various poverty alleviation schemes and provide the population with suitable housing, connectivity and sanitation. These efforts have successfully reduced rural poverty in Odisha by over 25 percentage points between 2004-05 and 2011-12, much higher than the national reduction of 16 percentage points in rural poverty.

I. Crop Sector

2.1: Land Utilization

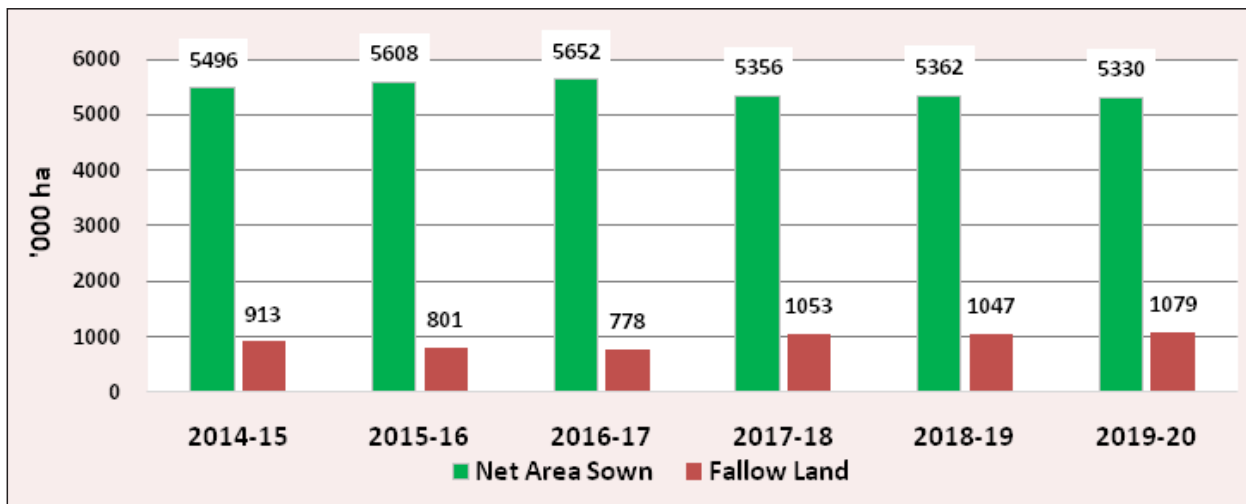
2.1.1: Land use pattern in the State gives a contrasting picture. Between 2014-15 and 2016-17, the net sown area (NSA) increased from 54.96 lakh hectares to 56.52 lakh hectares. But, in 2017-18, NSA sudden depleted to 53.56 lakh hectares. But, during 2018-19 & 2019-20, net area sown was recorded as 53.62 lakh ha & 53.30 lakh ha respectively. In contrast, the area under fallow land is declined from 9.13 lakh ha to 7.78 lakh ha between 2014-15 to 2016-17, but continued to increase from 10.53 lakh ha in 2017-18 to 10.79 lakh ha in 2019-20. Gross cropped area was recorded as 83.61 lakh ha in 2017-18, 83.38 lakh ha in 2018-19 and it further decline to 83.15 lakh ha in 2019-20. The NSA and trends in net sown area & fallow land are presented in Table-2.1 and figure 2.1.

Table 2.1: Land Utilization Pattern in Odisha(Area in '000 ha)

Year	Geographical Area	Forest Area	Misc. Tree	Permanent pastures	Culturable waste	Land put to non-agril. Use	Barren and unculturable land	Current fallow	Other fallow	Net area sown
2014-15	15571	5813	342	494	375	1298	840	684	229	5496
2015-16	15571	5813	342	494	375	1298	840	572	229	5608
2016-17	15571	5813	342	494	375	1298	840	528	229	5652
2017-18	15571	5813	342	494	375	1298	840	824	229	5356
2018-19	15571	5813	342	494	375	1298	840	818	229	5362
2019-20P	15571	5813	342	494	375	1298	840	850	229	5330

Source: Directorate of Agriculture and Food Production, Odisha

Figure-2.1: Trends in Net area sown and fallow land in the State



Source: Directorate of Agriculture and Food Production, Odisha

2.1.2: The declining trend in NAS (net area sown) and increase of fallow land may paint a worrying picture, but can be overcome through policies like contract farming and higher incentives to farmers for optimum use of land. A higher intensity of cropping is also desirable for full utilization of land. The trend of cropping intensity in the State can be seen in figure-2.2.

2.1.3: **Cropping intensity** implies raising a number of crops from the same piece of land during the same agricultural year. The cropping intensity in Odisha has increased marginally during the period 2000-01 to 2013-14, but shows decline after that, the sharpest drop seen in 2015-16. The declination does not appear to continue, despite an increase in 2016-17 to 2019-20 and it was remaining 156 in 2019-20 as in previous two years (Figure 2.2). Fig 2.3 shows the district wise variability in cropping intensity. Although the coastal districts like Puri, Jagatsinghpur, Cuttack and Khurdha have higher cropping intensity, there is a significant declination from previous year which may be due to the effect of cyclonic disaster FANI. Therefore, there is need for greater efforts through different policy interventions like promote multiple sowing, provision of better irrigation facilities, and measures to reduce risks attached with natural disasters to increase the productivity of major crops.

Figure-2.2: Trend of Cropping Intensity in Odisha

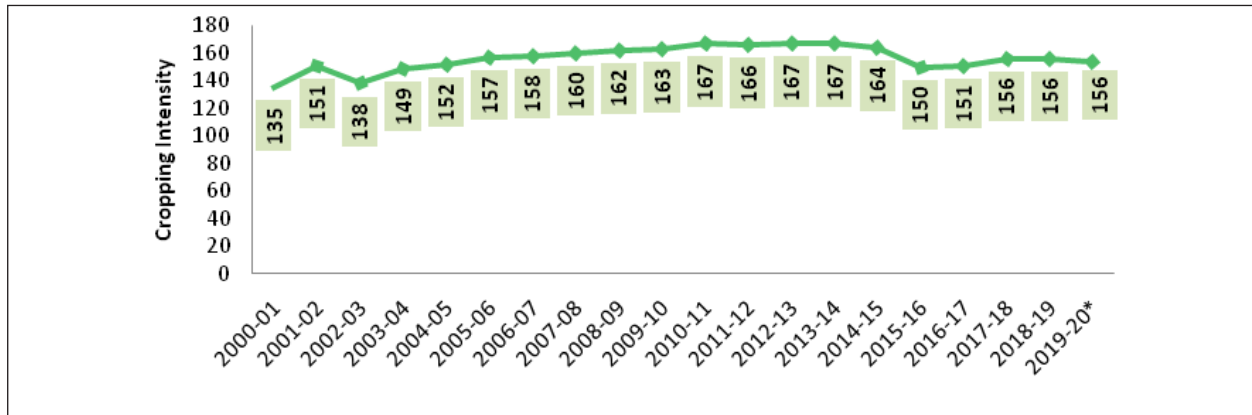
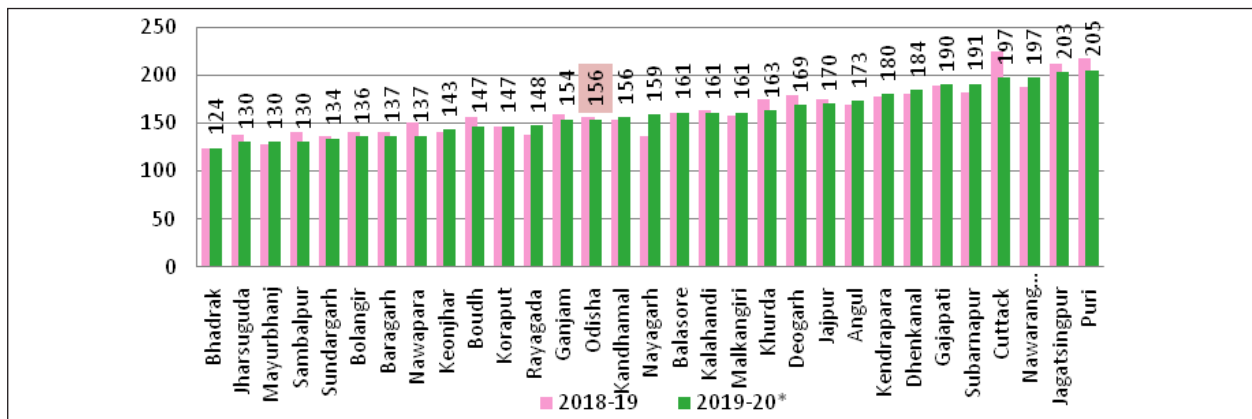
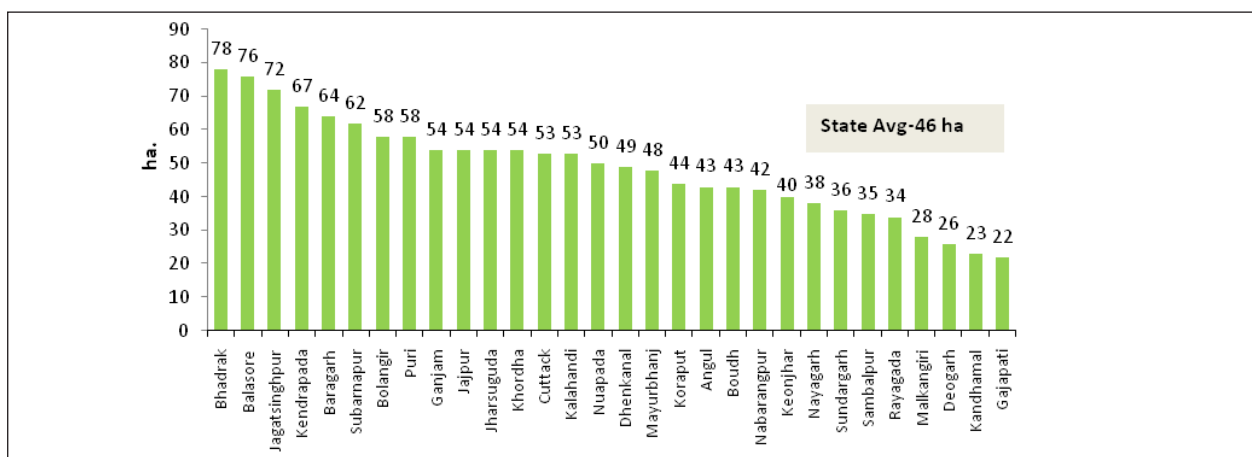


Figure-2.3: District wise Cropping Intensity for last two years



2.1.4: Availability of cultivable land per 100ha area can be seen in figure-2.4. The State recorded an average of 46ha of cultivable area per 100ha area in 2019-20. Among the districts Bhadrak, Balasore and Jagatsinghpur ranked at the top with 78ha, 76ha and 72 ha respectively and the bottom three districts were Gajapati, Kandhamal and Deogarh with 22 ha, 23 ha and 26ha respectively. There are 13 districts which have less cultivable area as compared to state average. The districts having higher cultivable area need better methods of farming and agricultural extension with special focus in the districts with lower cultivable area to support agriculture development.

Figure-2.4: District-wise availability of cultivable area per 100 ha of area, 2019-20



2.2 Land Holding

2.2.1 Land holding is one of the major determinants of the production structure. As per Agriculture Census, one operational holding is defined as the whole land used for agricultural production and is operated as single unit by one person alone or with others under the same management and has the same means of production such as labour force, machinery, animals and credit without regard to the title, legal form, size or location.

2.2.2 According to Agriculture Census 2015-16, the average size of operational land holding in the State contracted from 1.25ha. in 2000-01 to 0.95ha. in 2015-16 whereas the same contracted from 1.33ha. to 1.08 ha. for all India level. The number of operational holdings of Odisha was about 3.22% of that of all India.

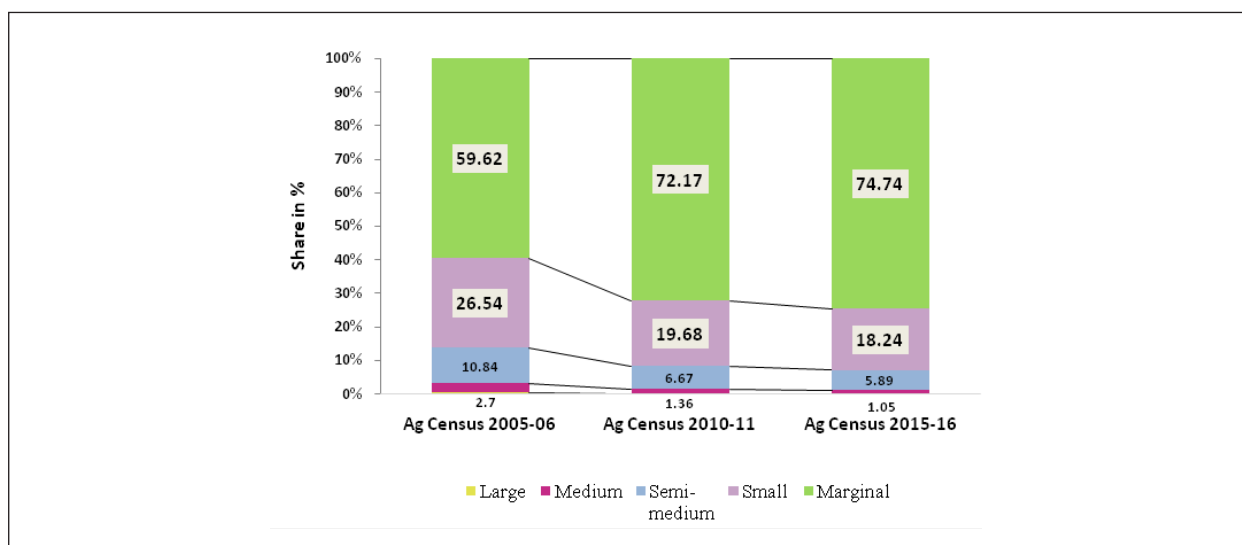
2.2.3 Operational land holdings are classified as marginal, small, semi-medium, medium and large land holdings depending upon the area operated by a holder. As regards size class of holdings, the proportion of large, medium and semi- medium land holdings have shrunk, while a significant rise has been witnessed in the proportion of marginal land holdings. The marginal land holdings have been raised from 59.62 percent to 74.74 percent during 2005-06 to 2015-16. As per latest Agriculture Census 2015-16, about 93% of operational holdings represent marginal and small category. Distribution of operational holdings indicates that the total number of operational holdings has been increasing over the years but the area under holdings has been declining substantially. With the declining trend in net sown area, fragmentation of land has become a common concern in the State as well as at the national level. As families break into smaller units, the common piece of land continues to be fragmented, leading to rise in the number of marginal land holdings. Steps have been taken to address the problem of predominance of marginal and small farmers with improved strategy of enhancing their capacity increasing productivity per unit of land area, raising cropping intensity etc. The detail picture is presented in Table 2.2 and the increasing trend of small and marginal holdings proportions in last three Agriculture Census are shown in Fig-2.5.

Table 2.2: Size class wise Operational Holdings in Odisha

Size Classes	No. of Holdings (in lakh nos.)			Area (in lakh hectare)			Percentage to total nos. of holding			Percentage to total area		
	2005-06	2010-11	2015-16	2005-06	2010-11	2015-16	2005-06	2010-11	2015-16	2005-06	2010-11	2015-16
Marginal (< 1.0 ha)	25.97	33.68	36.37	13.42	19.22	20.57	59.62	72.17	74.74	26.73	39.61	44.53
Small (1-2 ha)	11.56	9.18	8.87	15.88	14.98	14.04	26.54	19.68	18.24	31.63	30.87	30.40
Semi-medium (2-4 ha)	4.72	3.11	2.87	12.50	9.19	7.88	10.84	6.67	5.89	24.92	18.94	17.06
Medium (4-10 ha)	1.20	0.64	0.51	6.58	3.81	2.84	2.70	1.36	1.05	13.11	7.86	6.15
Large (>10.0 ha)	0.11	0.06	0.40	1.81	1.32	0.86	0.30	0.12	0.08	3.61	2.72	1.87
Total	43.56	46.67	48.66	50.19	48.52	46.19	100.0	100.0	100.0	100.0	100.0	100.0

Source: Directorate of Economics and Statistics, Odisha

Figure-2.5: Share of Marginal and Small holdings during last three Agriculture Census (%)



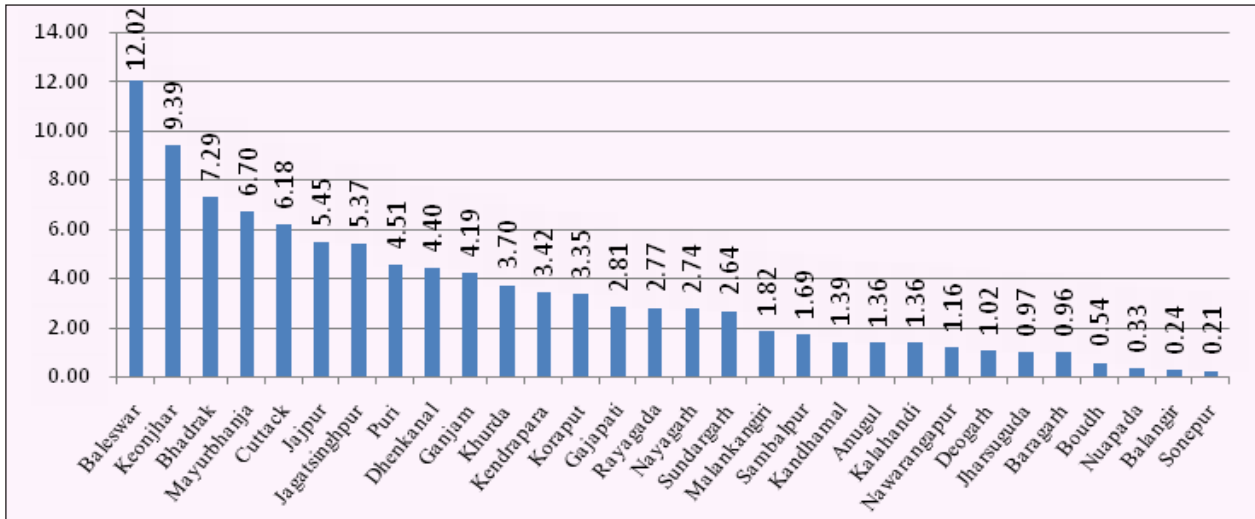
2.2.4: Leased-in holdings: When any land taken on lease from a land owner for the purpose of agriculture and allied activities on a consideration in cash or kind or both as per their mutual agreement without any permanent right of possession, the respective tenancy category is called as lease-in tenancy holdings. Usually, farming operations were carried out by the land owners. But with the changes in the preference of professions, more and more people have been opting out of the agricultural sector. Hence, it has become a very common phenomenon in rural Odisha to lease out agricultural land. As per Agriculture Census 2015-16, about 9.05 lakh operational holdings are of "leased in" tenancy status i.e. about 18.6% of total operational holdings are of "leased in" tenancy status. Out of which 2.83 lakh holdings are of wholly leased in and 6.22 lakh such units are of partly leased in. About 9.14 lakh ha. operational area i.e. about 19.8% of total operational area are being operated in "leased in" tenancy. Out of total leased in Operational Holdings about 93.2% are of marginal and small cultivators. Out of total leased in operational area about 78.5 % are of small and marginal farmers. In detail size class wise operational holding is presented in table-2.3 and district wise proportion of leased holdings is given in figure 2.6. The maximum proportion of total "leased in" operational holdings is of Balasore district followed by Keonjhar, Bhadrak and Mayurbhanj districts.

Table 2.3: Size class wise leased in Operational Holdings

Sl No	Size groups	Total Operational Holdings	Wholly leased-in Holdings	Partly leased-in holdings	Total Leased in Holdings	% of leased in holdings
1	Marginal	36,36,658	2,51,982	3,91,823	6,43,805	17.7
2	Small	8,87,272	26,588	1,72,832	1,99,420	22.5
3	Semi- Medium	2,86,735	4,166	50,179	54,345	19.0
4	Medium	51,210	295	6,814	7,109	13.9
5	Large	3,975	40	465	505	12.7
6	All Size Groups	48,65,850	2,83,071	6,22,113	9,05,184	18.6

Source: Directorate of Economics and Statistics, Odisha (Agriculture Census 2015-16)

Figure-2.6: District Share (%) of leased in Operational Holdings



2.3 Cropping Pattern

2.3.1 Crop Area

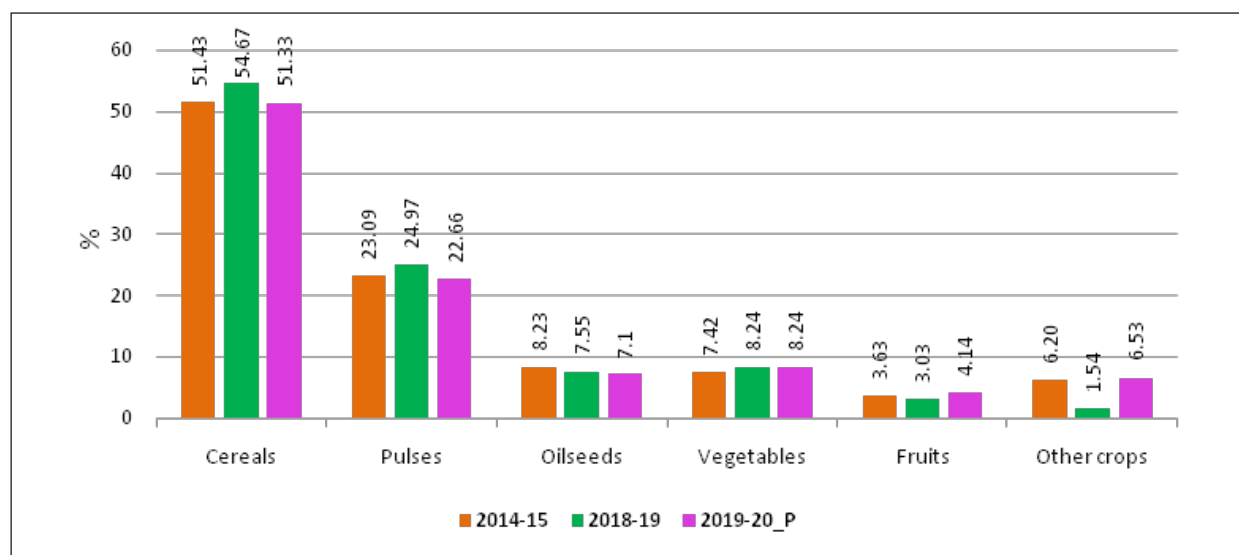
2.3.1.1: Production of cereals predominant in the State. As per figure-2.7, around 51.33% of the gross cropped area is used for production of cereals. Some changes in the cropping pattern are noticed in 2019-20 over 2014-15. The continuous effort of the State Government to divert more paddy area to non-paddy area is clearly reflected in the negative growth in case of paddy area i.e. compound annual growth rate (CAGR) for rice crop area is found negative i.e (-1.1%) during 2019-20 over 2014-15 whereas, for wheat, maize and ragi the CAGR (%) of crop area over last five years is 19.14%, 22.53% and 18.04% respectively. But due to the decreased crop area of rice there was very marginal growth on total crop area cereals i.e CAGR (0.01%) over last five years.

2.3.1.2: The next major share of the gross cropped area is under pulses and which is about 22.66% in 2019-20. During last five years i.e from 2014-15 to 2019-20 there is a significant growth in area under pulses and the CAGR is 18.40% whereas it was 3.98% for total food grains of cereal and pulses. Again the CAGR for area under groundnut was 33.12% against the same for total oilseeds as 23.22%.

2.3.1.3: There is a remarkable increase in the share of area under vegetable and fruits during 2019-20 over 2014-15. The share of area under vegetables has been increased from 7.42 % in 2014-15 to 8.24 % in 2019-20 whereas the share for fruits has been increased from 3.63% to 4.14% during the period. Also the significant share in 'other crops' indicates the raise of crop area under high value crop like cotton, fibres and spices etc.

2.3.1.4: The Government has been continuously taking initiatives for **diversification of crops** with emphasis on high value crops like cotton, pulses, oilseeds, vegetables, spices and fruits through various developmental schemes like NFSM, IFS, IAP, MIDH, Technology Mission on Cotton, Technology Mission on Sugarcane and crop oriented programme for pulses and oilseeds etc. Also as a part of 5T (Technology, Team Work, Transparency, Timelines and Transformation) initiatives of Govt. of Odisha there is special focus to the framework of crop diversification in Department of Agriculture and FE, Odisha (targeting rice fallow areas).

Figure-2.7: Distribution of area under cereals, pulses, oilseeds, vegetables and fruits



2.3.2 Crop Production

2.3.2.1 **Major Crops:** Production scenario of different major crops in Odisha from 2014-15 to 2019-20 is presented in Table-2.4. During 2019-20, food grains contributed around 51% of the total crop production of the state. In 2019-20, the total food grains regain its contribution with a record 115.71 lakh MT production after 2017-18. Production of rice, the only major crop of the state, has increased from 77.34 lakh MT in 2018-19 to 96.37 lakh MT in 2019-20 registering an increase of about 60.71 percent. The oilseed production during 2018-19 also exhibited an increase of 8.79 percent than the previous year. The production of vegetable and spices & condiments have also been increased significantly in 2019-20 over the previous year. The production of sugarcane have been noticed a declined trend in 2019-20 over the previous year.

Table 2.4: Production of Major crops in Odisha (in'000MT)

Crop	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Rice	9845	5875	9794	6551	7734	9637
Maize	751	666	746	730	753	733
Other Cereals	171	153	144	126	131	156
Total (A) Cereals	10767	6694	10684	7407	8618	10526
Mung (Green gram)	414	361	374	435	411	408
Biri (Black gram)	259	234	249	250	238	210
Tur	124	123	120	124	147	145
Othe Pulses	260	218	255	267	258	282
Total (B) Pulses	1057	936	998	1076	1054	1045
Total Food grains (A+B)	11824	7630	11682	8483	9672	11571
Groundnut	463	387	377	358	345	388
Other Oilseeds	216	177	184	177	178	181
Total (C) Oilseeds	679	564	561	535	523	569
Cotton	316	298	382	408	455	578

Other Fibers	172	129	101	118	110	94
Total (D) Fibers	488	427	483	526	565	672
Sugarcane	2469	2107	2013	1986	1813	1366
Vegetables	9403	9068	8974	8978	8892	9753
Spices & Condiments	669	652	557	557	557	1148
Total (E) Other Crops	12541	11827	11544	11521	11262	9918
Grand Total (A+B+C+D+E)	25532	20448	24270	21065	22022	25079

Source: Directorate of Agriculture and Food Production, Odisha
Directorate of Horticulture, Odisha

2.3.2.2 Vegetables and Spices: The area and production scenario of different major growing vegetables and spices in Odisha from 2014-15 to 2019-20 are given in Table-2.5. In 2019-20, the production of vegetable and spices have been inclined significantly over the previous year. Also the increasing trend of area under the vegetable and spices may be the indication of successful indication of crop diversification and awareness programme and farmers' consciousness towards economy.

Odisha is having favourable and varied agro-climatic conditions, abundant water bodies, 485 kilometres (301 miles) long coastline along the Bay of Bengal and a command over 11 per cent of total water resources of the country spreading over 11 river basins. The State, therefore, has all the conducive conditions for a vibrant and growing agriculture sector. However, there are also constraints like over-dependence on rain fed farming due to inadequate irrigation facilities, low level of capital formation, a paddy-centric cultivation system, slow modernization, small land holdings and above all, frequent occurrence of natural calamities. These constraints have stood as obstacles for achieving the potential. Increasing public investment in irrigation and agri-infrastructure, diversification favouring high value products like cash crops, floriculture, livestock, fisheries, horticulture etc. will help improve conditions in farming and doubling income.

Table 2.5: Area and Production of Major Vegetables & Spices in Odisha (Area in 000' Ha and Production in 000' MT)

Crop	2015-16		2016-17		2017-18		2018-19		2019-20	
	Area	Prod.	Area	Prod.	Area	Prod.	Area	Prod.	Area	Prod.
Sweet Potato	41.43	391.40	40.80	384.89	40.41	381.04	40.31	378.36	36.94	362.61
Potato	16.24	273.83	25.19	302.22	25.09	298.06	24.68	290.14	24.71	294.95
Onion	30.84	369.45	33.44	378.67	33.47	379.34	33.09	373.22	31.14	365.43
Other Vegetable	562.46	8032.97	551.76	7907.99	552.55	7919.75	546.17	7850.53	593.00	8736.23
Total Vegetables	650.97	9067.65	651.19	8973.77	651.52	8978.19	644.25	8892.25	652.23	9759.22
Chilly*	71.69	68.57	71.70	69.28	71.72	69.37	71.28	69.39	72.12	693.46* (69.35)
Coriander	19.60	10.76	19.61	10.86	19.61	10.86	19.60	10.81	18.65	23.11
Garlic	-	-	-	-	12.92	47.12	12.91	47.09	10.89	38.77
Turmeric	27.86	215.32	27.86	218.00	27.79	218.15	27.78	218.18	31.27	74.39*
Ginger	16.57	127.78	16.57	128.01	16.58	128.02	16.56	128.08	17.52	225.03*
Other Spices	25.84	229.82	23.82	130.80	10.95	83.92	10.92	83.17	14.68*	136.24*
Total Spices	161.56	652.25	159.56	556.95	161.62	557.44	159.05	556.72	165.13	1191

Source: Directorate of Horticulture, Odisha

*For 2019-20 production of chilly is taken for green chilly (the bracketed figure is approximate conversion for dry chilly for previous year comparison). Similarly for this year turmeric represents dry turmeric, ginger represents raw ginger. Other spices includes betelvine.

2.3.2.3 Floriculture: Odisha has a good potential in ornamental crops, i.e in floriculture. Marigold, Rose, Gladioli and Tuberose are the main flowers grown in Odisha. Table-2.6 gives a detail picture on area and production of different flowers in the State during last few years. A significant rise is observed in production of marigold in 2019-20 over the previous years. In addition to these during last few years the increasing production of new gerbera flower is also encouraging. During 2019-20, the production of gerbera was about of 307 lakh spikes.

Table 2.6: Area and production of Major Ornamental crops in Odisha.

Year	Marigold		Rose		Gladioli		Tuberose	
	Area (in Ha.)	Prod. (in Qtls.)	Area (in Ha.)	Prod. (in Lakh Stems)	Area (in Ha.)	Prod. (in Lakh Spikes)	Area (in Ha.)	Prod. (in Qtls.)
2014-15	2735	245810	1870	3598	2374	2359	511	12820
2015-16	2609	245820	1857	3575	1578	1558	503	12810
2016-17	2608	235221	1859	3584	1580	1560	507	12968
2017-18	2616	235943	1870	3607	1596	1576	514	13143
2018-19	2577	233641	1825	3504	1544	1526	464	11727
2019-20	2996	298000	1469	2915	585	593	383	10490
2019-20	2996	298000	1469	2915	585	593	383	10490

Source: Directorate of Horticulture, Odisha

2.3.3 Production and Productivity

2.3.3.1: A comparative picture on production of some important crops in Odisha between 2014-15 and 2019-20 is presented in Table 2.7. The total area under food grains consisting of cereals and pulses constitutes 62.77 lakh ha in 2019-20, which is 88% of total cropped area. Production of paddy touched 146 lakh MT in 2019-20 with yield rate of 3717 kg/ha. Yield rate of maize increased to 2886 kg/ha in 2019-20 from 2785 kg/ha in 2014-15. The yield rate of pulses touched 544 kg/ha in 2019-20 from 508 kg/ha in 2014-15. Among the pulses, Mung (green gram) is extensively grown covering an area of 8.26 lakh ha followed by Biri or urad (black gram) with 4.35 lakh ha, Kulthi (horse gram) with 2.36 lakh ha and Arhar (pigeon pea) with 1.29 lakh ha in 2019-20. The yield rates of Mung, Biri, Arhar and Kulthi were reported as 495 kg/ha, 483 kg/ha, 1124 kg/ha, and 446 kg/ha respectively. The corresponding figures for the above pulses in 2014-15 were 476 kg/ha, 455kg/ha, 896 kg/ha, and 385 kg/ha respectively.

2.3.3.2: Out of the total acreage of 6.02 lakh ha. under oil seeds in 2019-20, one third is under groundnut with 2.05 lakh ha followed by sesamum with 2.00 lakh ha and mustard with 1.10 lakh ha. The other oil seeds likes unflower, linseed, niger and castor area also grown in the State with low coverage. The yield rate of groundnut is 1894 kg/ha, while it is 411kg/ha for sesamum. The corresponding yield rates of above oil seeds in 2014-15 were 1787 kg/ha and 403 kg/ha respectively.

2.3.3.3: Among the fibres, 93% of the area under all of them put together is covered under cotton, where as mesta, jute and sun hemp are cultivated in rest of the area. The yieldrate of cotton increased to a record 580 kg/ha in 2019-20 from 410 kg/ha in 2014-15.

2.3.3.4: Onion, potato and sweet potato are grown with a share of 5%, 4% and 6% respectively in the total area under vegetables. The yield rate of potato in 2019-20 stand at 11910 kg/ha declining from 2014-15 of 16655 kg/ha, whereas the area and production has been increased in 2019-20 as compared to 2014-15. The yieldrates of onion and sweet potato in 2019-20 stand at 12450kg/ha and 9560 kg/ha respectively, increasing from the corresponding figures in 2014-15 of 12066 kg/ha, 9426 kg/ha respectively.

2.3.3.5: Being a nutritious crop and after being introduction of a special programme for promotion of millet in the state i.e Odisha Millet Mission, the area under millets has been raised from 0.19 lakh ha to 0.33 lakh ha from 2014-15 to 2019-20, up by 74 percent.

Table 2.7: Area, Yield and Production of different crops. (Area in 000 ha, Yield in kg/ha and Prod. in 000 MT)

Crops	2014-15			2019-20			% Change		
	Area	Yield	Production	Area	Yield	Production	Area	Yield	Production
Paddy	4180	2760	11535	3941	3751	14780	-6	36	28
Maize	279	2785	778	254	2886	733	-9	4	-6
Mung	857	476	407	826	495	408	-4	4	0
Arhar	139	896	124	129	1124	145	-7	25	17
Biri	598	455	272	435	483	210	-27	6	-23
Seasamum	212	403	85	200	411	82	-5	2	-3
Groundnut	267	1787	478	205	1894	388	-23	6	-19
Potato	15	16655	250	25	11936	295	65	-28	18
Sweet Potato	42	9426	396	37	9814	363	-12	4	-8
Onion	36	12066	432	31	11735	365	-14	-3	-15
Cotton	124	410	299	170	580	579	37	41	93
Small millets	19	502	9	33	517	17	73	3	89

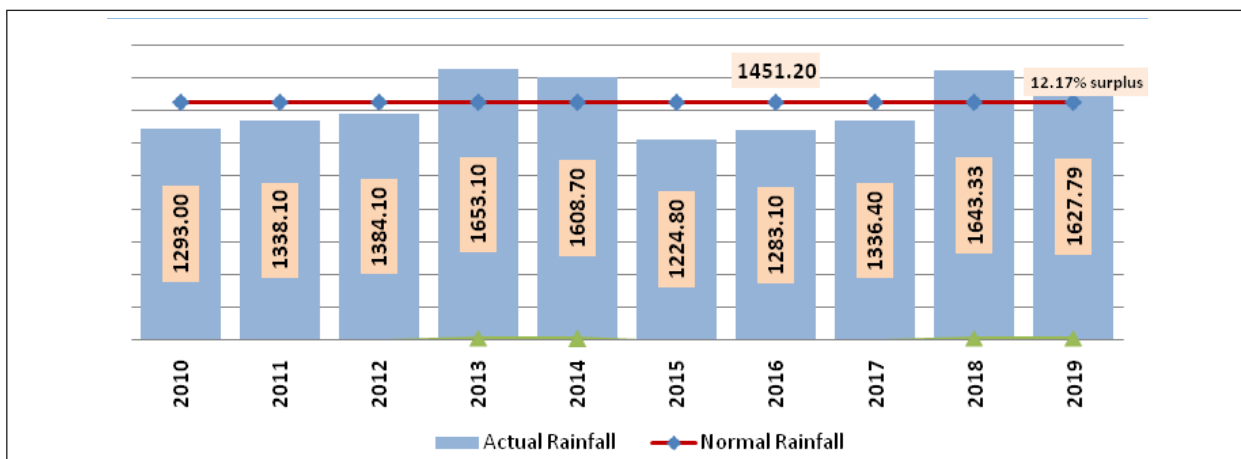
Source: Directorate of Agriculture and Food Production, Odisha & Directorate of Horticulture, Odisha

2.4 Factors influencing Agricultural Production

2.4.1 Rainfall

Rainfall plays a vital role in agricultural production and productivity. The normal rainfall in Odisha is around 1,451.2mm with about 75-80 percent of the rainfall being recorded between mid-June and end-September (Kharif season). During 2019, the State received 1627 mm of rainfall, which was 12.17% surplus above the normal rainfall. Figure 2.8 shows the trend of actual rainfall of Odisha during last ten years and its deviation from the constant normal rainfall 1451.20 mm of the ten years.

Figure-2.8: Trend of Actual rainfall during last ten years (rain fall in mm)



Source: SRC, Odisha

2.4.1.1 **Farm Pond** for water conservation: Although Odisha is bestowed with an average annual rainfall which is sufficient for cultivation practices during Kharif, its erratic and uneven distribution results in frequent droughts & floods. Water scarcity during critical stages of crop growth hampers production and productivity affecting farmers' income. In order to supplement the water scarcity during critical junctures and particularly to provide life-saving irrigation during Kharif, construction of farm ponds i.e., "Every willing Farmer to have a farm pond" has been conceptualised. Concurrently, the aim is also to popularise Integrated Farming Systems (IFS) which will smoothen a farmer's income and help to counter frequent extreme weather events. A total target of 5 lakh farm ponds in 5 years (2019-20 to 2023-24) has been fixed for this purpose and has been included under 5T initiatives.

During 2019-20, 9,390 no. of farm ponds were excavated generating 36 lakh persondays with an expenditure of INR 107 Crore under MGNREGA. During 2020-21 also, 14,938 farm ponds have been grounded and 11.84 Lakh person days have already been generated as on 1st week of January 2021.

2.4.2 Climatic risk

Natural calamities like cyclone, drought, floods and pest attack are common features in Odisha. Almost every year or in alternate year, one part or the other of the State is hit by natural calamities of varying intensity and agricultural production is badly affected. Table-2.8 shows the details of natural calamities affecting Agricultural Production and Economy of Odisha. In spite of so many risk factors, timely interventions and introduction of risk mitigation schemes of Government like PMFBY (Pradhan Mantri Fasal Bima Yojana) and other interest subvention and input subsidy schemes could restructure farmers' distress and the State has now become self-sufficient in food grains.

Table 2.8: Natural Calamities of last Ten Years

Year	Natural Calamities
2010	Flood, Heavy Rain, Drought & Unseasonal Cyclonic Rain
2011	Drought & Flood
2012	Drought & Flood
2013	Very Severe Cyclonic Storm "Phailin"/Flood
2014	Very Severe Cyclonic Storm "Hudhud"/Flood
2015	Drought, Flood & Heavy Rain
2016	Drought, Flood & Heavy Rain
2017	Flood, Heavy Rain, Drought & Pest Attack, Unseasonal Rain
2018	Cyclonic Storm "Titli" and "Pethai" / Drought
2019	Extremely Severe Cyclonic Storm "Fani" and "Bulbul"
2020	Severe Cyclone "AMPHAN" and heavy flood

Source: Directorate of Agriculture and Food Production (5 Decades of Odisha Agriculture Statistics-2020)

2.4.2.1 Pradhan Mantri Fasal Bima Yojana (PMFBY)

As agriculture in Odisha is always a risky proposition of natural calamities like drought, flood, cyclone etc, even in the same year the farm sector is affected by multiple calamities, to mitigate such risk and compensate the farmers in the event of crop loss due to natural calamities the State is implementing Pradhan Mantri Fasal Bima Yojana (PMFBY) as a flagship Crop Insurance Programme from Kharif-2016 in the state in addition to the Input Assistance provided as per SDRF/NDRF norms. Presently, 8 crops in Kharif season (Paddy, Maize, Groundnut, Ragi, Cotton, Arhar, Ginger & Turmeric) and 9 crops in Rabi

season (Paddy, Green gram, Black gram, Groundnut, Mustard, Sunflower, Potato, Onion & Sugarcane) are covered under the programme. The farmers pay maximum premium of 2% of Scale of Finance (SOF) in Kharif and 1.5% in Rabi season for cereals, pulses and oil seeds. For commercial crops like Cotton, Ginger, Turmeric, Potato, Onion & Sugarcane the farmers' premium payable is 5% of SOF. The balance premium subsidy is borne by the State & Central Govt. It is noteworthy to mention here that the State Government has taken up many innovative measures to streamline the programme implementation. Some of the notable ones are:

- Adoption of Smart Sampling Technique and capturing of Crop Cutting Experiment data through Mobile App to instil transparency in loss assessment.
- Integration of State Land Records portal with National Crop Insurance Portal
- Devising "ACIM" portal to track last mile connectivity of claim disbursement.

Emphasis has been given to cover more non-loanee farmers of the State under crop insurance.

2.5 Agricultural Inputs

2.5.1 Irrigation

Irrigation is a crucial input for crop production in Odisha. It has a vital role in the growth and development of agriculture in the State. During the year 2019-20, for kharif the total Irrigation Potential Created (IPC) was 43.07 lakh hectares and for Rabi it was 19.51 hectares. Table 2.9 presents the total IPC from different sources like major and medium, minor (flow and lift), mega lift and other sources (including water harvesting structures) during Kharif and Rabi for the last five years. It is noticed that during Kharif the new source Mega Lift is also in increasing trend along with major, medium and minor from 2015-16 to 2019-20. The net irrigation potential created from different sources during the Kharif 2019-20 is presented in lakh hectares in figure 2.9.

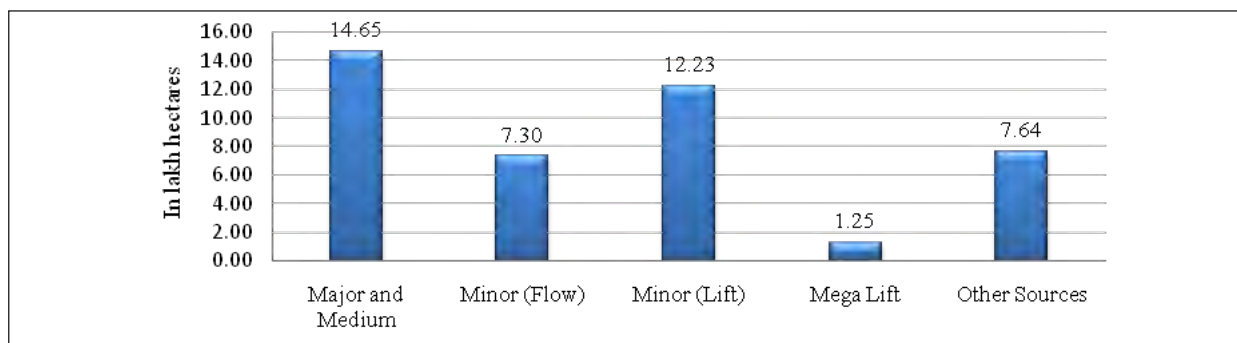
Table 2.9: Irrigation Potential Created (IPC) in Odisha

(Area in lakh hectares)

Sources	2015-16		2016-17		2017-18		2018-19		2019-20	
	Kharif	Rabi	Kharif	Rabi	Kharif	Rabi	Kharif	Rabi	Kharif	Rabi
Major and Medium	14.00	6.41	14.04	6.44	14.26	6.52	14.46	6.62	14.65	6.73
Minor (Flow)	6.30	0.80	6.63	0.86	7.04	0.90	7.18	0.91	7.30	0.92
Minor (Lift)	9.04	4.40	9.98	4.84	11.05	5.34	11.67	5.65	12.23	5.93
Mega Lift	0.03	0.00	0.70	0.00	0.54	0.00	0.95	0.00	1.25	0.00
Other Sources	7.34	6.42	7.52	6.54	7.59	5.93	7.64	5.92	7.64	5.93
Total	36.71	18.03	38.87	18.68	40.48	18.69	41.90	19.10	43.07	19.51

Source: Water Resource Department, Odisha & Directorate of Agriculture and Food Production, Odisha

Figure-2.9: Net irrigation potential created from different sources during 2019-20 (Kharif)



Since there is no contribution of unutilised potential of irrigation to the agricultural development, actual utilisation of irrigation potential is a major area of concern. Table 2.10 shows a five year trend of the actual irrigation potential utilised and its' proportion in total irrigation potential created. From 2015-16 to 2019-20, the utilisation of irrigation is in increasing trend and it has been increased from 32.94 lakh hectares to 38.80 lakh hectares. During 2019-20, about 62 percent of total irrigation created has been utilised.

Table 2.10: Irrigation Potential Utilised from total IPC

(Area in lakh hectares)

Year	Kharif	Rabi	Total	Percentage of Irrigation Utilised from total IPC
2015-16	22.41	10.53	32.94	60.18
2016-17	22.83	11.26	34.09	59.24
2017-18	22.34	11.80	34.14	57.70
2018-19	24.45	11.45	35.90	58.85
2019-20*	26.94	11.86	38.80	62.00

Source: Directorate of Agriculture and Food Production, Odisha

2.5.2 Seeds

The use of quality seeds plays an important role to raise the production and productivity of Agriculture and Horticulture crops. Hence, due importance has been given in the State Agriculture Policy (SAMRUDHI) to increase the Seed Replacement Rate (SRR) and production of certified seeds. Quality seed multiplication programme is being organized through the agricultural farms of Agriculture and Farmers' Empowerment Department of Odisha, Odisha State Seeds Corporation (OSSC) and registered seed growers of OUAT and NRRI. Under the seed village scheme, registered seed growers are supplied foundation seeds and the seeds produced in their fields are certified by the Odisha State Seed and Organic Produces Certification Agency. Certified seeds are also produced by OSSC and OAIC (Odisha Agro Industries Corporation) which is marketed through a dealers' network. In the recent years, the private players have started playing a significant role in seed production, processing and marketing. The year wise seed supply position is presented in Table 2.11.

There are 227 functional seed processing plants in the state at present with capacity about 587 TPH. The agency wise detail was in table 2.12. Due to various seed multiplication programmes of Government the SRR in different crops including paddy (HYV) is increasing. During 2019-20 the SRR of paddy (HYV) was increased to 28.4 from 24 of the previous year 2018-19. Similarly there is an increase in SRR for other high value crops like maize, ragi, cotton, arhar and groundnut to 63.6, 5.2, 65.0, 4.8 and 16.0 during 2019-20 over the previous year figure of 51.0, 2.0, 59.0, 3.1 and 15.3 respectively.

Table 2.11: Distribution of certified Quality seeds in Odisha

Year	Distribution of certified Quality seeds (in Qtl)		
	Paddy (HYV)	Non-Paddy	Total
2010-11	523298	149440	672738
2011-12	521375	158281	679656
2012-13	535129	151140	686269
2013-14	639627	142467	782094
2014-15	657267	84091	741358
2015-16	709924	85576	795500
2016-17	549919	83066	632985
2017-18	415571	87514	503085
2018-19	481327	113063	594390
2019-20_P	580951	1863	582814

Source: Directorate of Agriculture and Food Production (5 Decades of Odisha Agriculture Statistics-2020)

Table 2.12: Agency wise seed processing plants in Odisha

Agency	No of Seed Processing Plants (functional)	Capacity in TPH
Government	36	50.6
NSC	2	4
OSSC	67	232.1
OUAT	10	13.2
NRRI	1	2
PRIVATE	111	285.05
TOTAL	227	586.95

Source: Directorate of Agriculture and Food Production Odisha

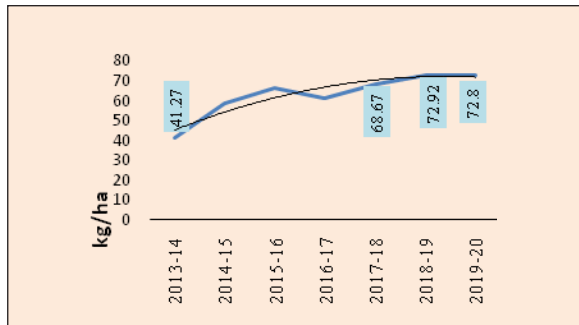
2.5.3 Fertilizer Consumption

Fertilizer use is one instrument implemented as a means of raising agriculture production and yield. There are many studies on fertilizer use as one vital factor impacting agricultural output, although in recent times some evidence of the negative effect of overusing chemical fertilizers has also gained credibility. The State also witnessed rising trend for use of fertilizer, which can be seen in figure 2.10. The use of fertilizer was 72.8 kg/ha in 2019-20. The balance use of fertilizer (NPK use ratio) is the key to better crop production and maintaining soil health. Against an ideal NPK use ratio of 4:2:1, the State's NPK use ratio was 4.7:2.4:1 in 2018-19 & 4.9:2.2:1 in 2019-20, that is closed to ideal.

2.5.4 Use of pesticides

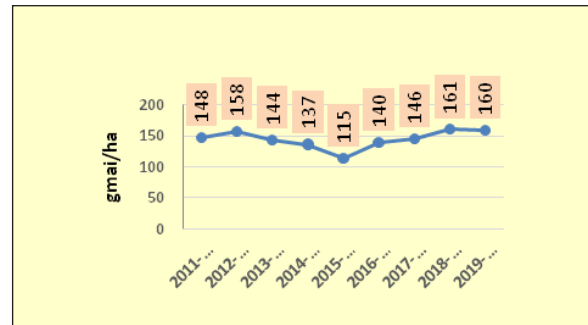
Pesticides are also important and they protect crops from pests, diseases and weeds as well as raising productivity per hectare. The use of pesticides in the State was 144 gmai / ha in 2013-14 and it increased to 146 gmai / ha in 2017-18, 161 gmai / ha in 2018-19 and 160 gmai / ha in 2019-20. In addition to increased use of pesticides, the adoption of eco-friendly techniques like integrated pest management (IPM), biological control measures, seed treatment campaign helps to contain the pest problems.

Figure-2.10: Per hectare consumption of fertilizer in Odisha



Source: Directorate of Agriculture and Food Production, Odisha

Figure-2.11: Per hectare consumption of pesticide in Odisha



2.5.5 Farm Mechanization

The farm mechanization improves production and productivity and reduces dependency of agriculture labour and cost of production. It is labour-saving and greatly increases farm worker productivity. It also enables efficient utilization of agricultural inputs. Further, farm mechanization has great significance for enabling farmers to take up timely and quality agricultural operations, thus reducing the costs of production. The Government encourages the farmers to adopt improved farm machinery and equipment by providing financial assistance in the form of subsidies and facilitating agricultural credit. The State is implementing schemes for popularisation of agricultural implements; equipment and diesel pump sets' under State sector and Central sector programmes through provision of subsidy. The trend of supply/sale of farm mechanized equipments like tractors, power tillers, combined harvesters and rotavators in agriculture is shown in Table 2.13.

Table 2.13: Farm Implements supplied under Farm Mechanization (in Number)

Year	Tractor	Power Tiller	Combine Harvester (RH-axis)	Rotavator
2011-12	9231	11257	78	96
2012-13	11085	12503	103	469
2013-14	11891	13032	399	4553
2014-15	10325	14388	264	4631
2015-16	11688	9166	407	5003
2016-17	12800	6296	495	6885
2017-18	1964	9382	1207	7784
2018-19	1755	10712	949	9990
2019-20(P)	1391	9061	934	3834

Source: Directorate of Agriculture and Food Production, Odisha

2.5.6: Power Consumption

In Odisha, share of agriculture in total power consumption has increased from 1.14% in 2010-11 to 3.9% in 2019-20. Between 2016-17 and 2019-20, power consumption in agriculture increased by more than 2 times, from 281.7 MU to 659.5 MU (Table 2.14). Power consumption in agriculture acts as a catalyst for other inputs, i.e., for pumping of bore wells & tube wells for irrigation and farm mechanization etc.

Table 2.14: Power consumption in the agriculture sector in Odisha

Year	Share of power consumption for agriculture purpose	
	In MU	Percentage to total power Consumption
2010-11	149.98	1.14
2011-12	176.99	1.36
2012-13	154.65	1.14
2013-14	162.94	1.13
2014-15	185.10	1.20
2015-16	222.75	1.39
2016-17	281.74	1.71
2017-18	453.90	2.56
2018-19	559.15	2.90
2019-20	659.50	3.90

Source: Directorate of Agriculture and Food Production, Odisha

2.5.7 Agriculture Credit

Agricultural credit is an important input for the increasing capital intensive and technology driven nature of agriculture, such as for irrigation, farm implements and machines, quality seeds, etc. Crop-loan is the most important need of the farmer to increase and maintain his productive ability in a technology driven nature of agriculture. Crop loan is a short term advance that is given to the farmers by banks and co-operative societies can be used to purchase improved seeds, fertilizers etc. and adopt new technologies to improve the productivity as well as income. Cheaper availability of crop loan, in a very low interest rate, is meant to give easy working capital to the farmers.

The term loan has a longer tenure than the crop loan. It's provided for larger agriculture-related expenditures like the purchase of machinery, pump-sets, upgrading the farm facilities, installation of solar power motors, etc. Term loans are provided to individual farmers, share croppers (cultivating others' land-in lease), groups of farmers, SHGs, etc. engaged in other agri-related sectors like animal husbandry, horticulture, apiculture, aquaculture, silk farming and floriculture etc.

The table 2.15 and figure 2.12 shows the clear picture of inclined trend of crop loan and term loan in high rate during last twenty years. This trend shows the more accessibility of farmers to agriculture credit through banks and cooperative societies. During these twenty years, the CAGR (Compound Annual Growth Rate) are 1.21% and 1.26% for crop loan and term loan disbursement respectively.

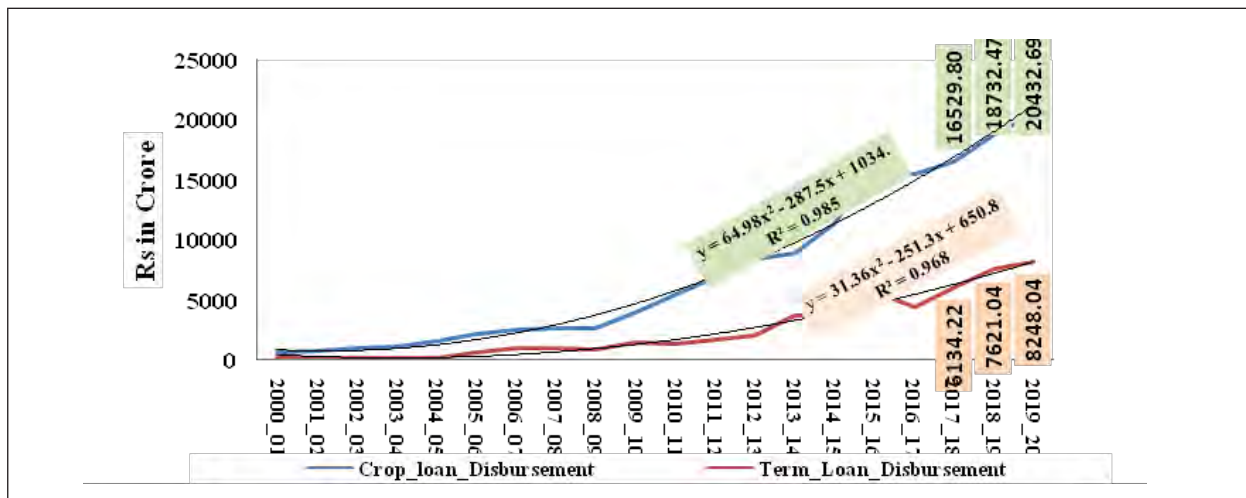
Table 2.15: Disbursement of crop loan and term loan to the Farmers from 2001-02 to 2019-20 (INR in Crore)

Year	Crop Loan	Term Loan
2000_01	611.26	171.95
2001_02	753.81	175.18
2002_03	921.79	150.92
2003_04	1123.75	148.83
2004_05	1497.67	199.90
2005_06	2111.1	589.61

2006_07	2493.68	964.58
2007_08	2665.84	991.44
2008_09	2614.18	836.36
2009_10	3944.91	1418.59
2010_11	5448.78	1303.03
2011_12	6851.92	1667.75
2012_13	8457.02	1997.12
2013_14	8916.46	3665.19
2014_15	11303.02	3725.2
2015_16	15868.66	5780.35
2016_17	15534.23	4450.79
2017_18	16529.8	6134.22
2018_19	18732.47	7621.04
2019_20	20432.69	8248.04

Source: SLBC, Odisha

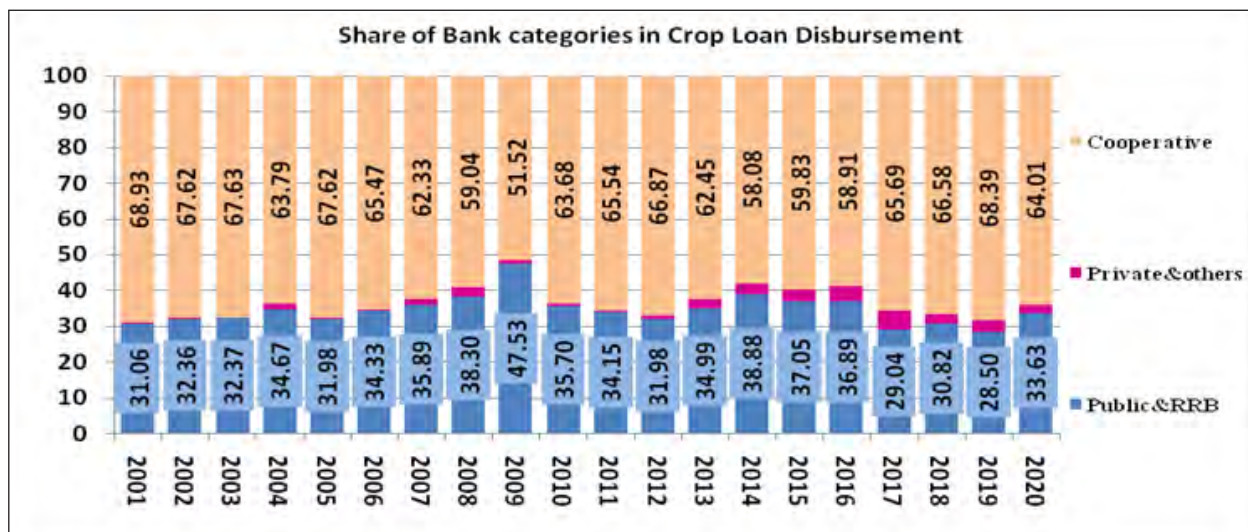
Figure- 2.12: Twenty years trend analysis of disbursement of crop loan and term loan to farmers in Odisha



2.5.7.1 Bank category wise share of loan disbursement

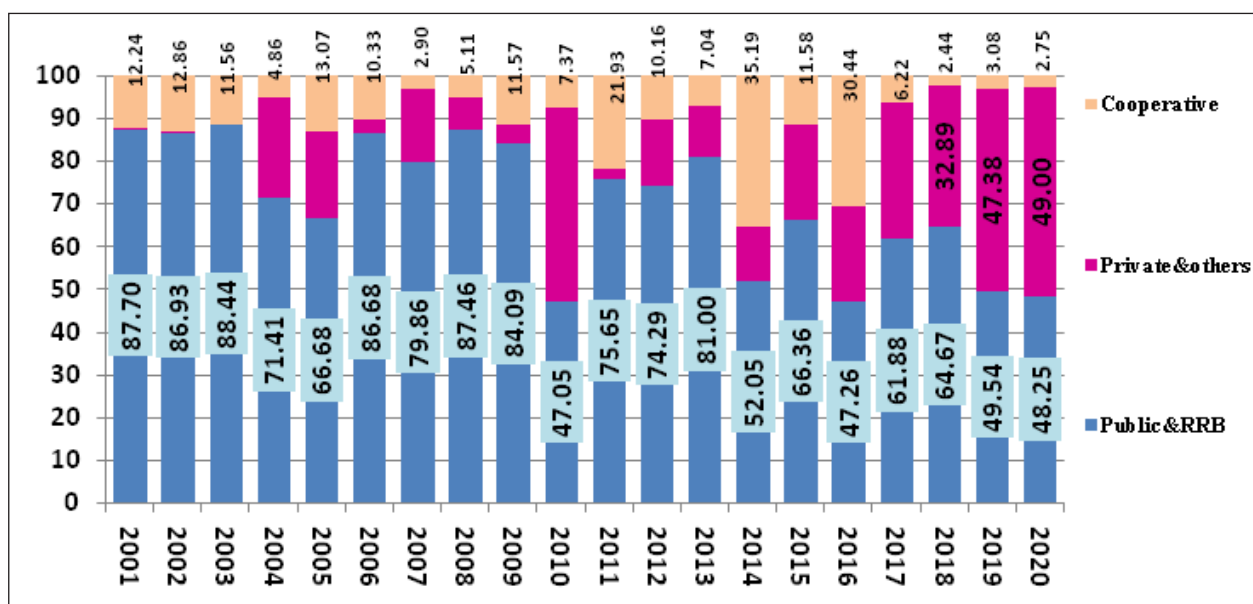
For this analysis, the institutions are categorized in to three classes. All public sector banks and Regional Rural Banks (RRB) are taken as one category, Cooperative banks are taken as one special category and all private sector banks and other lending institution including small finance banks are taken as another category. The share of crop loan and term loan disbursed among the defined bank categories are given in the figure 2.13 and figure 2.14 respectively. Figure 2.15 shows the significant share of cooperatives in Agriculture credit in Odisha comparing to the national share as well as the same of major states like Uttar Pradesh, Karnataka, Bihar, West Bengal and Andhra Pradesh. In other words, it can be stated that performances of Commercial Banks for providing Agricultural Credit is better in these states than Odisha.

Figure-2.13: Share of Bank Categories in Disbursement of Crop Loan



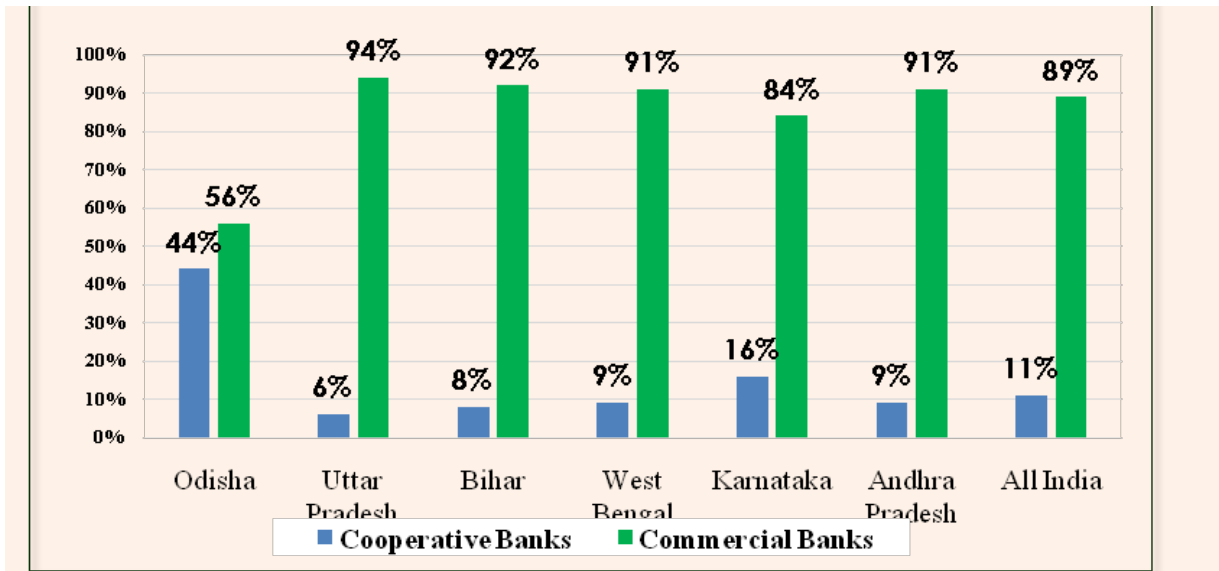
Source: SLBC, Odisha

Figure-2.14: Share of Bank Categories in Disbursement of Term Loan



Source: SLBC, Odisha

Figure-2.15: Share comparison of Cooperative banks with Commercial banks w.r. to Agriculture Credit among major states as well as All India. (Year-2019-20)



Source: NABARD

As mentioned previously about 93% of the farmers are marginal and small farmers. About 18.6% of the farmers are sharecroppers. Again based on land possession maximum sharecroppers are also marginal. For the sustainable development of the poor farmers and to enhance the income of farmers' household in multiple rate accessibility to institutional credit flow is very vital. More over for seasonal operations and capital investment in agriculture and allied sector, the increasing accessibility to institutional credit can reduce the dependence of poor marginal farmers on the money lenders and other informal sources of credit at usurious rates of interest. Therefore Govt. of Odisha has lauched a specific scheme BALARAM for share croppers in the field of Agriculture Credit.

BALARAM (Bhoomihina Agriculturist Loan And Resources Augmentation Model) is the unique initiative of State Government during 2020. The scheme BALARAM has been formulated by Department of Agriculture and Farmers' Empowerment, Govt. of Odisha in association with NABARD for financing share croppers by forming JLGs (Joint Liability Groups).

- The basic objective of the scheme is to augment flow of institutional credit to the farmers cultivating others' land as sharecroppers who are mostly landless or marginal cultivators and do not have access to most of the assistance and facilities like institutional credit provided by Government.
- The scheme can enable them to avail loan through formal credit institutions and can strengthen them by reducing their dependence on the money lenders and other informal sources of credit.
- Over the next 2 years, 1 lakh Joint Liability Groups (JLGs) covering at least 5 lakh share croppers are to be formed to get benefit from the scheme.
- Implementation of the scheme has already been started.

2.6 Post-Harvest Management

Post-Harvest management is a system of handling, storing and transporting agricultural commodities after harvest. During the post-harvest period, handlers and producers focus on preserving quality, quantity, and the safety of the commodities because it directly affects the price of the commodity. This means having to ensure that contaminants and insects will not affect the quality of the commodities. The importance of post-harvest management has been established over the years—it strengthens the action chain that produces transports and processes food and all other related products that give nourishment to the domain population.

During the recent years several post harvesting structures have been created and different post-harvest activities have been implemented in Odisha. The most of the post harvesting structures are mandis, regulated multi commodities cold storage, cashew processing plants, small scale presentation unit, pack houses, low cost onion structures, e-NAM mandies etc. Some post harvesting infra-structure and activities relating to paddy and non-paddy agricultural commodities during 2019-20 and its comparative pictures with previous years are presented in following tables and figures.

2.6.1: As per the status of 2019-20 there are 3543 mandies for paddy crops are operational in all over Odisha. Table 2.16 and figure 2.16 represent the detail status of paddy procurement during Kharif Marketing Seasons 2019-20. In paddy procurement, Bargarh district is in top position followed by the backward districts Kalahandi and Subarnapur in 2nd and 3rd position where as the district Ganjam is fifth position but having highest number of mandies.

Table 2.17 shows the trend of non-paddy crops procurement like cotton, ragi, pulses and oilseeds by different procurement agencies during 2017-18, 2018-19 and 2019-20. Figure 2.17 shows the remarkable growth (426.36%) in procurement of ragi, 21.67% in pulses and oilseeds and 11.16% in cotton. These growths in procurement of non-paddy high value crops may indicates the basic developing status of farmer in positive way to enhance the farmers' income in the State and can strengthen economic background of rural Odisha.

Table 2.16: Paddy Procurement status during Kharif marketing season of 2019-20

SI no	District	No. of mandies	Paddy procured (in MT)
1	Angul	94	86292
2	Balasore	163	277782
3	Baragarh	177	1210792
4	Bhadarak	128	210095
5	Bolangir	174	339492
6	Boudh	59	177718
7	Cuttack	225	149421
8	Deogarh	40	50938
9	Dhenkanal	80	128610
10	Gajapati	43	52089
11	Ganjam	441	374223
12	Jagatsinghpur	105	121758
13	Jajpur	136	126015
14	Jharsuguda	43	89391

15	Kalahandi	180	711775
16	Kandhamal	22	9949
17	Kendrapara	118	80156
18	Keonjhar	87	130524
19	Khordha	151	148392
20	Koraput	94	340365
21	Malkangiri	62	108993
22	Mayurbhanj	98	142148
23	Nabarangpur	55	162422
24	Nayagarh	159	126081
25	Nuapada	69	177307
26	Puri	185	147943
27	Rayagada	39	131399
28	Sambalpur	108	453082
29	Subarnapur	79	606410
30	Sundargarh	129	184943
All Odisha		3543	7056507

Source: FS&CW Department, Odisha

Figure-2.16: District wise paddy procured (in MT) during KMS 2019-20

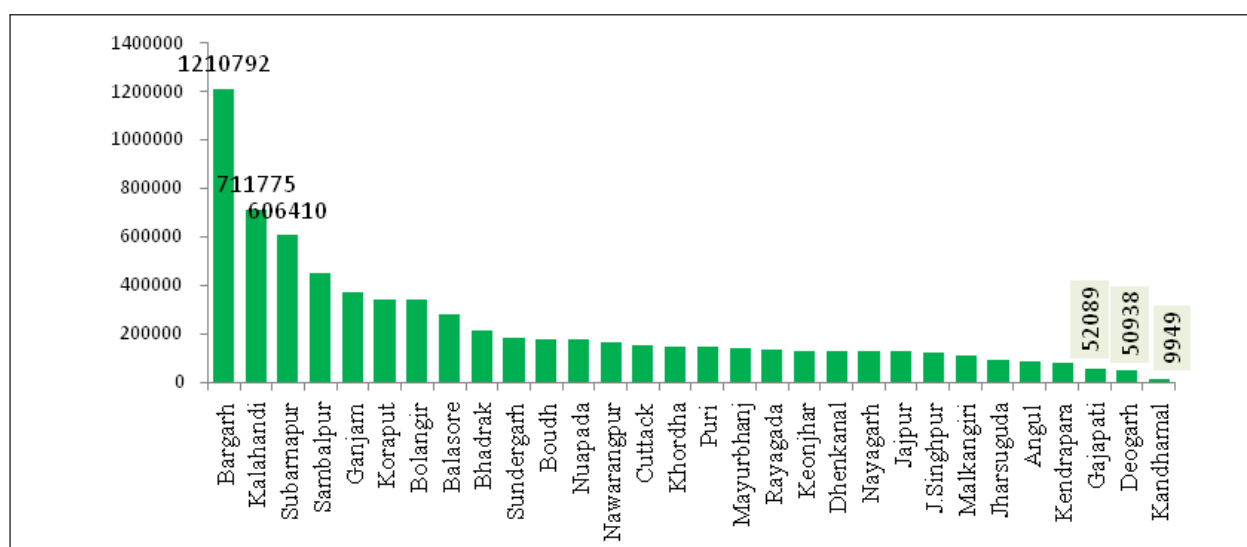
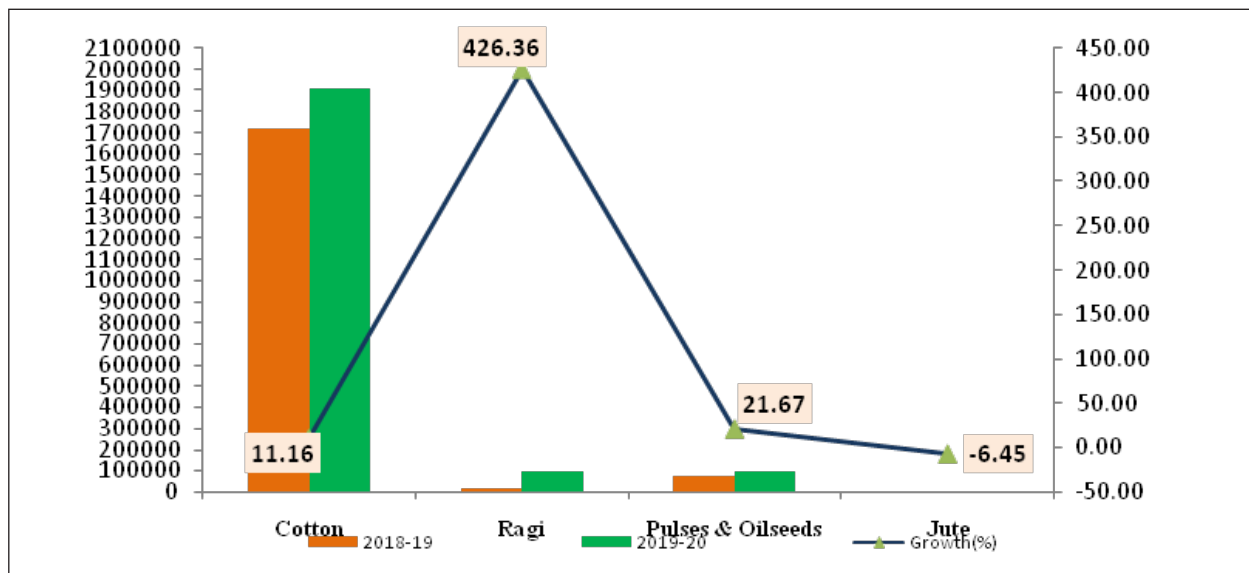


Table 2.17: Procurement of Non-paddy crops from 2017-18 to 2019-20 (In Qtl/ Cotton in Bales)

Sl. No.	Crop	2017-18	2018-19	2019-20	Procuring Agency
1	Cotton	16.05 lakh	17.21 lakh	19.13 lakh	Cotton Corporation of India & Private Traders
2	Ragi		18000	94745	TDDC Ltd.
3	Pulses & Oilseeds	94340	75932	92384	NAFED though MARKFED
4	Jute	787	667	624	Jute Corporation of India

Source: DA & FP and Cooperation Department, Odisha

Figure-2.17: Trend of procurement of non-paddy crops in Quintal on 2019-20 over 2018-19



2.6.2 Price Support Scheme (PSS): With a view to provide a complete assurance of a remunerative price support for farmers/growers for non-paddy crops i.e Pulses and Oilseeds namely green gram, black gram, red gram, groundnut and sunflower, the Price Support Scheme (PSS) has been introduced by Govt. of India. As the market price for agricultural produce is very much unstable and volatile for which farmer has to bear heavy undue losses resulting in discouragement for adoption of modern technology. To overcome this situation GOI adopted this price policy system which seeks to evolve a balanced and integrated price structure in the perspective of the overall needs of the economy. Accordingly, Govt. has decided to implement a new umbrella scheme "Pradhan Mantri - Annadata Aay Sanrakshan Abhiyan (PM-AASHA) during 2018 and under PM -AASHA to procure the Pulses, Oilseeds and Copra in MSP notified by the GOI to overcome the distress sale. In Odisha PSS is implemented for procurement of pulses and oilseeds since 2013-14. State Govt. has declared MARKFED as the State Level Supporter (SLS) for procurement under PSS in the state. Further, an e-samridhi portal has been developed for the registration of farmers for procurement of pulses and oilseeds under PSS. The year wise procurement of pulses and oilseeds under PSS by MARKFED, Odisha are as follows.

Table 2.18: Year wise procurement of pulses and oilseeds under PSS by MARKFED, Odisha (Procured Quantity in MT)

Items Procured	2015-16	2016-17	2017-18	2018-19	2019-20
Sunflower seeds	164.506	177.000	129.926	211.331	121.790
Groundnut pods		947.765	2418.783	130.760	2007.997
Green gram (Mung)		1405.880	2668.788	6148.189	7011.381
Black gram (Biri)			4216.424	1103.000	
Red gram (Arhar)					97.219
Total	164.506	2530.645	9433.921	7593.280	9238.387

Source: RCS, Odisha

2.6.3: Agricultural Marketing Sector is playing a vital role in upgrading the financial condition of farmers of the state. Agricultural Marketing System of Odisha focuses more on promotion of private investment, contract farming and direct marketing with an accent of free play of market forces than on a strict control regime of a Regulated Marketing Mechanism. As per the status of 2019-20, there are 66 Regulated Market Committees (RMCs) in thirty districts of Odisha to strengthen agricultural marketing mechanism in the state. These are operating under the supervision of Odisha State Agricultural Produce Marketing (OSAM) Board under the administrative control of Cooperation Department, Govt. of Odisha. Besides State Government has given license in favour of NCDEX-e-Market Ltd (NeML) to establish a private market for the purpose of sale and purchase of agricultural produce in the state for yearly basis. Out of 66 RMCs, 41 are linked with e-NAM (The electronic National Agricultural Marketing) portal on the basis of online trade and these are now functioning as e-NAM mandies to create a unified national market for agricultural commodities across the countries through e-auction process. During 2019-20, volume of online trade on e-NAM-platform is 3,30,400 quintals (for different agricultural commodities) and 1,42,36,732 number of Coconuts. About 178% and 443% growth in online trading quantity of commodities and coconuts respectively with respect to the year 2018-19. The status statement presented in table- 2.19.

Table 2.19: Status of RMC / e-NAM mandies in Odisha

RMC / e-NAM Mandi	2018-19	2019-20
RMC (Cooperative)	66	66
RMC(Private)	1	1
e-NAM Mandies (RMCs linked with e-NAM Platform)	10	14
* Volume of Trade on e-NAM trade (qtl / numbers)	1,18,833qtl. & 26,20,432 numbers of coconut	3,30,400qtl & 1,42,36,732 numbers of coconut

Source: Cooperation Department, Odisha.

2.6.4. Regarding the activity of Integrated Cold Chain, out of 18 numbers of cold storage under the administrative control of RCS (Registrar of Cooperative Societies of Odisha), 5 are in operational stage during 2019-20 with Capacity 18500 MT with respect to previous year Capacity 13500 MT and with inclined trend of 37%.

2.6.5: Under the activity of agri-logistics to upgrade the dry storages to warehouses, the State Government has taken imitative to reduce gap between requirement of go down space and availability in the state agriculture produce of farmers of fertiliser stock at PACS Level. The following table shows the improvement in storage capacity of the go downs under different Govt. establishments during 2019-20 with respect to the year 2015-16. During these five years there is 32.5% and 10.7% increasing trend in capacity of food grain go downs and fertiliser go down respectively.

Table 2.20: Status of RMC / e-NAM mandies in Odisha

Government Establishments	2015-16		2019-20	
	Food grain go-downs capacity in MT	Fertilisers go-downs capacity in MT	Food grain go-downs capacity in MT	Fertilisers go-downs capacity in MT
PACS	136715	141855	278275	141855
MARKFED	14000	86000	22000	107500
OSWC	472550	20,000	494900	25000
RMC	190895	-	305595	-
OSCSC	331800	-	417800	-
Total	1145960	247855	1518570	274355

Source: Cooperation Department, Odisha.

2.6.6. Minimum Support Price (MSP)

It is a form of market intervention by the Government of India to insure agricultural producers against any sharp fall in farm prices particularly in harvesting period of crops. The minimum support prices are announced by the Government of India at the beginning of the sowing season for certain crops on the basis of the recommendations of the Commission for Agricultural Costs and Prices (CACP). MSP is price fixed by Government of India to protect the producer - farmers - against excessive fall in price during bumper production years. The major objective of provision of MSP is to support the farmers from distress sales and to procure food grains for public distribution. In case the market price for the commodity falls below the announced minimum price due to bumper production and glut in the market, government agencies purchase the entire quantity offered by the farmers at the announced minimum price. Government announces minimum support prices (MSPs) for 22 mandated crops and Fair and Remunerative price (FRP) for sugarcane. The mandated crops are 14 crops of the Kharif season, 6 Rabi crops and two other commercial crops. In addition, the MSPs of toria and de-husked coconut are fixed on the basis of the MSPs of rape seed/mustard and copra, respectively. MSPs for all mandated crops with a return of at least 50 percent over all India weighted average cost of production for the season 2018-19 had also been announced, with an increase over the previous year.

Table 2.21: Minimum Support Price of various agriculture commodities from 2015-16 to 2019-20

Sl. No.	Commodity	Variety	INR/ Qtl. for FAQ(Fair Average Quality)				
			2015-16	2016-17	2017-18	2018-19	2019-20
KHARIF CROPS							
1	Paddy	Common	1410	1470	1550	1750	1815
		Grade 'A'	1450	1510	1590	1770	1835
2	Jowar	Hybrid	1570	1625	1700	2430	2550
		Maldandi	1590	1650	1725	2450	2570
3	Bajra		1275	1330	1425	1950	2000
4	Maize		1325	1365	1425	1700	1760
5	Ragi		1650	1725	1900	2897	3150
6	Arhar(Tur)		4625	5050	5450	5675	5800
7	Moong		4850	5225	5575	6975	7050
8	Urad		4625	5000	5400	5600	5700

9	Cotton	Medium Staple	3800	3860	4020	5150	5255
		Long Staple	4100	4160	4320	5450	5550
10	Groundnut In Shell		4030	4220	4450	4890	5090
11	Sunflower Seed		3800	3950	4100	5388	5650
12	Soyabean	Black		2775	3050		
		Yellow	2600	2775		3399	3710
13	Sesamum		4700	5000	5300	6249	6485
14	Nigerseed		3650	3825	4050	5877	5940
RABI CROPS							
15	WHEAT		1525	1625	1735	1840	1925
16	BARLEY		1225	1325	1410	1440	1525
17	GRAM		3500	4000	4400	4620	4875
18	MASUR (LENTIL)		3400	3950	4250	4475	4800
19	RAPSEED/MUSTARD		3350	3700	4000	4200	4425
20	SAFFLOWER		3300	3700	4100	4945	5215
OTHER CROPS							
21	JUTE	TD5	2700	3200	3500	3700	3950
22	SUGARCANE		230	230	255	275	275
23	COPRA (Milling)		5550	5950	6500	7511	9521
24	COPRA (Ball)		5830	6240	6785	7750	9920

Source: 5 decades of Odisha Agricultural Statistics, DA&FP, Odisha

2.6.7: Recent Initiative of State Government in the field of post-harvest management is the promulgation of the following new ordinance:

“Odisha Agricultural Produce and Livestock Marketing (Promotions and Facilitation) Ordinance - 2020”

As per the Govt. of India Model APLMC Act, 2017, an Ordinance namely “Odisha Agricultural Produce and Livestock Marketing (Promotions and Facilitation) Ordinance - 2020” has been promulgated by Honorable Governor, Odisha State on 13.05.2020 in the place of existing state Act, the Odisha Agriculture Produce Market Act, 1956. The basic objective of the ordinance to provide for geographically restriction-free trade and transaction of agricultural produce including livestock across the state and country and to give freedom to the agriculturists to sell their produce in a better manner.

2.7: Government Initiatives in Agriculture and Post-harvest Sector

2.7.1: BALARAM: As mentioned previously in section 2.5.7, the new scheme BALARAM (Bhoomi hina Agriculturist Loan And Resources Augmentation Model) has been launched by Govt. of Odisha during 2020 to provide institutional credit to share croppers among the majority of marginal and small farmers cultivating others' land on lease and those have no other access to avail institutional credit. The target is to facilitate one lakh JLGs covering 5 lakhs sharecroppers. This is a model scheme of the state for poor share croppers with objective to increase the living standard of farmers and income of farmers' household. During 2020-21 there is a target to identify eligible share croppers and to form 65000 JLGs. Although the

scheme has been notified during July 2020 and Operational Guidelines has been issued during September 2020, Implementation of the scheme has already been started. With assistance of NABARD, field level training to concerned officials / Krushak Sathi have been completed. District wise targets of JLG formation have been distributed. At field level, the process of beneficiary selection is going on.

By the end of January 2021, about 8063 number of JLGs have been formed covering about 40000 share croppers and about Rs 1.3 crore institutional loan have been sanctioned to 211 numbers of JLGs following approved criteria of the guidelines.

2.7.2: **KALIA: A Farmers' welfare programme - Krushak Assistance for Livelihood and Income Augmentation (KALIA)** has been introduced in 2018 to accelerate agricultural prosperity and reduce poverty in the State through providing support to cultivators for cultivation for small and marginal farmers both for Kharif and Rabi seasons, livelihood support for landless agricultural households for taking non-farm activities such as goat, sheep, poultry farming, mushroom cultivation, bee keeping and fishery activities. This initiative of the State Government has been recognised and appraised at the various forums in the country.

2.7.3: In order to ensure availability of adequate quantity of quality seeds and planting materials to the farmers in time through State PSU, Government introduced provision of interest free **corpus fund for seeds** to OSSC, OAIC, OSCDC during the year 2014-15. Similarly pre-positioning of fertilizers is required both for Kharif and Rabi seasons for timely supply of fertilizers to the farmers at the time of need for which Government has introduced provision of **corpus funds for fertilizers** of INR100 crores during 2014-15 to State PSUs namely Odisha State Cooperative Marketing Federation Limited (MARKFED) and Odisha Agro Industries Corporation (OAIC).

2.7.4: Government of Odisha has given priority to the development of rain fed areas in the State and **Odisha Watershed Development Mission (OWDM)** was launched during the year 2000, as a dedicated agency with the mandate to plan, coordinate, streamline and supervise watershed implementation in the state of Odisha in a Mission Mode. OWDM has also been designated as the State Level Nodal Agency (SLNA) for implementation of the flagship programme, erstwhile **Integrated Watershed Management Programme (IWMP)** at present implemented through PMKSY-WDC. So far 7,721 micro watersheds have been treated covering an area of 41.89 lakh hectares since inceptions.

2.7.5: One **Gene Bank** was established in the State in 2013-14 at State Seed Testing Laboratory, Bhubaneswar for preservation of germplasm of seeds.

2.7.6: Recognition from Protection of Plant Varieties Registration Authority (PPVRA) at national level, 1000 paddy & 231 non-paddy "Farmers' Varieties" registered. This initiative has been nationally acclaimed.

2.7.7: **Odisha Millets Mission (OMM)** Programme was launched in 2016-17 to provide nutritional security for promotion of millets in the State. Implementation of Odisha Millets Mission (OMM) in the 11 districts in 53 blocks by involving 40 NGOs and 53 CBOs. Steps have been taken for extension of OMM programme to 72 blocks covering 14 districts of the State. During 2018-19, 12,257 Hectares have been covered by involving 27,876 farmers under the programme. Besides, steps have been taken for procurement of millets from the farmers under the millets mission programme to provide remunerative price to the millets farmers and so far 17,986 quintals of Ragi have been procured from the farmers. The initiative of Millets Mission programme of the State received the SKOCH Order-of-Merit Award at the national level. Besides, State Government received award for best government initiative from Indian Institute of Food Processing Technology, Thanjavur in November, 2018 for the programme.

2.7.8: **Ama Krushi:** In order to strengthen the extension system and to provide timely information to the farmers of the State, "AmaKrushi" a "two-way Interactive Voice Response (IVR)" service, a mobile phone based extension system was introduced in the State in 2018. Under the programme farmers receive weekly advisory message through their mobile phones on recommended best practices for cultivation designed by experts. To ensure maximum outreach, information is available in both Odia and Sambalpuri dialects and all content is field tested to ensure farmers' comprehension. Besides a miss-call based service has been provided to the farmers to ask questions or queries related to agriculture and get back reply/ solution within 48 hours and share their feedback. By first week of January 2021, about 10.5 lakh farmers have been registered under the programme. A live call centre [Toll Free Number: 155333] has been established to enable farmers to get their queries answered immediately. The web link for AMAKRUSHI is (<https://www.amakrushi.in/go/>).

2.7.9: In order to recognise and promote innovative farmers in the State in the field of Agriculture mechanisation, 'Mukhyamantri Abhinav Krushi Jantrapati Samman (MAKJS)' programme has been launched during 2018-19 in association with National Innovation Foundation-India (NIF). First Award Ceremony was organised in February, 2019 and 11 innovators were felicitated at State Level and 90 innovative farmers awarded at district level. More than 2000 innovators participated in the programme. This initiative of the State Government has received the Partnership Award from NIF. The scheme received the SKOCH Governance Award for the year 2019 for implementation of the scheme.

2.7.10: There is a separate Agriculture Budget since 2013-14, that has resulted in more than 100% increase in Agriculture budget outlay from INR 7162 Cr. in 2013-14 to INR 20,714 Cr. in 2019-20, catering to Agri-specific, mega interventions.

2.7.11: In order to establish an **intensive pest monitoring mechanism** and to strengthen the pest surveillance and management system, **e-pest surveillance programme** was launched by the State during 2010-11 with the involvement of National Research Centre of Integrated Pest Management (NCIPM), New Delhi, Central Integrated Pest Management Centre (CIPMC), Bhubaneswar & OUAT, Bhubaneswar which helps in monitoring the pests and adoption of timely control measures.

2.7.12: A new initiative has been taken by the Government for involvement of final year students as **Agriculture Development Associates (Krushi Unnat Sahajogi)** for ground assessment and improvement of schemes adoption through mobile apps during 2018-19. It has been programmed to involve more than 600 final year students of Agriculture, Horticulture and Agricultural Engineering of OUAT and other Private Agriculture Universities established in the State under the programme during 2020-21.

2.7.13: 65 nos. of new varieties of seeds which includes 19 paddy seed varieties and 46 non paddy varieties of seeds were released by OUAT since 2000.

2.7.14: An advanced scheme namely **Agricultural Entrepreneurship Promotion Scheme 2018** was introduced with key objective to groom at least 1000 rural youths as Agri-Entrepreneurs in 40 tribal blocks of 12 districts of the states and through which about 2 Lakhs small and marginal farmers would be able to increase their income. This three years scheme was launched by Hon'ble Chief Minister on 13.11.2018 in Make in Odisha Conclave -2018. Through this scheme quality inputs, technological service including farm equipment and marketing assurance at the doorsteps of the farmers will be provided through value chain enabler termed as Agri-Entrepreneur to be worked at GP level for helping farmers through providing missing farm service through the scheme.

2.7.15: Directorate of Agriculture and Food Production was reorganised to strengthen the **Agriculture Extension System of the State**. Besides, at the Panchayat level, a fixed day visit of GP level extension personnel i.e. VAWs/AOs./HEWs/SCEWs/LIs to GP headquarter in every week has been introduced for interacting with farmers on the various issues pertaining development of agriculture and allied sectors activities since 2019.

2.7.16: The First Agriculture Policy, that came into force in 1996, conferred the status of industry on agriculture, has been revised twice post globalisation during 2008 and 2013 making it more inclusive and comprehensive, of late has undergone a major metamorphosis with its orientation towards market linkage and expected to bring a substantial change in farmer's income through realisation of better prices, Government launched **SAMRUDHI Agriculture Policy 2020** for the State of Odisha.

2.7.17: **Dedicated Agriculture Cabinet in 2016** for faster processes, sectoral growth & development. Agriculture Department has been renamed as **Department of Agriculture and Farmers' Empowerment** in 2016. All these are not merely symbolic exercises but rather strategic steps towards a farmer centric development in the State.

2.7.18: **Odisha Organic Farming Policy 2018** has been launched to promote organic farming the State. It has been programme to cover 2 lakh hectares in 5 years.

2.7.19: **Odisha Farmer Producer Organisations (FPOs) Policy** launched during 2018, to make the state the most sought for agribusiness and food processing sectors with focussed attention and handling support to Farmer Producer Organisations (FPOs) in production, aggregation, storage, processing, distribution and marketing of agriculture and allied sector resources for sustainable development by generating large scale employment in rural and semi urban areas. Recently Govt. of India has issued its FPO guidelines for formation and promotion of 10000 FPOs at all India level. Now the GoI policy/ guidelines are being incorporated in State Government FPO Policy so that the existing State policy becomes a top-up to that of Govt. of India. On 11th September 2020, one MoU has been signed between Govt of Odisha and NCDC (National Cooperative Development Corporation) to work together for smooth implementation of the Central Sector Scheme for FPOs.

2.7.20: An MoU was signed in the month of February, 2019 with NABKISAN Finance Limited and Directorate of Horticulture, Odisha for setting up of a **Credit Guarantee Fund (CGF)** for collateral free loan facilities to Farmers' Producer Organizations (FPOs). This is the 1st Credit Guarantee Fund initiated by any State Government in the country in the agriculture sector. The scheme has been notified by the Govt. and operational guidelines have been issued during 2020.

2.7.21: A flagship scheme **Mukhyamantri Krushi Udyog Yojana (MKUY)** of State Government has been launched during 2018 to provide single window facilities for promoting commercial agri-enterprises. Subsidies are being provided for setting up of Commercial agriculture/ horticulture/ animal husbandry/ fisheries units.

2.7.22: State Government has formed **Agriculture Production Cluster (APC)** in Tribal Regions of Odisha to double the farm income of 1.00 lakh women farmers of small and marginal category by formation of 650 producer groups and building 30 APCs/Producer companies in 40 back ward blocks of 12 Tribal dominated districts in the state through cultivation of high value crops in 20,000 hectares, grooming

of 750 market linked Agri-Entrepreneurs as value chain enablers under the project over a period of 4 years. One MoU signed with PRADAN, OLM, BRLF for implementation of the project in the State. The Government received SKOCH Governance Award 2019 for implementation of the scheme.

2.7.23: The State is the largest producer of sweet potato in the country, contributing 30% of the national production. State Government has awarded with **Krishi Karman Award** during 2010-11, 2012-13, 2013-14, 2014-15, 2016-17 for higher food grains production.

2.7.24: For the development and popularisation of horticulture activities in western part of the State, one **College of Horticulture** was established at Chiplima in the year 2008 for teaching students in the field of Horticulture and also help to meet the research need of the locality as well as facilitate farmers of the regions to consult the scientist directly in solving their field problems. Similarly, one **College of Agriculture** was established in the year 2009 at Bhawanipatna to meet the research need of the locality and impart education to the students in the field of agriculture.

2.7.25: In order to meet the shortage of technical manpower in rural areas and to render technical advice to the farmers of the State, Government provided funds of INR 3.17 Crores during 2013-14 for establishment of **10 Agro Polytechnic** in 10 agro-climatic zones of the State and also to provide Diploma Course in Agriculture and allied Sectors such as agriculture, horticulture, fisheries and animal husbandry.

2.7.26: State Government launched a new scheme in the name of **Horticulture programme for Non Mission Districts** during 2005-06 to take up horticultural activities at par with that of horticulture programmes undertaken through National Horticulture Mission (NHM) in the districts which are not covered under NHM programme.

2.7.27: To demonstrate latest production technologies and develop entrepreneurs in the field of Horticulture, One **Centre of Excellence** has been established at Deras, Bhubaneswar during the year 2013-14.

2.7.28: The state has won **CSI- Nihilent Best e-Governance Award 2017** for administering seed input subsidy through DBT.

2.7.29: In recognition of the commendable efforts in the area of Conservation / Management, Koraput district of Odisha got the 2nd prize both in the categories of Best District (East Zone) for Ground Water Recharge and Best District (East Zone) for Rejuvenation / Creation of Water Bodies respectively in February, 2019 by the Hon'ble Union Minister, Road Transport & Highways, Shipping and Water Resources, River Development & Ganga Rejuvenation,

2.7.30: To enable the small holder to produce and consume more nutritious food through agro-forestry system in the State, a project was introduced under RKVY programme namely "Enabling smallholders in Odisha to produce and consume more nutritious food through Agro-forestry Systems" by involving World Agro-forestry Centre. A Memorandum of Agreement was signed with World Agro-forestry Centre in 2018 to mutually work together for this agro-forestry project. Under the programme 38 nurseries, 1422 hectares of plantations have been covered during 2018-19.

2.7.31: **Coconut Development Board (CDB)** is a part of centrally Sponsored Scheme MIDH associated with coconut plantation. The components like Replanting & Rejuvenation of old coconut gardens and Coconut Palm Insurance Scheme have been approved for implementation in the state during 2020-21.

2.7.32: **Kissan Credit Cards (KCC)** Scheme was introduced in the state through DCCBs and the PACS since 1998-99. The scheme aims at providing timely, adequate and hassle free credit to the farmers based on their land holding, cropping pattern and scale of finance, under the scheme. Once the credit limits for farmers are sanctioned crop wise, the same remains valid for 3 years unless modified/defaulted by the farmers. The farmer members are supplied with Pass Book and Cheque Books to avail credit through agricultural financing branches of DCCBs. The KCC are being converted in to smart RuPay Cards to provide the farmers drawal facilities to the ATMs and PoS outlets of all the banks under the National Payment Cooperation network. 40,75,172 KCC have been issued by the DCCBs/PACS as on 31.03.2020.

Subsequently KCC was extended to Public Sector Banks, RRBs and Private Bank also. During 2019-20, INR 19282.65 crore has been disbursed to 3880084 KCC accounts out of which 31,63,397 accounts were disbursed by cooperative banks and rest by other banks.

2.7.33: With a view to motivate members for timely repayment of loans an innovative scheme **Kalinga Kissan Gold Cards (KKGC)** was designed by the Odisha State Cooperative Bank, and introduced in 2001. Farmers who are members of PACS with a default-free status for at least two years are eligible under this scheme. Through KKGC, a farmer gets facilities like consumption and educational loans with less interest, free personal accident insurance etc. at the end of 2019-20, KKGC were issued to 2,00,557 members and number of valid card holders at the end of 31.03.2020 comes to 1,16,817.

2.7.34: **Swarozgar Credit Card** aims at providing timely and instant credit - as working capital and block capital for self-employment and income generating activities. It targets small artisans, handloom weavers, fishermen, self-employed persons, rickshaw owners and other micro entrepreneurs. During 2019-20, as against a target of 4950 under cooperative sector 1029 Swarozgar Credit Card holders have been financed with INR 8.19 Crore.

2.7.35: Quantum of Agricultural finance under Seasonal Agricultural Operations

As against the target of INR 14000.00 Crore by Cooperatives during 2019-20 under SAO, INR 7330.56 Crore has been financed to 17.92 Lakh farmer members during Kharif-2019 (target of INR 7500 Crore) and an amount of INR 5740.47 Crore has been financed to 13.72 lakh farmer members during Rabi 2019-20 (target of INR 6500.00 Crore). Total finance during 2019-20 comes to the tune of INR 13071.03 Crores to 31.64 Lakh farmer members as against a target of INR 14000.00 Crore. There is a target of INR 9000.00 cr. for Khariff-2020 crop season. Out of which an amount of INR 8321.16 Crore has been financed to 18.80 lakh farmer members as on 30.09.2020. The State Govt. have been pleased to reduce the interest rate from 1% to 0% on crop loan finance up to INR 50,000/- w.e.f. 01.04.2019.

2.7.36: **Implementation of Interest Subvention Scheme:** The Finance Minister in the budget speech for the year 2006-07 announced that Government of India will give subvention to NABARD so as to make short-term Argil. Credit (STC) available to farmers at 7% with an upper limit of INR 3.00 lakh on principal amount. Further ST (SAO) loan has been financed to farmers @5% interest by PACS from 01.10.2008. Farmers will get subsidy @3% on interest rate in case of repayment of crop loan within due period with effect from 01.04.2011.

Further, the State Govt. have been providing interest subvention to the farm families for availing the Crop loans at concessional rate of interest of 4% to the farmers up to Rs 50000/- and at 5% interest to the farmers availing loans from INR 50001/- to INR 300000/- w.e.f. 1st October' 2015 as interest incentive at the rate of 3% is available for prompt paying farmers, the effective rate of interest on Crop loan to

such farmers are only 1% and 2% respectively. During 2019-20, the State Govt. had made a provision INR 667.16 crore towards interest subvention for crop loan while INR 22.84 crores has been provided towards Agricultural Term Loan.

2.7.37: Under the newly launched Central Sector Scheme of 'Financing Facility under Agri-Infrastructure Fund' INR 1,00,000 crore will be provided for funding Agriculture Infrastructure projects at farm-gate and the aggregation points (PACS, FPOs, Agri-Entrepreneurs etc.) for all over India. Out of INR 1,00,000 crore, the tentative allocation for Odisha is Rs 2500 crores. The main objective of the scheme is to facilitate debt finances to different projects for post-harvest management infrastructure and community farming assists to improve agriculture infrastructure. Duration of the scheme will be from 2020 to 2029 with the current 2020 as the fiscal year. But loan will be disbursed in first four years. All loans under financing facility will have interest subvention of 3% per annum up to maximum limit of INR 2 crore. The subvention will be available for a maximum period of 7 years.

The funds will be credited to Banks/Financial Institution by Govt. of India. The banks/Financial Institution will provide the financing facilitation as loan to PACs, Marketing Co-operative Societies, Agri-Entrepreneurs, Start-ups, etc. as described in the scheme guidelines. All scheduled commercial banks, co-operation banks, RRBs, Small finance banks, NBFCs and NCDC can provide the financing facilities after signing MoU with NABARD/ Department of Agriculture, Cooperation & Farmers Welfare, Govt. of India. The State Government has started the implementation of the new scheme. Director Agriculture and Food Production, Odisha has been declared as the State Nodal Officer for the scheme. State level and District Level Monitoring committees have been constituted. The eligible state schemes are being identified for convergence with this financing facility under this Agri Infrastructure Fund to avail benefit from both schemes. Some eligible projects under MKUY have been identified and have been registered under this new scheme.

2.7.38: PMFBY: As described in previous section 2.4.2, a flagship Crop Insurance Programme, Pradhan Mantri Fasal Bima Yojana (PMFBY) is being implemented in the state from Kharif-2016. In Kharif-2019, the enrolments for non-loanee farmers have increased from 30,000 farmers in Kharif-2016 to 7.5 lakh under PMFBY. Overall enrolment increased from 17.63 lakhs to 20.05 lakhs in 3 years and the area insured increased from 12.5 lakhs ha. to 18.52 lakhs ha.

2.7.39: Odisha University of Agriculture and Technology, Bhubaneswar (initiatives and achievements)

Odisha University of Agriculture and Technology, Bhubaneswar contributes immensely for the cause of agricultural development through triple mandates of academic, research and extension education activities in agriculture and allied areas. The University offers under graduate and post graduate courses in agriculture and allied areas through 10 constituent colleges, a Centre for Post Graduate Studies and 10 agro-polytechnic centres. The University undertakes research activities through 8 Regional Research & Technology Transfer Stations, 4 Regional Research & Technology Transfer Substations, 7 Commodity Research Stations, 52 All India Coordinated Research Projects and several ad hoc projects. Technology transfer activities are done through a network of 31 Krishi Vigyan Kendras situated in 28 districts of the state and various extension projects operating at Bhubaneswar. In addition to the new initiatives of OUAT as mentioned previously some additional initiatives during 2019-20 are as follows.

2.7.39.1 Entrepreneurship development training for students: Efforts have been made for skill and entrepreneurship development among students. During 2019-20, a total of 766 students have been provided trainings through 32 courses for skill and entrepreneurship development.

2.7.39.2 OUAT Kalinga: A special brand namely OUAT Kalinga was created for timely supply of good quality technological products at right price to the farmers and other stakeholders. All the technologies developed by the University will be made available to the farmers in the brand name of OUAT Kalinga.

2.7.39.3 During 2019-20, the University has made various achievements as detailed below.

- A single cross maize hybrid Kalingraj (OMH 14-27) was released for cultivation in Odisha during kharif season under rainfed situation.
- A cotton variety BS 279 with duration of 150-160 days was released. This variety is suitable for growing in uplands under irrigated situation.
- The University has developed a colour broiler Tallishree', suitable for rearing under intensive and semi-intensive system of management.
- Various farm machineries and implements such as OUAT black pepper thresher-cum-grader, OUAT little millet thresher-cum-cleaner, Power tiller operated plastic mulch laying machine and OUAT solar powered mobile van (OSPAM) have been developed by the University.
- The biological efficiency of Blue oyster. (*Hypsizygus ulmarius*) mushroom was found higher than the popular varieties viz. *Pleurotus sajorcaju* and *Pleurotus florida*.
- During 2019-20, the KVKs have trained 38901 farmers & farm women through 1483 trainings on agriculture and allied subjects. Similarly, 4854 nos. of rural youths were trained through 294 nos. of training.
- The KVKs have conducted 271 nos. of on-farm testing by involving 2105 nos. of participating farmers.

2.7.40: 5T Task Teams: For Department of Agriculture and Farmers' Empowerment, Govt of Odisha 20 Task Teams constituted under 5T programme. The subject coverage with implementing organisations is as follows:

- Directorate of Agriculture and food production, Odisha - 11 task teams (the subjects includes- Doubling of Farmers Income, Crop Diversification, Preparation of Farmer Data base, Extending credit to share croppers, Estimation of Yield Using Technology, Procurement of Non-Paddy Crops etc.)
- Director Horticulture- 4 (Crop Diversification, Digitisation of MPRs)
- Director Soil Conservation- 1 (Every willing farmer can have a farm pond with a target of 5 lakh Farm Ponds in next 5 years)
- Director IMAGE-2 (Strengthening Extension System & AMA Krushi Service)
- OUAT- 1 (Creating Centre of Excellence)
- APICOL-1 (Value addition & market linkage through women SHG)

2.8 Fight against covid-19 pandemic situation with respect to crop sector:

Livelihood intervention programmes by Department of Agriculture and Farmers' Empowerment to fight Covid-19 situation

2.8.1: Distribution of quality certified seeds at subsidised rate

Keeping in view the COVID-19 pandemic situation, it has been necessary to lower the financial burden of the farmers on purchase of seeds and therefore the Government has decided to extend 75% seed subsidy to the farmers during Kharif 2020. The farmers who have already purchased seeds during current Kharif in existing subsidy pattern, the additional 25% subsidy will be credited to their respective Bank Account.

It has been programmed to cover 10, 000, 00 farmers who will be benefitted by availing 75% subsidy during this Kharif, 2020. By end of November 2020, about 3, 17,760 farmers have purchased seeds with 50% subsidy. The differential amount so due will be credited to the farmer's account in phase manner.

2.8.2. Demonstration programme of different Crops:

About 76,600 hectare of demonstration programme on different crops like - Rice, Pulses, Coarse cereals, Nutri-cereals, Oilseeds, Cotton and Jute etc has been communicated to 30 districts of the state to provide livelihood intervention to combat the COVID-19 Pandemic situation in convergence with State Sector Scheme, NFSM & BGREI Schemes. Out of the total programme of 76,600 hectares, 100% achievements have already been made.

2.8.3: Standing Rabi vegetable crops faced management and marketing problems due to lock down in the wake of COVID - 19. To provide the nutritional security, there was programme of supplying Vegetable Minikits to five lakh farm families.

2.8.4: For nutritional security, there was programme of supplying Mixed Fruit Plants (mango graft : 2 numbers, Klime : 1 number., Guava Gottee : 2 numbers., coconut : 1 number, f1 hybrid papaya : 2 numbers, and drumstick : 2 numbers at free of cost)to 1,00,000 farm families for backyard plantation.

2.8.5: For nutritional security and livelihood sustenance, there was programme of supplying Fruit Seedlings i.e. Mango grafts @5 nos. for covering for 1,00,000 farm families.

2.8.6: For income generation and livelihood sustenance, there was a programme of Special Assistance for High Value Vegetables (Creeper Crop) through Single Line Trellis under Production Cluster programme @ INR 12675/- per unit to cover 12,000 farmers.

2.8.7: There was marketing programme on flowers due to lock down in the wake of COVID - 19 with the objectives of escaping the flower farmers from economics stress and for income generation there was a programme for Flower Cultivation for covering 3000 farmers with financial assistance @ INR 6000/-per unit of 0.10 ha.

2.8.8: Due to lock down, the marketing of Mushroom was affected. To support the Mushroom growers the programme was made for 50,000 WSHG /FIG members and 10,000 Individuals to provide incentive for Mushroom cultivation.

2.8.09: Transportation of fruits & vegetables in improper packings of gunny/plastic bags leads to injury & there by post harvest losses are increased. To minimize the post-harvest losses there is programme of supplying Plastic Crates to 1,00,000 WSHG/FIG members @ 4 numbers of Plastic Crates with 90% subsidy for safe carrying of fruits and vegetables.

2.8.10: For improved livelihood of small and marginal farmers, there is a programme of Betel Vine cultivation with 4000 farmers with estimated cost of INR 16.00 Crore.

2.8.11: For nutritional security and income generation there is a programme for supply of Hybrid Vegetable Seeds @ 50% subsidy covering five lakh farmers.

Impact of COVID-19 on Agriculture Sector (Crop Sector)

The traditional sowing festival of Odisha 'Akshaya Tritiya' was on 26 April 2020 during the lockdown period of covid-19 pandemic. Normally the field preparation starts with Akshaya Tritiya. The constraints in availability of seeds and fertilizers, non-availability and unwillingness of labourers, disruptions in transport and the limited functioning of financial institutions were the key challenges in crop sector.

Because of the proactive steps of Government the crop production reached to the estimation level. During mid April, Agriculture and allied activities were kept free from lock down and orders were issued to field offices to make detailed arrangements for ensuring the continued functioning of agricultural operations. All agro inputs and outlets were allowed to remain open during lock down and farmers were advised to go for procurements of their commodities following social distancing norms. Intensive efforts have been made to gainfully engage the migrant workers in the field of Agriculture by taking of various activities like digging of Farm Pond and plantation of horticulture crops etc. For sustainability of crop sector the special livelihood intervention programmes and packages declared by Government are in detail at Section 2.8.

In spite of the Covid-19 situation, 121.8 MT sunflower, 2008 MT groundnut, 7011.38 MT green gram and 18291 MT seed cotton have been procured at different procurement centres.

For horticulture produce like Fruits, Vegetables, Flowers, Plantation crop and Spices, a special marketing website (odihortmarketing.nic.in) was developed during COVID-19 Lockdown period to monitor and to facilitate the farmers to sell their surplus horticulture produce to the traders in suitable rate. The major produces available are Cabbage, Cucumber, Green chilly, pumpkin, tomato, Cashew nut, Dry chilly, betel vine ginger, Rose and marigold etc. The traders can also know details about the available of surplus produce from website. Around 1400 traders details are uploaded in the website. By last week of January 2021 about 1,11,109.89 qtls and 80.42 Lakh numbers of surplus available has been uploaded and through this website and 52306 qtls and 40.51 Lakh numbers of surplus were sold.

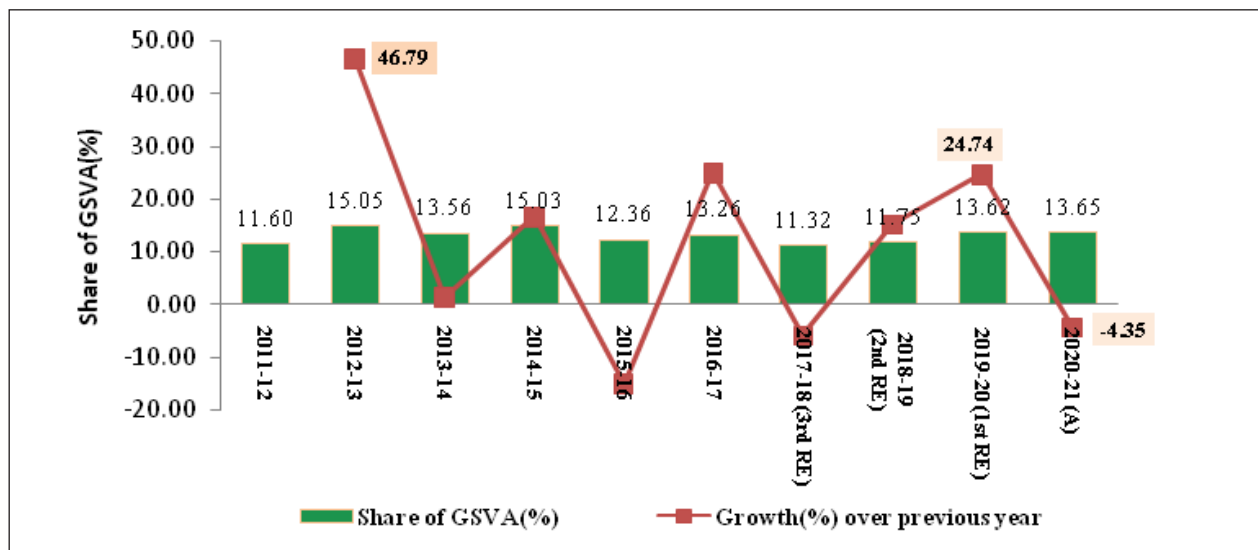
Also, in APC (Agriculture Production Cluster) areas (40 tribal blocks of 12 high land districts as mentioned earlier) vegetable marketing was promoted in collaboration through Horticulture Dept, ORMAS, district administration and APC partner NGOs. Nearly 23263 farmers in APC areas who had taken up rabi crops sold to the tune of INR 203 lakh in 3 months' lockdown period.

2.9: Trend in GSVA share (%) and growth of Crop sub-Sector

Based on current basic price, the advanced estimate for the year 2021 gives the Gross State Value Added share(%) of crop sector as 13.65% whereas the GSVA share of entire agriculture and allied sector is 21.27%. During 2019-20, the same for crop sector was 13.62% against the agriculture and allied sector as 21.38 %.

Based on current basic price during 2012-13, the growth of crop sector reached a peak of 35.79%, but it is fluctuated from year to year. The growth was in increasing trend from 2017-18 to 2019-20 continuously. There was a significant growth of crop sector i.e. 24.74% during 2019-20, but the advanced estimate of 2020-21 gives the contraction of 4.35% in crop sector in current price (the growth is -4.27% in 2011-12 constant price). There was a cyclone “AMPHAN” and heavy flood during first half of 2020-21. Again there was a disruptive situation of covid-19 pandemic. The joint impact of cyclone, flood and covid-19 pandemic situations might result contraction in GSVA of crop sector for 2020-21 advanced estimate. Because of proactive steps taken by Government in crop sector, the contraction might recover to significant growth in revised estimate of 2020-21. The share and growth of agriculture from 2011-12 to 2019-20 along with 1st advanced estimate for 2020-21 in current basic price are presented in Figure-2.18.

Figure-2.18: Annual growth and Share (%) of Crops sub-sector in total GSVA (on current price)



Source: DE&S, Odisha

2.10: Income of Agricultural Household

2.10.1: Situation Assessment Survey by NSSO, MoSPI, Govt. of India

To assess the situation of the rural households involved in agricultural activities of the states as well as all India level, different Situation Assessment Surveys (SAS) have been conducted by NSSO (National Sample Survey Office), Ministry of Statistics and Programme Implementation, Govt of India in different rounds in certain intervals. These surveys were undertaken in rural sector of all over the country using multistage stratified sampling technique. Here the trend analysis has been made on the latest published estimates of the SAS conducted during 2003 and 2013. The recent survey (SAS) has also been conducted by NSSO during 2019 for the reference period 2018-19 but the result has not yet been published.

The Situation Assessment Survey (SAS) of 70th round NSS, the reference period was July 2012-June 2013. For the purpose of an agricultural household was defined as a household receiving some value of produce from agriculture activities (e.g., cultivation of field crops, horticultural crops, fodder crops, plantation, animal husbandry, poultry, fishery, piggery, bee-keeping, vermin-culture, sericulture, etc.) with at least one member self-employed in agriculture either in the principal status or in subsidiary status and having total value of produce more than INR 3000/- during the last 365 days from the date of survey.

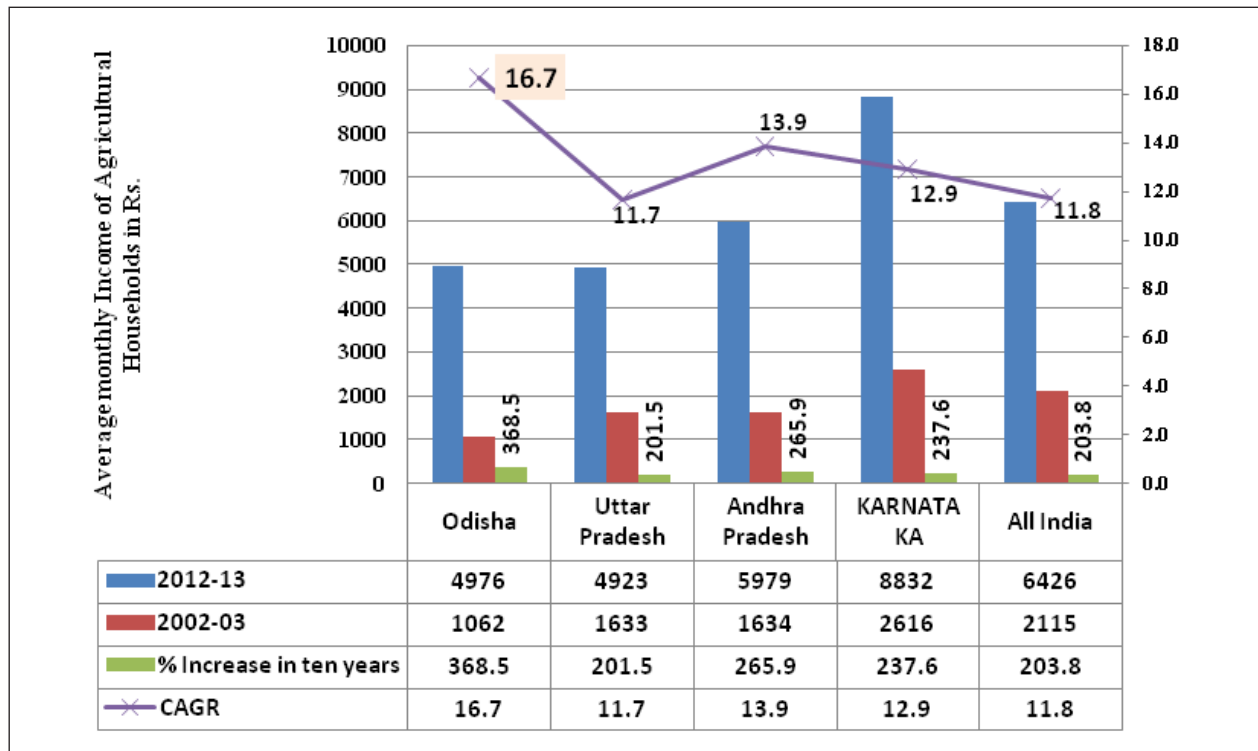
But in the SAS of 59th round of NSS (reference period of survey was July 2002-June 2003), the terminology was farmers' households and the coverage was based on 'land possession'. According to 59th round, any household having at least one farmer as its member was regarded as farmers' households. For the purpose of this survey, a farmer was defined as 'a person who operates some land and is engaged in agricultural activities during the last 365 days from the date of survey'.

2.10.1.1: Due to the conceptual and coverage difference the estimates of 70th round (2012-13) and 59th round (2002-03) are not exactly comparable. But with this limitation, some trend analysis has been made on the estimates of 2002-03 and 2012-13 in this section. From Fig- 2.19, it is observed that during 2002-03 the average monthly income of a farmer's household of Odisha was INR 1062 and it inclined to INR 4976 during 2012-13 with percentage point 368% (during ten years). Although the average monthly income for Odisha for 2012-13 was lesser than that of National level as well as Andhra Pradesh and Karnataka, the CAGR (Compound Annual Growth Rate) was about 16.7% which was maximum among these.

2.10.1.2: Average monthly income of an agricultural household included the income from different sources of the household from cultivation, farming of animals, non-farmbusiness and income from wages/ salaries. Fig-2.20 shows a comparative picture on source wise monthly income of an agricultural household during 2012-13 for Odisha, India and some major states. Fig-2.21 also shows the proportion of sources of income in the overall monthly average income. For Odisha, during 2012-13 the proportion of income from cultivation and farming of animals are accounted for 54.7 percent of the average monthly income of an agricultural household where as the proportion is about 60% for all India level and more than 60% in Uttar Pradesh and Karnataka. For Andhra Pradesh and Odisha the proportion of income from wage and salary in agricultural household are higher. Specifically it is to mention here that income proportion from farming of animal is highest among the major states shown as well as all India.

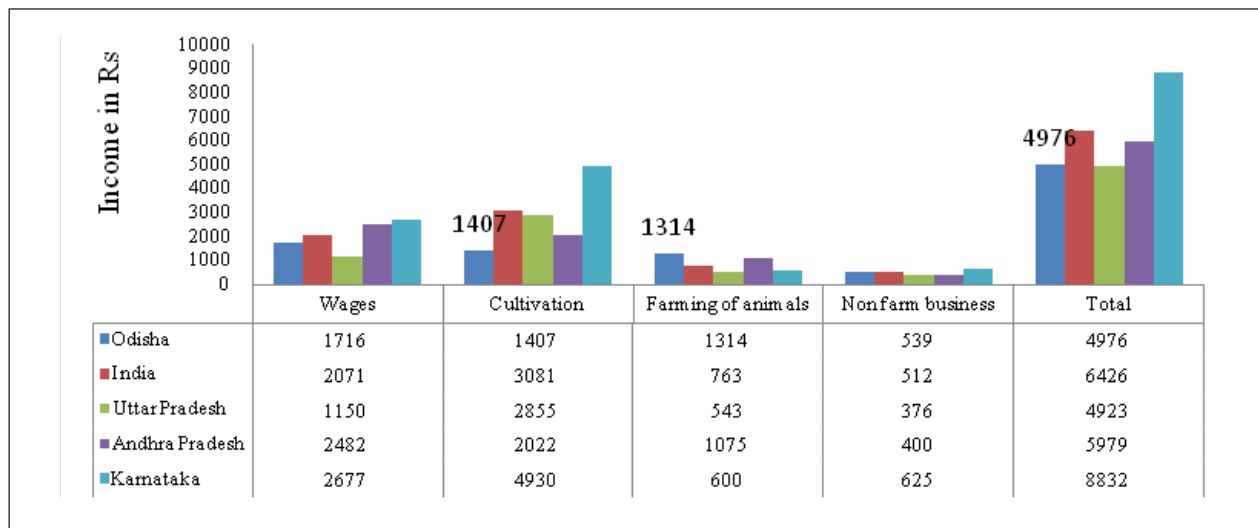
2.10.1.3: Fig-2.22 shows the average annual expenses of an agriculture household of Odisha for cultivation for 2002-03 and 2012-13 with the annual compound growth rate during the period of ten years. The major sources of expenses are seeds, fertiliser, plant protection, labour, irrigation and mechanisation etc. From the figure it can be observed that major proportions of expenses were for labour, fertiliser, seeds and plant protection respectively. The maximum CAGR (21.11%) is observed for the expenses on plant protection during 2002-03 to 2012-13. The growth rate is also very high for expenses in fertiliser, mechanisation and labour etc. But the CAGR is low in case of expenses in seeds.

Figure-2.19: Comparative Trend of Agricultural Households of Odisha with some States and All India



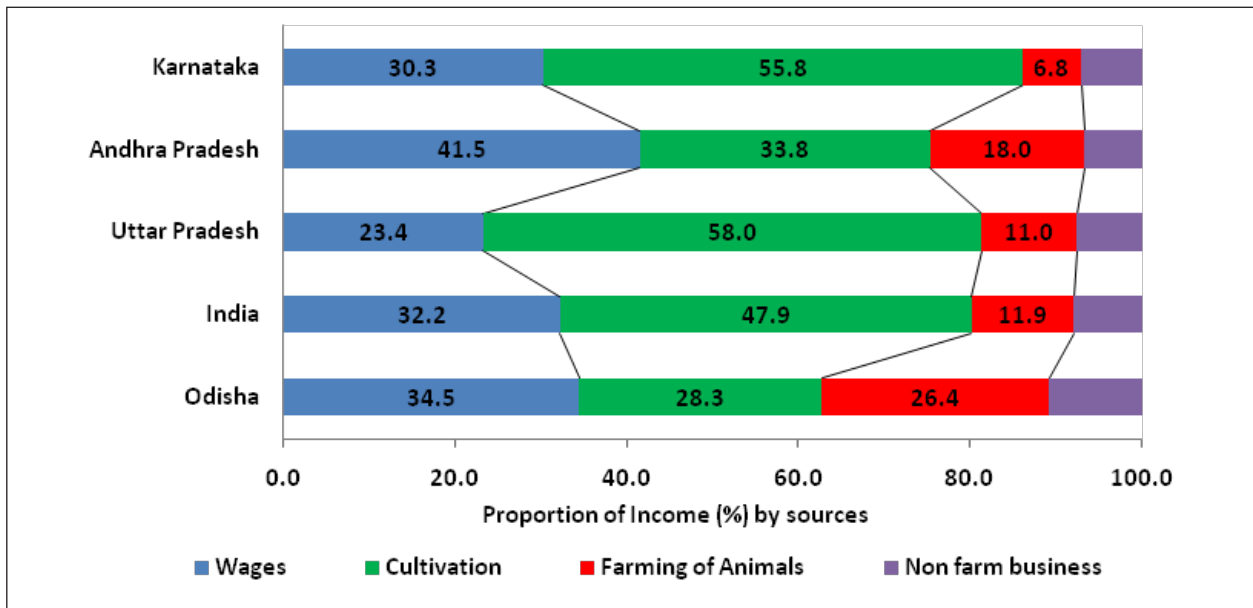
Source: SAS-2013, MoSPI, Gol

Figure-2.20: Source wise average monthly Income of Agricultural households (2012-13)



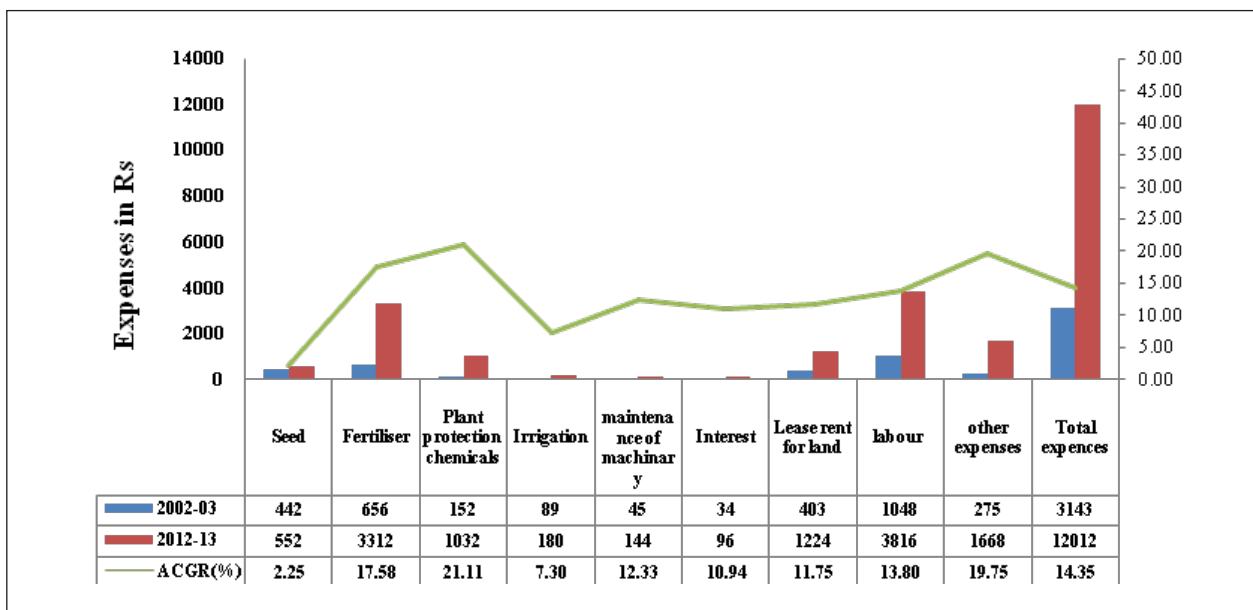
Source: SAS-2013, MoSPI, Gol

Figure-2.21: Proportion (%) by source in Average monthly Income of Agricultural households (2012-13)



Source:SAS-2013,MoSPI,Gol.

Figure-2.22: Source wise average annual expenses of an agricultural household of Odisha for crop cultivation



Source:SAS-2013,MoSPI,Gol.

2.10.2 NAFIS-2016-17 by NABARD:

Another similar survey i.e. NAFIS-2016-17 (NABARD All India Rural Financial Inclusion Survey) was undertaken by NABARD in all states on sample basis for the reference year 2015-16. As per that survey result the estimated average monthly income of an agricultural household for Odisha was INR 7731/- and the same for India was INR 8931/-for 2015-16.

NAFIS did not cover all districts of the states whereas in SAS all districts were under coverage. Also the sample size of NAFIS was significantly less than that of SAS. On this point of view, the estimates of SAS by NSSO are not comparable with that of NAFIS by NABARD. But while we consider the computed CAGR of monthly average income of an agricultural household for Odisha and All India which are shown at Figure -2.19, a good consistency is observed in the estimates of SAS and NAFIS for the year 2015-16. (The computed estimates for 2015-16 are INR 7909/- and INR 8969/- for Odisha and all India using the CAGR on SAS estimates shown at Fig-2.19 which are nearly equal to the estimates of NAFIS for the year 2015-16).

II. Livestock and Fishery Sector

2.11 Livestock

Livestock plays a significant role in rural livelihoods and economies of the Indian states. Livestock rearing is an integral part of farming communities. It supplements the household income of agricultural household and generates employment in rural Odisha. This is the sector where the poor gets benefits directly. This Sector has also the highest potential for rural self-employment generation at the lowest possible investment per unit. The ownership of the livestock in the State is more evenly distributed with landless labourers and marginal farmers owning majority of livestock.

As described in previous section, in figure-2.21, a significant share of income of farmers' household was from farming of animal as per SAS 2013. The share of income from farming of animal was 26.4% which was significantly higher than that at national level (11.9%) as well as the major states Uttar Pradesh, Karnataka and Andhra Pradesh.

For rural Odisha, livestock sector is the largest segment after agriculture. The activities of the Animal Husbandry Sector have been oriented towards health of livestock and increased production of milk, meat and eggs and to provide adequate bullock power for agricultural operations. The schemes of the Animal Husbandry Sector are being formulated in pursuance to the well-laid National policies to improve the Livestock production, to fight protein hunger and to improve nutritional standards of human population and also provide technical support for the maintenance of livestock and improvement of livestock breeds. There are 541 veterinary hospitals/ dispensaries, 3239 livestock aid centres in the State to provide veterinary services.

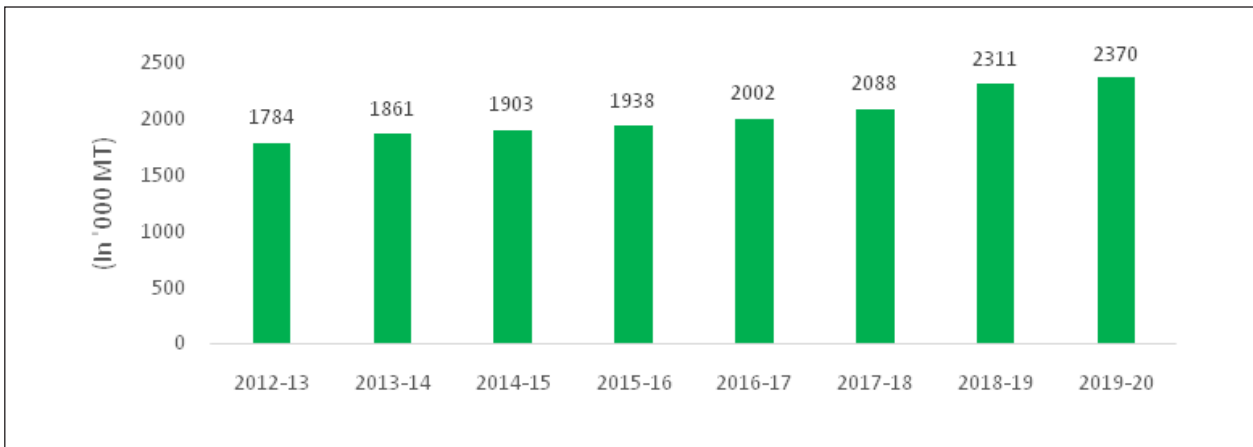
2.11.1 Livestock Population

As per the recent Livestock Census 2019, Odisha has 3.39 % share of India's total live stock and 3.22% of the total poultry in India. The total livestock population in the State stood at 182 lakhs, while poultry population was at 274 lakhs. Cattle form the largest share of livestock population with a share of over 55%. (Odisha has a share of 5.12% in the total cattle population in India). Odisha ranks 10th in cattle population, 9th in Goat and Sheep population and 10th in Poultry population amongst all states of the country. The percentage share of exotic / cross breed cattle in total cattle population has been increased of 36% with comparison to previous livestock census of 2012. The share of cross breed cattle has reached to 16% of total cattle population. The rising share of productive animals has been reflected in rising milk production of the state.

2.11.2 Milk Production

From figure 2.23 the incline trend of milk production in Odisha is clearly observed. It shows that the milk production in Odisha has grown from 1784 thousand MT in 2012-13 to 2370 thousand MT in 2019-20 with compound annual growth rate (CAGR) of 9%. Around 91% of milk production is of cow milk and 8% is buffalo milk. In terms of per-capita availability of milk it was 113 gm/day in 2012-13 which was increased to 136 gm/day in 2019-20.

Figure-2.23: Milk production in Odisha (in TMT)

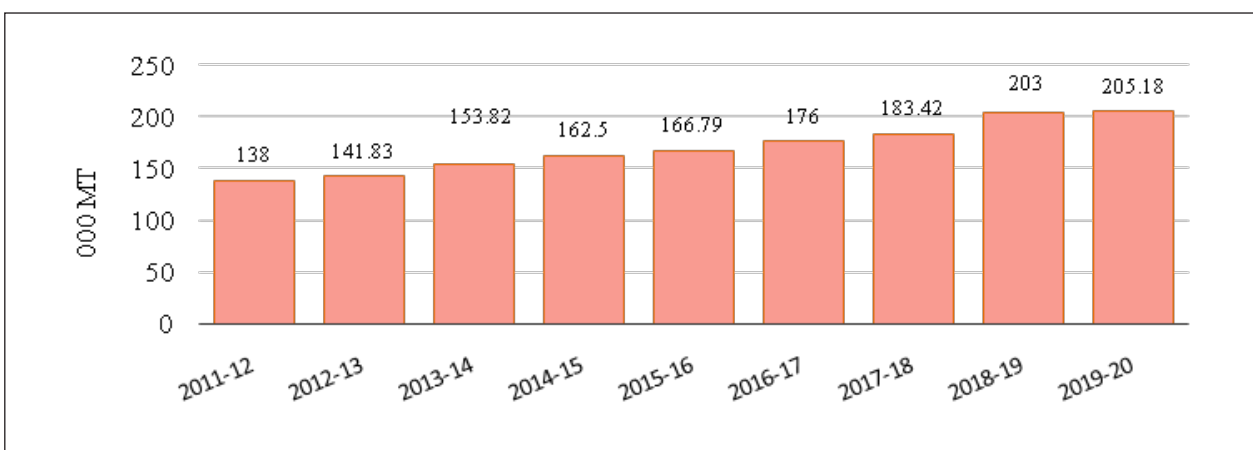


Source: F&ARD Department, Odisha.

2.11.3 Meat and Egg Production

Meat accounts for 52% of total GVA in Livestock sector. Of the total meat produced, 50% is poultry meat and 48% is goat/lamb meat. As regards per-capita availability of meat, it was 3.06 kg/annum in 2009-10 and 3.66 kg/annum in 2014-15. But in 2019-20 the per capita availability of meat was 4.31 kg/ annum. Figure 2.24 shows the clear picture of trend of meat production in Odisha from 2011-12 to 2019-20.

Figure-2.24: Meat Production in Odisha

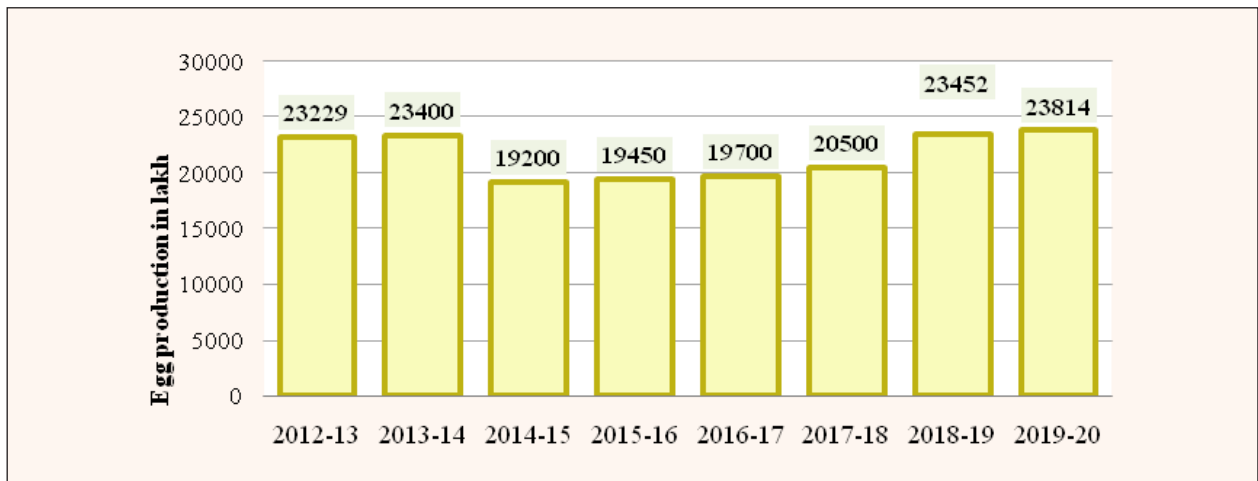


Source: F&ARD Department, Odisha.

2.11.3.1 Egg Production

Egg production in Odisha has also increased significantly from 23,229 lakh in 2012-13 to 23,824 lakh in 2019-20. However, the per capita availability of egg has decreased to 50 (per annum) in 2019-20 from 54 in 2011-12. Figure-2.25 shows the trend of egg production from 2011-12 to 2019-20.

Figure-2.25: Egg production in Odisha



Source: F&ARD Department, Odisha.

At present OPOLFED, a Govt. of Odisha undertaking carries out various marketing activities like supply of eggs, packet eggs and chicken meat in twin cities of Bhubaneswar and Cuttack through 73 sales booth and chicken centres. To increase its marketing outreach, the Government decided to establish 53 fresh chicken centres across the State in Kandhamal, Puri, Jagatsinghpur etc.

2.11.4: Government Initiatives for the sector of Animal Resource Development.

2.11.4.1: **Cross-breeding programme:** During 2019-20, F & ARD Department had taken initiatives to implement Cross-breeding programme in order to cover more breedable cattle and buffalo under organized breeding to create four lakh cross bred / Graded female calves at the farmer's house. The artificial insemination service was being rendered through a network of 3319 (Static) Departmental AI (Artificial Insemination) centers, 2940 number of mobile AI centres providing doorstep AI service, 556 numbers of Gomitra centers (including inaccessible areas) and 955 OMFED centers at farmers' door step.

2.11.4.2: **Six Breeders' Societies** namely Chilika Buffalo Promoters Society (CBPS),Kalahandi Buffalo Producers Society (KBPS), Binjharpuri Cattle Promoters and Producers Society (BCPPS), Motu Cattle Promoters Society (MCPS),Ghumusuri Cattle Breeder Society (GCBS) and Khariar Cattle Breeders Society (KCBS) have been set up in Native tract of Chilika, Kalahandi,Binjharpur, Malkangiri, Ganjam & Nuapada respectively towards breed improvement & conservation of all registered breeds of Odisha.

2.11.4.3: **Frozen Semen Bank**, Cuttack has produced 7.563 lakh semen straws during the year 2019-20 (up to January-2020) to be used for artificial insemination. The Strengthening of Frozen Semen Bank is being taken up by availing assistance under Rashtriya Gokul Mission (RGM) and National Dairy Plan (NDP)-1. Special attention was given for quality frozen semen for insemination purpose. The Artificial Insemination (AI) in Cattle & Buffaloes had been achieved at 10.57 lakhs during 2019-20.

2.11.4.4 Mobile Veterinary Unit (MVU): MVUs are operational in all 314 blocks of the State. The MVUs are operating for 20 days in a month and conduct one animal health camp covering at least two villages per day from Monday to Saturday. The door step veterinary services have been provided to the live stock during the entire lockdown period due to COVID pandemic.

2.11.4.5 Genetic Improvement of Bovine: The Odisha Bovine Breeding Policy 2015 is under implementation in the state was a vision of giving emphasis for promoting Artificial Insemination(AI) and around 4500 number of AI centres are providing breeding services to brovines for genetic improvement of cattle and buffalo in the state. The Nationwide Artificial Insemination Programme (NAIP)-II' is being implemented from 1st September -2020 to 31st May 2021 in all 30 Districts of Odisha with a target to cover 15 lakh breedable bovines under organised breeding programme. In spite of Covid-19 pandemic, the breeding services have been provided uninterruptedly in the field.

2.11.4.6 Preventive Vaccination of Livestock: Under another Central scheme 'National Animal Disease Control Programme (NADCP)' for Foot and Mouth Diseases (FMD) and Brucellosis vaccination has been taken up in mission mode to control the diseases by 2025 in the state. During last year 90.6 lakh cattle and buffalo have been vaccinated in first round by October 2020. All the vaccinated animals have been ear tagged and the data are being uploaded in the national portal.

2.11.4.7 Mukhyamantri Krushi Udyog Yojana (MKUY): The state scheme has been launched during 2018 for agri-entrepreneurs for both agriculture and allied sectors. Under MKUY, a beneficiary can apply online for minimum 10000 bird capacity for broiler farming/ 100 goat farming etc. In this scheme the farmers can avail 40% to 50% subsidy depending on category subject to maximum of Rs 50 lakh for any project. During COVID situation MKUY is one of the pioneer scheme for agri-entrepreneurship.

2.11.4.8 Fodder Development activities: Under the state plan about 927.75 acres of land brought under perennial fodder crop cultivation. Under a component of RKVY about 33333 number of fodder seed minikits have been supplied to farmers in 10 FANI affected districts.

2.11.5: Government Initiatives to fight with COVID-19 pandemic situation with respect to ARD (Animal Resource Development) sector

A wide range of measures have been taken in response to COVID-19 pandemic on the ARD sector in Odisha. On 28th March 2020, F & ARD Department notified authorizing local urban bodies and district veterinary authorities to issue passes for the movement of feed for cattle, poultry and other livestock and allowed retail shops to remain open for selling the livestock products like milk, meat, chicken and eggs. F & ARD Department launched an effective information campaign to dispel misinformation on the consumption of livestock and poultry products. The campaign includes the advertisement through electronic, print & social media citing medical information & advisories from national and international agencies including the World Health Organization. The campaign significantly contributed to bringing back demand and restoring normalcy in prices as the price of poultry products shot to higher than normal levels during 1st week of April, 2020. On 22nd March, F & ARD Department notified that the veterinary hospitals and dispensaries would continue to function for providing essential livestock health care services even in lockdown areas. The return of migrant workers to Odisha after the resumption of interstate transport by bus and train has grown manifold times. To address the unemployment problems during the crisis the Hon'ble Chief Minister of Odisha declared special COVID-19 package for livelihood generation of migrant workers unemployed youth and women SHGs which are as follows:

2.11.5.1: Support to Farmer for Broiler farming

This is a state plan scheme to support and to improve livelihood of the seriously affected distress farmers. During 2021, 1535 farmers and WHSGs are to be covered. The unit cost of 500 birds Broiler unit is INR 1.775 lakh which includes cost of poultry shed, chicks etc. Back ended subsidy of 40% amounting to INR 71,000/ per broiler unit will be provided by State Government. The overall budget is INR 1090.42 lakhs. Under this scheme 1535 beneficiaries were already issued Go-Ahead letter by the concerned district committee under the chairmanship of Collector-cum-District Magistrate. By end of December 2020, about 372 beneficiaries have completed their poultry shed and 900 poultry shed are under construction. INR 57.395 lakhs subsidy amount has already been released.

2.11.5.2: Support to Farmer for Broiler farming under Deep litter system:

This is a centrally sponsored scheme under National livestock Mission for poultry development in rural areas. Under this scheme 200 farmers in 8 districts are to be covered. Priority are to be given to the marginal workers of the state. Unit cost of 600 birds under the broiler scheme is INR 1,12,500/-(150 birds in 4 batches) and subsidy is 100%.

2.11.5.3: Support to Farmer for Layer farming under Cage system:

Under this State plan scheme, 656 farmers, migrants and entrepreneurs will be supported in establishing poultry layer units in cage system during 2020-21. The unit cost of 1000 birds' capacity Layer unit is Rs 7.592 lakh and 40% subsidy amounting to Rs 3.0368 lakh will be provided by State Government. The overall budget is Rs 1993.00 lakhs. By end of December 2020, about 656 Go-Ahead letters was already issued by the concerned district committee and 23 poultry sheds already completed and 328 sheds are under construction. INR 2.43 lakhs subsidy already been released.

2.11.5.4: Layer farming under Deep litter system through WHSG:

This is a state plan scheme to support the women SHG for income generation. Under this scheme the unit cost of 200 capacity poultry bird layer unit is Rs 2 lakhs with s subsidy of 50% per unit. During 2020-21, about 1002 numbers of WSHGs are to be supported.

2.11.5.5 Rural Backyard Goat/ Sheep Farming:

This is a centrally sponsored scheme under NLM (National livestock Mission) for setting of backward goatery/sheep unit with a capacity of 11 animals (10 female + 1 male) per unit with a provision of 90% subsidy during 2020-21. The unit cost for rural backward goat development is Rs 66000 and subsidy amount is Rs 59400. During 2020-21, 1060 farmers are to be benefited.

2.11.5.6 Backyard Poultry Farming:

This is a state plan scheme to support the farmers those who have suffered serious economic loss due to covid-19 pandemic. During 2020-21, about 9600 individual members of WHSG will be supported for rearing 50 unsexed Low Input Technology (LIT) poultry birds each under scavenging system. The unit cost of a poultry unit is INR 3750/.

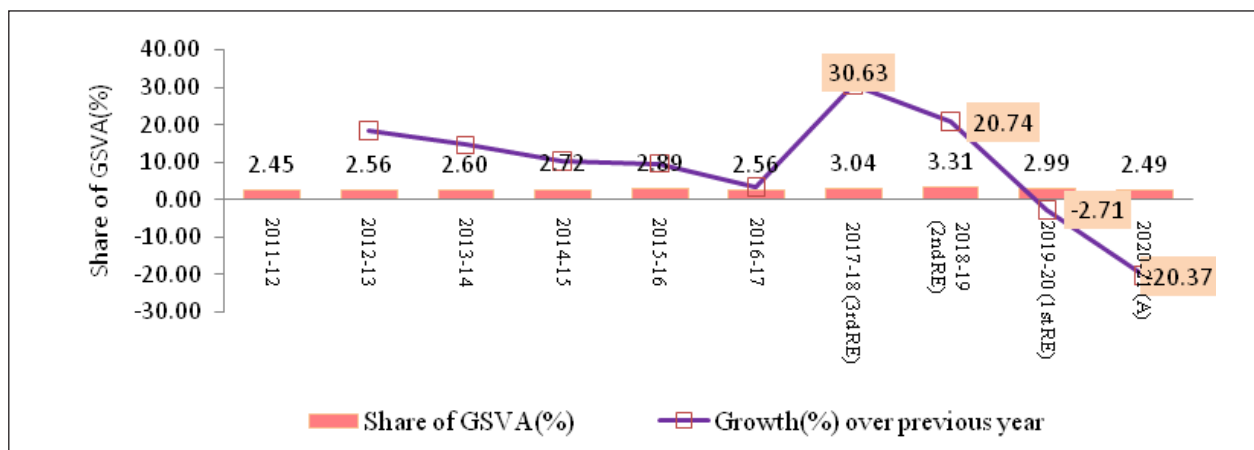
2.11.6: Trend in Share (%) of Livestock sub-Sector in GSVA

Based on current basic price and advanced estimate for the year 2021, the Gross State Value Added (%) share of livestock sector is 2.49 % against the GSVA share of entire agriculture and allied sector is 21.27%. During 2019-20, the same for the livestock sector was 2.99 % against the agriculture and allied sector as 21.38 %.

During 2017-18, the growth of livestock sector reached a peak of 30.63%, but there is a significant contraction of 20.37% (-32.97% in 2011-12 constant price) as per 2020-21 advanced estimates. The exceptional covid-19 pandemic situations might result contraction in livestock sector in 2020-21 advanced estimate of GSVA to livestock sector. Figure 2.26 shows the share and growth of livestock sub-sector.

Figure-2.26: Growth and Share (%) of livestock sub-sector in total GSVA

(based on current price)



Source: DE&S, Odisha

2.12 Fisheries

The state Odisha is endowed with rich potential of inland, brackish water and marine fishery resources. 485 km. long coastline and 24,000 sq. kms of shelf area along the Bay of Bengal offers tremendous potential for development of fresh water, brackish water and marine fisheries with scope of fish production. The state with 6.85 ha. of fresh water resources and 4.18 lakh ha of brackish water resources plays an important role in uplifting economically poor households in terms of employment and income generation for socio-economic prosperity. The Government has taken up a mission for doubling of inland fish production and increasing the present level of export to the value INR 20,000 crores. Accordingly F&ARD Department has come with 'Odisha Fisheries Policy, 2015' to achieve the ambitious goal to reach average productivity of 5 tonnes/ha. The following analysis containing tables and graphs are regarding production, export and import of marine products.

2.12.1: Fish, Crab and Shrimp Production

2.12.1.1: There is a significant rise in total fish production in Odisha with CAGR of 7.8% over the last ten years (i.e from 386.19 thousand MT in 2010-11 to 816.46 thousand MT in 2019-20). The figure-2.27 along with the table 2.22 shows the trend and year wise growth of fish production in Odisha. Per-capita consumption of fish was 15.4 kg in 2018-19 and it jumped to 16.2 kg in 2019-20.

2.12.1.2: Figure 2.28 shows the changing proportion of fish categories in Odisha with respect to production from 2010-11 to 2019-20. The share of fresh water fish as well as brackish water fish categories are increasing gradually during these 10 years. Table 2.23 shows the detail source wise fresh water fish production in Odisha during 2010-11 to 2019-20.

Of the total fish production, fresh water fish constitutes 67%, brackish water 14% and marine fish 19%. Major source of fresh water fish is tanks/ponds followed by reservoirs, rivers/canals and swamps/lakes.

2.12.1.3:As like Fish, there is a significant rise in crab production in Odisha with CAGR of 3.9 % over the last ten years (i.e from 3.37 thousand MT in 2010-11 to 4.93 thousand MT in 2019-20).It has been increased to 4.93 (000 MT) in 2019-20 from 4.76 (000 MT) in 2018-19 with 4% growth. The figure-2.29 along with the table 2.22 shows the trend and year wise growth of crab production in Odisha.

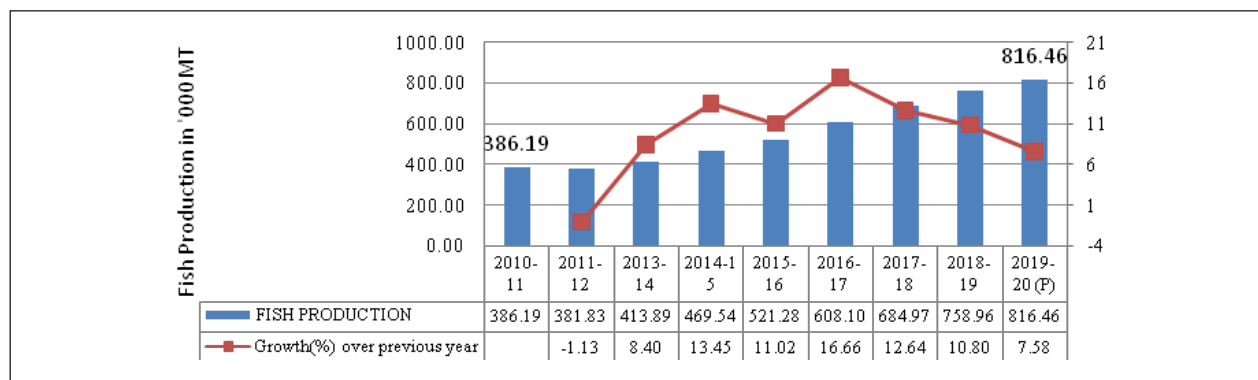
2.12.1.4: Table 2.24 shows the detail source wise shrimp production in Odisha from 2011-12 to 2019-20. During these years, shrimp production from brackish water is more and from figure 2.30 the trend of shrimp production in Odisha can be observed. The figure shows that the growth is significantly high in 2018-19 and 2019-20 over the previous year i.e. 21.7% and 26.5%. There is a remarkable CAGR (%) i.e 14.1% in 2019-20 over 2011-12 in shrimp production of Odisha.

Table 2.22: Production of Fish and Crab in Odisha. (in 000' MT)

Year	Inland fish production		Marine fish	Total	Per capita consumption of fish (Kg.)	Crab Production
	Fresh water	Brackish water				
1	2	3	4	5	6	7
2010-11	224.96	27.75	133.48	386.19	9.42	3.37
2011-12	237.47	30.06	114.3	381.83	10.14	2.26
2013-14	263.86	30.01	120.02	413.89	9.66	2.8
2014-15	300.96	35.37	133.21	469.54	11.06	3.22
2015-16	336.22	40.31	144.75	521.28	12.24	3.77
2016-17	393.73	61.27	153.10	608.10	13.49	4.23
2017-18	454.19	79.94	150.84	684.97	14.42	3.88
2018-19	506.61	94.03	158.32	758.96	15.38	4.76
2019-20 (P)	543.05	116.10	157.31	816.46	16.24	4.93

Source: Directorate of Fisheries, Odisha.

Figure-2.27: Fish Production in Odisha and growth (%)



Source: Directorate of Fisheries, Odisha

Figure-2.28: Proportion of Fish Categories produced in Odisha (%) during last 10 years

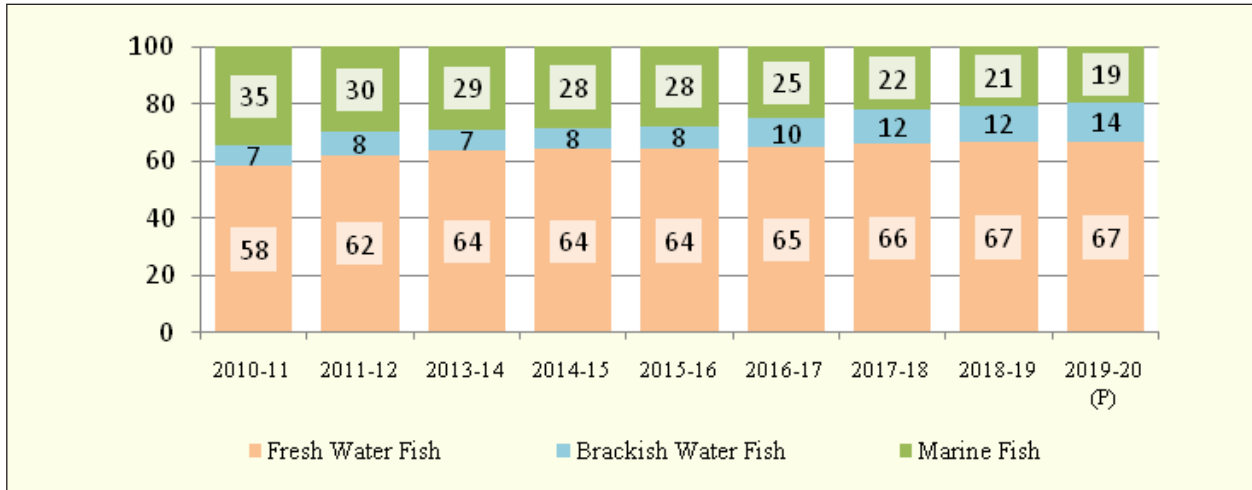
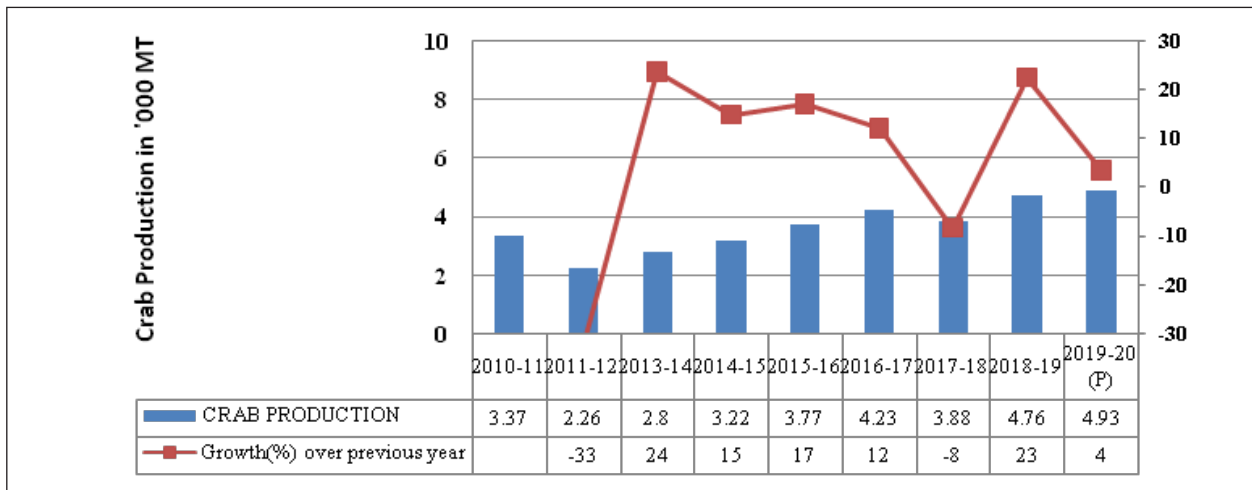


Figure-2.29: Crab Production in Odisha and growth (%)



Source: Directorate of Fisheries, Odisha

Table 2.23: Fresh Water Fish Production from Different Sources (in 000'MT)

Year	Tanks / Ponds	Reservoirs	Lakes / Swamps / Bheels	Rivers / Canals	Total
1	2	3	4	5	6
2011-12	211.19	13.73	1.94	10.61	237.47
2013-14	230.43	18.57	2.41	10.51	261.92
2014-15	261.85	21.83	2.94	14.35	300.96
2015-16	289.67	22.76	4.25	19.54	336.22
2016-17	331.19	30.07	4.88	27.59	393.73
2017-18	393.61	33.99	4.93	21.66	454.19
2018-19	442.85	37.39	5.28	21.09	506.61
2019-20 (P)	472.84	41.73	6.14	22.34	543.05

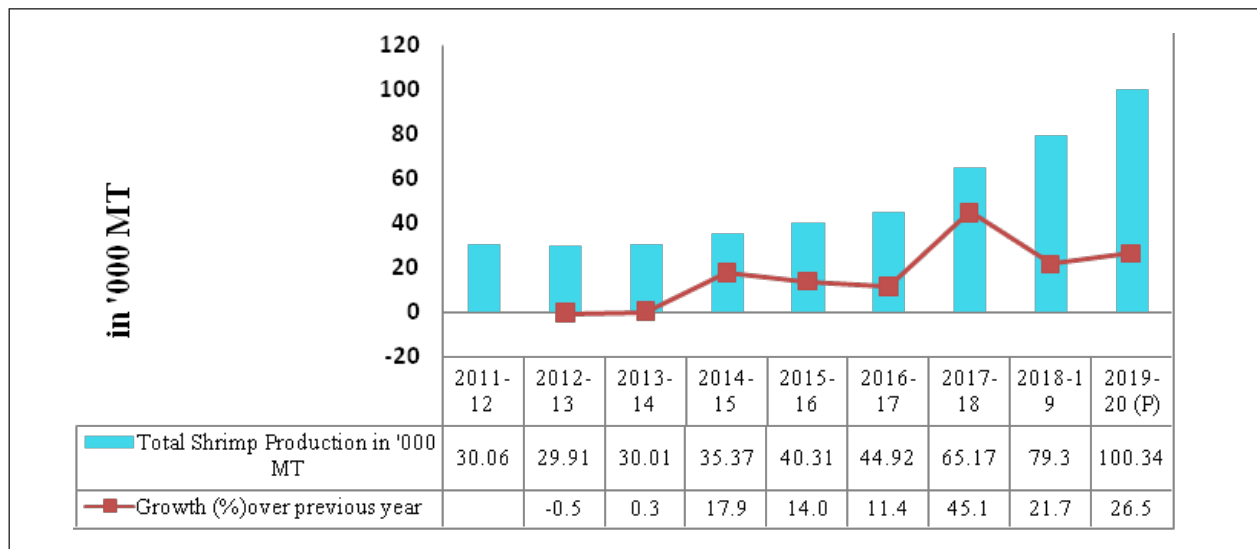
Source: Directorate of Fisheries, Odisha

Table 2.24: Source-wise Shrimp Production in Odisha (in 000'MT)

Year	Chilika lake	Brackish water shrimp	Estuaries	Total Production
1	2	3	4	5
2011-12	14.23	11.97	3.86	30.06
2012-13	12.47	13.23	4.22	29.91
2013-14	12.94	12.61	4.46	30.01
2014-15	12.05	19.25	4.07	35.37
2015-16	12.24	23.34	4.73	40.31
2016-17	13.30	29.41	2.21	44.92
2017-18	4.71	58.11	2.35	65.17
2018-19	4.95	71.62	2.73	79.30
2019-20 (P)	4.14	90.16	6.04	100.34

Source: Directorate of Fisheries, Odisha

Figure-2.30: Shrimp Production in Odisha and growth(%)



Source: Directorate of Fisheries, Odisha

2.12.2: Export and Import of Fishery Products

Fishery sector shows a good economic trend in export and import of marine/fish product in figure 2.31 to figure 2.33. Figure 2.31 shows the rising trend of fish to other state and country where as the import trend of fresh water fish is declining as shown in figure 2.32. Again in case of export of marine product foreign country the increasing trend is significantly high which shows a green signal towards development of state economy in Fishery sector.

Table 2.25: Export to other State/ Countries of Fish (in 000'MT)

Year	Fish export to other States and Countries				Import of fresh water fish
	Marine fish	Fresh Water fish	Brackish Water fish	Total Export	
1	2	3	4	5	6
2011-12	55.43	21.49	19.32	96.24	59.28
2013-14	69.45	26.34	20.62	116.41	21.22

2014-15	65.69	24.56	25.37	115.62	38.12
2015-16	74.57	24.3	28.86	127.73	46.28
2016-17	78.91	25.35	47.41	151.67	35.16
2017-18	87.47	43.6	61.75	192.82	40.74
2018-19	88.82	44.97	64.14	197.92	49.61
2019-20 (P)	84.95	50.38	77.85	213.2	46.27

Source: Directorate of Fisheries, Odisha

Figure 2.31: Export of Fish to other states/ countries

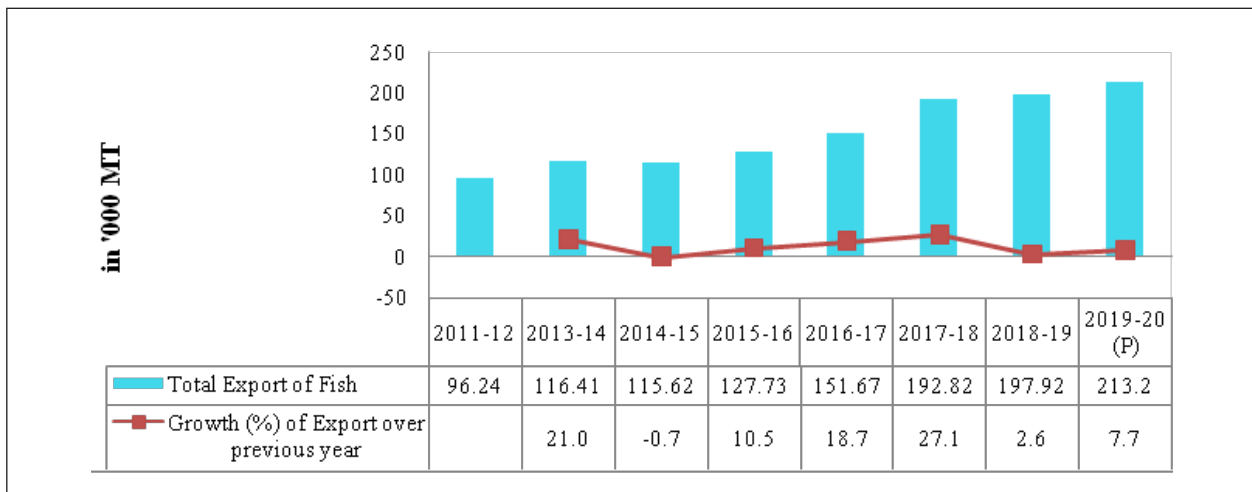


Figure 2.32: Import of Fresh water Fish from other states

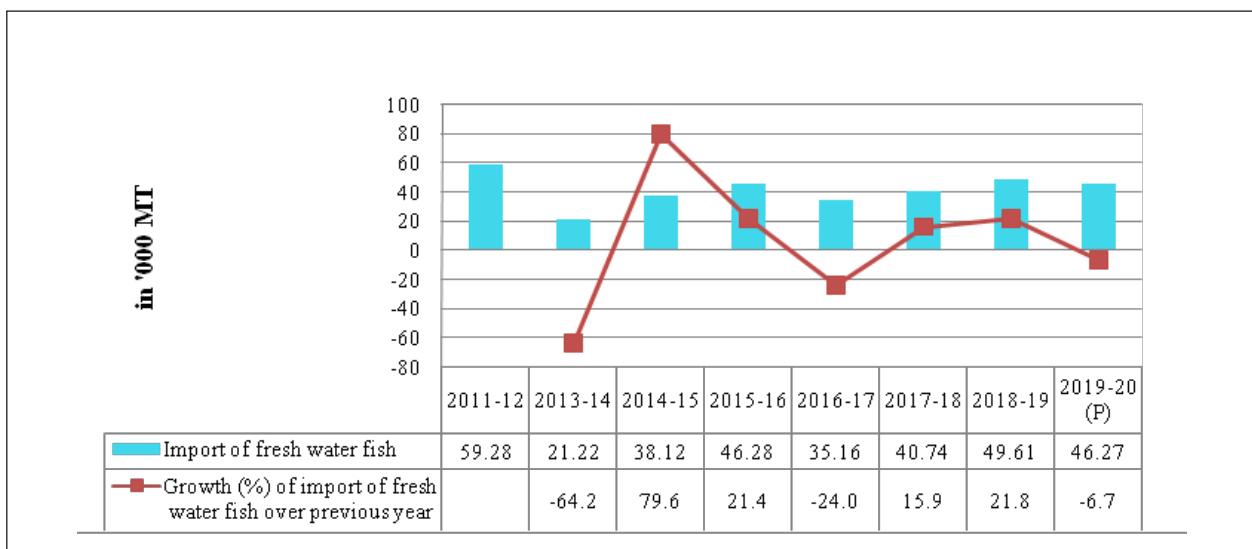
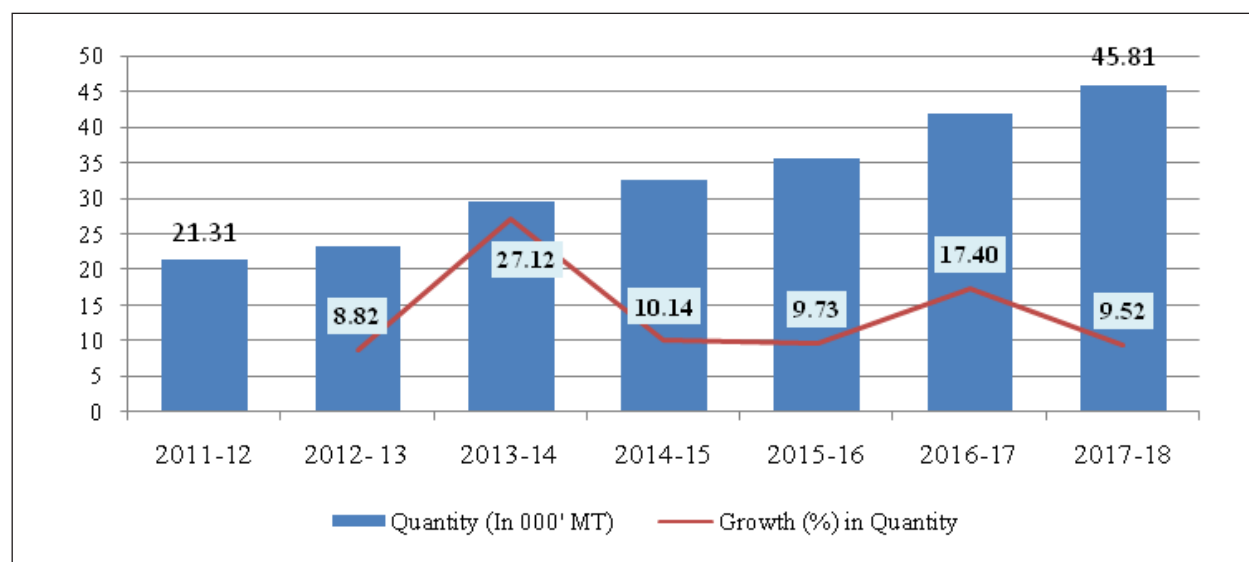


Table 2.26: Export of Marine Products to Foreign Countries

Year	Quantity (In 000' MT)	Value (INR. In Crore)
1	2	3
2011-12	21.31	800.92
2013-14	23.19	908.48
2014-15	29.48	1769.45
2015-16	32.47	1963.85
2016-17	35.63	1791.81
2017-18	53.34	2871.61
2018-19	62.51	2969.42
2019-20 (P)	66.65	3243.29

Source: Marine Promotion Export Development Agency (MPEDA), Kochhi

Figure 2.33: Export of Marine Products to Foreign Countries (in 000' MT)



2.12.3: Important Government Initiatives in Fishery Sector

2.12.3.1: Odisha Fishery Policy, 2015: The Government issued the latest Odisha Fishery Policy in 2015, which offers great opportunities for development of fresh water, brackish water and marine fisheries in the State. Under Inland sector, with technical support of "WorldFish", activities like Carp-Mola poly culture, GIFT tilapia demonstration, cage culture in reservoirs. Use of GIS and spatial planning tools are initiated.

2.12.3.2: Matsya Pokhari Yojana: The scheme was introduced in 2017-18 for taking up fresh water fish production creating new water bodies (0.5 ha to 2.00 ha.) with unit cost of INR 8.50 lakh/ ha with admissible subsidy up to 60% to the beneficiaries.

2.12.3.3: Matsyajibi Unnayan Yojana: The scheme envisages providing awards to meritorious children of fishermen community and financial assistance to fisherwomen SHGs. The children of fishermen who secure more than 50% marks in HSC examination and continue higher study are provided with one time

scholarship. Students securing 50% marks get INR 3500/-, more than 60% get INR 5000/- and more than 70% get INR 7500/-. Apart from this, WSHGs involved in pisciculture are provided with revolving fund of INR 5000/- for promotion of fisheries activities.

2.12.3.4: Pradhan Mantri Suraksha Bima Yojana (PMSBY): Under this Centrally Sponsored Plan Scheme 11,50,000 Fishers of Odisha state have been provided insurance coverage during the insurance period of 2019-20 (1st June 19 to 31st May 20). Odisha state has been the top most pioneer among all the States and UTs in terms of extending coverage to highest nos. of fishermen under the scheme since 2008-09. The scheme covers victims affected by thunder, electric shock, any road accident, drowning and death caused by any animal bite. The premium amount of INR 12.00 per fisher is shared by Govt. of India and State Govt. on a ratio of 50:50. The scheme provides compensation of INR 2.00 Lakh in case of death / full permanent disability and INR 1.00 Lakh in case of partial permanent disability.

2.12.3.5: Input to Women Self Help Groups for pisciculture in Gram Panchayat tanks: The objective of the scheme is to empower women by providing livelihood support through WSHGs. This is a convergence project involving Mission Shakti, Pachayati Raj and Drinking water Department, Fisheries and ARD Department. In the programme, Gram Panchayat tanks are given in long term lease (3-5 years) to the identified Women Self Help Groups (WSHG) for pisciculture. The technical support and trainings are imparted to the members of WSHGs by the Directorate of Fisheries and Odisha-World Fish Project. Inputs for fish farming with project cost of INR 1.50 Lakhs per ha and a subsidy of 60% or INR 90,000/- per Ha is provided to WSHGs under RKVY and State Plan schemes.

2.12.3.6: Promotion of BIO-FLOC technology for intensive shrimp and fish farming in Odisha: The objective of the scheme is to encourage farmers, entrepreneurs and unemployed youths into income generation through small scale bio-floc fish farming system. This is a recent technology which promotes high yielding intensive fish farming in small area of bio-floc tanks size (4 m dia*1.3 m depth) and capacity of 12,500 litre. Such two tank is considered as one unit. The unit cost of the project for 2 tanks is INR 1.50 lakhs, for 4 tanks INR 3.00 lakh and for 6 tanks it is INR 4.00 lakh. There is provision of 40% financial assistance for general category and 60% for SC/ ST/ Women.

2.12.3.7: Cage culture in Reservoirs: Cage culture is an emerging technology for intensive production of fish and has a huge potential for increasing the fish production of the State. Fisheries Department have already installed 322 rectangular cages in 26 reservoirs under NMPS, RKVY, Blue Revolution & State Plan schemes. Presently, two nos. of circular cages having size 16 metre diameter and 5 metre depth are installed in Hirakud reservoir for cage culture of IMC, Gift Tilapia on pilot basis under WorldFish guidance and leased to Mahammadpur PFCS for stocking 10,000 fish fingerlings with a target of 10 MT fish production per cage. Recently, Govt. in F & ARD Department have approved Guidelines for cage culture in reservoirs by Private Entrepreneurs in partnership with PFCS and SHGs.

Under PMMSY scheme there is assistance for taking up cage culture @ 40% for General and 60% for SC/ ST/Women category on unit cost of INR 3.00 lakhs per cage. Assistance can be availed maximum up to 5 cages for individuals and upto 20 cages for PFCS and SHGs.

2.12.3.8: Polylining Technology: Polylining Technology is a latest technology. At present, most of the shrimp farming is done in earthen tanks of more than 0.50 acre size with modified extensive and semi-intensive technologies. In earthen tanks it is not possible to completely remove the organic waste from the farm (shrimp excreta and feed wastes) on regular basis and hence it is difficult to intensify the production beyond present productivity levels. These wastes accumulate inside the porous soil and get

degraded by microbes. Therefore, many pathogenic microbes and toxic gases are released from soil surface inside the tank which in turn affects the growth and health of the farmed shrimps leading to significant financial losses to farmers. Therefore, installation of polyliners to the tanks will help the farmers to overcome these losses and to sustainably intensify the production.

The State has introduced a new scheme to assist the farmers with subsidy assistance of a minimum 0.1 Ha (1000 m²) and a maximum of 0.4 Ha. (4000 m²) per beneficiary @ 40% of the unit cost. The Unit cost for 1000 m² water area is INR 2.10 Lakh.

2.12.3.9: Skill up-gradation training: The Fisheries Training Institute at Balugaon is equipped to impart 15 days skill up-gradation training. BWTC Paradeep provides 15 days training to brackishwater farmers. Hostel facility is available in both the Institutes. Farmers are trained on latest technologies in fisheries sector.

2.12.3.10: Livelihood Support to Marine Fishermen during Fishing Ban Period: This State Plan Scheme was launched in the year 2016-17. It envisages providing livelihood support to the marine fishermen affected due to fishing ban for a period of seven months every year i.e. from 1st November to 31st May for Conservation & Protection of Sea turtle. During 2019-20, 8000 nos. of marine fisher families of Kendrapara, Jagatsinghpur, Puri and Ganjam are covered under the scheme @ INR. 7500/- per family.

2.12.3.11: Saving-cum-Relief: To ensure livelihood of traditional fishermen during fishing ban and lean period and to inculcate a saving habit among the fishers, this Scheme aims at providing saving-cum-relief during lean period. The beneficiaries have to deposit INR 1500/- in nine months/- (@ INR 170/ per month and last instalment of INR 140/-). The Central Share and State Share amounting to INR 3000/- (50:50 basis) along with beneficiary contribution of INR 1500/- are to be disbursed to the enrolled fishers in 3 equal instalments during the lean/ban period of three months i.e. from April to June every year through their Savings Bank Account. During 2019-20, 10254 nos. of beneficiaries have been covered under the scheme.

2.12.3.12: Assistance for Fish Transport Infrastructure: In order to strengthen/sustain the livelihood of fishermen of the state, cold chain facility through transport infrastructure is required for maintenance of quality and fetching more price of the catch. This component under Blue Revolution (now PMMSY) aims at providing Auto rickshaw with ice box (unit cost- INR 2.00 lakh), motorcycle with ice box (unit cost-INR. 0.60 Lakh), Refrigerated Truck (10 Ton with unit cost- INR 25.00 Lakh), Insulated Vehicle (6 Ton with unit cost- INR.15.00 Lakh) as per the guidelines of the scheme. The admissible subsidy as per the present funding pattern is 40% for the General category and 60% for SC/ ST/ Women beneficiaries.

2.12.4: Government initiatives in Fishery Sector to fight with the of COVID-19 pandemic situation to boost states' Economy.

A series of steps taken by Govt. to allow various fishery related activities during lock down period. Additionally Government of Odisha announced several financial packages to boost the states' economy to overcome the economic situation due to covid-19.

- To create 105000 ponds under Mo Pokhari with budget of INR 1000 crores.
- Financial assistance up to INR 50 lakhs for various agri-enterprises including cage culture.

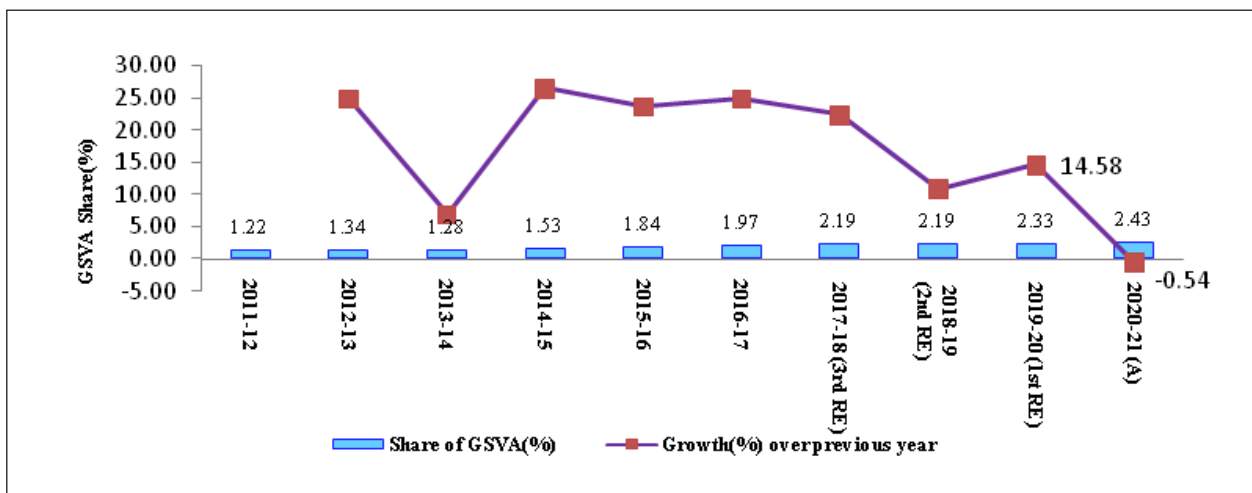
- A special Covid package of INR 173 crore to boost the fisheries sector to for direct benefit of 44000 fish farmers.
- Livelihood support to 10,600 marine fishers with financial target of INR 800 lakhs.
- Support to 257 numbers of Primary Fishery Cooperative societies with financial target of INR 500/.

2.12.5: Trend in Share (%) of Fishery sub-Sector in GSVa

Based on current basic price, the advanced estimate for the year 2021 gives the GSVa share(%) of Fishery sub-sector as 2.43% whereas the GSVa share of the agriculture and allied sector is 21.27%. During 2019-20, the same for fishery sector was 2.33% against the agriculture and allied sector as 21.38%. But the growth of fishery sector was significantly positive from 2012-13 to 2019-20 continuously. Also there was a significant growth of crop sector i.e. 14.58% in last 2019-20, but the advanced estimate of 2021 gives a marginal contraction of 0.54% in fishery sector in current price but there is a positive growth 3.25% in 2011-12 constant price. In spite of covid-19 pandemic situation the growth in fishery sector is quite encouraging. Figure 2.35 shows the trend of growth and share of fishery sector in current price.

Figure 2.34: Growth and Share (%) of fishery sub-sector in total GSVa

(based on current price)



Source: DE&S, Odisha

Impact of COVID-19 pandemic on livestock and fishery sector

The COVID-19 pandemic and the associated lockdown has not only caused enormous distress to the millions of poor and marginal farmers for saving their crops and/or livestock and thereby assuring their livelihoods but also impacted the overall poultry, dairy and other livestock production systems and associated value chains, nutrition and health care and labour availability.

During the lockdown period in the State, there has been evidence of reduction in demand of different commodities, wastage of the produce due to the closure of transport, hotels, functions and market chains, some distress sale of the produce and labour storage but the expeditious revival strategies taken by the State Government under its 5T initiatives in terms of offering Special COVID package of boost the rural economy and to support the vulnerable mass and associated enterprises that stood firm by the test of time and contributed to economic resurgence in the State within the shortest period of time. (initiative details are in section-2.11.5)

Fake News and Fear of Animal Contact were the key challenges for this sub-sector. The Fishery and Livestock sectors saw reduced demand as consumers desisted from the consumption of meat, fish, chicken and egg in early March extending to the initial phase of the lockdown. This was on account of misinformation and fears of contracting Covid-19 from 'animal' products, as the virus causing the pandemic had its origins in animals. The impact was most steep for chicken, and affected eggs and fish to a certain degree across India. As reported, the price of chicken had gone down from INR 70 to INR 35-40 per live bird and that of egg from INR 3.40 to INR 2.80 per egg during the week proceeding 3 March 2020. However, by March end, the demand recovered with disruption in the supply chain leading to higher than normal rates for meat and egg.

The milk production in the state has not been impacted due to COVID-19. However, milk processing in the state declined by- 30% in April 2020 when compared to April 2019, but started picking up to end at -24% of July 2019. Milk production is around 64 lakh litres per day; which is almost the same as the pre lockdown production. However the demand of milk had reduced by 40% due to the lockdown; 38 lakh litres per day. Close down of Institutional sales, sweets shops, restaurants, hotels, tea stalls, events, functions and marriage reduced demand. Home delivery and online marketing of milk & milk products have been taken up by OMFED.

Egg production has seen little change compared to last year, the egg production in July 2020 is 205.5 million egg higher than July 2019 (195.5 million). Poultry Meat production declined sharply in March & April from 5.4 TMT to 3.2 TMT due to COVID-19 fears and lockdown, but has bounced back to pre-COVID-19 levels during July reached to 7.6 TMT which is higher than the production of July 2019 (7.1 TMT).

Poultry farmers were badly affected from January 2020 due to Bird Flu and subsequently due to COVID pandemic. The rate of poultry meat had drastically dropped till March 2020. Thereafter, from April 2020 the prices have stabilised and the poultry farmers are getting better prices. Currently the demand of poultry meat is around 50% (200 MT per day) and is gradually increasing. 143 commercial layer unit fully functional and 66 lakh eggs are produced per day. The F&ARD Department took special drive to Issue passes for movement to goods and personnel (milk vendors, feed suppliers and other workers) involved in production, processing and marketing of milk, meat and egg in the State. An effective monitoring mechanism had been set up to ensure the availability and supply of eggs, meat, milk and milk products, cattle feed poultry feed and facilitate the supply chain of egg/ meat/ milk so as to ensure that the demand meets the supply. Through OPOLOFED purchase of live chicken right from farmer's doorstep to support marketing of products was ensured on one hand with door delivery of chicken meat and eggs in the BMC area on the other.

Similarly, as per the estimates of Directorate of Fisheries, the loss of Fishery sector was nearby INR 615 crore due to covid-19 impact during 2020. To safeguard the sector and its associated livelihood, the Government took a series of steps to allow various fisheries related activities and announced several financial packages (detail in section 2.12.3) to boost the state economy. Fortunately as a result fishery sub-sector have a positive growth in GSVa of 2020-21 advanced estimate i.e 3.25% in 2011-12 constant price in spite of -6.54% negative growth in agriculture and allied sector.

III. Forestry Sector

2.13: Forestry and Environment in Odisha

Forest plays a significant role on socio-economic changes of the society like all other sectors. The sector maintains ecological balance, reduces impact of natural hazards, checks soil erosion, helps to regulate the climate and water resources, serves as the habitat for wildlife, and ensures sustained livelihoods to forest-dependent communities which are mostly tribal masses. Policy documents like National Forest Policy 1988, Odisha Forest Sector Vision, 2020 and Joint Forest Management Resolution, 2011, and Odisha Climate Change Action Plan provide guiding principles for forest and environment management in the State. As per India State of Forest Report, 2019, the Government of Odisha is one of the pioneer State in implementing Joint Forest Management Programme.

2.13.1: Forest and Tree Cover

Odisha is endowed with rich forest cover and resources. The State forest areas cover 39.31 percent of the State's geographical area. Forest cover in Odisha is unevenly distributed. Forests are generally located in the districts situated in the Eastern Ghats, Central Table Land and Northern Plateau. The State has a recorded forest area measuring 61,204.17 sq. km. as on 2019-20. Out of the total recorded forest area 37443.60 sq km (61.18%) are under the control of Forest & Environment Department, 23569.80 sq km (38.51%) are under the control of Revenue & Disaster Management Department and 190.77 sq km (0.31%) are under private control. The detail component wise forest area 2019-20 is presented in Table - 2.27.

Table 2.27: Component wise recorded forest area in Odisha, 2019-20

Under Control of	Component	Area (in sq. km.)	Percentage
Forest & Environment Department	Reserve Forest	26873.66	43.91
	Proposed Reserve Forest	9175.15	14.99
	Protected Forest	1085.22	1.77
	Village Forest	287.51	0.47
	Un-Classified Forest	22.06	0.04
Revenue & Disaster Management Department	Demarcated Protected Forest	4179.59	6.83
	Un-Demarcated Protected Forest	4272.91	6.98
	Revenue Forest	15117.30	24.70
	Private Forest	190.77	0.31
Total		61204.17	100.00

Source: Forest & Environment Deptt., Odisha

The coastal districts with high population density have comparatively smaller areas of forest. The forest cover in 2019-20 was highest in Kandhamal district (9.6%) followed by Mayurbhanj (7.3%), Sundargarh (7.2%), Sambalpur (6.6%), Rayagada (5.8%) and Malkangiri (5.8%). The coastal districts such as Jagatsinghpur, Bhadrak, Puri, Jajpur & Kendrapara have lower in forest area cover reported as 0.07%, 0.16%, 0.30%, 0.52% & 0.58% respectively.

Based on data obtained from satellite imageries, the Forest Survey of India (FSI) in 2019 has reported that forest cover in the State is 51,618.51 sq km which is 33.15 per cent of the State's geographical area. The percentage of Forest cover (51619 sq. km) to total Recorded Forest area (61204 sq. km) of the State is 84.34% in 2018-19. There has been an increase of 274 sq. km. (27,400 ha) of forest cover in the State over last assessment made by FSI (Forest Survey of INDIA) in 2017.

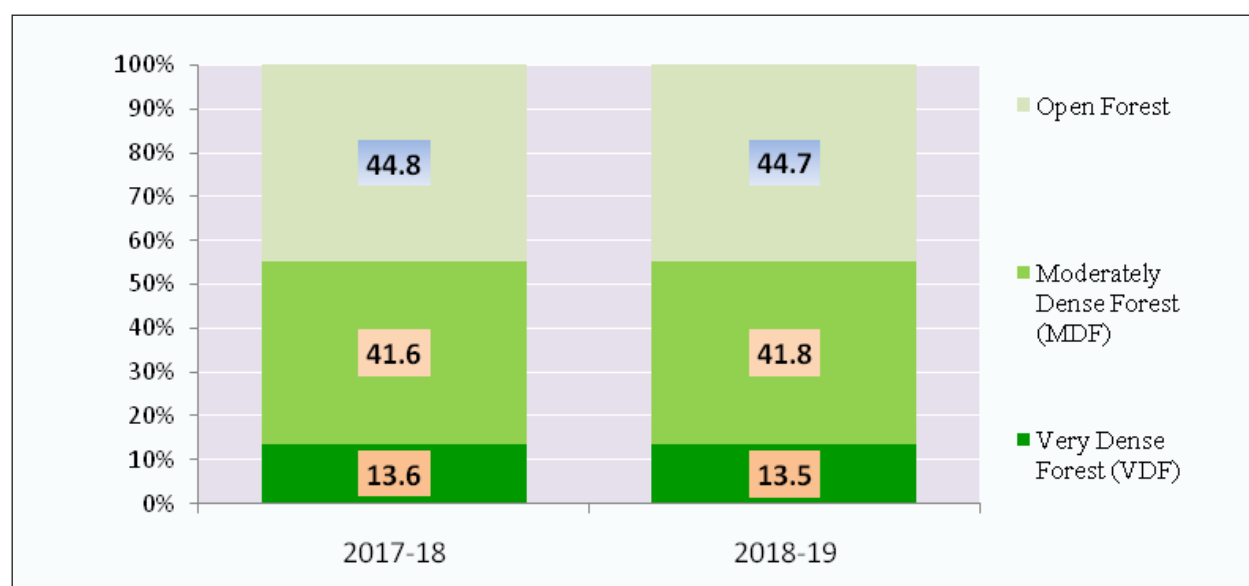
Table 2.28: Forest area and forest cover in Odisha

(Area in Sq. KM)

Year	Geographical area	Very Dense Forest (VDF)	Moderately Dense Forest (MDF)	Open Forest	Total
2017-18	155707	6967	21370	23008	51345
2018-19	155707	6970	21552	23097	51619

Source: PCCF, Odisha and India State of Forest Report, 2019

Figure-2.35: Distribution of Forest Area



2.13.2: Forest Area Diversion

Ministry of Environment, Forest and Climate Change, Government of India have allowed for diversion of forest land for non-forestry purposes under Section 2 of Forest (Conservation) Act, 1980. About 56382.89 hectare of forest land has been diverted under this Act for different developmental projects as on 31.03.2020, the details of such diversion are reflected below. During 2019-20, about 3008.266 ha of forest land has been diverted for 22 developmental projects (01 irrigation, 08 mining projects and 13 other projects). Besides, 3635.740 ha of forest area have been diverted for 16 projects during 2018-19.

Table 2.29: Sector wise diversion of Forest Area (As on 31.03.2020)

Name of the Sector	No. of Proposals	Forest Area diverted (in Ha.)
Irrigation	84	10652.06
Industry	29	4404.63
Mining	186	28409.53
Energy	06	116.45
Road and Bridges	44	705.02
Railway	20	2433.48
Defense	04	3865.25
Human Habitation	04	361.53

Transmission	70	4338.81
Others	50	1096.13
Total	497	56382.89

Source: Forest & Environment Deptt., Odisha

Ministry of Environment, Forests & Climate Change, Govt. of India have accorded permission for exploratory drilling of minerals in forest land under section 2 of Forest (Conservation) Act, 1980. As on 31.03.2020, permission has been accorded for explanatory drilling of different minerals by 14 nos. of Project proponents involving 101.08 ha of forest land.

Ministry of Environment, Forests & Climate Change, Govt. of India have authorized Divisional Forest Officers to grant permission for diversion of forest land up to 1.0 ha in each case which involves felling of trees not exceeding 75 per hectare for small public utility projects of Govt. Departments in 13 categories as envisaged u/s 3 (2) of Forest Rights Act, 2006. As on 31.03.2020, about 845.852 ha of forest land has been diverted under the above Act for 1,564 numbers of different developmental projects.

Ministry of Environment, Forests & Climate Change, Govt. of India have given General Approval to the State Government under Section 2 of Forest (Conservation) Act, 1980 for diversion of forest land up to 5.00 Ha. in each case (in two laning of roads, irrespective of the area) for creation of critical public utility infrastructure by Government Departments and which involves felling of trees not exceeding 50 per hectare in Left Wing Extremism (LWE) affected districts in 15 categories. As on 31.03.2020, about 80.776 ha. of forest land has been diverted under the above Act for 19 numbers of different developmental projects.

2.13.3: Afforestation Programme

A series of State and Centrally Sponsored afforestation programmes are being implemented in the State to combat the degradation of forest area. As on 31st March 2020, 140056 ha has been afforested, out of which, 13055 ha under Artificial Regeneration (AR) plantation, 55303 ha under Assisted Natural Regeneration (ANR) with planting in gaps and 71698 ha under Assisted Natural Regeneration (ANR) with Silvicultural Operation. During 2019-20, 2813 ha under AR plantation, 17,582 ha under ANR plantation has been achieved and 3558 Row Kilo Metre (RKM) under avenue plantation was made. Besides, a total of 551.50 lakh seedlings have been planted and distributed under different afforestation schemes during 2019-20.

2.13.3.1: Green Mahanadi Mission (GMM)

Mahanadi is the lifeline of Odisha & in order to enhance water availability and to improve livelihoods, the "Green Mahanadi Mission" has been launched through massive participation of peoples' representatives during 2018-19. A Green Belt is to be created (both forestry species & horticulture species) in 1 km width on both sides of the river Mahanadi, Tel & IB on all available and suitable land. During 2019-20, four (4) new rivers, namely Brahmani, Baitarani, Vansadhara and Rushikulya have been included along with leftover areas of Mahanadi, IB & TEL.

2.13.3.2: Compensatory Afforestation Fund Management and Planning Authority (CAMPA)

The State CAMPA was constituted with an objective of Conservation, Protection, Regeneration and Management of existing Natural Forests, Wildlife and their habitats and raising Site-Specific Compensatory

Afforestation, Penal Compensatory Afforestation, etc. A total amount of INR 5,933.98 Cr. has been received by Govt. of Odisha from the National Authority. The following activities have been under taken in this Scheme:

- Regeneration of Degraded Bamboo Forests over 1,62,600 ha.
- Creation of ANR over 20,400 ha.
- Block Plantation over 2,000 ha.
- Bamboo Plantation over 2,000 ha.
- Avenue Plantation over 76 RKM.
- Maintenance of Bamboo Plantation over 10,088 ha.
- Maintenance of Bald Hill over 1,000 ha.
- Maintenance of 1,000 KM Forest Road.
- Deployment of 216 firefighting squads in 37 Forest Divisions
- Construction of 30 range Officers' Quarters, 75 Foresters' Quarter & 200 number of Forest Guards' Quarters.
- Construction of 137 numbers of Culverts and 234 Causeways.

2.13.4: Forest Protection and Management

With growing population, protection of forest and wildlife has become one of the most important challenges of the society. The detail picture of Forest Protection Units in the State is reflected below.

Table 2.30: Forest Protection Units of Odisha

(in Numbers)

Number of Units	Forest	Wildlife	Total
Divisions	37	14	51
Ranges	223	60	283
Sections	827	190	1017
Beat	3082	601	3683

The following measures have been taken to strengthen forest protection and management of forest and wildlife in Odisha.

- Setup 199 forest check gates for checking of vehicles and prevention of smuggling of forest produce.
- Deployed 91 forest protection squads, 65 para-forest staff units and 216 fire protection squads involving 910, 1950 and 2690 number of local youths respectively in forest protection activities.

- Operated 590 nos. of VHF stations and 880 nos. of walky-talky for strengthening communication network.
- 567 culverts & 1224 causeways have been constructed and 5866.50 Km. of forest road have been maintained.
- 97 Forest Barracks, 78 Range Office-cum-Residences, 291 Forester's Quarters, 51 Malkhanas and 1121 Beat Houses have been constructed.
- 91 vehicles (4 wheelers) and 261 motorcycles purchased for exclusive use in forest protection in vulnerable areas of the State.
- Recruited Forest Guards and Foresters to assist two platoons of Odisha Special Striking Force for protection of the oldest teak forests.
- To encouraging forest protection activities in the State, the informers, staff & public are being rewarded every year under "Reward for Detection of Forest Offence" Rule, 2004.

2.13.5: Forest Fire Prevention and Management

Forest fire is a regular phenomenon in summer season throughout the State wherein the temperature increases during leaf shedding periods of deciduous natural forests and plantations. To combat forest fire, a Standard Operating Procedure (SOP) on prevention of forest fire has been implemented in the State. Air blowers have been procured for dispersal of leaves from forest floor to prevent fire. The number of cases of forest fire that took place during the last three years and the current year in the state is given below:

Table 2.31: Number of forest fire cases and area affected

Year	No of fire incidences	Forest area affected (in Ha.)
2016	2572	1944.45
2017	36827	14121.10
2018	31680	9730.06
2019	19787	7164.95

Source: Forest & Environment Deptt., Odisha

2.13.6: Ama Jangala Yojana

Ama Jangala Yojana (AJY) is a Flagship Program of Government of Odisha, being implemented through Odisha Forestry Sector Development Society with the objective to promote participatory and sustainable forest management and alternative livelihoods for the forest fringed communities in the state. All the activities carried out through AJY can be broadly classified into 4 categories such as Forestry Activities, Livelihood Promotion Activities, Entry Point Activities (EPAs) & Institution Building Activities. Up to 2019-20, total 3720 number of Vana Suraksha Samities have been covered under the scheme (including 540 VSSs during the FY 2019-20). Apart from this, 7534 women self help groups are also linked with various IGPs under convergence with various departments of the State Government.

2.13.6.1: Odisha Forestry Sector Development Project (OFSDP) Phase-II, Banayana

Odisha Forestry Sector Development Project, Phase- II is being funded by Japan International Cooperation Agency (JICA) and is executed through Odisha Forestry Sector Development Society. Progresses made under OFSDP during 2019-20 are as below:

- Survey Demarcation and Pillar Posting in 423 Batch-II VSSs were completed.
- Engagement of 846 Animators for batch-II VSSs were taken up
- Micro Plans in 423 Villages (VSSs) have been prepared
- Drainage Line Treatment to the tune of 760 ha were taken up
- Fire line in total of 603 kms has been established as a measure to protect forest fire
- About 60.60 lakhs seedlings were planted under the plantation component of OFSDP
- Six Hi-Tech Nurseries, were established under OFSDP-II during 2018-19.
- About 4.40 lakh seedlings were raised in each Hi-Tech Nurseries to meet the plantation target

2.13.6.2: Integrated Coastal Zone Management Project (ICZMP)

ICZMP is meant for conservation of coastal & marine ecological resources, coastal pollution management and related infrastructure upgradation, capacity building & livelihood security of coastal communities. Odisha is the first State in the country to prepare the Integrated Coastal Zone Management Plan that provides a clear framework for future developmental activities along the coastal stretch. Two coastal stretches of Odisha, such as Gopalpur to Chilika and Paradeep to Dhamara, covering 196 km of coastline have been covered under this project.

2.13.7: Wildlife, Ecology and Environment

2.13.7.1: Wildlife Organisation

The State government is committed to protection, conservation and management of wildlife and their habitat within and outside the protected areas of the State.

a. Conservation of Wildlife

The State has 19 wildlife sanctuaries, one National park, one proposed National park, three elephant reserves, two tiger reserves, two proposed tiger reserve and 14 identified elephant corridors for addressing in-situ conservation of wildlife of the state in the natural environment of the animals. Eleven zoos (out of which 7 mini, 3 small and 1 large zoo) have been established in the State to take care of ex-situ conservation of animals. Two new tiger reserve, one at Debrigarh and other at Sunabeda have been proposed. 15 eco sensitive zones around these protected areas have been proposed. All the sanctuaries are guided by a wildlife management plan and all the zoos are operated as per the zoo management plan approved by the Central Zoo Authority of Govt. of India. As of now, 519 nos. of EDC have been formed covering an area of 39390.32 ha of protected area and thus people's participation play a major role in conservation of wildlife.

b. Protection of wildlife

Increase in human population has enhanced the dependency on forest resources for which the man-animal conflict in the State is a matter that needs special attention. To check the man-animal conflict caused by wild animals including elephant in the State following measures are being taken by the State government.

- i. 762 numbers of anti-depredation, anti-poaching squads/ Elephant squads and 115 numbers trackers have been engaged for prevention of poaching of wild animals and also to prevent depredation by wild animals.
- ii. Solar/ trench fencing have been provided in the depredation prone localities to prevent entry of wild animals into human habitations.
- iii. Inhabitants of depredation prone localities are made aware well in advance regarding presence of elephants and are being made aware of the do's and don'ts to deal with elephants.
- iv. To monitor the movements of elephants and alerting villagers timely, 70 numbers of "GAJABANDHU" selected by the communities in the elephant conflict area has been introduced.
- v. National Small Industries Corporation, a government India undertaking is installing 215 numbers of solar lights in the elephant affected villages of Angul, Athagarh and Dhenkanal divisions.
- vi. Specialised vehicle "GAJA" has been introduced in Keonjhar and Dhenkanal divisions to mitigate man-animal conflict.
- vii. To check road accidents of animals, safe passage to animals have been provided in vulnerable stretches.
- viii. In order to prevent fire incidents, 105 numbers of firefighting squads have been deployed during 2019-20.
- ix. Compassionate amount of INR.2271.24 lakh has been paid to the victims of wild animal attack during 2019-20.
- x. A 24x7 toll free number (18003456771) is being functioning in the headquarters of wildlife organization to address the man-animal conflicts.

c. Habitat Development

Habitat development is an important activity in wildlife management. Various developmental process, biotic interferences and incidences of fire in forest areas are the main cause of degradation of wildlife habitat. The following habitat development activities have been taken up during 2019-20.

i. Creation/ renovation of waterbodies.

To check the water scarcity in wildlife habitat, 115 numbers waterbody are created and 259 numbers old waterbody renovated.

ii. Plantation of fruit bearing and fodder species around the water bodies

To augment the food and fodder requirement of wildlife, 50 ha. of fodder plantation are created and 11,750 numbers of fruit bearing seedlings planted around the water bodies.

iii. Rejuvenation of wildlife corridor

Elephants being long ranging animals use traditional migratory routes for commuting between different forests. These routes known as corridors are essential to be safeguarded and rejuvenated through habitat improvement for ensuring minimal human-elephant conflict. 6 hectares of rejuvenation of corridor has been taken up during 2019-20.

iv. Mangrove plantation

To protect and preserve the coastal areas including human habitations from natural calamities mangroves plays a vital role. For its protection and management, 60 hectares of mangrove plantation has been taken up in coastal district of Puri (devi-Kadua) and Kendrapada district (Mahanadi delta) during 2019-20.

v. Creation of salt lick

To meet the salt requirement of herbivores, 106 numbers of salt licks are created.

vi. Soil and moisture conservation (SMC) work

Soil and moisture conservation intervention are desirable to enhance the moisture regime of forest area. 1955 ha. of SMC work including Staggered trench and Percolation pits are taken up during 2019-20.

vii. Meadow development

1160 ha. of meadows are developed to supplement the food deficiency of the herbivores.

Viii. Weed eradication

4995 ha. of unwanted weeds are uprooted and destroyed in order to boost the growth of palatable grass/ shrub/ trees.

For saving critically endangered species like Salt water Crocodiles, Blackbucks, Irrawaddy Dolphins and Olive Ridley Sea Turtles necessary steps have also been taken.

d. Eco-tourism

The scheme "*Development of Eco-tourism*" has been launched with financial implication of INR.56 crore for a period of five years for its sustainable development and promotion. 47 numbers of eco-tourism destinations, spread over 18 revenue districts of the state, have been developed with 3330 rooms for accommodating 1010 eco-tourists for night stay. The inflow of tourists has been increased considerably from 1500 during 2016 to 46,019 during 2019-20. Online booking facility is available for ecotourism destinations through www.ecotourodish.com. During the year 2019-20, development of ecotourism activities that is, creation of new infrastructures, maintenance of existing facilities, activities of eco tourists like open-jeep jungle safari, boating, birding, sports cycling etc. are under taken in 47 different locations across the State.

2.13.7.2: Nandankanan Zoological Park: Nandankanan Zoological Park is one among premier large Zoos of India located amidst beautiful natural surroundings and spreads over an area of 3.62 sq. km. During the year 2019-20, 26,27,546 number of visitors have visited the zoo and an amount of INR. 14,98,81,010/- have been collected.

2.13.7.3: Odisha Forest Development Corporation (OFDC) Ltd.

Odisha Forest Development Corporation Ltd, a Government of Odisha Undertaking and the oldest Forestry based PSU in the Country was incorporated in the year 1962 with main objectives to help and support conservation of the State's vast forest resources scientifically without sacrificing the apparent forest values, ensuring a fair wages to forest labour forces and to promote feasible forest based industries in the State. Working of Timber & Bamboo Coupes for harvesting of Timber, Firewood & Bamboo and selling them to the public are its core activity. It also markets other forest produces like Kenduleaf and

other NTFP items with and without value addition, undertakes Tree Felling Projects and Plantation of all varieties of plant species, Landscaping and also act as a nodal agency of the state for promotion of Ecotourism in the State. Major revenues of the Corporation come from selling of Timber, Kenduleaf, Bamboo, Rubber, Leasing of Cashew and other Commercial Plantations, Tree Felling Deposit works etc. During the year 2019-20 total turnover of the OFDC was INR. 545.83 crore and has earned an income of INR. 152.04 from different operations with a profit of INR. 20.15 crores. OFDC Ltd has also paid INR. 111.02 crore to Kenduleaf Development Fund, INR. 19.23 crore towards Royalty of Timber & Bamboo and INR. 2.29 crore towards Dividend to Government.

2.13.8: State Pollution Control Board (SPCB)

The State Pollution Control Board (SPCB), is the nodal agency for environment and conservation in the State and is responsible for implementing the Environmental Acts, particularly the Water (Prevention and Control of Pollution) Act, 1974, the Water (Prevention and Control of Pollution) Cess Act, 1977, the Air (Prevention and Control of Pollution) Act, 1981 and the Environment (Protection) Act, 1986. Several Rules addressing specific environmental problems like Hazardous Waste Management, Bio-Medical Waste Management, Solid Waste Management, E-Waste Management, Plastic Waste Management, Construction & Demolition Waste Management, Environmental Impact Assessment etc. have been brought out under the Environment (Protection) Act. The SPCB also executes and ensures proper implementation of the Environmental Policies of the Union and the State Government. The achievements and activities of the Board during 2019-20 are as follows:

- Online monitoring and GPRS based real time data transmission system has been installed in 150 industries and 23 mines.
- Around 88.46% of fly ash has been utilized during 2019-20, as against 82.71% of the preceding year.
- Consent to operate has been granted to 2443 industries, mines, hotels, hospitals, mineral stack yards, mineral processing units, country liquor manufacturing units, railway sidings, stone crushers, brick kilns, DG Sets (as stand by), housing projects and mineral based industries etc. during the reporting period. Board has issued show cause notice to 459 units and direction /closure direction to 139 units. Consent to operate of 27 units have been refused.
- Granted authorization to 105 hazardous waste generating units for collection, storage, treatment and disposal of hazardous wastes. 15 nos. of actual users inside Odisha and 22 nos. of actual users outside Odisha have been authorized during 2019-20 for utilization of hazardous wastes.
- Conducted 20 public hearings for major industrial/ mining/ development projects for requiring environmental clearance.
- Granted authorization to 1744 Health Care Facilities (HCF) under the provisions of the Bio-Medical Waste Management Rules, 2016 with conditions for proper management, segregation, handling, treatment and disposal of biomedical wastes. Show cause notice to 122 units and refusal of authorization to 03 units have been issued for improper management of biomedical wastes.
- 14 plastic product manufacturing units (06 producers, 05 brand owner and 03 re-processor) have been registered.
- 4.6 MT of plastic waste has been used for construction of 9.6 km road in Deogarh and Sambalpur Districts. M/s. Hindalco Industries has given consent to convert 0.5 MT/Day plastic waste to oil.
- Issued authorization to 04 E-waste dismantling units, 02 collection-cum-dismantling units and 01 captive collection centre.

- 3064 nos. of industrial wastewater samples, 5958 water samples under NWMP, National River Conservation Programme (NRCP), SWMP & different projects have been analysed.
- Monitoring of ground water quality at 48 stations of 11 towns have been conducted in respect of 32 water quality parameters.
- 122 cases have been disposed as against 152 cases filed under different legal activities
- Addressed 341 public complaints on various environmental issues and disposed 601 RTI applications by providing information.

India State of Forest Report, 2019

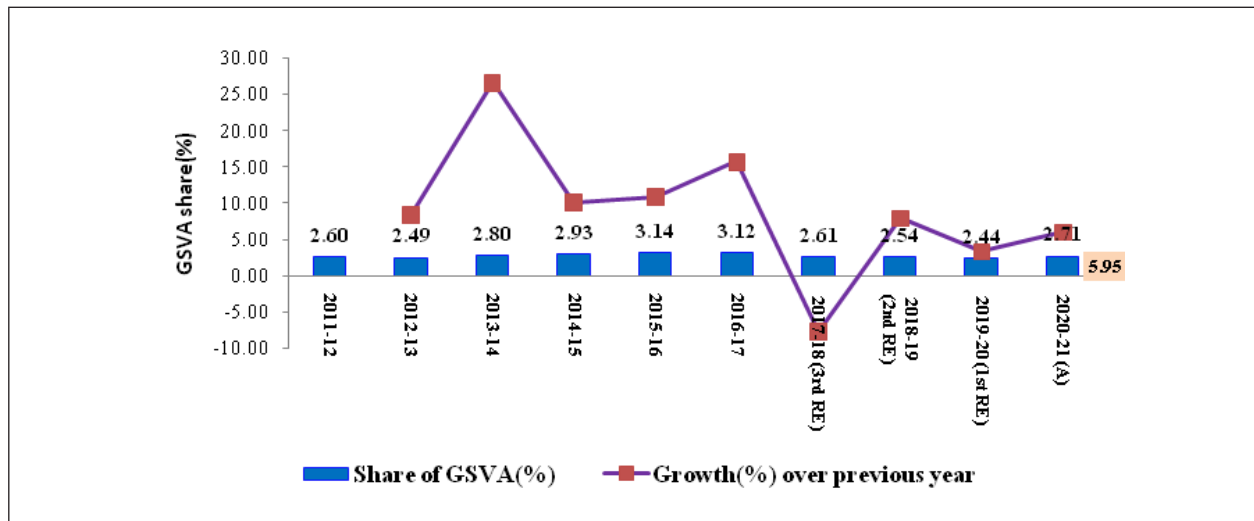
- a. Odisha's forests are well stocked, diverse, multi-storied and dense. The State is also very rich in mineral resources. As per the Champion & Seth Classification of Forest Types (1968), the forests in Odisha belong to four Forest Type Groups which are further divided into 19 Forest Types.
- b. In Odisha, during the period 1st January 2015 to 5th February 2019, a total of 4,968.48 hectares of forest land was diverted for non-forestry purposes under the Forest Conservation Act, 1980 (MoEF& CC, 2019). During the last two years, 6,30,896 ha of plantations were raised. Two National Parks and 19 Wildlife Sanctuaries constitute the Protected Area network of the State covering 5.19% of its geographical area.
- c. The State has 6970 sq km of "Very Dense Forest (VDF)", 21552 sq km of "Moderately Dense Forest (MDF)", 23097 sq km of "Open Forest (OF)" and 4327 sq km of "Scrub" with an increase of 3 sq km, 182 sq km, 89 sq km & 21 sq km respectively from 2017. Main reasons for the increase in forest cover in the State are plantation and conservation activities as well as improvement in interpretation
- d. The total Carbon stock of forests in the State including the trees outside forest (TOF) patches which are more than 1 ha in size is 432.29 million tonnes (1,585.06 million tonnes of CO₂ equivalent) which is 6.07% of total forest carbon of the country.

2.13.9: Trend in Share (%) of Forestry sub-Sector in GSVA

Based on current basic price, the advanced estimate for the year 2021 gives the GSVA share (%) of Forestry sub-sector as 2.71% against the GSVA share of the agriculture and allied sector as 21.27%. During 2019-20, the same for Forestry sector was 2.44% against the agriculture and allied sector as 21.38%. But the growth of fishery sector was significantly positive from 2012-13 to 2019-20 continuously. Also there was a significant growth of crop sector i.e. 14.58% in last 2019-20, but the advanced estimate of 2021 gives a positive growth of 5.95% in Forestry sector in current price (growth is 4.2% in 2011-12 constant price) in spite of significant contraction in agriculture and allied sector i.e -5% growth in current price (-6.54% in constant). In spite of covid-19 pandemic situation the growth in Forestry sector is quite encouraging. Figure 2.36 shows the trend of growth and share of Forestry sector in current price.

Figure-2.36: Growth and Share (%) of Forestry sub-sector in total GSVA

(based on current price)



Source: DE&S, Odisha

IV. Rural Poverty of Odisha

2.14: Rural Poverty

The Planning Commission of India (currently renamed as NITI Aayog), has been estimating official poverty line for both rural and urban sector of all states as well as India using Household Consumer Expenditure (HCE) data of NSS (National Sample Survey) since 1973-74 in a specific interval. The latest published poverty estimation was done by NITI Aayog for the reference year 2011-12 using the methodology of Tendulkar Committee. The next result for estimation of poverty for India and its states on the basis of HCE survey conducted by the National Sample Survey Office (NSSO), Govt. of India for the reference year 2017-18 has not yet been published. The following analysis on rural poverty of Odisha is based on the estimates available up to 2011-12.

The official poverty lines of Planning Commission (Tendulkar Methodology) have been used for computation of all poverty measures. For the year 2011-12, the poverty line was INR 695/- and for 2004-05 it was INR 407.78 for rural Odisha. The households with MPCE (monthly per-capita consumer expenditure) less than the poverty line are considered as the households lying below poverty line. The common poverty measure is HCR (Head Count Ratio) which is the percentage of population lying below poverty line. The measure PGR (Poverty Gap Ratio) provides a better indication of the depth of poverty. This provides information regarding how far off households are from the poverty line. This measure reflects not only the incidence of poverty, but also the depth of poverty. This provides information regarding how far off households are from the poverty line.

2.13.1: According to the latest estimates (Tendulkar Committee estimates) during 2004-05 and 2011-12, the rural poverty for Odisha had been reduced by 25.1 percentage points that is from 60.8% to 35.69% whereas the reduction was 16.1% at national level from 41.8% to 25.7% under HCR as shown in Table 2.32. But the Poverty Gap Ratio (PGR) was reduced about 10.36% for rural Odisha against the rate of reduction for rural India as 4.59% as shown in table 2.32. Although poverty incidence as well as poverty gap was higher for rural Odisha than that of rural India, the reduction rate was significantly higher in rural Odisha than that of national figure.

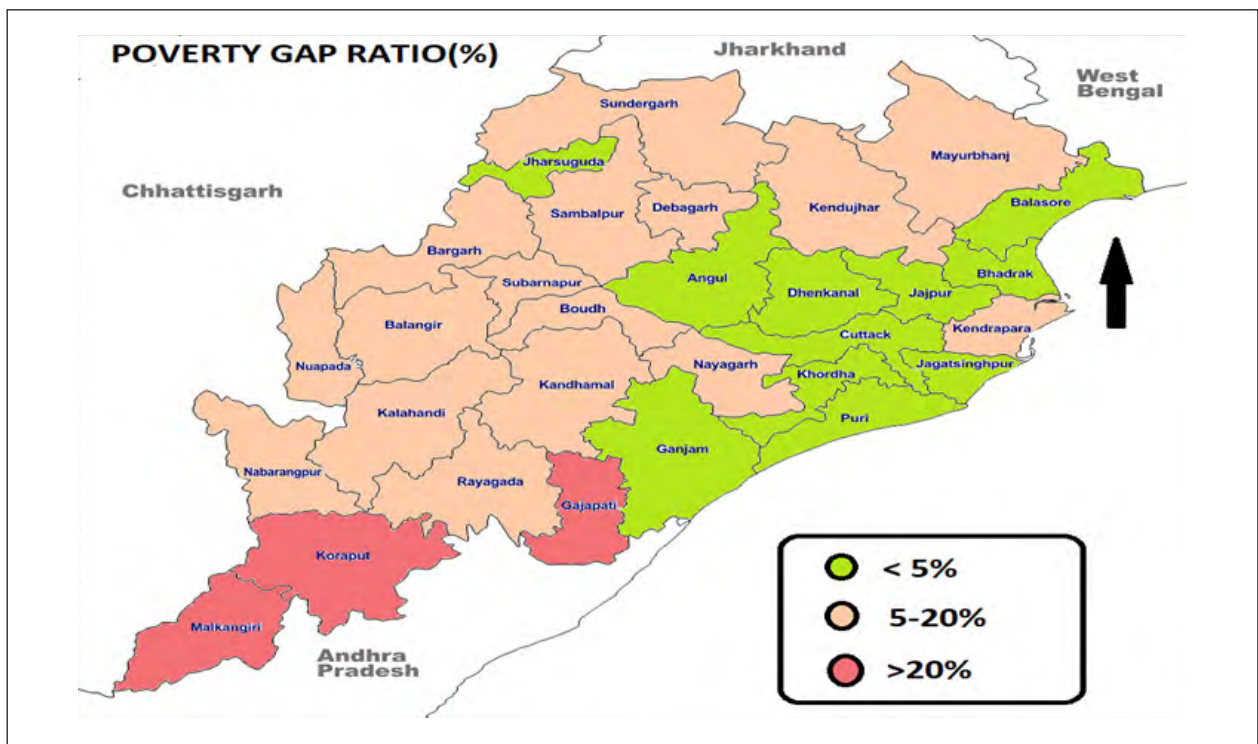
Table2.32: Poverty measures of Rural Odisha

Year	Rural Odisha		Rural India	
	HCR (%)	PGR (%)	HCR (%)	PGR (%)
2004-05	60.80	17.37	41.8	9.64
2011-12	35.69	7.01	25.7	5.05

Source: Social Statistics Division, MOSPI, GoI

2.13.2: As use of the common measure HCR as measure of incidence of poverty may have comparatively less impact on the status of the poorer people suffering severe poverty whereas advanced measure PGR (Poverty Gap Ratio) plays an important role in the way of achieving 1st Goal of SDG i.e zero poverty in Odisha. This measure reflects not only the incidence of poverty, but also the depth of poverty. This provides information regarding how far off households are from the poverty line. Based on a DES estimates on the pooled sample (central and state samples) of NSS for 2011-12 the sub state level PGR (%) is given in fig 2.37. The rural poverty gap ratio was less than 5% in 12 districts shaded in green colour in the map. Most of these twelve districts are either coastal or industry based. But it was more than 20% in the backward districts Malkanagiri, Koraput and Gajapati. The depth of poverty was high in these districts as per the reference period 2011-12. The estimates were about ten years old and the further estimates have not been released by NITI Aayog. During the last ten years, a lot of Government initiatives have been taken on the field of agriculture, education, road connectivity, infrastructure development and employment generation with special weightage to the backward districts of Odisha. The next estimates of poverty may bring achievement on significant reduction of poverty gap in the backward districts.

Figure 2.37: Poverty Gap Ratio (%) in Odisha



Source: DES publication, Odisha.

V. Rural Development

2.14 Rural development is the main pillar of State's development. In order to improve the quality of life in rural areas and address the multi-dimensional problems of people living in those areas, several programmes have been conceived and implemented. The success of a rural development programmes largely depends upon organizational arrangements and adoption of an appropriate strategy for optimum utilization of resources and opportunities. The prime objectives of these programmes are to eradicate poverty, uplift standard of living of people in the rural areas, and bring about a healthy society by creating awareness for hygiene, sanitation and eradication of illiteracy.

2.14.1: Housing for the poor

Housing is an important component of growth and development of human being. A pucca house is one of the basic needs for human survival. Ownership of a pucca house goes beyond providing shelter security. It symbolizes identity, dignity and social status for families in rural areas. The Government of Odisha assigns high priority to improvement of rural infrastructure and commits to provide pucca houses to all rural families that are living in kutcha houses in a universal coverage mission under the overarching Rural Housing programmes. A total of 3,94,212 number of houses completed in 2019-20, out of which 3,57,914 numbers were under Pradhan Mantri Awas Yojana (Grameen), 15,567 under Biju Pucca Ghar Yojana, 1,858 under PuccaGharYojana (Mining), 10,983 under Nirman Shramik Pucca Ghar Yojana and 7,890 under BPGY (Titli). The total number of houses completed from 2014-15 to 2019-20 are given in Table -2.33.

Table-2.33: Number of houses constructed from 2014-15 to 2019-20

Year	PMAY/ IAY	State Funded Schemes	Total Houses Completed
2014-15	320895	31526	352421
2015-16	502092	114726	616818
2016-17	117967	46016	163983
2017-18	458454	73800	532254
2018-19	463767	46719	510486
2019-20	357914	36298	394212

Source: Panchayati Raj & Drinking Water Department, Govt. of Odisha

2.14.2: Rural Employment through MGNREGS

2.14.2.1: Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) has been playing pivotal role in providing employment opportunities and boosting incomes in rural areas in the State since 2006-07. It acts as a growth engine of sustainable development through creation of various assets related to agriculture & allied, and natural resource management.

The unskilled workers, agriculture labourers, small & marginal farmers, rural women, and other vulnerable groups get at least 100 days of guaranteed wage employment under the programme in a financial year. Women are entitled to equal wages and this is a key to the project of gender empowerment. Over the years, the participation of women has been impressive ranging between 41%-44%, which is higher than the mandatory 33 percent. The participation of SC/STs in terms of person-days generation was more than 50%.

2.14.2.2: MGNREGA performance has improved substantially in the State, as persondays employment jumped by 34% to record 11.14 crore in 2019-20 as against 8.30 crore in 2018-19. 23.26 lakh households

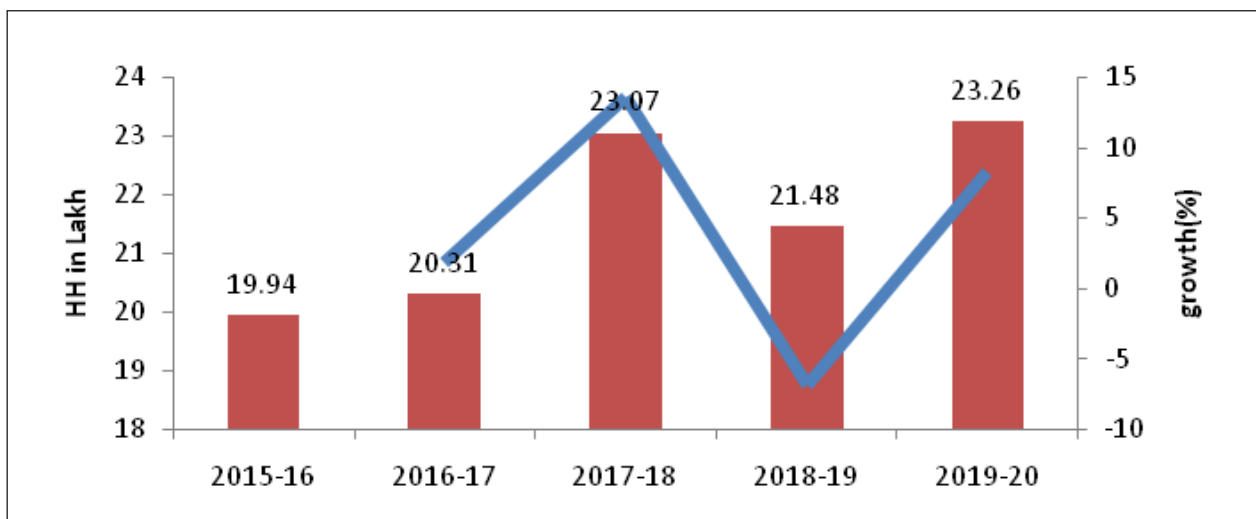
have been provided employment covering 37.34 lakh persons in 2019-20, while it was 21.48 lakh household with 33.67 lakh persons in 2018-19. The SC & ST communities together generated 5.67 crore persondays in 2019-20, while Women workers have generated 4.83 crore, which is 43% of total persondays generated. Thus MGNREGA has become a powerful instrument for inclusive growth in rural Odisha through its impact on social protection and livelihood security. Table-2.34 and Figure-2.38 depicts persondays generation and household provided employment from 2015-16 to 2019-20.

Table 2.34 : Person days generated and share of Women, SC/ST under MGNREGS

S.No	Year	SC	ST	Total	Women	%Women	%SC/ST
1	2015-16	141.8	372.8	892.7	339.4	38.0	57.7
2	2016-17	124.3	292.3	773.4	307.9	39.8	54.0
3	2017-18	152.9	338.7	922.1	386.0	41.9	53.3
4	2018-19	133.7	294.6	829.98	348.6	42.0	51.6
5	2019-20	171.30	395.98	1114.40	483.00	43.00	50.84

Source: Panchayati Raj & Drinking Water Department, Govt. of Odisha

Figure-2.38: Households provided employment under MGNREGS



Initiatives to Arrest Distressed Migration under MGNREGA, 2019-20

- To arrest distress migration in 20 migration prone blocks of Kalahandi, Bolangir, Bargarh and Nuapada, the State Government has given top up wage of INR 98.30 over and above INR. 188 per day as unskilled wage under MGNREGS commensurate with the minimum notified wage rate of INR 286 /- out of State budget. MGNREGS was extensively implemented and record 110.36 lakh person-days was generated in 20 blocks providing employment to 1.84 lakh households as against 62.17 lakh persondays in 2018-19 and 69.46 lakh persondays in 2017-18. 16, 217 households have been provided 100 days of employment as against 3,009 households in 2018-

19. Initiatives and achievements during COVID-19 Pandemic under MGNREGA, 2020-21

- The challenge of pandemic Covid-19 was perceived as an opportunity in the State and efforts have been made to create employment opportunities to the migrant workers and vulnerable to secure their livelihoods under MGNREGS.
- Minimum wage rate of INR 308 /- per person per day by topping up INR 101/- per person per day out of State budget over the entitled wage of INR 207/- under MGNREGS out of State budget has been provided in 20 Migration blocks.
- Additional 200 days of work to each job seekers in 20 Migration Prone Blocks has been approved out of State budget.
- Minimum wage rate of INR 303.40/- per person per day for mining districts like Sundargarh, Angul, Jharsuguda, Mayurbhanj (3 blocks), Keonjhar and Jajpur by topping up INR 96.40 has been provided under DMF.
- Effective convergence with Line Departments with an allocation of INR 2562 crore has been made to strengthen livelihoods of the vulnerable.
- Record 17.64 crore persondays has been generated as on January, 2021 as against 8.10 crore till this period in 2019-20, showing an increase of 118%.
- The State aims to achieve 20 crore persondays during the financial year, 2020-21.

2.14.3 Drinking Water

Safe drinking water is a basic necessity of human being. Thus, the priority as well as commitment of the State Government is to supply safe drinking water to all. The Government has given priority for provisions of safe drinking water to rural people in terms of being potable, adequacy, convenience, affordability and equity on a sustainable basis adopting decentralized approach and involving PRIs and community organizations. During the year 2020, 460000 tube wells were installed and 47411 Pipe Water Supply (PWS) schemes commissioned

Table-2.35: Tube well/hand pump installed, PWS commissioned and household tap connection

Year	Tube well/hand pump installed (No)	Pipe Water Supply commissioned	Total Houses Completed
2018	427661	42636	308840
2019	455132	44201	319955
2020	460000	47411	1160000

Source: Panchayati Raj & Drinking Water Department, Govt. of Odisha

2.14.4: Livelihoods Promotion through Odisha Livelihoods Mission (OLM)

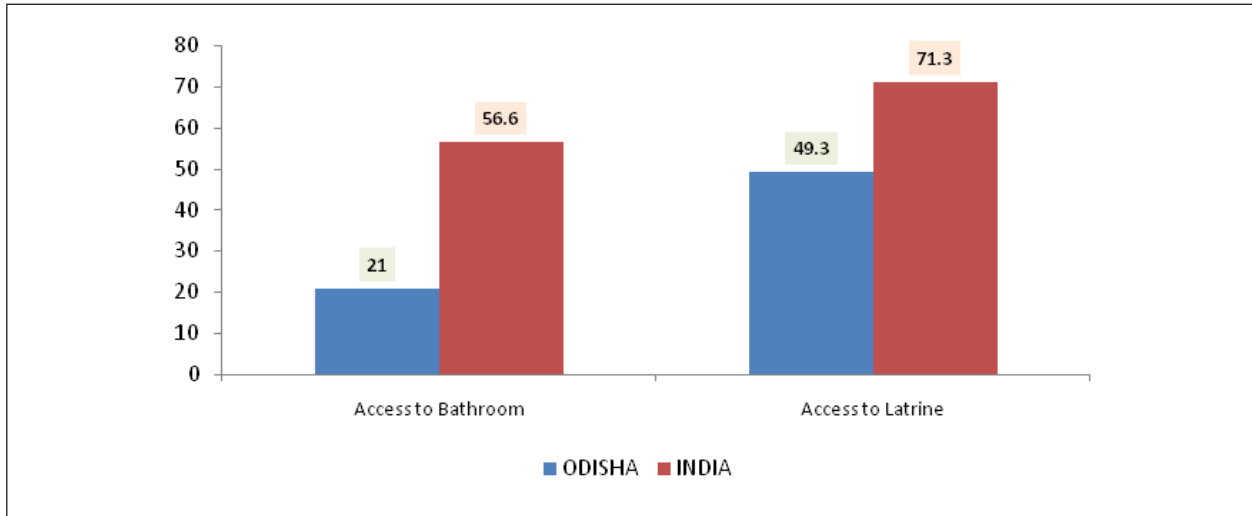
With the core belief that the poor have a strong desire and innate capabilities to come out of poverty, Deen Dayal Antyodaya Yojana - National Rural Livelihoods Mission (DAY-NRLM) under OLM is having the mandate to reach out to all poor households, link them to sustainable livelihoods opportunities and nurture them till they come out of poverty and enjoy a decent quality of life.

In order to facilitate effective implementation of NRLM in the state, OLM has adopted both Intensive block and non-intensive block approach. As on March, 2020, OLM is engaged with about 43 Lakh households by covering 3.96 lakh SHGs across the State through both intensive and non-intensive approach. 1,69,808 SHGs have been provided Community Investment Fund (CIF) to take up livelihoods activities. During 2019-20, 2,14,221 SHGs were provided support of credit link amounting to INR 2516.53 crore for income generation activities. 129 Goatery clusters and 77 Poultry clusters have been formed for sustainable livelihoods of about 19,377 households till 2019-20.

Initiatives and achievements under OLM during 2020-21

- 5 lakh Mo-Upakari Bagicha has been targeted to be established in convergence with MGNREGA. This has been appreciated by NITI Aayog and featured as success stories published in "Health & Nutrition" Compendium-Vol-II. This programme will improve the dietary diversities among the women and children.
- Special Covid-19 Assistance Package of working capital of INR 156.14 crore for revitalizing livelihoods activities of SHG members, migrant workers and others during Covid-19 pandemic has been provided as on Dec, 2020 covering 62,376 beneficiaries.
- 56.59 lakh mask, 1217 litre sanitizer, 1044 litre hand wash, and 2980 nos PPE kit have been produced by about 2600 SHGs.
- To increase bank linkage, special drive was initiated and 36,038 SHGs have been credit linked amounting to 618.43 crore.
- 1800 Producers Groups has been targeted to be formed to promote livelihood activities extensively.
- 189 Business Correspondence reached out to remote villages and provided banking services during Covid-19 lockdown under OLM.
- 602 Poultry clusters and 670 Goatery clusters have been formed during 2020-21(Dec,2020) covering 1.06 lakh households.
- Odisha Livelihoods Mission awarded with **Outlook Poshan Awards** in 2019-20 under "Safe and Nutritious Food" category.

Figure 2.39: Percentage of Rural Households of Odisha having Access to Latrine and Access to Bath room



Source: NSSO, Govt of India (NSS 76th round -2018)

2.14.6: Special initiatives by Government

2.14.6.1: Rural Housing:

Odisha's disaster risk reduction efforts have been recognised by the United Nations as one of the best practices of the world, which includes the State's foresight of replacing temporary houses in the rural areas with permanent houses. The critical housing needs in rural Odisha has been considerably met by the State's flagship project of Rural Housing. Over the years, the rural housing project has significantly added to the State's overall efforts in building resilience to cyclones and averting casualty. The State has adopted a multi-pronged strategy to ensure pucca—that is affordable and disaster resilient houses under this rural housing project to all poor rural households living in kutcha houses. Micro-level interventions and integration of benefits and resources under various schemes to provide financial and technical assistance to eligible rural households have essentially helped translating the State's resolve to provide pucca houses to the most deserving poor households. The State has been able to complete construction of 25,70,174 number of houses by end of FY 2019-20 .

The Panchayati Raj and Drinking Water Department, the nodal department that oversees Rural Housing project, has also implemented the State's 5T doctrine - Transparency, Teamwork, Technology, Time, and Transformation and "Mo Sarkar" initiative to maximize the benefits under the Rural Housing project.

COVID-19 pandemic impacted the lives and livelihoods right from the beginning of the year 2020. Odisha Government's decision to continue the house construction work under Rural Housing project in non-containment zones during the pandemic created opportunities of earning for thousands of daily wage earners and the masons including returnee migrant workers. Besides, the beneficiaries who would have otherwise migrated to other states in search of livelihoods remained in their native villages and engaged themselves in the house construction work. The following schemes are covered under Rural Housing Project.

I.Pradhan Mantri Awaas Yojana Grameen (PMAYG): This central plan scheme is for the houseless poor families and those living in less than two kutcha rooms as per SECC 2011. Survey are eligible for availing housing assistance to construct minimum of 25 Sq. Mtr. of house. The housing assistance is INR 1.3 Lakh in IAP District and INR 1.2 Lakh in Non-IAP Districts. Under PMAYG, the cost of the unit is shared between

Central and State Governments in the 60:40 ratio. The scheme is connected to MGNREGA by giving 90 days of labour to the beneficiary in non-IAP districts and 95 days of labour in IAP districts.

II. Biju Pucca Ghar Yojana (Special): Under this state plan scheme, housing unit of minimum 25 Sq. Mtr. is sanctioned for rehabilitation/ relocation of household whose house has been fully/severely damaged by natural/ manmade calamities; victims of river/sea inundation or who need relocation due to Government projects; beneficiaries of the Schedule Tribe and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006; people affected by occupational diseases like silicosis, asbestos and over use of pesticides; extremely poor, vulnerable and deserving households who need pucca house but could not be selected under Pradhan Mantri Awaas Yojana (Grameen) and left out households from Permanent Waiting List of SECC 2011.

III. Pucca Ghar Yojna (Mining): Under this state plan scheme, all the kutchha households residing in 37 blocks of 8 mining affected districts encompassing 691 mining affected villages of Angul, Dhenkanal, Jajpur, Jharsuguda, Keonjhar, Koraput, Mayurbhanj and Sundargarh are provided pucca houses under this scheme on saturation mode. The scheme is funded by Odisha Mineral Bearing Areas Development Corporation (OMBADC). The unit assistance and installment pattern are same as BPGY.

IV. Nirman Shramik Pucca Ghar Yojana: Under this state plan scheme, building and other construction workers in rural areas between the age of 18 years and 60 years having valid registration with the Odisha Building and Other Construction Workers Welfare Board (OB & OCWWB) under the Building and other Construction Workers (RE & CS) Act at least for a continuous period of 1 year are eligible for assistance. This scheme is funded by OB & OCWWB. The unit assistance and instalment pattern are same as BPGY and are sanctioned preferably in the name of the woman head of the household.

State provides incentives of INR 20,000/- and INR 10,000/- for completing houses within 4 months and 6 months from date of first instalment respectively to the beneficiaries for all the above schemes including the central scheme of PMAYG.

2.14.6.2 New Initiatives

a. State's exclusive Rural Housing Portal

The state has developed a dedicated web portal (<https://rhodisha.gov.in/>) for managing information about the rural housing project digitally on daily basis in addition to progress tracking through Awaasoft, the central portal for PMAYG. This portal has multiple modules to track progress of all the schemes in terms of allocation/ sanction of houses, the instalments, incentives, mason training etc and provides access to all the Blocks, Districts, the State and also the beneficiaries.

b. Online Case Record

The state is managing case records online through 'Mo Case Record' feature incorporated in the Rural Housing-Odisha portal (<https://rhodisha.gov.in/>), which brings transparency and empowers beneficiaries to view their respective case records digitally, by entering registration number/ mobile number in the "beneficiary log in" provided in the portal.

c. Ama Ghar App

An android application system called “Ama Ghar” has been developed and rolled out by the state, which is used by the beneficiary or his/her representative, tag officers and block office officials to report the physical progress of house construction. It empowers the beneficiary to initiate the instalment process by capturing and uploading photograph of house with timestamp and Geo-tagging after completion of each level of house construction. Besides, the beneficiaries can also view their case record using the “Ama Ghar” app.

d. Ensuring safe shelter to the vulnerable rural families

The state specifically aimed at providing safe shelter to the landless and vulnerable rural families. Houses have also been allocated in cluster to the families who previously lived in sheer insecurity in areas prone to landslide and coastal erosion. In some cases, the entire village has been relocated to safe area with all common infrastructure and basic amenities.

e. Transparency in selection of beneficiaries and universal coverage

The rural housing program is being implemented with a universal coverage mission to provide pucca houses to all rural families living in kutchha houses. Besides covering the Permanent Waiting List (PWL) prepared from the Socio Economic Caste Census 2011 data, the state has adopted a participatory approach to ensure inclusion of the left-out beneficiaries through a survey followed by display of tentative list of beneficiaries for public viewing and incorporation of public inputs after thorough verification. Finally, the list is ratified by the Gram Sabhas.

f. Simplified process for eligibility confirmation

The state is sanctioning houses to the households as per the list of eligible beneficiaries based on self-declaration of facts which makes the process hassle free for the beneficiaries.

g. Ensuring service delivery and redressal of grievances

The state has created windows for grievance redressal at all levels such as one fixed day in a week is dedicated to grievance redressal at the block level and fortnightly/monthly “Awaas Diwas” for grievance redressal at the district level. The state has also introduced the concept of Tag Officers, who continuously address grievances at the grassroot level.

h. Fast tracking house construction

The state has established Project Management Units at state, district, and block levels with support from United Nations Development Programme (UNDP) to fast track house construction. Besides, a pool of young engineers has been engaged as mobile technical consultants who handhold the construction work in the challenging pockets.

i. Ensuring quality, safety and resilience

The state has taken ample initiative to ensure safety, security, and resilience from disasters like cyclone and floods by improving quality of construction and using appropriate construction technology. RCC roof has been made mandatory for all houses. Besides, local production of alternative construction materials such as stone block bricks and fly ash bricks have been supported by the government. The state has collaborated with Central Building Research Institute (CSIR -CBRI), Roorkie, Uttarakhand, to train the

technical staffs and field functionaries on appropriate construction technology and housing typology suitable for Odisha's climatic condition. With their support, the state has built a Technology Park to demonstrate housing typologies and training has been imparted to the field level technical staffs on topics like Cyclone proof housing technology, Quality of construction materials, Production of pre-cast materials, and production of vibrators have been covered in the capacity building training.

j. Leveraging local potentials and Women Self-Help Groups.

Women Self-Help Groups (WSHG) are playing a crucial role in mobilising locally available construction materials and have been engaged in production of alternative construction materials such as stone block bricks.

k. Creating a pool of trained masons to aid house construction

The implementation of rural housing project unravels the critical challenges of unavailability and limited availability of trained masons in rural areas. Rural Mason Training (RMT) programme is being implemented under the rural housing project to create a pool of trained masons. The training follows the qualification pack (QP) as per National Occupational Standards (NOS) set by the National Skill Development Corporation (NSDC) and certification by Construction Skill Development Council of India (CSDCI). The RMT is being imparted through NSDC empanelled Training Partners of Odisha Rural Marketing Society (ORMAS).

2.14.7 COVID-19 PANDEMIC SITUATION.

- A special SoP was issued to all collectors with some key points of the initiatives as to issue of job cards to the willing migrant labourers, to provide employment to all job seekers and migrant labourers, to take up labour intensive INRM works and community works, to take adequate number of projects in GP/Village for continuous provision of works for the rural households with implementation of strict social distancing, use of mask and hand wash by ensuring timely payment of wages.
- For providing wage employment to quarantine migrant workers one SoP was issued to issue of Job Cards to the willing migrant workers among them to do unskilled works, providing works like land development, school boundary, school playground, recharge pit near tube well, plantation activities etc during quarantine period with precautionary measures.

Initiatives was taken for taking up of adequate number of projects by districts to provide employment to job with approval of GP and continuous provision of works during rainy season was also being made. Focus activities are trench-cum-bund, staggered / contour trench, stop dam, loose boulder check dam, 'Mo Upakari Bagicha' fodder cultivation, coconut plantation and betel vine. To ensure livelihood and nutritional aspect of vulnerable households, a target of 1.00 lakh farm pond, 20,000 ha horticulture plantation, and 5.00 'Mo Upakari Bagicha' have been initiated on mission mode. Nutri garden (Mo Upakari Bagicha) has been made functional to address the issue of nutritional deficiency found among women and children of the state. By end of July 2020, about 3.84 lakh households from 314 blocks covering 30 district of the state have established this nutri garden under MGNREGS during the months of May-July, 2020. These gardens ensure availability of vegetables round the year for home consumption by the poor households of the state. 460 SHGs identified to raise community nursery to supply Papaya, Drumstick and other vegetable saplings to individual Nutrition gardens. Each of this Nutri gardens has engaged 33 person days of employment during lockdown and shut down period. Around 25 lakh person days of employment were created for women farmers of the state through this initiative during the COVID-19 pandemic period.

- Effective convergence with Line Depts. namely Water Resources, Agriculture & FE, Forest & Environment, ST & SC Dev, WCD & MS, Handloom & Textile, Fisheries and ARD has been established to create livelihood opportunities of the vulnerable.

2.14.7.1: Other Special initiatives taken during COVID-19

- 2,089 numbers of WSHGs / PGs are involved in mask Production and 56.59 Lakh masks produced: 42.47 lakh sold for an amount of INR 113.32 Crore.
- 1,217 liters Sanitizer were produced by 74 SHGs and 1,044 liters Hand wash were produced by 14 SHGs. Also, 2,980 Personal Protective Equipment (PPE) were produced by 6 SHGs
- 189 Bank Correspondent (BC) Points providing doorstep services to the community in the unbanked GPs.
- 2,010 SHGs availed COVID-19 Special loan amounting INR 1, 244.54 lakh.
- Relaxation in fund disbursement and repayment norms of VRF and CIF as COVID-19 response as given below.
 - Vulnerability Reduction Fund (VRF) up to INR 1.5 lakh to be released in single tranche to eligible Cluster Level Forums (CLF).
 - CLFs coming under containment zones, 477 GPs in 20 Blocks of 4 Distress Migration Districts i.e. Bargarh, Bolangir, Kalahandi Nuapada and PVTG GPs will be provided with INR 3 lakh as VRF under special consideration
 - GPLFs were allowed to give moratorium period of 3 - 6 months on new loans or increase repayment period by 3 months to SHGs on existing loans, as per request
- CRPs, Community Professionals and Community Cadres under OLM engaged in work to address the COVID-19 situation, if deceased on duty, made eligible for an ex-gratia of INR 10 lakh.
- Instructions were issued to districts to assure SHG members, CRPs, Community Professionals, and Community Cadres involved in fieldwork and activities related to containment of COVID-19 are provided with necessary safety kits (consisting of gloves, soaps, sanitizers, washable masks and COVID-19 IEC material).

Industrial Development and Mineral Resources

Industrial development is the engine of economic growth of a nation. The series of state's IPR and MSME policy transform Odisha into a service led and industry led economy since last decade. The shift was required for effective mobilisation of natural and human resource, larger employment generation, augmentation of domestic supply and sustainable export promotion for Odisha. The industry sector currently leads the developmental change of the State, constituting 36% of State's Gross Value Added (GVA) relative to 26% at the all-India level as per 2020-21(A.E). The sector has also experienced strong growth in the recent past. The industry sector, due to its linkages with services like transportation, storage, trade and tourism, has the capacity to pass on the growth impetus to the entire economy, truly acting as the growth driver. The fast-growing Industrial sector of Odisha has also increased the visibility of the State at national and international level.

The State Government has developed viable strategies to make industry sector more efficient and competitive with the accelerated support of technological, infrastructural, institutional and entrepreneurial skill development. At present the sector is dominated by medium-tech industries (such as metal and petroleum products). The share of high-tech industries (automobiles, electronics, and pharmaceuticals) in total manufacturing output stands at only 18%. Greater reliance on high-tech industries can fast track economic growth further given the high-value nature of the output and associated productivity gains. The State having been bestowed with a rich stock of minerals occupies a prominent place in the mineral map of India. Odisha has substantial production of minerals like iron, chromite, coal and bauxite making it an ideal location for mining and mineral-based manufacturing industries. Although quantum of identified mineral reserves has been enhanced in the State through exploration, the positive impact of increasing production of majority of minerals has been moderated by softening of mineral prices. The strategy for this sector would be to promote domestic industry, reduce dependency and feed in to the Make in Odisha initiative. Amid sluggish economic activities due to COVID-19 crises, the Odisha government has approved amendments to the States Industrial Policy and Labour Laws to revive various sector of Industrial economy. The process of granting trade licenses will also be eased to reduce the burden on the business units. The Governments revised definition of priority and negative list and downstream industries in IPR-2015, will encourage the MSME and Large Industries for expansion and modernisation and enable them to set up new units. Besides, a number of technological interventions have been carried out as part of improving Ease of Doing Business such as Go-i-Plus, Single Sign On (SSO) CCIG, APAA and E-Subidha to instill confidence among business community to accelerate the Industrial growth of State.

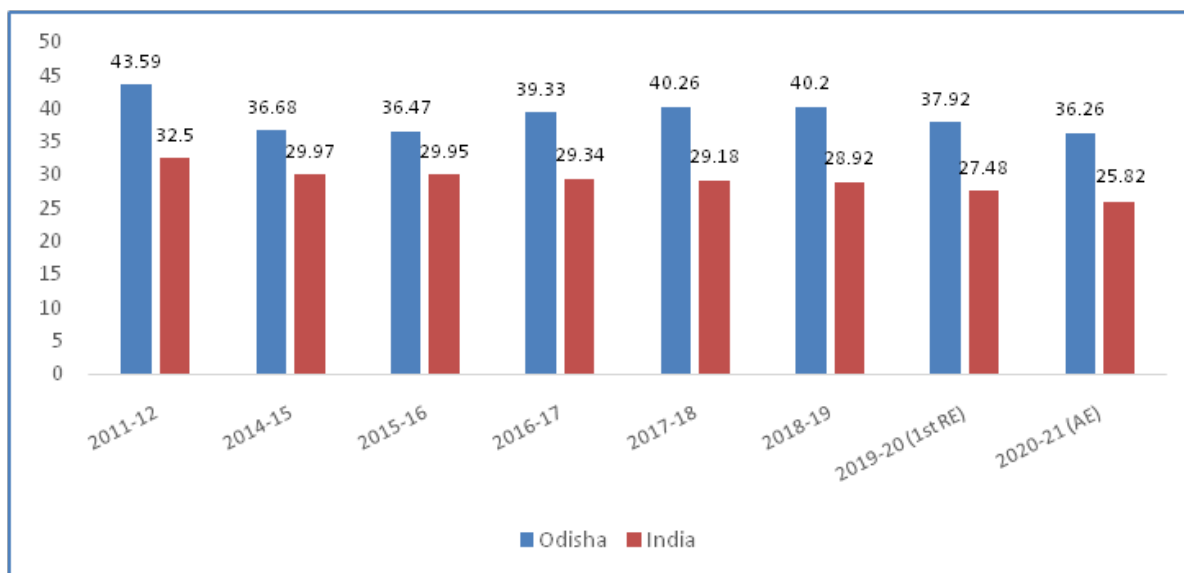
In the power sector, installed capacity has remained stable from 2014-15 to 2015-16 barring fluctuations on account of maintenance work. By the year 2022, Odisha envisages a generation of 2,200 MW of solar power, 200 MW of wind power, 180 MW of biomass power, 150 MW of small hydropower and 20 MW of Waste-to-Energy (WTE) power. The domestic sector is the largest consumer of electricity in Odisha, accounting for about 37.41 (7327 MU) % of total consumption. This has its implication towards the distribution costs. Rural consumer occupies 78% of total consumers of energy during 2019-20. But during 2019-20 installed capacity hiked by 27% over previous year. The rural Odisha achieved 100% of electrification by the end of March, 2020

3.1 Introduction

Industrialisation plays a vital role in development of an economy by promoting trade, improving Agriculture and Science & Technology. During the past years Odisha economy has undergone remarkable structural changes from Agricultural to Industrial and Service led economy.

3.1.1 Odisha is industrialising at a rapid pace. The share of the Industry sector in State Gross Value Added (GVA) (an indicator of industrialisation) has remained around 40% since 2011-12 (36.26% as per advance estimates for 2020-21). The share of industries in all-India GVA is 25.82%, as highlighted in Figure 3.1. This is primarily due to the significantly high share of the mining sector in Odisha. The Industry sector has also been growing at a rapid pace. The real annual average growth rate of the industry sector in Odisha during the last nine years has been 5.36%, with the sector estimated to a declined growth of (-) 8.83% in 2020-21 (A.E)

Figure 3.1: Share of industry sector in gross value added (in %)



Note: Shares calculated at current prices.

Source: Directorate of Economics & Statistics (DES), Odisha

3.1.2 Strong linkages with other sectors like services makes the industry sector one of the prime movers of sustained growth of Odisha. In appreciation of this importance of the sector and the growth potential of leveraging the natural wealth endowed with the State in the form of minerals, Odisha has been consistently formulating policies to encourage investments in this sector and adopting measures to implement the same.

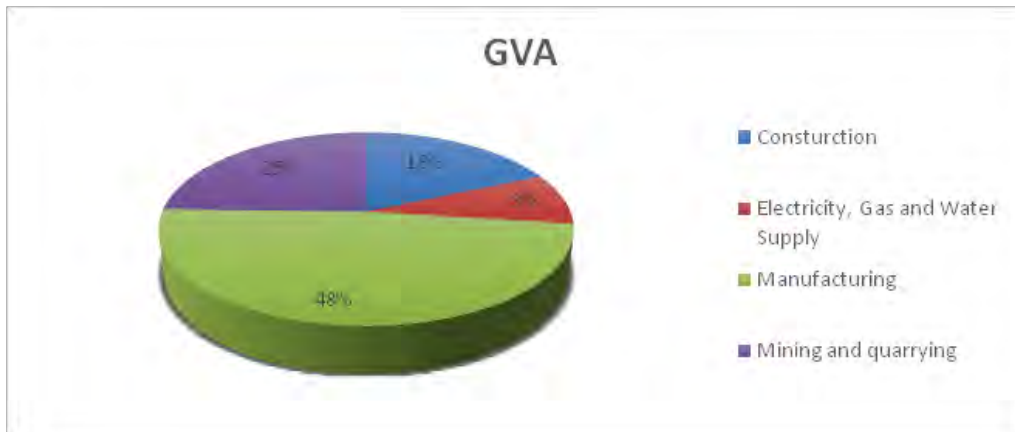
3.2 Overview of industrial performance

3.2.1 The industry sector comprises four sub-sectors; i.e. (i) Mining & Quarrying, (ii) Manufacturing, (iii) Electricity, Gas and Water-supply and (iv) Construction.

I. Performance of sub-sectors

3.2.2 The manufacturing sector is the largest contributor with a share of over 48.4% of industry GVA in 2020-21 (A.E) , followed by the mining sector (24.6%) as presented in Figure 3.2. Manufacturing and mining are also the largest contributing sub-sectors to the overall GVA of the State. This pattern of the share of the sub-sectors has remained constant over the last eight years

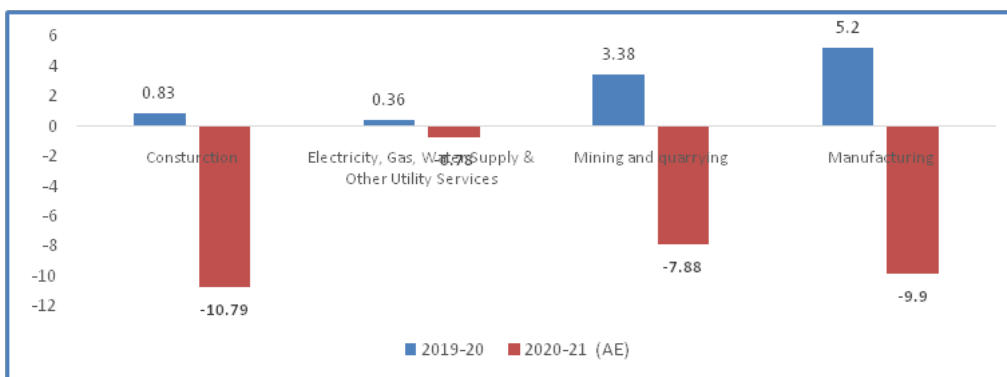
Figure 3.2: Share of sub-sectors in industry GVA in Odisha, 2020-21 (A.E) (in %)



Note: Shares calculated in current prices.

Source: Directorate of Economics & Statistics (DES), Odisha

Figure 3.3: Growth rate of sub-sectors in Odisha (in %)



Source: Directorate of Economics & Statistics (DES), Odisha

3.2.3 The estimated growth of all sub-sectors of Industry during 2020-21 (A.E) is reduced due to the severe disruption caused by COVID -19 pandemic in early 2020. The reduction rate is higher in construction sector i.e (-) 10.79% followed by (-)9.90% in manufacturing sub-sector due to the restrictions caused by series of shut down and lock down.

3.2.4 In comparison to 2019-20, all the sub-sectors witnessed a negative growth as highlighted in Figure 3.3. The growth of Manufacturing and construction witnessed a slight dip compared to other sub-sectors.

II. Inclusive and Sustainable Industrial Development (ISID)

3.2.5 Under the Lima Declaration adopted by the member states of the United Nations Industrial Development Organization in December 2013, a new vision for inclusive and sustainable industrial development was agreed upon, highlighting the role of industries to drive growth. Inclusive and Sustainable Industrial Development concept is part of new Sustainable Development Goal-9 to build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation. Goal 9 has 8 number of targets and 33 indicators, out of which 17 are from National Indicator Framework (NIF) and 16 are Odisha specific indicators. ISID has aims at 3 aspects namely: advancing economic competitiveness, creating shared prosperity and safeguarding the environment.

III. Role of technology in industrialisation

3.2.6 The State aims at diversifying its industrial portfolio with those characterised by greater infusion of value added. At present, this sector is dominated by mineral processing units like iron and steel, aluminium and to a much smaller extent, cement. Petroleum refineries would also fall in this category. All of these produce intermediate goods with relatively low proportion of value added; a greater proportion of value is added during the stage that converts intermediate goods into final consumer goods. It is the latter category of units that would raise both the technology quotient and value added in the output, accelerating growth in the State. In comparison, the country as a whole has a more balanced structure of manufacturing.

3.2.7 At the same time, it would not be advisable to lose sight of the issue of weaning labour away from the overcrowded agriculture into other sectors. From this point of view, the industrial diversification should consider the employment potential along with the technological considerations.

3.2.8 The State has recognised five manufacturing sectors, (from among six focus sectors) for sustainable growth of industries and the economy, as highlighted below. These identified sectors are expected to generate significant employment opportunities in the State.

Box 3.1: Focus Sectors of Odisha Government

The Government of Odisha has recognised six sectors as its focus sectors for sustainable growth of industries and economy. Of these, five are manufacturing sectors, as indicated below. These sectors were highlighted during the Make in Odisha Conclave 2018. Three of these six sectors are labour intensive in nature and are expected to generate large employment opportunities in the State.



Agro Food Processing including Seafood: To support these agro-based industries, the State government has established Mega Food Parks at Rayagada and Khurda and a sea food park at Deras.



Textiles including technical textiles: Odisha is a leader in skilled and quality workforce for the textile sector, with immense opportunity to invest in this field. Dedicated apparel parks have been established at Ramdaspur and Chhatabar.



Ancillary and Downstream Industries in Metal Sector: Odisha is the mineral hub of India and the largest aluminium, steel and stainless steel producer in the country. To facilitate growth of ancillary and downstream sectors, a National Investment and Manufacturing Zone has been set up at Kalinganagar along with downstream park at Angul and Jharsuguda



Chemicals, Plastics and Petrochemicals: One of the four Petroleum, Chemicals and Petrochemicals Investment Regions (PCPIR) in India has been established at Paradip. The PCPIR is anchored by a 15 MTPA refinery set up by IOCL.



Electronics Manufacturing: To enhance electronic manufacturing in the State, a dedicated electronics manufacturing cluster has been established near Bhubaneswar. A revised special incentive package has also been introduced to facilitate investments in the sector.

IV. Environmental sustainability

3.2.9 Environmental sustainability is a growing concern across the globe. The idea of environmental conservation will gain real momentum if we can conserve resources and use them in a manner that adequate availability for the coming generation is ensured. The goal of environmental sustainability is to conserve natural resources and reduce pollution and harm to the environment. 'Clean' sources of energy is an important requirement but industrial technology also needs to minimize damage to the environment. Research and development in these areas will go a long way in having balanced sustainability in industrialisation and environmental conservation. Climate Action is the 13th goal of SDG (Sustainable Development Goals) having 5 targets and 8 indicators (4 each from State level and from National framework).

3.3 Mining sector

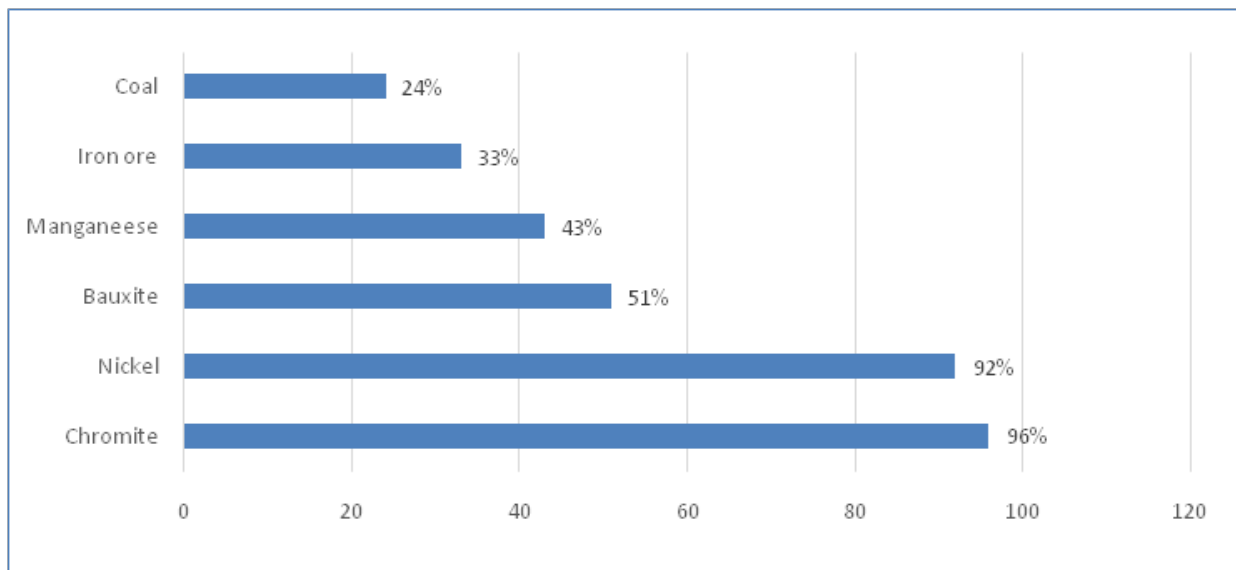
I. Performance of the mining and quarrying sector

3.3.1 Odisha's rich mineral resources contribute multi dimensionally to its economic development. The mining and quarrying sector contributed 8.98% of State GVA in 2020-21(AE) which was 9.02% during 2019-20 (RE). Odisha occupies a prominent place in the country as a mineral rich State. The reserve scenario of India is available for 2015, as the study was conducted in every 5 years. Between 2010-15, one more study had conducted during 2013 due to mining litigation throughout the Nation. The share of Odisha reserve of major selected minerals for the year 2015 with reserve of India is given in fig. 3.4.

II. Major minerals

3.3.2 Odisha accounts for country's 96% Chromite, 92% Nickel, 51% Bauxite, 33% Iron ore, 43% of Manganese ore and 24% of Coal. The share of Odisha reserve of major selected minerals as on dt.01.04.2019 with reserve of India is given in (Figure 3.4)

Figure 3.4: Odisha's share of major mineral deposits in India



Source: Activity Report of Steel and Mines Department, Govt. of Odisha

3.3.3 The State has managed to increase the quantum of identified reserves for major minerals. With regular exploration, the size of reserves for majority of key minerals such as iron ore, chromite, coal, bauxite has increased since 2010-11. The estimated reserve of major minerals is given in Table 3.1.

Table 3.1: Change in mineral/ores reserves in Odisha (in million tonnes)

Minerals/Ores	2010-11	2016-17	2017-18	2018-19	2019-20	Change in Reserves in 2019-20 over 2010-11 (in %)
Iron Ore	5873.2	7634.8	7,874.6	8065.4	10010.0	70
Chromite	185.7	323.5	319.8	315.8	416.8	124
Coal	65010.3	77284.8	77141.5	76994.2	80697.5	24
Bauxite	1805.6	2039.2	2052.5	2083.6	2128.5	18
Lime stone	1779.2	1,764.5	2,163.8	2158.7	2204.9	24
Mineral sands	222.3	266.4	363.9	366.1	366.3	65
Graphite	8.65	18.9	19.2	19.2	20.0	131
Manganese Ore	189.41	211.9	217.8	217.3	227.0	20

Source: Directorate of Geology, Govt. of Odisha.

III. Mineral Production

3.3.4 Odisha is the leader in the production of minerals like Iron ore, Bauxite, Coal and the only producer of Chromite in our Country during 2019-20. The State contributed 34.3% of the total mineral production in the country.

3.3.5 The State is richly endowed with vast resources of a variety of minerals and therefore occupies a predominant place in the country's minerals map. Total production of different minerals and their value is given in Table 3.2.

Table 3.2 Change in Production & value of Major minerals in Odisha

(Qty in Lakh MT, value in crore)

Minerals/Ores	2016-17		2017-18		2018-19		2019-20	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Iron ore	1026.63	14233.05	1049.82	19947.00	1209.71	25863.59	1424.59	33007.71
Chromite	41.30	5653.57	36.48	3647.91	40.65	3934.25	39.20	3225.68
Coal	1353.14	19539.39	1433.27	12899.00	1453.90	15992.85	1427.98	NA
Bauxite	119.14	798.24	113.67	1085.53	154.16	1002.06	154.84	1083.84
Lime stone	47.62	189.06	51.11	209.55	50.59	173.52	56.47	215.72
Graphite	0.20	1.33	0.19	0.95	0.55	17.49	0.70	22.40
Manganese ore	6.28	865.37	5.35	647.77	4.77	865.36	5.38	923.40

Source: Directorate of Mines, Odisha

3.3.6 Odisha is the leading State in terms of deposit and production of minerals as well as exports of basic metals. However, private investment in mining is very much dependant on the value received from mineral resources and the fluctuations in mineral prices can create uncertainty. Significant price fluctuations create uncertainties for investors in mineral-processing industries too. During 2019-20 the value of Chromite declined by 18% over 2018-19 whereas production declined by 3.6 %. Prices of coal also declined in 2017-18 by 34%, and the value declined despite 6% increase in quantity produced over 2016-17. The quantity of coal produced also declined slightly (2%) during 2019-20 over 2018-19.

3.3.7 The percentage share of major mineral production of Odisha to India and also rank of Odisha among all states is presented in Table 3.3 below. Odisha occupies rank 1 in production of Bauxite, Coal, Chromite and Iron Ore. In case of Manganese ore, Odisha rank 3. Besides the above it also produce Graphite, Limestone and other minerals. The state is a mineral hub with ample opportunities of Industrial Units.

Table 3.3 : Share of major Mineral Production of Odisha to India during the year 2019-20

Item	Percentage Share of Mineral Production of Odisha to India	Rank of Odisha among States
Bauxite	76.52	1
Coal	22.55	1
Chromite	100.00	1
Manganese Ore	19.85	3
Iron ore	64.00	1

Source: IBM Nagpur, Director of Mines, Odisha

3.3.8 Mineral production in Odisha and other major states of India

The state has shown consistent growth in the production of bauxite, iron ore, lime stone and manganese ore over the last three years. The production of iron ore has increased substantially from 1209.71 lakh MT in 2018-19 to 1424.59 in 2019-20. Similarly the production of bauxite has increased from 154.16 lakh MT in 2018-19 to 154.84 lakh MT in 2019-20 while the production of lime stone has increased from 50.59 lakh MT in 2018-19 to 56.47 lakh MT in 2019-20. The production of major mineral in major states of India during 2019-20 is depicted in Table 3.4.

Table-3.4 : Major Mineral Production Recorded in Major States by the End of 2019-20

(In Lakh MT)

State	Bauxite	Coal	Chromite	Lime Stone	Manganese Ore	Iron Ore
Andhra Pradesh	-	-	-	387.81	3.08	7.89
Chhattisgarh	14.37	1334.54	-	398.42	-	313.43
Gujarat	19.16	-	-	212.1	-	-
Jharkhand	13.45	1141.1	-	7.34	0.05	211.39
Karnataka	-	-	-	317.16	3.14	299.61
Madhya Pradesh	6.38	1138.04	-	436.86	9.07	31.24
Maharashtra	5.43	446.02	-	134.75	6.61	10.45
Odisha	154.84	1427.98	39.20	56.47	5.38	1424.59
Rajasthan	-	-	-	672.34	0.09	9.14
Telangana	-	595.89	-	241.06	0.07	-
Uttar Pradesh	-	165.98	-	26.33	-	-
West Bengal	-	289.56	-	-	-	-

Source: Annual report 2019-20 IBM Nagpur & Director of Mines, Odisha

IV. Mineral revenue

3.3.9 A sum of INR 11019.86 crore has been collected during 2019-20 towards mineral revenue out of the production of 313.60 million tonnes and despatch of 320.08 million tonnes in the State. The production, despatch of minerals and collection of mineral revenue in Odisha from 2015-16 to 2019-20 has been presented in Table 3.5.

Table 3.5 : Production and despatch of, and Revenue collection from Minerals - 2015-16 to 2019-20

(In Million Tonnes)

Year	Production (inn million tonnes)	Despatched	Revenue collection INR Crore
2015-16	239.64	241.60	5,797.79
2016-17	264.84	285.25	4,925.66
2017-18	270.84	287.67	6130.97
2018-19	295.45	310.08	10479.18
2019-20	313.60	320.08	11019.86

Source: Directorate of Mines, Odisha

Mining revenue increased by 90% during 2019-20 over 2015-16, the same was increased by 5% over 2018-19.

V. Employment in the mining sector

3.3.10 Mining and quarrying provides employment to different sections of population. The sector plays a vital role in providing employment particularly to the tribal and unprivileged people of the mining belt. Table 3.6 depicts the number of workers directly engaged in various mining activities in different years. By the end of 2019-20, around 59,636 workers were employed directly in major mineral activities. Coal mining directly employs the largest number of workers (22,700) followed by iron ore (19,850 workers), chromite (7,010 workers) and Manganese (4,215 workers) on the same basis. The sector has been increasingly employing labour-saving and capital-intensive production techniques and technology over the years. It was noted that 71% of the workers are employed in iron ore and coal sub-sectors.

Table 3.6: Number of workers directly employed in major mineral activities, during the period 2015-16 to 2019-20 (P)

Mineral ores/District	2015-16	2016-17	2017-18	2018-19	2019-20 (P)
Bauxite (Koraput, Sundargarh)	896	1,215	1,350	1650	1750
Chromite (Dhenkanal, Jajpur, Keonjhar)	5,974	5,974	6,074	6374	7010
Coal (Angul, Jharsuguda, Sundargarh, Sambalpur)	19,800	20,800	22,200	22,700	22,700
Dolomite and lime stone (Bargarh, Bolangir, Koraput, Sundargarh)	450	450	550	660	760
Iron ore (Jajpur, Keonjhar, Mayurbhanj, Sundargarh)	18,100	18,600	19,600	19,850	19,850
Manganese ore (Keonjhar, Sundargarh, Rayagada, Bolangir)	2,415	2,915	3,915	4115	4215
Others (China clay, Quartz and Quartzite, Graphite, Mineral sand, Gemstone, Pyrophyllite etc.)	1,451	2,451	2,251	3251	3351
Total	49,086	52,405	55,940	58,600	59,636

Source: Directorate of Mines, Odisha

VI. Mining leases and auction of mineral blocks

3.3.11 The State Government has decided to grant mining leases through auction in pursuance of the relevant provisions of Mines and Minerals Development Regulation (Amendment) Act 2015. As per Mineral Auction Rules-2015, the mineral bearing blocks, which have been explored up to G2 level, are now being processed for auction. During 2019-20, under 3 different, Notice Inviting Tender (NIT), for a total of 29 number of major mineral blocks have been in the process of auction, out of these, 22 have been auctioned and rest in different stages of compliances. In the meantime, Govt. have promulgated "Odisha specified Minor Mineral Rules - 2019 and accordingly the minerals will be auctioned. The details of Mining leases (working) during 2017-18 to 2019-20 is given in Table 3.7.

Table 3.7: Details of mining leases (working) during 2017-18 to 2019-20.

Mineral Name	2017-18	2018-19	2019-20
Bauxite	2	4	5
Chromite	8	11	10
Coal	-	-	29
Chromite and pyroxenite	1	1	1
Dolomite	2	3	2
Iron and manganese	18	21	11
Iron Ore	31	39	29
Limestone	2	3	2
Limestone and dolomite	7	7	5
Manganese ore	11	13	6
Sand (Stowing) + Mineral sand	3	4	2
Iron and bauxite	2	2	2
China clay + Gem stone	1	1	4
Pyrophilite and quartzite	1	1	9
Graphite	1	1	6
Total	90	111	121

Source: Deptt. of Steel & Mines

3.3.12 Out of the total of 121 extended leases, 85 leases have been executed so far. Besides, in pursuance of the provision of section 10 A 2(c) of the MMDR Act - 1957, the State Government has granted 18 Nos. of mining leases, out of which 16 mining leases have been executed and registered for different major minerals in the State.

3.4 Policy and promotion initiatives

3.4.1 In pursuance of the provision of Section 8A(3) and 8A(6) of MMDR (Amendment) Act - 2015, the State Government has extended the period of mining lease in respect of 121 leases so far. The break-up of the said mining leases is shown in Table 3.7.

Odisha Minor Mineral Concession Rules, 2016

3.4.2 The State Government has framed OMMC Rules, 2016, after the amendment of MMDR Act 1957 and declaration of 31 major minerals as minor minerals by the Ministry of Mines, Govt. of India. These rules have further been amended on 18 July 2017 and May 2018 to bring in more clarity and facilitate more effective implementation.

Enforcement activities

3.4.3 For effective control of illegal mining and illegal transaction of ore/minerals, stringent steps are being taken for enforcement of the Odisha Minerals (Prevention of Theft, Smuggling and Illegal Mining and Regulation of possession, Storage, Trading and Transportation) Rules 2007, so as to prevent the leakage of mining revenue. During the financial year 2019-20, 140 cases of illegal extraction, storage and transportation of various ores/minerals have been detected, leading to seizure of 1,49,738.87 MT of ores/minerals, 15 vehicles and INR 92.34 lakh has been realised towards penalty by the District Level Enforcement Squad. Similarly, the State Level Enforcement Squad has conducted raids in 627 cases and seized 42.50 MT ores/minerals and 3 vehicles and has also collected INR 3.41 lakh penalty during the year 2019-20.

Integrated Mines and Minerals Management System (i3 MS) Project

3.4.4 The IT based i3 MS project has been implemented by the Steel and Mines Department w.e.f. November 2010 in conformity with Government of India's E-Gov. process. The i3MS project has been one of the primary drivers for "Ease of doing Business" and a classic example of "Good Governance under the 5T principles adopted by the State Government. The Directorate of Mines and all 14 circle-mining offices have been included in this project. The project is self-sustaining (user fee INR1/- per transaction is realised) and aims at bringing a transparent and effective management system for monitoring and supervision of mineral transition in the State in totality, i.e., from source point to destination through one Project Management Unit (PMU) at headquarters, Bhubaneswar and has linked it with Project Implementation Units (PIUs). E-pass and E-permit is being followed to avoid unnecessary delay and hassles faced in manual process earlier.

i3MS Odisha has received a positive recognition and extended for another 5 years from 2017-18 to 2021-22

Major Achievements by i3MS

- More than 91,384 user registrations in i3MS
- INR 49309.6 crore worth of Mining revenue collected through the system.
- Around 302.33 crore of User fees/ Application fees collected.
- More than 8.88 lakh e permits and 6.82 crore e-passes issued.
- 467 numbers of electronic weigh bridges integrated with i3MS for online mineral weighments.

3.4.5 To check the illegal transportation of minerals, the above project has been integrated with the online system at six seaports, commercial tax, commerce & transport departments and railways. A mobile application named National Mineral Statistics (NMS) has also been developed wherein the production, despatch and sale value of minerals are captured on real time basis. Apart from these, the following major steps have been taken to further strengthen the checking and monitoring system.

- Adopting of Business Continuity Plan at STPI, Gothapatna for i3MS server failover protection.
- Implementing online permit and pass process for Decorative Stone Mines.
- Comprehensive Mineral Resources Mapping of the State indicating the quantity of mineral resources, its value and development potential.
- Online Monitoring and Compliances of the NEERI guidelines.
- Online surface rent and Dead Rent collection system.

District Mineral Foundation (DMF)

3.4.6 The Odisha District Mineral Foundations Rules, 2015 have been framed and notified by the State Government and was last amended on 20th September 2018. The District Mineral Foundations came into existence w.e.f. 12th January 2015. The guidelines on 'Pradhan Mantri Khanij Kshetra Kalyan Yojana' (PMKKKY) was incorporated into the DMF Rules with the objective to work for the interest and benefit of persons and areas affected by mining related operations. Accordingly, District Mineral Foundation Trusts have been constituted in all 30 districts with the Collector as the Chairperson of the Trust and with other designated members, like MP and MLAs of Mines areas. So far, INR 9984.77 crore as on 31st March, 2020 has been collected in various DMFs of the State. To monitor the progress of functioning of DMFs in the State, a State Level Committee under the Chairmanship of the Chief Secretary has been constituted. The subject of implementation of DMF (other than framing of rules) has been assigned to the Planning and Convergence Department and the DRDAs are designated as the Project Implementing Agencies at the District Level.

Odisha Mining Corporation (OMC)

3.4.7 The Odisha Mining Corporation Limited, established in 1956, held 33 leases covering an area of 18265.59 hect. at the end of the year 2019-20. Out of 33 leases, only 10 are in operation, covering an area of 5462.06 hect.

Production of minerals by OMC

3.4.8 Table 3.8 shows the production of minerals by OMC during 2015-16 to 2019-20. Iron ore is produced from three mines of OMC, i.e., Daitari, Gandhamardhan and Kurmitar mines, while chrome ore is produced in three mines of OMC, i.e., South Kaliapani, Bangur and Sukurangi mines. During 2019-20, the OMC has produced 123.86 lakh MT of iron ore and 8.35 lakh MT of chrome ore.

Table 3.8 Production of minerals by the OMC

(In Lakh MT)

Minerals/Ores	2015-16	2016-17	2017-18	2018-19	2019-20
Iron ore	60.20	63.66	79.20	104.79	123.86
Chrome ore	9.60	11.40	8.93	11.89	8.35
Manganese ore	Nil	Nil	Nil	-	-
Bauxite	Nil	Nil	0.05	27.00	30
Chrome concentrate	0.30	0.35	Nil	-	-
Total	70.10	75.41	88.18	143.68	162.21

Source: O. M. C. Bhubaneswar

3.4.9 During 2019-20, Odisha Mining Corporation has signed sales agreement with 50 number of domestic buyers for supply of 95,86,256 MT of iron ore and with 13 number of domestic buyer for supply of 8,63,403 MT of Chrome Ore and with 1 number of domestic buyer for supply of 21,00,000 MT of Bauxite per year under Long Term Linkage (LTL) basis. OMC sells iron ore, chrome ore and Bauxite to both in-State and out-of-State companies/buyers through national e-auction. OMC has also entered the business of bauxite mining at Kodingamali and based on the amended LTL policy, it will facilitate supply to State based Alumina Refineries as well. Table 3.9 gives a detail picture on domestic sales of minerals / ores by OMC.

Table 3.9: Domestic sales of minerals/ ores by OMC (2017-18 to 2019-20)

(Value in crore, qnty in lakh MT)

Minerals/ Ore	2017-18		2018-19		2019-20	
	Quantity	Value	Quantity	Value	Quantity	Value
Iron Ore	74.19	1,700.94	103.37	2559.54	133.79	2875.95
Chrome Ore	9.97	1,108.25	11.22	1350.72	8.56	855.61
Chrome Concentrate	0.42	41.53	0.03	2.81	-	-
Bauxite	-	-	16.9	138.97	25.80	243.09
Total	84.58	2,850.72	131.52	4,52.05	168.15	3974.65

Source: O. M. C. Bhubaneswar

Table 3.10: Annual turnover, profit and dividend paid to the State government from 2015-16 to 2019-20.

Year	Turnover	Profit before tax	Dividend paid to Government
2015-16	1,546.42	1,017.42	500.00
2016-17	2,331.43	1,320.51	500.00
2017-18	2,853.09	863.53	-
2018-19	4,052.05	1256.96	500.00
2019-20	4,092.95	1137.30	250.00

Source: O.M.C. Odisha, Bhubaneswar

3.4.10 OMC is committed to its environmental responsibilities along with its commercial remit. MOU has been signed with Forest & Environment Department, Govt. of Odisha for plantation of 2 million saplings. (i.e. @ 1 tree = 10 metric tons of ore extracted). From 2015 to 2019, INR 20.91 crore has been spent and 50.53 lakh trees have been planted covering 2640 hectare through PCCF. OMC has been declared as the winner of “Golden Peacock Award for sustainability”, “18th Asia Pacific Award for overall Excellence in CSR” and “Zee Business Award for Best Practices in Corporate Social Responsibility Initiatives” for the year 2019. OMC is a major financing partner of AAHAR Programme and many Sports events.

3.4.11 In the present COVID-19 pandemic, OMC have been supporting to 10 hospitals in 8 districts of Odisha (Puri, Dhenkanal, Kalahandi, Kandhamal, Bolangir, Mayurbhanj, Cuttack and Khurdha). Food grains and other basic necessities are distributed among the people of nearby mines periphery. KIIT COVID Hospital with 500 beds constructed was with a record time of seven days with financial assistance of OMC.

Geological surveys and exploration

3.4.12 Directorate of Geology, Odisha, with an objective to fulfil the need of mineral-based industries and to augment the mineral resources of the State, executes various mineral exploration programmes from its Headquarters in Bhubaneswar and six Zonal offices at Bolangir, Berhampur, Dhenkanal, Keonjhar, Koraput and Sambalpur. During the year 2019-20, twenty six (26) investigation programmes (10 at G-2 level, 12 at G-3 and 4 at G-4 level) for minerals like Coal, Manganese, chromite, limestone, graphite, China Clay, Fire Clay, decorative stones, pyrophilites, quartz and quartzite have been undertaken in the State for up scaling of resources.

3.4.13 The achievement of geophysical surveys under the Directorate of Geology, Odisha, during 2018-19 and 2019-20 are shown in Table 3.11.

Table 3.11: Geological exploration in Odisha during 2019-20 (Up to March 2020)

Item of work	Achievement/area covered /Samples collected	
	2018-19	2019-20
No. of geological explorations (Nos.)	4815 2 (upto March' 2019)	26 (upto March, 2020)
Geological mapping(1:25,000)	482sq. km	179 sq. km
Detailed geological(1:5000/ 1 : 2000)	8.308 sq. km	5.6925 sq. km.
Trial excavation	200.61 cu.m.	208.21 cu.m.
Drilling	3979.61 m (in house), 5001.5(out sourcing)	6347.95 m 4805.45 m (in house) 1542.5 m (outsourcing)
Sampling -mineral rock (Nos.)	770	3043
Sampling -coal	348.25 m	449.21 m
Geophysical survey	50.703 sq. km	1.41 sq. km
i) Investigation Reports approved(50m x 10m)	18 nos.	21 nos.
ii) Approval of Mining Plans of Minor Minerals other than decorative stones	322 nos.	593 nos.
Technical evaluation of prospecting reports	22 nos.	4 nos.
Finalization of geological reports of auctionable blocks	14 nos.	7 nos.
Identification of mineral blocks for up gradation of resource	6 nos.	9 blocks
No. of Gems tested in a laboratory	2,398	1396
Testing charge collected	8,81,065	8,33,870
Rock Sample	87	79
Heavy minerals	40	5

Source: Directorate of Geology, and Activity Report 2019-20 of the Deptt of Steel and Mines, Odisha.

Milestones achieved during 2019-20

- The Gem testing laboratory has certified 1396 precious stones and collected revenue of INR8,33,870/-
- The technical committee evaluated 4 Geological Reports of Mining Lease evaluated Geological Reports of 24 mining leases expired on dt.31.03.2020 were submitted to DM(O) and auction has been completed.
- Geological Report of 7 auctionable mineral blocks have been finalised and submitted to DM(O).
- 9 Mineral Blocks have been identified for upgradation.
- 593 mining plans of minor minerals have been approved.
- 21 Investigation reports have been approved.
- Geological Report of 2 major mineral blocks and 20 specified minor mineral blocks have been submitted to DM(O) for further action. 2 major mineral blocks have already been auctioned.

3.4.14 The major achievements of the exploration programme during 2019-20 are presented in Table 3.12.

Table 3.12: The major achievements of the exploration programme during 2019-20

Mineral	Location (Area/District)	Resource Estimated
Dimension/Decorative stone	Endrima, Gajapati district	GR is under progress
Quartz	Kadalimunda, Balangir district	GR is under progress
Pyrophyllite	Jumudiha, Keonjhar district	GR is under progress
Quartz & Quarzite	Soroda, Sundargarh, Kanaktora & Bhikampali, Jharsuguda district	GR is under progress
Quartz	Lumrajhola (SE) of Boudh District	0.057 mt
Heavy mineral	Coastal tract of Jagatsinghpur district	10.42 mt
Decorative stone and other minor mineral in freehold areas	Around Tarbha and Lubarsing, Gajapati district	Damba:0.68 Million Cu.m
		Nuagaon: 1.30 Million Cu.m
		Betarsing Block - A: 2.09 Million Cu.m
		Betarsing Block - B: 0.795 Million Cu.m
Decorative stone and other minor mineral	Antarba and Kandha Adaba of Gajapati District	Derab East : 25.56 Million Cu.m
		Derab West : 23.47 Million Cu.m
		Tentulikhunti:6.586 Million Cu.m
		Baharpada Jamundiha East:12.66 Million Cu.m
		Baharpada Jamudiha West:10,719 Million Cu.m
Decorative stone and other minor minerals	Tulsipal,Nalatangra, Nuagaon and Sarapa of Dhenkanal & Angul district	Chandia:0.088334 Million Cu.m
		Telegarph: 0.651640 Million Cu.m
		Sukhupada: 6.862 Million Cu.m
		Gobindpur: 0.846332 Million Cu.m
Dimension/Decorative stone	Jhadapada, Gajapati district	Ds: 0.407 Million Cu.m Construction grade:1.63 Million Cu.m
	Lausahi, Gajapat district	Ds: 0.535 Million Cu.m Construction grade:2.142 Million Cu.m
	Nuagaon, Gajapat district	Ds: 2.03 Million Cu.m Construction grade:8.13 Million Cu.m
Quartz & Quarzite	Bhatuabeda-Chiringdihi, Mayurbhanj district	Quartz: 24498.2 tonnes Float zone quartz: 9885.47 tonnes
Bauxite	Recast of Karlapat Bauxite Block, Kalahandi district	248.20 mt

Source: Directorate of Geology, Odisha

3.4.15 Considering the need for minerals in the State, the Directorate of Geology has taken the following exploration programmes for the financial year 2020-21.

In-house investigation programme:

- Exploration for coal in Dip side-of block-IV, IB valley coal field, Jharsuguda district (G 2 Level)
- Exploration for Limestone around Telipadar, Balangir district (G 2 Level)
- Exploration for Manganese around Roida-D, Keonjhar district (G 2 Level)
- Exploration for graphite around Khalpadar, Rayagada district (G 2 Level)
- Exploration for China clay around Dumuria, Mayurbhanj district(G 2 Level)
- Prospecting of Graphite around Beheramunda, Balangir district (G 3 Level)

- Prospecting for Decorative & Dimension stone around Garabandha, Gajapati district (G 3 Stage)
- Prospecting for Artisan grade stone & other minor minerals around Mathura, Ganjam district(G 3 Stage)
- Investigation for Quartz & Quartzite around Maharajpalli, Malkangiri district(G 3 Stage)
- Prospecting for Soapstone around Bhalbunguri, Sundargarh district (G 3 Stage)
- Mineral Potential Survey around Kantabanji, Balangir district with special reference to Limestone (G 4 Level)
- Investigation for Graphite around Bandhabhuin, Dhenkanal district aided by Geophysical Survey (G 4 Level)
- Investigation for Iron ore around Thakurani, Keonjhar district (G 4 Level)

Outsourcing Investigation programme

- Exploration for iron ore in Baliapahar block of Sundargarh district. (G 2 Level)
- Exploration for iron ore in Mankarnacha Block of Sundargarh district. (G 2 Level)
- Exploration for graphite around Karabira, Dhenkanal district (G 2 Level)

Odisha Mineral Exploration Corporation Ltd. (OMECL)

3.4.16 OMECL has been allotted 18 (Eighteen) mineral blocks, 8 for Iron, 8 for Bauxite, 1 Fireclay and 1 Soapstone by Govt. of Odisha for exploration up to G2 (General Exploration) stage of UNFC for facilitating auction of mineral blocks. Geological Mapping of all the 8 Iron blocks (59.089 Sq, km) consisting of Khandadhar Iron blocks (Sub-block A, B, C, D, E, F & G) and Thakurani Block has been completed. High exploration potential areas are identified for core drilling. Geological mapping of 4 bauxite blocks over an area of 28.95 sq. km (Keluamali, Nunapaimali, Karnapodikonda and Tarhapani-West Bauxite block), 1 fireclay block (7.65 sq. km) and 1 soapstone block (6.20 sq, km) has been completed. Core drilling commenced in Nunapaimali Bauxite block in Rayagada District. Besides, State Government has reserved Rengalbeda NE Iron block over an area 24.203 Ha in the district of Keonjhar for Iron Ore in favour of OMECL under section 17A(2) of MMDR Act, 1957 on 28.01.2021;

3.5 Manufacturing sector

3.5.1 High mineral concentration in the State makes it a favourable investment destination for various metal producing firms and other firms that use these metals as raw materials, making manufacturing an important sector for Odisha. It is evident that the manufacturing sector is the driving force for Odisha's economy. The sector is also the fastest growing sub-sector in the State. In the past as well, the sector's growth showed highest positive correlation (76.9%) with the State's total output growth, out of all sub-sectors in the economy during the high growth period of the economy between 2003 and 2008. With revival of the mining sector in 2018-19, the manufacturing sector is expected to continue being the fastest growing sub-sector in Odisha.

Index of Industrial Production (IIP)

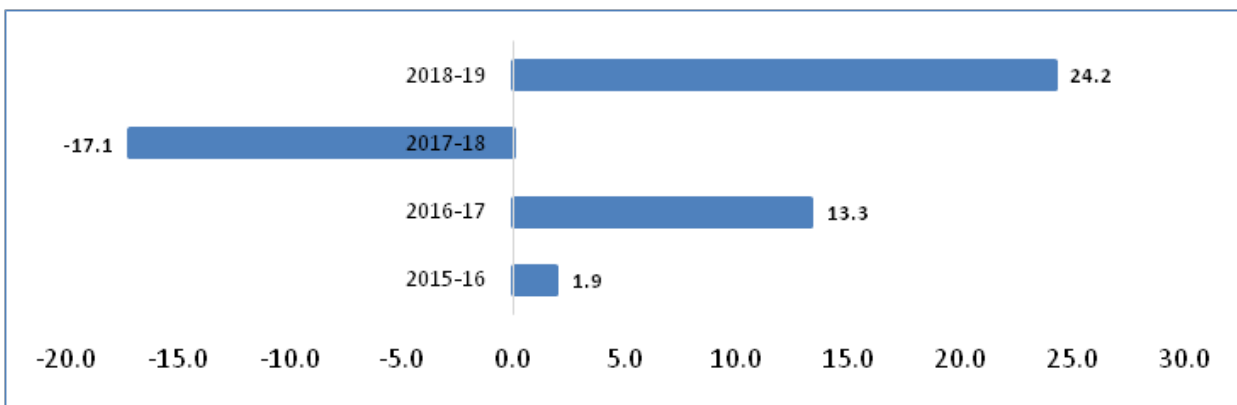
3.5.2 Index of Industrial Production (IIP) measures the growth of the industrial sector of an economy and represents the status of production in the industrial sector for a given period of time as compared to a reference period of time (called base year). In order to study the development as well as growth of industrial production over a period of time, IIP for Odisha along with its growth compiled by the Directorate of Economics and Statistics for the period from 2014-15 to 2018-19 with base 2011-12 is presented in Table - 3.13 and Figure 3.5.

Table - 3.13: Index of Industrial Production and its growth from 2014-15 to 2018-19

Sector	2014 -15	2015 -16	Growth	2016-17	Growth	2017-18	Growth	2018-19	Growth
Manufacturing Sector	237.1	241.9	2.4	282.5	16.8	208.7	-26.1	271.9	30.3
Mining & Quarrying Sector	129.2	152.5	1.5	168.9	10.8	166.2	-1.6	199.3	19.9
Electricity Sector	126.2	142.0	1.4	138.5	-2.5	117.0	-15.5	116.2	-0.7
General Index	179.0	193.0	1.9	218.7	13.3	181.3	-17.1	225.2	24.2

Source: DES, Odisha

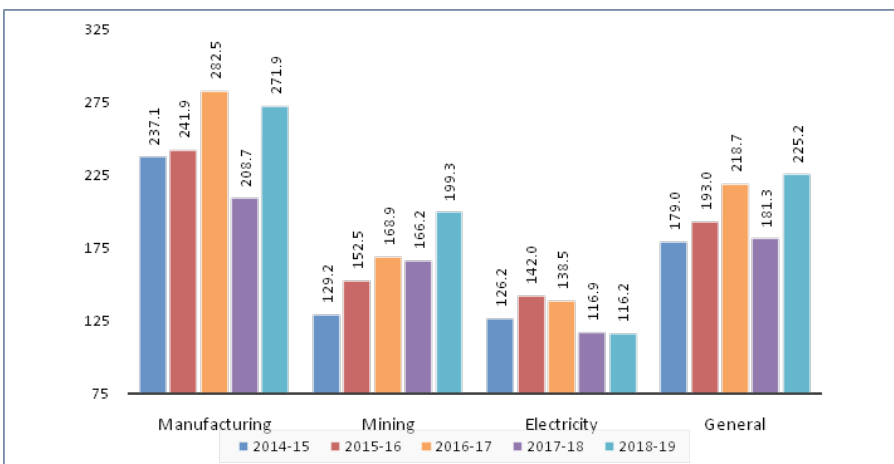
Figure -3.5 Growth of General Index of Industrial production from 2014-15 to 2018-19



Growth in Manufacturing Sectors (Based on the IIP data)

3.5.3 The growth of IIP (General Index) in Odisha (Table 3.13) shows an increasing trend from 2014-15 to 2018-19 except in the year 2017-18 where there is a slight decrease of 17% in comparison to the year 2016-17. However, the index again shows a growth of 24% during the year 2018-19 in comparison to 2017-18. While considering the sector wise growth, similar trend is observed in case of Manufacturing and Mining & Quarrying Sector. However, in Electricity sector, the trend of growth is positive from 2015-16, but then it decreases showing a negative growth continuously during 2016-17 to 2018-19. However, during 2018-19, the percentage of decrease is very insignificant, showing a sign of improvement in comparison to 2017-18. The sector wise index of Industrial Production (base 2011-12) has been reflected in Figure 3.6.

Figure 3.6 : Sector-wise index for the year 2014-15 to 2018-19



Performance of Use based sector (Based on IIP data)

3.5.4 The Performance of IIP can be measured based upon the use of sub-sectors namely, Primary Goods, Capital Goods, Intermediate Goods, Infrastructure / Construction goods, Consumer durables, Non-consumer durables. The growth rate of IIP of use based sector during the year 2017-18 and 2018-19 is presented in Table 3.14.

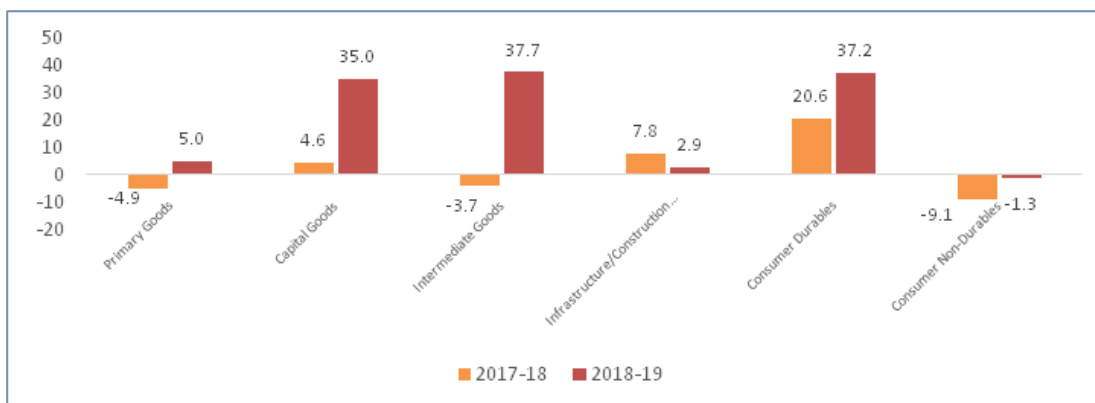
Table: 3.14 : Growth in IIP (Use Based sector wise) during 2017-18 and 2018-19

Sl. No.	Use-Based Sector	Growth Rate	
		2017-18	2018-19
1	Primary Goods	-4.9	5.0
2	Capital Goods	4.6	35.0
3	Intermediate Goods	-3.7	37.7
4	Infrastructures /construction Goods	7.8	2.9
5	Consumer Durables	20.6	37.2
6	Consumer Non-Durables	-9.1	-1.3

Source: ASI Division, DE&S Bhubaneswar.

3.5.5 Comparing the growth, during 2017-18 and 2018-19, there is an increase in the growth of IIP in case of Primary Goods, Capital goods, Intermediate Goods, Consumer Durables and Consumer Non-Durables. However, Infrastructure/Construction Goods shows decrease in growth rate but remains positive.

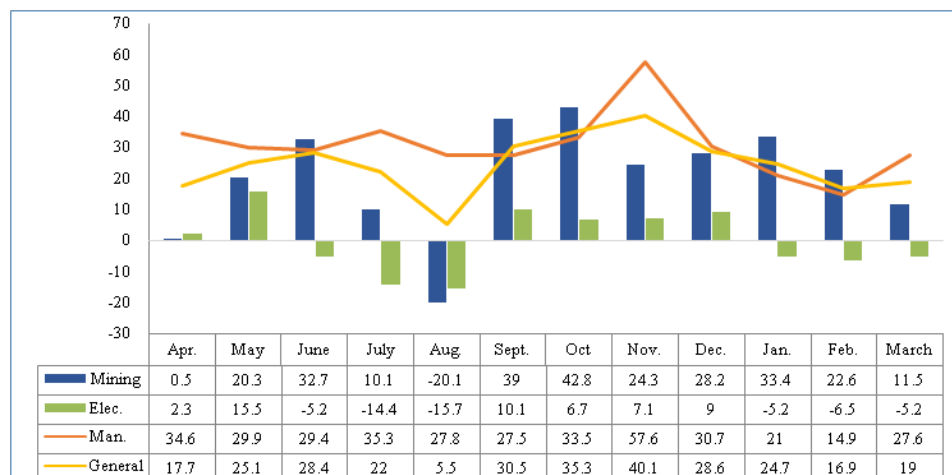
Figure 3.7 : Growth in IIP (Use Based Sector wise) during 2017-18 and 2018-19



3.5.6 The Annexure 3.1 reflects growth rate of IIP during 2018-19 over 2017-18 in General level as well as at Sectorial level. Comparing the General Index in 2018-19 over 2017-18, it is observed that there is an increasing trend in the index in all the months of 2018-19 over the corresponding month of previous year i.e., 2017-18.

3.5.7 While comparing the Sectorial index, the Manufacturing sector shows positive growth trend for all the months, whereas in case of Mining, all months (except August 2018 over August 2017) shows positive growth over the same month against previous year. On the contrary, the Electricity Sector is more volatile than other sectors i.e., the growth is negative for some months and also positive for some months for the year 2018-19 over corresponding month of previous year 2017-18. But the substantial growth of both Manufacturing and Mining sector succumbs the negative growth of Electricity Sector to give the General Index a positive trend. The Figure 3.9 presents the growth rate of IIP in 2018-19 over 2017-18.

Figure 3.8: Growth Rate of IIP in 2018-19 over 2017-18



Annual Survey of Industries

3.5.8 The Annual Survey of Industries (ASI) is the major source of industrial statistics which provides estimates of various aggregates like fixed and working capital, input, output, value added and employment pertaining to registered manufacturing sector. Values of key indicator of organised manufacturing sector in Odisha and all India based on ASI from 2015-16 and 2017-18 are presented in Table No.3.15.

Table-3.15: Performance of Manufacturing sector in Odisha & All India over the years 2015-16, 2016-17 and 2017-18

Sl No	Indicator (All values in INR Lakhs, except number)	2015-16			2016-17		
		All India	Odisha	Share in all India	All India	Odisha	Share in all India
1	Number of Registered Factories	233116	2948	1.26	234865	3051	1.30
2	Fixed Capital	280964722	26957833	9.59	319038649	33800626	10.59
3	Total output	686235375	13711825	2.00	726551423	15109219	2.08
4	Total Input	558907407	11326286	2.03	589746374	12025645	2.04
5	Gross Value Added	127327968	2385539	1.87	136805049	3083574	2.25
6	Net Value Added	107248509	1444942	1.35	114591911	1847663	1.61
7	Total no. of Employees	14299710	257842	1.80	14911189	272508	1.83
8	Output/Input	1.23	1.21		1.23	1.26	

Table-3.15 (Contd.)

Sl.No	Indicator (All values in INR Lakhs, except number)	2017-18		
		All India	Odisha	Share in all India
1	Number of Registered Factories	237684	3066	1.29
2	Fixed Capital	329341000	33907302	10.3
3	Total output	808167115	22996998	2.85
4	Total Input	660681736	18895455	2.86
5	Gross Value Added	147485379	4101543	2.78
6	Net Value Added	123812856	2698449	2.18
7	Total no. of Employees	15614598	279496	1.79
8	Output/Input	1.22	1.22	

Source: CSO (IS Wing, GOI)

3.5.9 The results of ASI in 2017-18 reveal that share of Odisha in India's total value of output in manufacturing sector has increased over the years. The sector grew by 10% between 2015-16 & 2016-17 while the growth in 2017-18 was 52% over 2016-17 .

3.5.10 There has been remarkable increase in Fixed capital formation in Odisha relative to All India during 2017-18 in comparison to 2015-16. The share of Odisha in total fixed capital has in manufacturing sector has gone up from 9.59 % to 10.30 % between 2015-16 and 2017-18. As per the latest data released by CSO for ASI 2017-18, the fixed capital in Odisha ranked 3rd amongst all States, next to Gujarat and Maharashtra. As regard to invested capital, Odisha ranked 4th next to Gujarat, Maharashtra and Tamilnadu.

3.5.11 The Output/Input ratio has been increased during the year 2017-18 in comparison to 2015-16. However the same has been decreased in comparison to 2016-17. During 2015-16 it was 1.21 which increased to 1.26 in 2016-17. However during 2017-18 it has been declined to 1.22. The sector has been subjected to various exogenous shocks like natural disasters, mining ban in 2014-15 and fluctuating commodity price.

Table 3.16 Estimate of some important characteristics of Odisha/India for the year 2017-18(P)

Sl.No	Characteristics	All India growth (%) 2017-18(P) over 2016-17	Growth of Odisha (%) 2017-18 (P) over 2016-17	Share of Odisha(in%) in India as per 2017-2018(P)	Rank 2017-2018(P) (in Numbers)
1	Fixed Capital	3.2	0.3	10.3	3
2	Invested Capital	4.0	2.0	8.4	4
3	Number of Workers	4.8	2.8	1.9	15
4	Wages to Workers	11.1	14.1	2.6	12
5	Value of Output	11.2	52.2	2.8	12
6	GVA	7.8	33.0	2.8	13
7	Net Value Added	8.0	46.0	2.2	14

Source: CSO, Government of India

3.5.12 The table below reflects the four years Compound Annual Growth Rate (CAGR) of output in the manufacturing sector of Odisha during the year from 2014-15 to 2017-18.

Table-3.17: Four Year 2014-15 to 2017-18 CAGR of Output in Manufacturing Sector of Odisha

(Value in INR Lakhs)

Sl No	Manufacturing sector	NIC 2 digit code	Output				CAGR (%)
			2014-15	2015-16	2016-17	2017-18	
1	Manufacturing of crop and animal product, hunting etc.	01	13456	16432	37340	42553	46.78
2	Manufacture of food products	10	790507	822880	858263	1012200	8.59
3	Manufacture of beverages	11	130576	182252	175296	98489	-8.97
4	Manufacture of tobacco products	12	13878	13689	12505	12010	-4.7
5	Manufacture of textiles	13	38975	38957	35240	25389	-13.31
6	Manufacture of wearing apparel	14	919	972	833	3093	49.86
7	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	16	6793	7890	5635	4935	-10.1
8	Manufacture of paper and paper products	17	304674	274028	288666	346948	4.43
9	Printing and reproduction of recorded media	18	21036	15650	16380	17269	-6.37
10	Manufacture of coke and refined petroleum products	19	169515	538482	705118	4115824	189.57
11	Manufacture of chemicals and chemical products	20	1225941	995024	1041620	1188177	-1.04
12	Manufacture of pharmaceuticals, medicinal chemical and botanical products	21	2272	3862	5565	5254	32.24
13	Manufacture of rubber and plastics products	22	88857	159622	174895	231231	37.55
14	Manufacture of other non-metallic mineral products	23	474103	540476	497482	524929	3.45
15	Manufacture of Basic Metals	24	8667891	8401242	9504559	12660959	13.46
16	Manufacture of fabricated metal products, except machinery and equipment	25	165399	150225	234833	71725	-24.31
17	Manufacture of electrical equipment	27	300017	290105	341578	1228129	59.97
18	Manufacture of machinery and equipment n.e.c.	28	27341	19346	46763	29221	2.24
19	Manufacture of motor vehicles, trailers and semi-trailers	29	6181	6556	7487	11512	23.04
20	Manufacture of other transport equipment	30	756	2050	1830	14712	168.98
21	Manufacture of furniture	31	43803	20181	12052	8670	-41.72
22	Repair and installation of machinery and equipment	33	30315	30087	-557	20169	-12.7

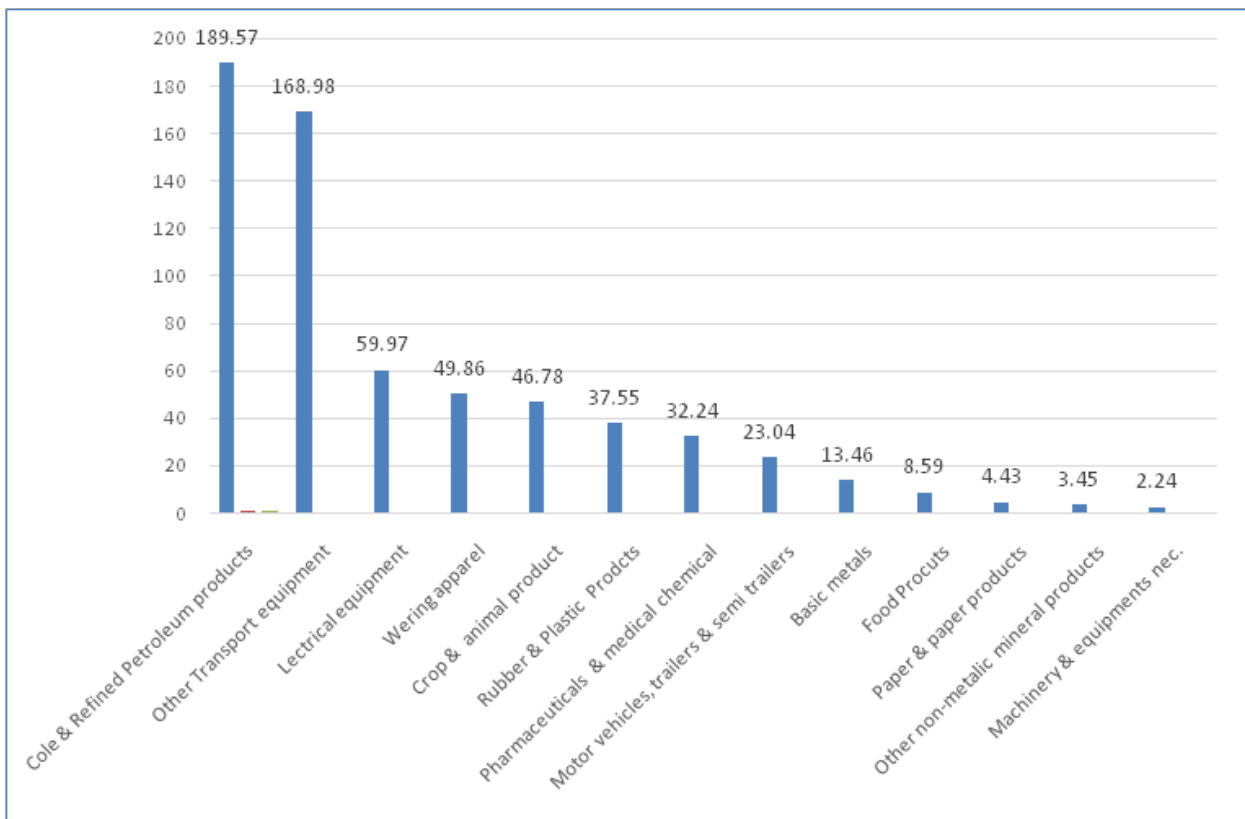
Source: CSO (ISWing, GOI) and ASI Div. DE&S, Odisha.

3.5.13 Based on four years CAGR Output the following sub sectors under the manufacturing sector have been categorized as High growth and Average growth sectors.

Group-1 High Growth Sector-Sectors having CAGR>10.00. Nine number of sectors namely Manufacture of: Coke and refined petroleum products, other transport equipment, electrical equipment, wearing apparel, crop and animal product hunting etc., rubber and plastics products, pharmaceuticals, medicinal chemical and botanical products, motor vehicles, trailers and semi-trailers, Basic Metals.

Group-2 Average Growth Sectors- Sectors having CAGR between 2.00 to 10.00. Four number of sectors namely Manufacture of : food products, paper and paper products, other non-metallic mineral products and machinery and equipment n.e.c. are coming under this category. Performance of high growth sector having CAGR >10 and Performance of average growth sector CAGR between 2.00 to 10.00 has been depicted in the following Figure-3.9. Performance of high growth and Average growth sectors based upon 4 years (2014-15 to 2017-18) CAGR output is reflected in Figure 3.9.

Figure 3.9 : Four Year 2014-15 to 2017-18 CAGR of Output in Manufacturing Sector of Odisha CAGR



3.6 Performance of industries by size

Large industries

3.6.1 The State has become a promising industrial hub for establishment of a number of large and medium industrial units. During the past 18 years, the State has witnessed a remarkable growth in the production of alumina, aluminium, steel and stainless steel. Two of the largest aluminium plants in India are in Odisha, viz., NALCO and Vedanta Ltd.

Odisha having Country's one third of total iron ore reserves stands as the largest steel and stainless steel producer in the Country.

Steel Industries and Downstream in metals

3.6.2 With one-third of the total iron ore reserves, Odisha stands today as the largest steel and stainless-steel producer in the country. JSW Steel Ltd. has received approval to set up a 12 MTPA steel plant in Jagatsinghpur district with an investment of INR 50,000 crore. Tata Steel is expanding its Kalinganagar facility from 3 MTPA to 8 MTPA. In addition to the major steel plants set up by the private sector, the State also has two large PSUs: Rourkela Steel Plant (RSP) and Nilachallspat Nigam Limited (NINL) (1.0 MTPA). Government of India now promotes steel production through Greenfield investment; Odisha as the leading producer of steel is an eligible State for producing more steel in the "Greenfield steel production proposal."

3.6.3 To further boost the steel industry, a National Investment and Manufacturing Zone (NIMZ) is being set up at Kalinga Nagar, which will be spread over 13000 acres. The zone is envisaged to become a self-contained eco-system along with residential, commercial and social amenities and will enable potential investors to establish downstream facilities for value addition. A major steel companies has already setup their units and producing 3.5 million tonnes of steel per annum and generated 40,000 employments. To add this dedicated downstream steel parks are being developed in the State at Kalinganagar and Angul. The "Scrap recycling Policy" has been formulated by Govt. of India for reuse of Ferro Scrap in street making process to bring down the cost of steel production and saving natural resources to a great extent. In the process, using scrap will create green steel production which is environment-friendly.

3.6.4 The state is aiming to contribute substantially to the national target of increasing the per capita steel consumption from the level of 61 kg. in 2017 to about 70 kg. in 2020, estimated to 158 kg. by 2030. Setting of Mega Greenfield Project besides existing capacity enhancement of both major and minor steel plant has been approved which will add to the installed capacity. To promote investment in Iron and Steel sector, the State Government is pursuing the policy of value addition and in the process providing ample employment opportunities. In the past the Government had signed 49 MoUs with total approved capacity of 90.45 MTPA. Subsequently, 4 nos. of project proposals have been withdrawn and the said capacity now stands at 60.97 MTPA. At present, the installed capacity of total Steel Plant is 32.82 MTPA, producing 18.54 million tonnes during 2019-20, which was 19.26 million tonnes in the previous year. Besides, 34 nos. of iron ore-based industries are coming up through non-MoU route, out of which 12 with installed capacity of 7.10 MTPA are already in production. In addition, Pellet Plants and Sponge Iron units have also been established utilizing the vast Iron ore resources in the State. The aforesaid projects have been facilitated as part of the mineral development policy of the State Government with the aim of pursuing value additions, mass employment generation and welfare-oriented revenue collection. The Iron Ore particles in the form of Pellets is now used in steel Industries in the production process, which reduces the input cost and is also environment friendly.

3.6.5 With a view to create more employment avenues for the people of Odisha in the skill category, State Government in collaboration with Ministry of Steel, Government of India is taking all

possible steps to upgrade Biju Pattnaik National Steel Institute (BPNSI) to Degree Level Deemed University & to make it a Centre of Excellence. In fact, State Government have agreed in principle to the proposal of Ministry of Steel, Government of India for setting up of a Steel Skill Centre at Kalinga Nagar Steel Hub by BPNSI. In order to develop skill amongst the local people so as to facilitate employment opportunity to work in Steel Industries, the proposal of Ministry of Steel, Government of India for “Steel Skill Training within the Steel Cluster” by BPNSI, has since been approved by State Government. The proposal of shifting BPNSI from Puri to Kalinga Nagar has also been approved.

Table 3.18: Status of Iron-ore based Industries in Odisha (Capacity in MTPA and production in MT)

Company type	MOU/Approved capacity	Installed capacity	Annual production 2019-20
Steel			
MoU	60.97	25.23	14.14
Non-MoU	39.97	07.10	4.24
SI units producing steel	-	00.49	0.16
Total steel	104.94	32.82	18.54
Sponge iron	-	15.29	7.43
Pellet		29.80	22.34
Pig Iron	41.30	-	1.23
Grand total			
(Iron ore-based industry)			49.54

Source: Deptt. of Steel & Mines, Odisha.

Aluminium industries

3.6.6 Odisha is the highest producer of aluminium in the country today. To further enhance the production of aluminium, NALCO has planned to expand its aluminium smelter in Angul district by 0.5 MMTPA at an estimated investment of INR 10,000 crore. Besides, it is also expanding its alumina refinery at Damanjodi from 2.275 MMTPA to 3.275 MMTPA with an investment of more than INR 4,000 crore. The State also has seen private sector large scale investments from large companies in the sector including Hindalco and Vedanta. Hindalco Industries Limited is setting up a 0.375 MMTPA Aluminium Flat Rolled Product plant at Lapanga with an investment of INR 5,000 crore. Similarly, Vedanta is expanding its alumina refinery capacity by 5 MMTPA at Kalahandi and its aluminium smelter capacity by 0.2 MMTPA at Jharsuguda with an investment of INR 7,500 crore which will create employment for about 7,700 people.

3.6.7 Bauxite is the basic raw material for aluminium production. Production of aluminium metal is primarily in the public sector units viz. National Aluminium Company Ltd. (NALCO), BALCO, HINDALCO Industries, and the private sector Vedanta Ltd. Production of above units are given in Table 3.19.

Table 3.19 Significant growth of Aluminium Production (In Lakh MT)

Name of the Company	Cumulative production target by March 2020	Cumulative achievement by March 2020	Production by the end of 2019
NALCO	4.39	4.18	4.40
BALCO	5.75	5.63	5.72
HINDALCO	13.11	13.12	12.94
VEDANTA Ltd.	14.10	13.63	13.88
Total	37.35	36.56	36.94

Source: Monthly Summary Report, Ministry of Mines, March' 2020.

3.6.8 To promote downstream and ancillary industries, NALCO has committed 50,000 tonnes of hot metal to the Aluminium Park at Angul, which has been established in Joint Venture (JV) mode with IDCO. The park is one-of-its-kind facility in the sub-continent.

Textiles and Apparel

3.6.9 Apparel, being a high employment generating sector, is a focus sector of the State. A dedicated Apparel policy has been promulgated by the State for the development of the sector.

3.6.10 As a result of investor friendly policy in this sector, the State has seen significant investments from apparel sector companies in recent times. Shahi Exports has setup an apparel manufacturing unit at Khordha with an annual capacity of 3.6 million pieces. Aditya Birla Fashion has received approval for setting up an apparel manufacturing unit at Rayagada. Besides, a textile park is being developed at Bhadrak. This park is expected to generate significant employment in the sector through development of an ecosystem for synthetic fibres in the State.

3.6.11 Due to pro-industrial Policy of the State and investor friendly eco-system created by the state, the industry sector has shown tremendous growth. As per latest data released by CSO, in 2017-18 (P), number of factories in manufacturing and wearing apparels has risen by 33.33% from previous year. Growth of Fixed Capital, Workers and emoluments are increased by 1890.72% (2nd highest), 613.07% (4th highest) and 409.32% (3rd highest) respectively in comparison to previous year.

Table 3.20: Manufacture of Textiles & Wearing apparels (NIC-13 & 14)

	Indicator	2013-14	2014-15	2015-16	2016-17	2017-18(P)
Odisha	GVA (Rs in Lakhs)	5091	4781	4571	4936	4811
	Total employees (in Nos.)	3153	2680	2799	2596	3849
India	GVA (Rs in Lakhs)	8704020	8389635	9328440	9767760	10720565
	Total employees (in Nos.)	2474903	2526610	2650026	2697123	2868081

Source : CSO, Govt. of India

Chemicals, Plastics and Petrochemicals

3.6.12 Chemicals and Petrochemicals is also one of the identified focus sectors of the State. Indian Oil Corporation is operating a 15 MMTPA refinery at Paradip and is planning to further expand its capacity. Besides, it has also commenced commercial production from Polypropylene unit which will supply raw material to the Plastic Park at Paradip Mono-Ethylene Glycol (MEG) unit and Paraxylene-PTA units which are at different stages of implementation and will help create a large downstream ecosystem for chemicals and textiles sector in the State. The State has also received investment intent from various other national and international companies in the sector.

Table 3.21: Manufacture of Chemicals and chemical products(NIC-20)

	Indicator	2013-14	2014-15	2015-16	2016-17	2017-18 (P)
Odisha	GVA (Rs in Lakhs)	231234	214559	71247	336314	408461
	Total employees (in Nos.)	9247	8349	7023	7522	5917
India	GVA (Rs in Lakhs)	9319352	9529278	13534634	13613122	14407842
	Total employees (in Nos.)	708401	712994	747212	790263	828425

Food processing including sea food

3.6.13 The State is blessed with ten agro-climatic zones and more than 60 lakh hectares of cultivated land. It is one of the largest producers of rice, vegetables, fruits, sea food, spices, oil seeds and various other crops in the country. Keeping this in consideration, the State has also promulgated an exclusive Food Processing Policy 2016, providing competitive incentives to units setting up in the State. The State has also a conducive ecosystem for investments in the sector in the form of food parks at Khordha and Rayagada and a dedicated sea food park at Deras. As a result, the Gross Value Added in manufacture of food products has increased from INR 49,089 lakhs in 2016-17 to INR 1,48,100 lakhs in 2017-18. Further this has resulted in creation of additional employment of 2,623 number in 2017-18 over 2016-17.

Table : 3.22 : Manufacture of Food Products (NIC-10)

Odisha has become the number one State in the country in terms of attracting investments during 'April-Sep' 2019 as per CMIE

	Indicator	2013-14	2014-15	2015-16	2016-17	2017-18
Odisha	GVA (Rs in Lakhs)	50219	68385	85218	49089	148100
	Total employees (in Nos.)	23204	23532	27248	28025	30648
India	GVA (Rs in Lakhs)	7266585	7583200	8563467	10393631	11106840
	Total employees (in Nos.)	1582839	1612698	1599035	1693736	1772399

Electronics Manufacturing

3.6.14 A 215 acres ready-to-use dedicated Electronic Manufacturing Cluster has been developed close to Bhubaneswar. An attractive incentive framework of Special Package Incentive Scheme over and above the m-SIPS Programme of Government of India has been promulgated to facilitate investments in this sector.

Odisha is emerging as a manufacturing hub of the east

- Occupies significant place in the mineral map of India producing mineral costs of INR78,754 crore (up to February, 2020).
- Produced more than 50% aluminium in India.
- Major Steel producing state contributing half of steel production in India.

Make in Odisha Conclave 2018

3.6.15 Industrial Promotion & Investment Corporation of Odisha Ltd (IPICOL) has constantly and consistently increased the visibility of the State in National & International level by participating and organizing events, seminar and workshops across the globe. The brand "Invest Odisha" is being promoted as the best Investment destination through various modes. Make in Odisha is the flagship biennial event organized in Bhubaneswar to showcase the prowess of Industrial ecosystem in the state.

3.6.16 The Government organized the first conclave in 2016 which attract 84 proposals worth Rs. 2.03 lakh cr of Investment. 50 out of those proposals were approved, 29 of those projects are under construction. 6 out of those projects have already started production.

3.6.17 The second edition of the conclave was organized in 2018 which attract Rs. 4.23 lakh cr of

investment across 17 diversified sectors. 202 investment intents were received during the event and 100 proposals were approved. 58 of those projects have already started construction and 5 have already started production.

Customer Relationship Management (CRM)

3.6.18 With the help of CRM, the Investment promotion team will be able to do the lead management like track & manage prospective customers.

State Level Single Window Clearance Authority (SLSWCA)

3.6.19 SLSWCA approved 28 numbers of project proposals valued INR 5225.78 crore and 5 of them have also been cleared by High Level Clearance Authority (HLCA).

3.6.20 Various awareness and dissemination campaigns have been organised across the State to inform the investors regarding the different reforms initiatives.

3.6.21 The State has also promulgated 2 new policies: Odisha Aerospace & Defence Manufacturing Policy 2018 and Odisha State Film Policy 2019 to facilitate investments in the sector.

3.7 Micro, Small and Medium Enterprises (MSME)

3.7.1 The Micro, Small & Medium Enterprises (MSMEs) contributes significantly to value addition, employment generation, export promotion and overall growth & development of States' economy. Next to agriculture this sector generates maximum employment with minimum investment. Therefore, the State Government creates adequate space for MSME development in IPR-2015 and also in MSME Policy 2016.

Table 3.23 : MSME units set up in Odisha upto 2019-20.

Category	No. of units set up	Investment (in crore)	Employment(persons)
Repairing and services	2,78,699 (62.0)	13,850.92 (63.53)	8,24,334 (48.7)
Food and allied	43,403(9.7)	2408.72 (11.1)	2,07,171 (12.2)
Misc. manufacturing	3,71,56 (8.3)	1447.11(6.6)	1,29,989 (7.7)
Engineering and metal based	1,91,82 (4.2)	1383.29(6.3)	1,22,197(7.2)
Textiles	21,558 (4.8)	485.44 (2.2)	89,904(5.3)
Forest and wood based	22,515 (5.0)	336.27 (1.5)	83,733 (5.0)
Glass and ceramics	11,670 (2.6)	807.03(3.7)	1,52,421(9.0)
Chemical and allied	4,680(1.0)	361.17 (1.7)	30,271 (1.8)
Paper and paper products	4,831(1.1)	231.55(1.1)	23,597(1.4)
Electrical and electronics	2,597(0.6)	144.66 (0.7)	11,838(0.7)
Rubber and plastics	2,293(0.5)	326.93 (1.5)	13,421(0.8)
Livestock and leather	768(0.2)	18.42 (0.1)	3,422(0.2)
Total	4,49,352 (100)	21,801.51(100)	16,92,298 (100)

Source: Directorate of Industries, Govt. of Odisha

3.7.2 During 2019-20, around 57,651 MSME units were set up with an investment of INR 2659.69 crore, leading to employment generation for 1.63 lakh persons. Altogether 4,49,352 MSMEs have been established with an investment of INR 21,801.51 crore and employment of 16,92,298 persons till March 2020.

3.7.3 Sector-wise disaggregation indicates that repairing services account for the majority share in MSMEs, with almost 62% share of total MSMEs setup in the State and generating 49% of the total employment opportunities created through MSME units (Table 3.23). A possible reason for the high concentration of MSMEs in the repairing services can be attributed to challenges related to literacy, skills, opportunities, marketing, credit facility etc., pushing young entrepreneurs to engage themselves in repairing services units. Food and Allied sectors follow the Repairing services in terms of units, investment and employment generation.

Entrepreneurship Development

3.7.4 To inculcate entrepreneurship culture, the State has initiated Entrepreneurship Development Programmes (EDP) organised by Regional Industries Centres (RICs) / District Industries Centres (DICs) across the State. These are held for two weeks' duration. During 2019-20, EDP has provided training to 9,347 youths, covering 33,130 during last four years. The youth participating in sensitisation programmes are encouraged to undergo "online L&D programme" of four weeks duration available in the start-up portal. District Level Facilitation Cell (DLFC) in all districts was set up and have so far cleared 1078 projects with proposed investment of Rs 3,888 crore and 45,163 persons are employed directly. During 2019-20, DLFC has cleared 293 projects with proposed investment of INR 874.79 crore and generate direct employment of 11353.

3.7.5 Prime Minister's Employment Generation Programme (PMEGP) is implemented in the State to promote micro enterprises. The Scheme is implemented through Khadi and Village Industries Commission (KVIC) and State/UT Khadi & Village Industries Boards (KVIB) in rural areas and through District Industries Centres (DICs) in Urban and Rural areas. 15% and 35% of the project cost is provided as Margin Money Assistance to General and Special category applicants, respectively. PMEGP is a flagship programme of Govt. of India for generation of employment opportunities. INR 7799.22 lakh margin money released to promote 2709 micro enterprises during 2019-20. The detail is given in table 3.24.

Table 3.24 : Progress of PMEGP in Odisha (from 2016-17 to 2019-20)

Year	Margin Money Received (INR in lakh)	Units promoted	Employment Generated
2016-17	6082.37	2671	21368
2017-18	5680.63	2400	19200
2018-19	8184.02	3069	24552
2019-20	7799.22	2709	21672

Source: Odisha Khadi & Village Industries Board.

3.7.6 Odisha Khadi & Village Industries Board has provided Bee-keeping training to 442 persons during 2019-20 covering total 2017 persons by the end of 2019-20. Total value of raw honey produced by board was INR 8.14 lakh during 2019-20 which was INR 8.92 lakh last year. The sales value of total processed honey was INR 11.95 lakh during 2019-20 and INR 14.50 lakh during 2018-19. The present pandemic COVID-19 also affects the honey production, processing and sales during 2019-20. It is proposed that Scientific Bee-Keeping will be developed in support of Entomology Deptt. OUAT & National Bee Board, New Delhi.

3.7.7 OKVIB also has one portable power Ghani unit Udyog at Puri, Gandamunda, producing mustard oil of 500 litres per month and yearly turnover was INR 20.68 lakh during 2019-20 and INR 27.14 lakh in the previous year.

3.7.8 The State Government has provided encouragement to Khadi industries by renovating the "GRAMODYOG SALES DEPOT". This proved to be a landmark in giving a new dimension to sales of Khadi & Village industries product. Total sales of KVIB increased by 166% during 2018-19 over the previous year. But during 2019-20, the sales turnover was only INR 98.90 lakh declined by 76 % over the previous year due to COVID-19 pandemic situation.

Major Government initiatives in MSME Sector

- 1,77,503 MSME Enterprises have 'gone into production' with total investment of INR 8181.28 crore and employment to 5.05 lakh persons in the last three years. Thus, altogether 4,49,379 MSMEs have gone into production with an investment of INR 21,816.75 crore and employment to 16.92 persons till March, 2020.
- 35,219 youth have been provided Entrepreneurship Development Programme (EDP) in 1135 batches during last three (3) years including 11773 youth during 2019-20.
- In order to boost systematic development of MSMEs, Food Processing industry and Start-ups, Odisha MSME Development Policy, Odisha Food Processing Policy and Odisha Start-up Policy have been operationalized since 2016. 1,021 MSMEs have been provided financial assistance of INR 129.20 crore under Govt. Policies from 2017-18 to 2019-20.
- As regards food processing sector, MIITs Mega Food Park at Rayagada has already become operational, Infrastructure Development in Marine Food Park at Deras is at advance stage of development.
- 9 MSME Multi-product Parks in Sambalpur, Sundargarh, Angul, Cuttack and Khordha districts have been approved to provide land with developed infrastructure to MSMEs. Similarly, new Food Parks in Bargarh, Bolangir, Ganjam, Kalahandi & Nabarangpur have been taken up through IDCO.

Box 3.2: Start-up Odisha: Boosting Innovation

Odisha has been recognised as ‘Top Performer’ and a “Leader” by DPIIT, Government of India in States’ Start-up Ranking 2018 & 2019 respectively.

The Government of Odisha recognises the fact that the seeds of entrepreneurship and the instinctive ability to innovate must be nurtured through an enabling ecosystem, such as:

- Creation of world class physical infrastructure to support Start-up;
- Promoting the culture of innovation through academic interventions;
- Institutionalizing the culture of entrepreneurship by providing training for the requisite skills

The Odisha Start-up Policy was thus launched on 29th August 2016, with an objective of developing a world class ‘Start-up Hub’ in Odisha and to create an enabling environment and supporting eco-system that facilitates at least 1,000 Start-ups and bringing the State amongst the top three start-up hubs.

Highest monetary benefits in India

START-UPS	INCUBATORS
Monthly Allowance of INR 20,000 for one year (INR 22,000 for women/transgender/SC/ST/SEBC/PH led Start-ups)	One-time capital grant upto a maximum of INR one Crore
Product development and marketing/publicity assistance upto INR 15 lakhs (INR 16 lakhs for Women/Transgender/SC/ST/SEBC/PH led Start-ups)	Unique provision of matching Grant of INR five crore
Need based assistance for equipment/raw material purchase	Performance capital grant of INR five lakhs per incubate
Subsidized incubation (50% of monthly rental up to INR 5000 per month) for one year	Reimbursement of utility expenses of INR one lakh p.a. for three years.

3.7.9 Till date, 901 Start-ups have been recognised in the State, out of which over 33 percent are led by women entrepreneurs. The state has registered 17 Incubators and 15 Nodal agencies under the Odisha Startup Policy and has sanctioned 196 financial assistance to Startups and incubators.

A fund-of-funds scheme named “Odisha Start-up Growth Fund” has been notified on 21.01.2021 with budget provision of INR 100 cr spread over five years to strengthen the Start-up ecosystem in the state by easing access to capital investment for Start-ups. The scheme is expected to leverage private sector investment with at least 1:1 ratio for the Start-ups registered in Odisha.

- The state government has also notified establishment of Odisha Start-up Hub (O-Hub) at Bhubaneswar in February 2021 to provide a world class incubation and co-working facility to state based Start-ups.
- Odisha Youth Innovation Fund has been set up to support grassroots innovations, which are essentially technological solutions and development of successful business models by youths in

different sectors. The fund provides INR 50,000 for any new idea, INR 1,00,000 for any demonstrative product, prototypes, patents, incubated products/services and INR 3,00,000 for development of any enterprise/ Startup based on eligible innovative idea/products/services. The scheme is implemented through OSIC Ltd. So far INR 43.5 lakh has been disbursed for 71 project/ideas.

- In order to fast-track project clearance, District Level Facilitation Cells (DLFC) have been constituted in all DICs to recommend proposals to DLSWCA for approval. DLFC meetings are held on a fixed day of the month. District Level Single Window Clearance Authorities (DLSWCA) have approved 1116 projects with total project cost of INR 3961 crore and employment potential to 46,120 persons. Out of these, 331 projects with proposed investment of INR 948.38 crore to generate 12,310 employment have been approved at district level during 2019-20.
- 2,11,158 youths have been sensitized through 2581 motivational camps for setting of MSMEs during the last three (3) years including 78956 trained during 2019-20 through 876 motivational camps.
- Altogether, 467 bank branches have been designated as 'MSME Specialised Branches' to facilitate smooth credit to MSMEs.
- Three (3) Common Facility Centres in Rice Milling Cluster at Bargarh, Cashew Cluster at Rambha (Ganjam) and Pharmaceutical Cluster at Cuttack-Bhubaneswar have been completed with assistance under Micro & Small Enterprises Cluster Development Programme of Government.
- The export turnover of the State has increased to INR 51,742 crore in 2019-20 against INR 48,120 crore in 2018-19, but the scenario was affected due to global crisis of COVID-19 Pandemic.
- In order to provide single point facilitation to exporters, Raptani Bhawan has been operationalised with export agencies namely, DEPM, DGFT camp office, MPEDA and FIEO being accommodated under a single roof.
- International Air Cargo facility at BPIA has commenced since January, 2017. Multi Modal Logistic Park Jharsuguda and Port side Container Terminal Paradip have commenced operations. Testing Laboratories of EIA & MPEDA have also started their operations.

Impact of Covid 19 on industry & its ancillary

3.7.10 Impact of Covid 19 on industrial activity particularly in unorganised sector like Micro & Small enterprises was felt severely. While Government of India came with Atmanirbhar Package for resumption of activities, State Government announced the following package amounting to INR 289.42 crore to facilitate promotion & development of MSME Sector.

Odisha recognised as the "Leader" in States Start-up ranking 2019 for developing a strong start-up eco system

	Provision
i.	2% to 5% Interest Subvention to accounts assisted under ECLGS for one year
ii.	5% Top-up Subsidy to PMEGP sanctioned cases during 2020-21 towards Promoter's Contribution
iii.	Additional 15% Top-up Subsidy to units under PMFME during 2020-21
iv.	Reimbursement net SGST to eligible units under IPR, 2007 & IPR 2015 from 01.07.2017 to 31.03.2020
v.	Waiver of IDCO Annual Maintenance Charges for MSMEs
vi.	Covid-19 Assistance Package of PR & DW Department

Handicrafts and cottage industry

3.7.11 Odisha is considered as land of handicrafts. Presently, as many as 50 different crafts are practised by about 1.30 lakh artisans, dispersed throughout the State. The Odisha Handicrafts Policy 2018 aspires to focus on handicrafts sector and to leverage the unique selling proposition of the skilled workforce of Odisha. The handicraft sector has the potentiality to provide self-employment both in rural and urban areas with less capital investment, use of simple technology and having ample scope for marketing with value addition.

3.7.12 The Directorate of Handicrafts and Cottage Industries is the apex body working towards promotion and development of handicrafts sector in the State. The Odisha State Co-operative Handicrafts Corporation Limited (UTKALIKA) and the State Institute for Development of Arts and Crafts (SIDAC) function under the Directorate to facilitate the development of handicrafts sector. The State has best craftsmanship in the country having highest number of Artisans honoured with national awards including “ Padma Award.”

3.7.13 During 2019-20, 5,702 handicrafts units were set up in the State, growing by 72 % over 2017-18 and 1.5 % over 2018-19. The status of handicrafts industry in Odisha over the last six years is highlighted in Table 3.25. The growth of units shows a record high of 257 % in 2019-20 over 2014-15. Total profit out of the sales of handicraft products during 2019-20 was INR 15.02 crores, by investing a total of INR 174.39 crore.

Table 3.25: Handicraft industry in Odisha, 2014-15 to 2019-20

Year	Number of units established	Investment (in crore)	Employment generated (Number of persons)
2014-15	1,596	7.15	1,952
2015-16	2,278	8.44	3,867
2016-17	2,759	23.93	5571
2017-18	3,320	24.05	5,793
2018-19	5,616	26.19	9,004
2019-20	5,702	26.37	9.060

Odisha has the highest number of artisans honoured with national awards including the Padma Award

Handicraft sector in Odisha provides ample employment opportunities with less Capital Investment

Source: Directorate of Handicrafts and Cottage Industries, Odisha.

3.7.14 In the cottage industry sector, there is a shift in people's preferences from products of the cottage industries to alternative products available from other sources. In order to address this, the State Government has taken various measures for strengthening infrastructure and financial base of this sector by assisting co-operatives and artisans to intensify production and sale. The following activities have been undertaken during 2019-20 for the development of the sector that is shown in Table 3.26.

Table 3.26: Activities undertaken during 2019-20 for development of handicrafts and cottage industries

Scheme	Objective	Achievement (No. of artisans trained)
State Level Training In Various crafts	Promotion of the handicraft industry(managed by SIDAC)	122
District Level Training In Various Crafts	Promotion of the handicraft industry	141
Guru SishyaParampara Training	Transfer of traditional skill of national/State level awardees to new generationartisans	465
MCM	Impart training to handicraft artisansfor self-employment with minimum capital investment	2055
Marketing Support Through Exhibitions	Assistance for participation forpromoting sales turnover.	2377 (Sales: INR 9.99 crore)
Craft Village Scheme	Sustained livelihood support throughskill up gradation training to artisansin SHGs along with distribution oftools and equipment.	91 SHGs covering 1365 Artisans
ShilpiUnnatiYojana (SUY)	Financial assistance to handicraftartisans.	810
Construction ofworkshed-cum housing for Handicraft Artisans	Providing hygienic working environment	104
Design Development programme	No. of Training Programmes conducted No. of Artisans involved	16 480
Distribution of Awards	State Award Kala Kruti Award	3(No. of Artisans) 8(No. of Artisans)

Source: Directorate of Handicrafts and Cottage Industries, Odisha.

3.7.15 Besides the above-mentioned schemes, the following achievements have been made during the year 2019-20:

- There are 11 number of sales outlets of Utkalika inside the State and 6 numbers outside the State.
- During the current year,the procurement and sale of handicrafts and handlooms was INR 1229.07 and 1888.24 lakh respectively.
- The prestigious Odisha Crafts Museum “Kalabhoomi” visited by 25434 visitors during 2019-20.

3.8 Handloom sector

3.8.1 Handloom sector, next to agriculture provides massive employment to the rural artisans and occupies a significant place in preserving the State’s heritage and culture.

3.8.2 Odisha is the land of art and culture.Production of handloom has been a tradition in Odisha. The skill and knowledge imbibed over generations has given Odisha’s hand-woven textiles industry an unparalleled depth, range, strength and vigour. As per the handloom census in 2019-20, there were 65,391 weaver households having 55,790 looms.The handloom product of Odisha have received national and international recognition for highly artistic design, craftsmanship & durability.

3.8.3 By end of 2019-20, there were 1164 Primary Weavers Co-operative Societies (PWCS), of which 511 (44%) were working PWCs while 80 (6.9%) were dormant and 573 (48.9 %) were under liquidation. In comparison to 2018-19, 8 new PWCs have been established and the number of dormant PWCS has decreased. Out of the total 41,791 looms in these PWCS, over 91 % were working and produced 77.62 lakh sq. mtrs of handloom products valued at INR 168.78 crore. The productivity per loom per annum decreased to 378 sq. Mtrs during 2018-19 in the Co-operative fold but during 2019-20 it again increased to 435 sq. Metres.

3.9 Sericulture sector

3.9.1 Sericulture is a traditional natural resources-based industry, providing employment to the tribal poor on a large scale. The Government of Odisha has focused on Sericulture as a sustainable livelihood programme, particularly for scheduled tribe and scheduled caste population of the State. The major activity of sericulture comprises of food-plant cultivation to feed the silk worms, rearing of silkworms to spin silk cocoons and reeling of the cocoons for unwinding of the silk filament for value added benefits such as processing and weaving.

3.9.2 Tassar farming is the predominant sericulture activity in the State. The State has a rich heritage of tassar culture adopted mostly by tribal farmers concentrated in 14 districts of the State with forests. As per latest estimates, about 16,531 farmers are enrolled in different TRCS for tassar culture in Odisha. Growing from 1232.8 lakh in 2018-19, to 1303.34 lakh in 2019-20 of tassar cocoons were produced in the State. Further, tassar forest was created on 1812 hectares of land with plantation of primary tassar food plants such as Asan/ Arjun seedlings and 28.13 lakhs Dfls were reared during 2019-20. With area under Tassar food plants utilized for rearing, the increased production of Dfls indicates growing productivity. A total of 1303.34 lakh reeling cocoons and 130.33 MT of raw silk were produced in the State. In comparison to 2018-19, production of reeling cocoons and raw silk witnessed a increase in 2019-20 owing to prevalence of good weather condition. But in case of Eri and Mulbery the trend is just reversed. Different training programme to artisans and also exhibitions postponed after March 2020 due to the COVID 19 pandemic situation. The programmes will continue as usual after normalcy.

Table 3.27: Activities undertaken in tassar sector

Activities	2017-18	2018-19	2019-20
Tassar Plantation (Ha)	765	845	1812
Production of Dfls (lakh nos.)	20.20	20.43	23.13
Procurement of Dfls (lakh nos.)	5.05	5.00	5.00
Consumption of Dfls(lakh nos.)	25.25	25.43	28.13
Production of reeling cocoons (lakh nos.)	1,220.03	1,232.8	1303.34
Production of Raw Silk (est. in MT)	106	123.28	130.33
Production of Silk Waste (est. in MT)	19	25	-
Farmers covered (nos.)	16,041	16,514	16,531

Source: Directorate of Textile, Odisha

Table 3.28 : Activities under taken in Eri & Mulberry Culture in the State from 2017-18 to 2019-20

ERI Sector	2017-18	2018-19	2019-20
Castor plantation (Acres)	1,600	1720	1173
Consumption of Dfls (Lakh)	1.39	1.00	0.82
Production of cut cocoons (est. in MT)	8	6.59	6.37
Production of Raw Silk (est. in MT)	7	5.27	5.1
No. of farmers covered (Nos.)	3,200	3440	2780
MULBERRY Sector			
Mulberry Plantation (Acre)	102	78	68
Procurement of Dfls (lakh nos.)	1.23	1.03	0.65
Consumption of Dfls (lakh nos.)	1.23	1.03	0.65
Production of reeling cocoons (lakh nos.)	22.48	24.94	14.79
Production of Raw Silk (est. in MT)	3	2.77	2.12
Production of Silk Waste (est. in MT)	0.3	0.28	-
No. of farmers covered (Nos.)	1,717	1216	8.

Source: Dept. HT&H, Odisha

3.9.3 Apart from tassar culturing, eri rearing is a traditional activity in 13 districts. During 2019-20, castor plantation covered 1173 acres, declining from 1,720 acres in 2018-19, with a production of 6.37 MT of cocoons during 2019-20. The third type of sericulture limitedly practiced in the State is mulberry sericulture in limited pockets of 11 districts in the State. Mulberry farming is highly climate dependent and requires irrigation for its sustainability. The status of eri culture and mulberry sericulture is highlighted in Table 3.28.

3.9.4 To support Seri culturists in Tassar, Eri and Mulberry sector, several schemes have been implemented including MGNREGS & RKVY. Under these schemes, farmers are being provided necessary support like plantation of host plants, supply of silkworm seed, incentives towards procurement of reelable tassar cocoons, supply of castor seed, disinfectants and marketing support through Primary Rearers Co-operative Societies. Besides, extension service programmes like awareness camps, technology upgradation, exposure visits and trainings were carried out for farmers and private entrepreneurs to improve productivity and their earnings.

3.9.5 In Manufacture of Textiles and Wearing apparels sector though the Gross Value Added has decreased from INR 4,936 lakh in 2016-17 to INR 4,811 lakh in 2017-18, the employment has increased to 3,849 numbers in 2017-18 as compared to employment of 2,596 numbers in 2016-17.

3.10 Export performance

3.10.1 Due to active initiation and export promotion activities of the State, the export turnover of Odisha has increased from INR 48,119.60 crore in 2018-19 to INR 51,742.32 crore in 2019-20, witnessing an increase of 7.5 %. Owing to high concentration of metal related industries in the State, metallurgical products (47.95 %), mineral products (28.27 %) and electronics (8.70 %) are the key exports from Odisha. Marine products (5.85 %) are also an important export item from the State.

3.10.2 Table 3.29 presents the destination countries and value of exports in 2019-20. While metallurgical products had the highest value, shipped to the largest number of countries (78) as has been the trend in the past as well. A trend that can be observed is that while metal related products are exported to several countries, those of agricultural products are less diversified, so also textile, handloom & handicrafts.

Table 3.29: Number of destination countries and value of export from Odisha in 2019-20(INR In crore)

Products	2018-19	2019-20	No. of countries to which exported	Share in Value of Exports(%)
1	2	3	4	5
Metallurgical	26084.97	24811.40	78	47.95
Engg., Chemical and Allied	5413.62	4434.18	52	8.57
Minerals	9483.26	14627.10	24	28.27
Agriculture and Forest	210.02	187.18	16	0.36
Marine	2825.52	3028.88	37	5.85
Handloom	0.07	0.90	10	0.00
Handicraft	1.39	3.08	16	0.02
Textile	74.14	131.64	05	0.25
Pharmaceutical	8.45	6.34	05	0.01
Electronics and software	4000.00	4500.00	40	8.70
Others	18.16	11.62	37	0.02
Total	48119.60	51742.32	320	100

Source: Directorate of Export Promotion and Marketing, Govt. of Odisha.

3.11 Major State level institutions

Odisha Industrial Infrastructure Development Corporation (IDCO)

3.11.1 IDCO acts as the Nodal Agency for providing industrial infrastructure and land for industrial and infrastructure projects in the State. The corporation has already developed 116 Industrial Estates/Areas (IEs/IAs) in different strategic locations, with an area of 10900 Acres of land and 1545 number of built up sheds. During the year 2019-20, 86 number of small and medium units have been allotted around 146.33 acres of land in different industrial Estates/ Areas.

IDCO: Infrastructure projects under implementation

- IDCO has taken several initiatives to develop three investment regions in the State with an objective to promote both domestic and foreign investments in the State.
- Under the scheme 'Petroleum, Chemicals and Petrochemicals Investment Regions' (PCPIRs) of Government of India, the State Government is developing a PCPIR at Paradip on 284.15 sq km (70,214 acres) of land, spread over Jagatsinghpur and Kendrapara district. IDCO has acquired 7400 acres for industrial development in PCPIRs. These are expected to attract investment up to INR 2.74 lakh crore. IOCL (Indian Oil Corporation Ltd.) is the anchor tenant for the project. Around 3300 acres of land have been handed over to IOCL for its 15 million per annum oil refinery with an investment of INR 30,000 crores.

3.11.2 Proposals have also been received from large industries such as Jindal Stainless (downstream stainless steel products), Jindal Steel & Power (downstream steel products), Vedanta (downstream aluminium products), Welspun (multi-product) etc. to set up private industrial parks in the State.

IDCO: Downstream units' promotion

- Angul Aluminium Park at Angul over an area of 223 acre jointly by IDCO & NALCO.
- Seafood Park at Deras over an area of 152.78 acre, 17 plots measuring 35 acre allotted to 11 units.
- Plastic Park at PCPIR at Refinery Complex of IOCL, Paradeep over an area of 120 acres with an investment of INR 106 crores.
- Textile Park and Food Park over an area of 234 acres near Dhamnagar in Bhadrak district. An area of 58.625 ac. Of land allotted to IOCL for setting up Textile Park.
- Development of Electronic Hardware Manufacturing Cluster at Info Valley, Bhubaneswar over an area of 203.37 acre
- IT hub at Info Valley, Bhubaneswar
- Development of two IT/ITES SEZs, namely, SEZ at Chandaka (Bhubaneswar) over an area of 145.11 acres and Infocity-II IT SEZ at Gaudakashipur near Bhubaneswar (Info Valley) over an area of 262 acres.
- Establishment of an IT Incubation Centre with a built-up space of 33,048 sqm. At Infocity SEZ, Chandaka, Bhubaneswar.
- Developing an Inland Navigation System for movement of cargo from industries and mines to ports. MOU has been signed between Govt. Of Odisha and Inland Waterways Authority of India, Paradeep Port Trust and Dhamra Port.
- An Agro Industrial Estate has been developed by IDCO on behalf of Agriculture & F.E Department in Papadahandi block of Nawarangpur district at the cost of INR 12.76 crore and covering an area of 69.81 acres.
- Establishment of a convention cum Trade Zone (CTZ) at Janata Maidan in Bhubaneswar.
- IDCO has taken up establishment of 7 multipurpose MSME Park at Cuttack, Khurda, Angul, Sambalpur, Sundargarh, Kalahandi and Ganjam district.
- During this year, creation of two numbers of Industrial Estate exclusively for rehabilitation/ establishment of Saw Mills in the districts of Jagatsinghpur and Mayurbhanj is under progress.

IDCO: Land acquisition

- During the year 2019-20, 529.98 acres of land has been acquired and allotted to both existing and upcoming MOU/Non-MOU projects.
- So far, over 67,906.846 acres of land has been allotted to both MoU/non-MoU industries like steel, aluminium, ferro-alloys, cement and power sector in the State. A few major industrial projects that have been allotted land are as under:

Table 3.30: Major Industrial Projects that have been allotted land

Sl.No.	Name of the Steel Industries	District Name	Area in acre)
1	Aditya Aluminium (HINDALCO) MOU	Sambalpur	252.93
2	Kashika Metalics	Jajpur	90.20
3	Aditya Birla Renewable Pvt. Ltd.	Boudh	72.29

Source: IDCO, Bhubaneswar.

IDCO: Land bank scheme

- IDCO is the Nodal Agency for creation of 'Land Bank' and allotment of such land for industrial use and infrastructure in designated industrial estates, industrial areas, industrial parks and growth centres etc. Under the land bank scheme, IDCO has filed requisition for lease/acquisition of 1, 59,351.219 acres of land with district authorities in 30 districts as on March 2020. Out of which 1,38,888.656 acres of land has been found suitable for industrial purposes.
- In total 6,411.91 acres of land has been added to the land bank during the 2019-20.
- Cumulative extent of area sanctioned under category A is 13,347.762 acres and under category B is 49,996.234 under the Land Bank Scheme, as on March 2020.
- The total extent of area under the Land Bank Scheme comes to 63,343.996 acres.

IDCO: Construction activities

- IDCO also provides comprehensive project construction and management services for execution of civil, electrical, public health and engineering projects in social sectors. Some important works(completed +ongoing)executed by IDCO during last five(5) years are given below.
- Working women's hostel for disabled.
- Government Polytechnic Ladies hostel.
- Urban hostel complex.
- Administrative Tribunal Building.
- Khushi Bhawan.
- Old Age homes at Sambalpur, Kandhamal, Keonjhar.
- Shakti Bhawan.
- Bidyut Bhawan.
- BPUT at Rourkela, VSSUT Burla, IGIT Saranga etc.

IDCO: Financial achievement

- For the year 2019-20, the turnover was INR 492.92 crore.

Industrial Promotion and Investment Corporation of Odisha Ltd. (IPICOL)

3.11.3 IPICOL, a state PSU under Industries Department is the nodal investment promotion and facilitation agency for the State. IPICOL have taken pro-active measures for investment promotion and industrial facilitation in the State. The major activities of IPICOL are to extend Single Window Facilitation & Aftercare services to investors and to take up Investment Promotional activities for creation of employment for the State.

3.11.4 IPICOL has taken significant steps in increasing the visibility of the State as an investment destination at National & International level and to broad base and diversify industrial development in the State. Several investment promotion events were organised/ participated in by IPICOL during 2019-20 at Chennai, New Delhi, Mumbai, Kolkata and Goa.

3.11.5 During the past six years, the State has received investment intent from investors in multiple sectors. The number of approved projects along with their investment and employment potential is shown in Table 3.31.

Table 3.31: Number of approved projects along with their investment and employment potential in Odisha

Year	Number of Approved Projects	Investment Amount (in INR crore)	Employment Potential
2014-15	12	3,907.27	3,904
2015-16	28	32,024.36	12,085
2016-17	38	7,778.89	44,033
2017-18	46	NA	98,308
2018-19	47	67,417.41	41,643
2019-20	49	2,37,146.92	62,031

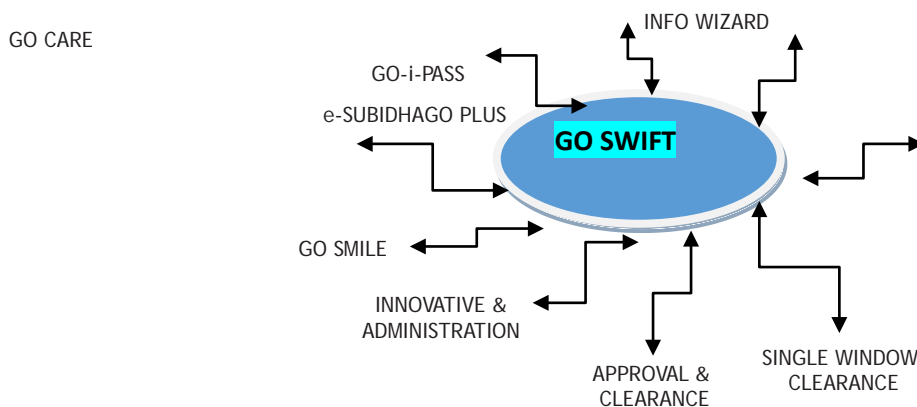
Source: IPICOL, Govt. of Odisha

3.11.6 To ensure a hassle-free business environment to investors, IPICOL is coordinating and simplifying the process of business establishment and technology intervention of various Departments. Single window portal "Go-SWIFT" facilitates online application submission, payment, status approval of insurance for 34 industrial services of 14 Departments. Till 31st March 2020, the portal has received 1303 proposals from a variety of sectors. The Portal is a "one stop solution recognized by Government of India as best practice to track the investment life cycle in one point.

Go-Swift

3.11.7 The State Govt. has undertaken various initiatives to ensure a hassle-free business environment by introducing a single window portal Go-Swift through IPICOL, which facilitates the online application submission, payments etc. and issuance of the approved certificate to 32 industrial services of 14 Departments. This is a one stop solution and till date received more than 1000 applications from investors across the country. The details are given in Fig. 3.10.

Figure 3.10: Single Window portal Go-Swift



SLFC

3.11.8 To facilitate ease of doing business the “ State level Facilitation Cell”(SLFC) has been created where higher Officials from Energy, Water Resources, Factories and Boiler and IDCO are full time members to process industrial proposals. Since April’2019, SLFC has approved /recommended total 28 projects worth INR 2,09,294.78 crore with employment potential of about 41,421 numbers and issues pertaining to about 86 industrial projects have been resolved.

Industry Care

3.11.9 To bring in higher focus towards commissioning of projects, IPICOL has introduced ‘Industry Care’ mechanism in December 2018. Fortnightly district-wise industry-care meetings are being organized in each district to resolve issues faced by industries operating or planning to setup there. During 2019-20, total 175 industrial units participated and 156 issues resolved out of 223 issues received in Industry Care Forum.

GO CARE

3.11.10 IPICOL is also administering the CSR initiatives in the state through first-of-its kind portal called Government of Odisha - CSR Administration and Responsive Engagement (GO CARE) which to provide all key information on the CSR activities in the State. Objective of this activity is to environmentally sustenance of the Industrialization with maximum opportunity for employment to augmenting the state revenue. The portal contains all CSR projects, undertaken, ongoing and upcoming in the State, thereby acting as a one stop shop for all CSR activities in the State. District level and block level HDIs collected from various welfare department updated in the GOCARE portal for better corporate decision while selecting CSR initiatives. First CSR award was organized in the state during the Make in Odisha Conclave 2018 to recognize the CSR initiative of various corporates operating in the state. In last 6 years (FY 2014-2020), 7819 projects of amount INR 2753.03 Cr has been reported on the GOCARE portal.

COVID-19 Impact on Industry sector

3.11.11 There has been tremendous turmoil on economic situation in Odisha, India and world over because of break of CORONA virus (COVID-19) which has severely impacted all sectors.

3.11.12 A series of lockdown during Covid-19(from April,2020) restricting movements which disrupts the demand & supply chain of production. The major, Medium, small and minor industries as well as trade & commerce faced the major issues during the lockdown due to the pandemic of covid-19, is logistics, without which no one can plan, execute manufacturing or provides services. Acute labour shortage in factories, warehouses, transport sector and distribution have broken the supply chain to a great extent. From the demand side, livelihood and employment is the real challenge. The workers from the unorganised sector lost their jobs. The state government has decided to pay INR 1500/- to each workers registered with “Odisha Building and other construction workers” .In IT sector some lost their job and few others worked from home. However, as all the resources generating activities including mining sector are worst hit, the state is still counting its loses. The industrial performance in five (5) different sectors- GST collection, railway freight traffic, port traffic, electricity consumption by industries and investment proposals, the outbreak is having a deep impact on the overall economy as industries are yet to be fully functional with economy in the limbo, revenue generation will be hit.

3.11.13 Tourism, Hotel and Aviation are among the worst affected sectors that are facing the maximum brunt of the present Covid-19 crisis. Closing of Cinema, theatres and declining footfall shopping complexes has affected the retail sector by impacting consumption. Consumption is also getting impacted due to job losses and decline in income levels of people particularly the daily wage earners due to slowing activity of retail, construction and entertainment etc. with wide spread fear and panic now increasing among people leading to postponement of their purchasing decisions. Travel restriction severely impacted transport sector. Due to shut down/lock down and restrictions on import/export the manufacturing sector are facing an imminent raw material and component shortage. This is hampering business sentiment and affecting investment and production schedule of companies.

3.11.14 The Govt. of India & RBI need to support the Industrial sector and state economy as a whole to revive by following.

- i) Deferred EMI for 6 months
- ii) Enhance credit facilities
- iii) Increase drawing power and so many economic, financial and administrative measures which helps to revive not only the industries and business but also economy as a whole.

3.11.15 MSME sector in the state is the second largest employment generator after agriculture and acts as a breeding ground for entrepreneurs and innovators with considerable support in strengthening business ecosystem. Due to Covid-19 MSME sector had faced a lot due to liquidity crunch and lots of challenges due to non-availability of raw materials and workers to work in production process. Enterprises in any size in state is facing the problem of procurement of raw material, credit need market linkages, business turn around and many more new steps taken by Govt. are expected to act as a catalyst for the sector, not only to come out of pandemic related shocks but also get ready for bright future. To support the MSME sector during the crises COVID-19 pandemic, Government of Odisha declared the following packages :

Government of Odisha

Special Package to support MSMEs during COVID 19

<p>Provision for Rs. 108 crore Interest Subvention @ 2% for men & 5% for women during 2020-21 to 1,75,871 units assisted under Emergency Credit Line Guarantee Scheme (ECLGS)</p>	<p>Provision for Rs. 10 crore top-up subsidy @ 15% of project cost to 1,000 Food Processing Enterprises under Prime Minister Formalisation of Micro Food Processing Enterprises (PMFME) during 2020-21</p>
<p>Provision for grant of Rs. 27 crore towards Promoter's contribution @ 5% of Project Cost to 4,359 micro enterprises under Prime Minister Employment Generation Programme (PMEGP) during 2020-21</p>	<p>Provision for Rs. 38 crore for reimbursement of State GST to 175 MSMEs under amended Industrial Policy Resolution</p>
<p>Provision for Rs. 100 crore to enterprises with integration of Covid19 Assistance Package (CAP) during 2020-21</p>	<p>Provision for waiver of Annual Maintenance Charge amounting to Rs. 5.84 crore payable to IDCO benefiting 5000 MSMEs in Industrial Estate / Area</p>

Micro, Small & Medium Enterprises Department

3.11.16 To mitigate the situation state Govt. has decided to gear-up labour intensive programmes in different sectors and activities, in this direction the Works Deptt., W.R.Deptt., Forest and Environment Deptt. and Rural Development Deptt. chalk out their action plans. It has been planned to engage 1,00,000 people daily in the plantation programme to restore the environment and economy by creating employment

3.12. Electricity, gas, water supply and other utilities

I. Electricity

3.12.1 Energy is an essential input & driving force of economic development and quality of life of an economy, either in the form of finite resources such as coal, oil and gas or in renewable forms such as hydroelectric, wind, solar and biomass, or its converted form of electricity. The energy sector not only profoundly influences the diversified economic activities but also has direct bearings on the quality of the State's air, water, land, forest resources, and climate changes. It is a vital sector of the economy, since all other sectors depend on it for their performance of growth. Adequate availability or deficiency of power impacts the economic performance of a sector or a region. The power sub-sector along with gas and water supply sub-sectors contributed about 3.33 percent of the Odisha's GSDP during 2019-20(AE). The growth of this sub-sector has however, widely fluctuated from year to year due to several factors including availability of inputs such as coal, gas or oil, environmental constraints and natural shocks. The value added in current and constant prices is depicted in the Table 3.32 given below.

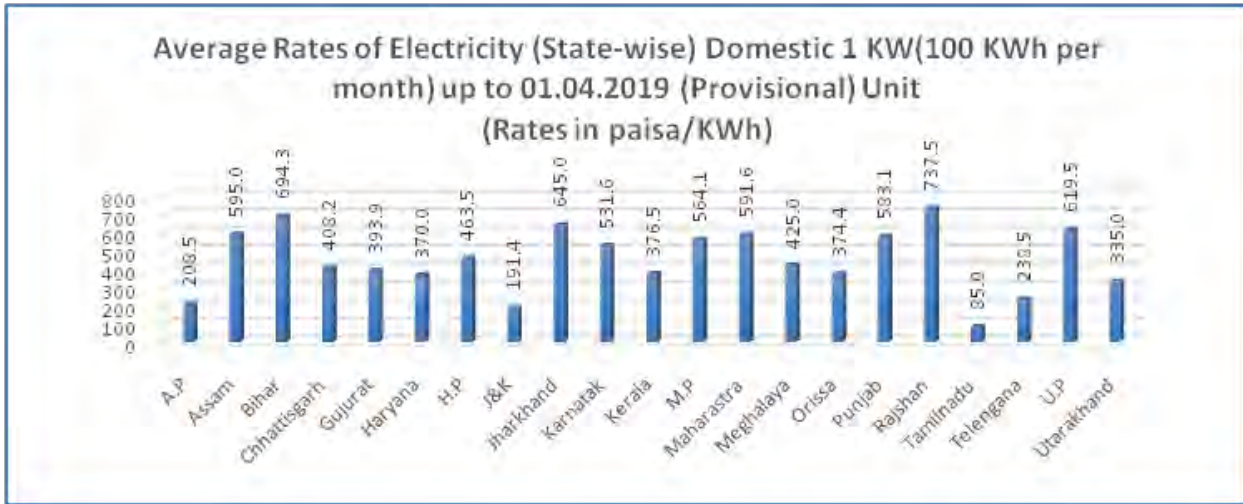
Table 3.32 : State Gross Value Added from Electricity Gas, Water Supply and other Utility Services Sub-sector

Year	At Current Prices		At 2011-12 Prices	
	GVA (INR in Lakhs)	Percentage share to total GVA	GVA (INR in Lakhs)	Growth Rate (In %)
2011-12	775701	3.52	775701	-
2012-13	937278	3.76	924884	19.23
2013-14	1044477	3.72	987637	6.78
2014-15	1008706	3.42	919544	(-) 6.89
2015-16	1218871	4.00	1105926	20.27
2016-17	1318939	3.72	1189992	7.60
2017-18	1313855	3.36	1172118	(-) 1.50
2018-19	1422728	3.28	1201395	2.50
2019-20	1467845	3.14	1205762	0.36
2020-21	1369792	3.07	1196342	(-) 0.78

Source: DES, Odisha

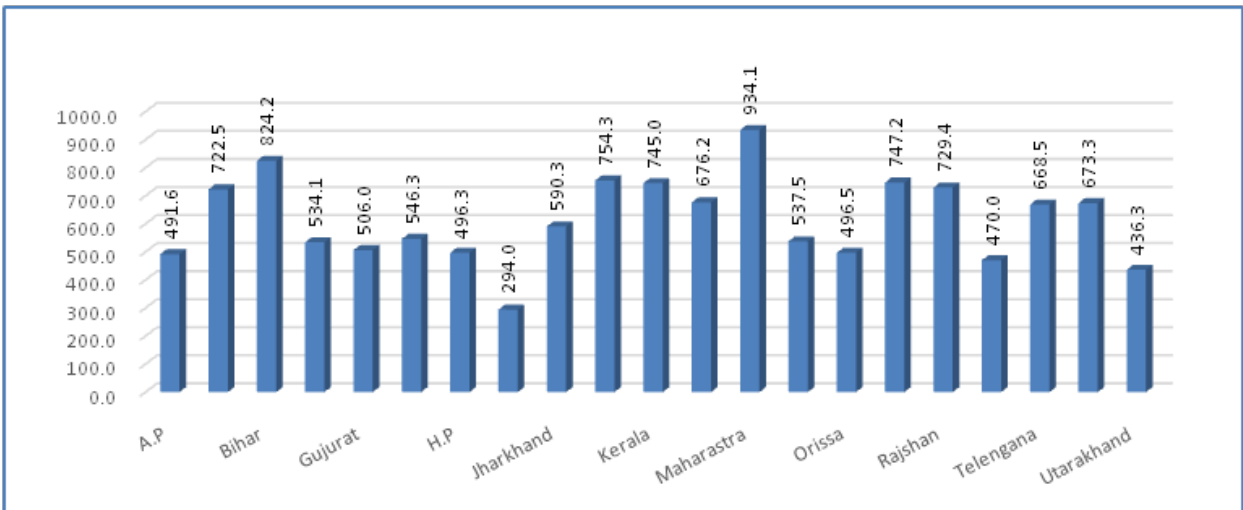
3.12.2 Electricity being a part of modern life has many uses both in domestic and industrial appliances / machineries. It has a greater role in industrialization and transforming the economy of the state. The state has taken many pro-industrial policies and pro-consumer tariffs in this sector. As per the latest data released by Central Electricity Authority (CEA), a comparative graph on average rates of Electricity is given below.

Figure 3.11: Average Rates of Electricity (State-wise) Domestic 1 KW



Source: CEA

Figure 3.12: Average Rates of Electricity (State-wise) Domestic 4 KW



Source: CEA

Figure 3.13: Average Rates of Electricity (State-wise) Domestic 10 KW

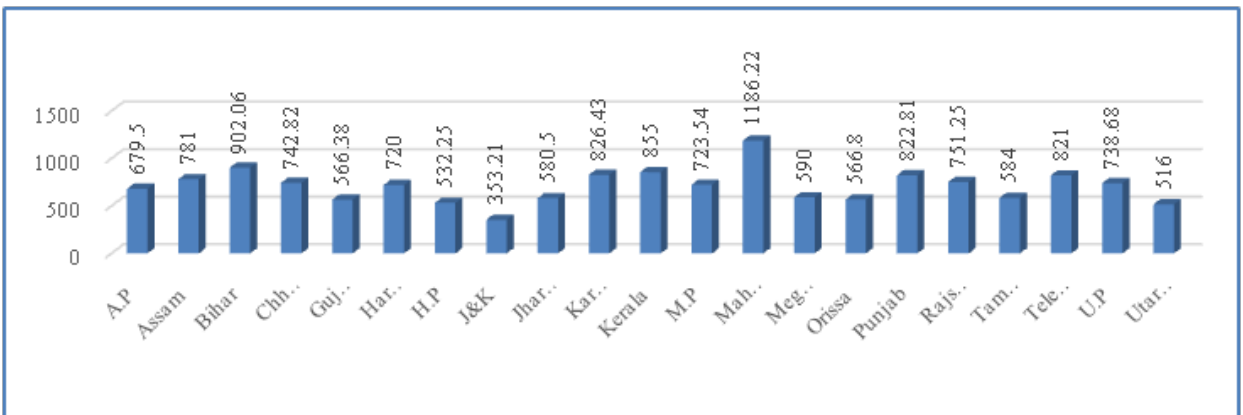
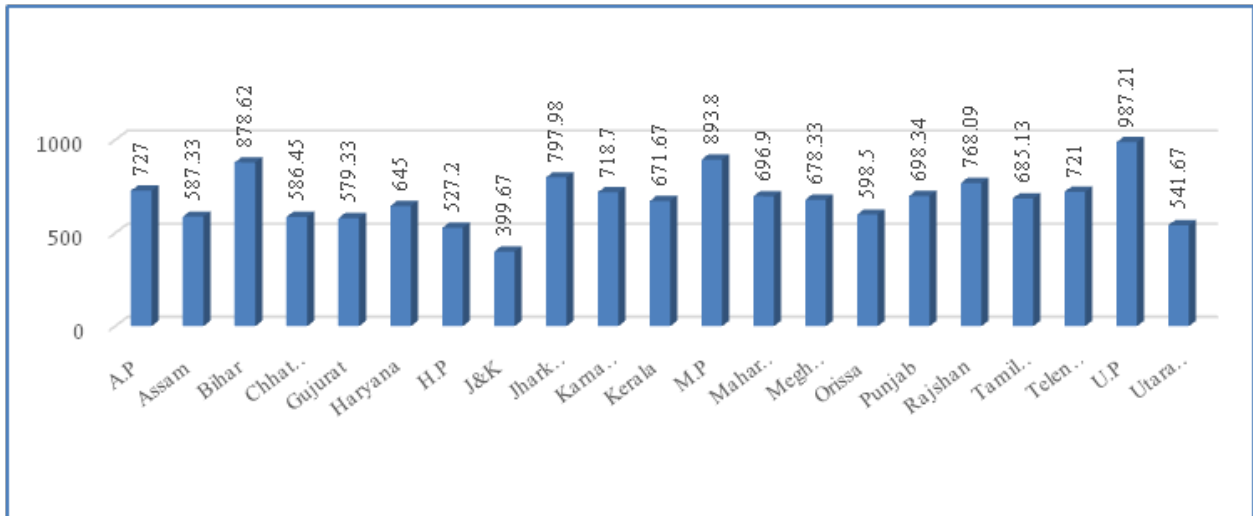
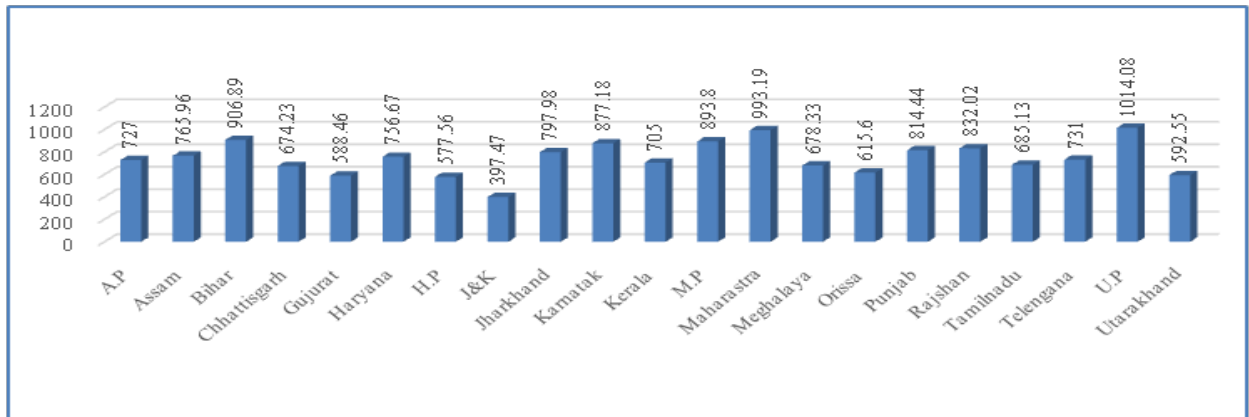


Figure 3.14: State-wise average Rates of Electricity of Small Industries 10 KW



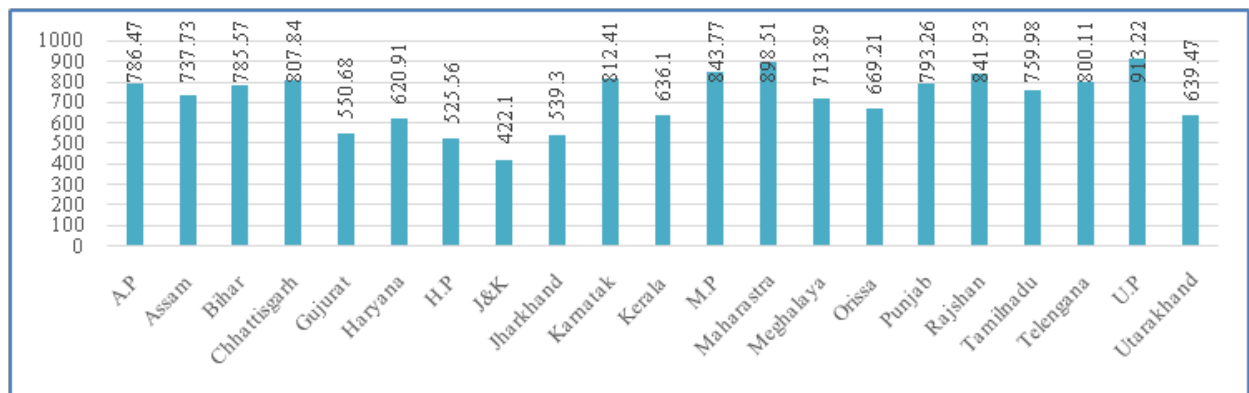
Source: CEA

Figure 3.15: State-wise average Rates of Electricity of Small Industries 15 KW



Source: CEA

Figure 3.16: Statewise average Rates of Electricity of Small Industries 11KW



Source: CEA

II. Power: Power Supply-demand scenario as per procurement by GRIDCO

3.12.3 Estimated demand for power has been well below the installed capacity in the State for several years now. There has been no addition to capacity in recent years, and the utilization of the capacity essentially determines the supply. Several private industrial units have set up their own captive power plants, and their excess production provides a small cushion to the State to manage additional demand. Although the drawl of power for industrial purposes is less to the extent of captive generation, the public supply caters largely to domestic and industrial demands - consumption by other consumers is relatively small; that by agricultural sector is also quite small compared to many other States of India.

A. Installed capacity

3.12.4 The total installed capacity of all power projects (including share of power from central & other sources) in the State was 6011.49 MW in 2018-19 which increased to 7647.69 MW in 2019-20. Table 3.33 presents time series data of both installed capacity of power and availability of power from different sources. The installed capacity has remained roughly the same since 2013-14 to 2017-18 due to the ongoing renovation and modernisation at Hirakud, Chipilima Hydro Station. During 2019-20, installed capacity increased by 27% over 2018-19.

Figure 3.17: Installed capacity as per procurement by GRIDCO

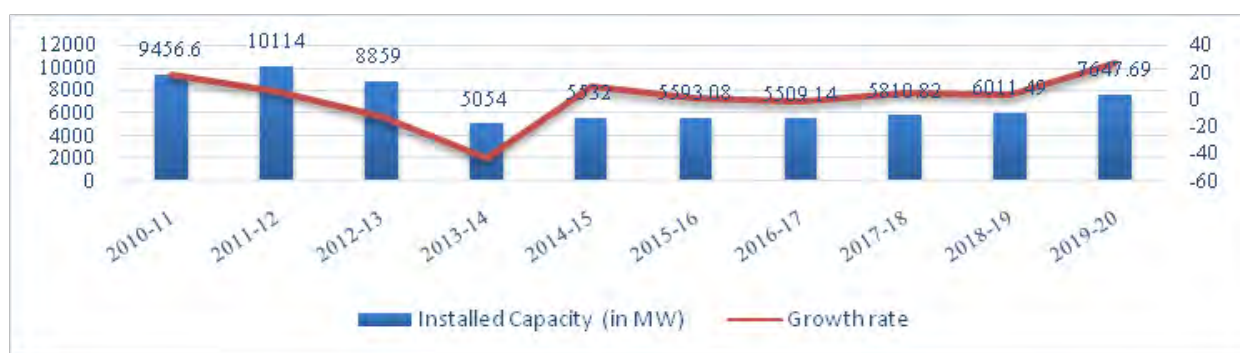


Table 3.33: Demand and Availability of Power by GRIDCO

(In MW)

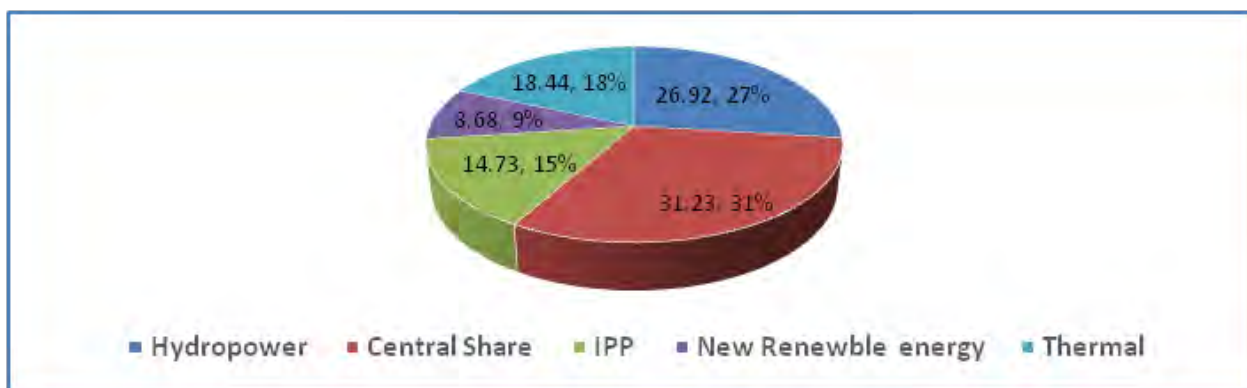
Year	Demand (Estimated)	Availability of Power from different sources					Installed Capacity*	Sold to other States
		State Sector	Central Sector	Other Sources	Purchase from Captive Plants of the State	Total		
2010-11	2398	1295	814	-	729	2838	9456.60	128
2011-12	2674	1136	1170	68	225	2599	10114.00	49
2012-13	2674	1226	1221	89	239	2776	8859.00	136
2013-14	2746	1521	1223	67	89	2900	5054.00	213
2014-15	2910	1552	1310	33	124	3019	5532.00	137
2015-16	2934	1466	1275	85	75	2900	5593.08	44
2016-17	3020	1851	998	28	85	2962	5509.14	156
2017-18	3062	1674	1205	74	45	2998	5810.82	45
2018-19	2912	1771	1079	259	54	3163	6011.49	33
2019-20	2819	1823	1157	241	60	3281	7423.00	172

Source: GRIDCO

3.12.5 The power projects include State sector, central sector and other sources in the State. Power is generated by hydro power, thermal power and renewable energy sources like solar and bio-mass plants and wind inside and outside of Odisha. As in 2019-20, the State had 11 hydro power and 11 thermal power projects (State and Central sectors), one bio-mass project, two small hydroelectric projects, 21 Solar Photo-Voltaic (SPV) projects and 2 wind energy plants procured by the GRIDCO. Power is also procured by the GRIDCO for the state through power exchange like ER UI Pool, PTC, APPCPL, and MPPL, when needed. The state wise per capita availability of power is given in Annexure.

3.12.6 Installed capacity scenario of Odisha includes Hydro, Thermal, IPP, renewable energy sources and Central share of all the power projects within the state boundary. The percentage share of all the above mentioned shares to total installed capacity during the year 2019-20 is given in figure 3.18 below.

Figure 3. 18: Percentage share of different power sector to total Installed Capacity



3.12.7 The total installed capacity of power during 2019-20 was 7423.00MW out of which the percentage of central share plants was highest i.e. 31.23% followed by Hydro projects 26.92%. The captive power of different major industries of the state producing power and they injected inadvertent power to GRIDCO. In the installed capacity scenario there are also other captive power plants producing more than 1 MW and above. But not mentioned in the GRIDCO power scenario. The detail of these CPPs given in Table 3.34.

Table 3.34: Installed Capacity of Captive Power Plants (CPP) producing more than 1 MW

Sl.No.	Year	Total Installed Capacity (MW)	No. of Industries.
1	2011-12	6023.98	60
2	2012-13	6488.98	62
3	2013-14	7444.48	66
4	2014-15	7897.48	68
5	2015-16	10547.78	65
6	2016-17	11098.78	64
7	2017-18	11011.28	64
8	2018-19	10999.18	65
9	2019-20	10971.23	65

Source: Office of EIC-cum Principal Chief Electrical Inspector

3.12.8 The State wise installed capacity from 2011-12 to 2018-19 is given in Annexure.

B. Power Generation (availability):

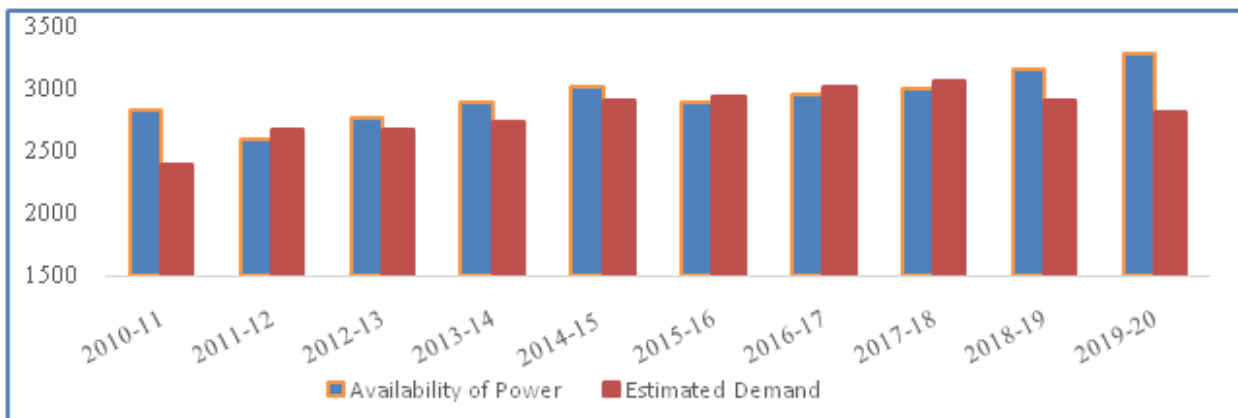
3.12.9 During 2019-20, 3281 MW of power was available for consumption from all sources that stood at 43 percent of total installed capacity of power projects in the State. The State sector, central sector and other sources contributed 55.6 and 9.1 percent respectively of total power generation in Odisha during 2019-20 (Table 3.3). The total installed capacity of 30 CPPs during 2019-20 is 7933.5 MW. Out of this, inadvertent power injected to GRIDCO is 59.91 MU, which was 53.5 MU in 2018-19. The estimated demand during 2019-20 increased by 17.6 percent over 2010-11 (2398 MW).

3.12.10 Global climate change necessitates developing alternative renewable energy sources like biomass and solar power to ease the pressure on ecology caused by the process of thermal and hydro power generation. The Renewable Energy policy of 2016 aims at augmenting the generation of renewable energy with more emphasis on solar energy. By the year 2022, Odisha envisages generation of 2200 MW of solar power, 200 MW of wind power, 180 MW of bio-mass power, 150 MW of small hydro power and 20 MW of Waste-to-Energy (WTE) power. During 2019-20, installed capacity of renewable power by GRIDCO from various units was 664 MW, out of which State sector was 439 MW and 225 MW was from Central or outside State. In the State sector capacity of 439 MW, S.P.V. power plants contributed a major share (82.5%) and the rest was by small Hydro and Bio-mass plants.

C. Estimated Demand for power:

3.12.11 The demand for power in Odisha in 2019-20 is estimated at 2819 MW as against 2912 MW in 2018-19. The estimated demand during 2019-20 declined by 3.19 percent over the previous year. The estimated demand during 2019-20 increased by 17.6 percent over 2010-11 (2398 MW). If we compared the estimated demand with availability of power, the State has maximum surplus in 2019-20. The details are shown in Figure 3.19.

Figure 3.19 Trend of Estimated Demand & Availability of Power in Odisha (in MW)



Source: GRIDCO

D. Peak Period Power demand and availability

3.12.12 The table below explained the Peak Period demand of Power and the availability of Power from different sources to meet the Peak period demand.

Table 3.35 : Peak Period Power demand and availability

(In MW)

Date & Year	Peak Demand in MW	Availability from Different Sources During Peak						
		Hydro	Thermal	IPP	CGP (Open Access)	ISGS	IEX + Bilateral	Total Availability
12.03.2016 (20:00 Hrs)	4110	1158	809	376	325	1136	485	4289
27.03.2017 (20:00 Hrs.)	4551	1574	743	878	399	1218	-	4812
29.03.2018 (20:00 Hrs.)	4617	1322	798	352	412	1113	491	4488
26.03.2019 (19:00 Hrs.)	4643	1192	734	620	407	860	593	4406
28.03.2020 (19:00 hrs.)	3882	1177	1382	673	594	1114	-410	4530

Source : GRIDCO

3.12.13 From the above table, it is evident that about 36 % of power in peak period meet by thermal sector followed by 30% by Hydro Power. Total availability of power is always surplus compared to the peak demand except in 2018 March and 2019 March.

III. Power consumption

3.12.14 The total power consumption of Odisha was 19,585 MU in 2019-20 as against 19,370 MU in 2018-19. Industrial and domestic consumption together share about 49.60 percent of total power consumption of the State. The domestic consumption is increasing continuously, but the proportion of consumption to total declined over years from 2017-18 & 2018-19. But in 2019-20 the proportion again increased slightly. Industrial consumption was revived slightly during 2017-18 with a wide range of government incentives, but it has dropped again in 2018-19 & 2019-20. This may be an effect of the global slowdown. The State has a total of 88.42 lakh power consumers in 2019-20, which was 80.69 lakh during the previous year. About 92.45% of the total number of power consumers belongs to the domestic sector (both rural and urban). Rural consumers (in all sectors) consists of 78% of total consumer. The details are given in Table 3.36.

Table 3.36: Power Consumption in Odisha

(In MW)

Year	Total Consumption	Consumption Sector							
		Domestic	Commercial	Industrial	Public Lighting	Irrigation & Agriculture	Railways	Public Water Works	Bulk Supply & Others
2010-11	13099	3533	1113	6755	58	179	797	189	475
		(26.97)	(8.50)	(51.57)	(0.44)	(1.37)	(6.08)	(1.44)	(3.63)
2011-12	13054	3946	1349	6246	61	151	891	200	210
		(30.23)	(10.33)	(47.85)	(0.47)	(1.16)	(6.82)	(1.53)	(1.61)
2012-13	13552	4261	1513	6147	65	162	930	213	261
		(31.44)	(11.16)	(45.36)	(0.48)	(1.20)	(6.86)	(1.57)	(1.93)
2013-14	14213	4585	1559	6291	72	186	1015	222	283
		(32.26)	(10.97)	(44.26)	(0.51)	(1.31)	(7.14)	(1.56)	(1.99)
2014-15	15440	5473	1703	6344	81	229	1031	236	343
		(35.45)	(11.03)	(41.09)	(0.52)	(1.48)	(6.68)	(1.53)	(2.22)
2015-16	15923	6042	1845	5970	88	261	1088	247	382
		(37.95)	(11.59)	(37.49)	(0.55)	(1.64)	(6.83)	(1.55)	(2.40)
2016-17	16343	6296	2035	5793	92	338	1118	260	411
		(38.53)	(12.45)	(35.45)	(0.56)	(2.07)	(6.84)	(1.59)	(2.51)
2017-18	17729	6757	2145	6425	100	422	1177	254	449
		(38.09)	(12.10)	(36.25)	(0.56)	(2.38)	(6.65)	(1.44)	(2.54)
2018-19	19370	7108	2363	7252	117	580	1206	298	446
		(36.70)	(12.20)	(37.44)	(0.60)	(3.00)	(6.23)	(1.54)	(3.56)
2019-20	19585	7327	2387	6899	128	611	1452	312	469
		(37.41)	(12.19)	(35.23)	(0.65)	(3.13)	(7.41)	(1.59)	(2.39)

Sources: CESU, NESCO, SOUTHCO and WESCO

Note: Figure in bracket indicates percentage to total consumption

IV. Electricity in Rural Odisha

3.12.15 Odisha has witnessed a massive transformation in availability of power over the last decades. Constant and dedicated efforts of the Government through different schemes to achieve the mission of “Electricity to All” is bearing fruits. All villages (47,679) of Odisha have been electrified by the end March’ 2020. During 2018-19 (Upto March 2019), NESCO reported that 109 number of villages are having no habitation and 12 number of villages are not found. But during 2019-20 (March’ 20), these 121 villages were found and all are inhabited. As per the last year report 50 villages were left behind (20 in Puri district and 30 in Kendrapara). During 2019-20, 50 left out and 121 inhabited villages are electrified and state has achieved 100% electrification.

The State had a total of 88.42 lakh power consumers in 2019-20 with 69 of rural consumers and 20% of urban consumers. The detailed scenario is given in table 3.37.

Table 3.37 Sector-wise Distribution of Power Consumers, 2019-20

(In Lakh)

Sector	Rural Consumer	Urban Consumer	Total	% of Rural Consumer to Total Consumers
Domestic	65.38	16.37	81.75	80
Commercial	1.85	2.25	4.10	45
Industrial	0.04	0.23	0.28	15
Others	1.51	0.79	2.30	66
Total	68.78	19.64	88.42	78

Sources: CESU, NESCO, SOUTHCO & WESCO

V. Major initiatives in Energy Sector

A. Biju Gram Jyoti Yojana (BGJY):

3.12.16 In order to ensure 'Electricity to all' the State Government has launched a flagship scheme called Biju Gram Jyoti for electrification of habitations having a population of less than 100. Initially there was a target to cover 10,000 habitations during the 11th Five Year Plan which have already been achieved. The State Government has provided INR 1388.00 crore to the districts for implementation of the scheme, against which an expenditure of INR 965.66 crore has been made. During 2019-20, a plan provision of INR 75.00 crore has been made under the scheme.

B. Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY)

3.12.17 This flagship programme of Government of India was launched in April 2005 to provide access to electricity to villages having population of 100 or more. Its financing envisages 90 percent capital subsidy and 10 percent as loan component for the State. Under RGGVY -XII Plan period, work is under progress to electrify 3144 un-electrified villages and 16533 habitations, for which Government of India have sanctioned INR 3550.75 crore. During the financial year 2019-20, a plan provision of INR 1012.50 crore has been made for this purpose.

C. Biju Saharanchal Vidyutikaran Yojana (BSVY)

3.12.18 BSVY was launched in 2010-11 for providing electricity to the people living in un-electrified areas of urban local bodies. Five Municipal Corporations, 45 Municipalities and 61 NACs of the State have been covered under the Scheme. During 2019-20, a plan provision of INR 10.00 crore has been made in the budget under the scheme.

D. SAHAJ BIJLI HARGHAR YOJANA (SAUBHAGYA)

3.12.19 In order to provide electricity to all households Govt. of India has launched this programme in October 2018 to achieve universal household electrification. During 2019-20, a plan provision of INR 150.00 crore has been made for this purpose.

VI. Energy Conservation:

3.12.20 Conservation of energy means generation of energy promotion of energy efficiency and its conservation in the State is one of the least cost options to bridge the gap between demand and supply of energy. As such, the State government has initiated several measures to avoid energy loss/conserved power as listed below:

- Implementation of UJALA has been launched 2016; under this programme, 5.22 crore LED bulbs, 1.59 lakh LED tube lights and 37,470 BEE Star rated 'UJALA' fans have been distributed.
- Replacing 3715 number of Agricultural pump sets in phased manner, which will result in an estimated annual energy saving of 15 MU and capacity avoidance of 17 MW.
- Replacement of old street lights with energy efficient LEDs.
- Repair and replacement of Drinking Water Pump Systems (DWPS) in 3 different phases.
- For quality supply of power to the consumers and to address the low voltage problem in rural areas, a project to construct 473 number of 33/11 KV sub-stations at a cost of INR 3843.00 crore is being executed by OPTCL as the Nodal Agency. This will help to reduce T&D loss of DISCOMS which will reduce their financial burden. In the year 2019-20, a provision of INR 443.00crore has been made under the scheme.
- Government of Odisha has adopted the concept of State Capital Region Improvement of Power System (SCRIPS) with an objective of 24X7 uninterrupted stable power supplies to all classes of consumers including public services in the target area. Underground cabling work is in progress. In the financial year 2019-20, INR 350.00 crore of plan provision has been made available under the scheme.
- **Odisha Power Sector Improvement Projects (OPSIP):** The State Government has evolved new schemes and projects like Radial to Ring Conversion Project, Disaster Response Centre, Disaster Resilient Power System, District Headquarters Projects for reliable and un-interrupted power supply to the consumers during natural shocks by adoption of ultra-modern technology and creating new (and renovating the existing) infrastructure.
- **Smart Grid:** Government of Odisha has taken initiatives for adaption of Smart Grid Technology in power sector (transmission and distribution) having the component name viz. GIS, SCADA, OPGW and AMI for un-interrupted and reliable power supply to the consumers of the State. During 2019-20 a Plan provision of INR 14.70 crore has been made under this scheme.
- **Green Energy Development Corporation Ltd. (GEDCOL)** is a subsidiary of OHPC that has started its operation from 2013-14 to promote green energy in the State. Both GEDCOL and SAIL have agreed to develop Mandira SHEP (10MW) in joint venture mode with the help of M/S MECON. GEDCOL has successfully completed commissioning of 20MW Solar Power Plant at Manamunda in Boudh district and is developing 4 MW Cuttack-Bhubaneswar Roof-Top Solar Power Projects. It is also replicating the Roof Top Solar Projects in 15 other towns of the State. During the financial year 2019-20, a Plan provision of INR 10.00 crore has been made under the scheme.
- **Deendayal Upadhaya Grama Jyoti Yojana (DDUGJY)** is a Government of India scheme and subsumes the RGGVY Scheme. It aims at strengthening the sub transmission and distribution infrastructure in the rural areas with separation of agriculture and non-agricultural feeders to regulate power supply to agricultural consumers, as and when needed for effective Demand side Management Scheme (DSM). Under this scheme, detailed survey of un-electrified villages has been completed. During 2019-20, a Plan provision of INR 240.00 crore has been made under the scheme.

- **Integrated Power Development Scheme (IPDS)** has been introduced in 2015-16 by the Government of India in order to create a strong infrastructure for strengthening sub-transmission and distribution network. Rooftop solar projects, installation of solar panels and smart and net metering are mandatory components under the scheme. The scheme subsumed the RAPDRP scheme. In the financial year 2019-20, a Plan provision of INR 100.00 crore was made under the scheme.
- **Radial to Ring Conversion Project:** In this system one substation can be fed from two sources of power which is capable of supplying power at the time of need from other sources to ensure uninterrupted power supply to consumers. Plan provision for 2019-20 was INR 54.95 crore under this scheme.
- **Disaster Resilient Power System:** This State scheme is aimed at creation of energy infrastructure having capability to combat natural calamities like cyclone and flood. A Plan provision of INR 106.43 crore has been made for financial year 2019-20.
- **Disaster Response Centre:** Energy Department have launched this project to restore power supply within minimum time span to meet the requirement at the time of natural calamities. A budget provision of INR 61.33 crore has been made in the financial year 2019-20 under this scheme.

VII Institutions

A. GRIDCO Ltd

3.12.21 GRIDCO presently carries out its function of bulk power supply as a Deemed Trading licensee. Being designated as State Designated Entity for procurement and sale of power in bulk to meet the State demand, GRIDCO procures the State share of power from inside and outside the State and supplies the same in bulk to the electricity distribution companies (DISCOMs) for onward retail sale to the consumers of the State. Surplus power if any is traded to maximise revenue.

GRIDCO: Power scenario

- Odisha has 7423 MW of installed capacity including the state allocated share from central generating station and renewable sources. Further during the 13th plan period 1320 MW of power from OPGC expansion Thermal power Unit No.3 & 4 available from the date of COD, out of which Odisha is availing 990 MW. The balance 330 MW shall be available for FY 2023 onwards. Now 400 MW of power is available from NTPC Darlipali STPS of Sundergarh district after COD of Unit I (800 MW). The balance 400 MW power will be expected from the said NTPC station in November, 2021.
- Further 396 MW and 418 MW from North Karanpura STPS and Barh-I STPS generating stations of NTPC are expected to be available to the state in the FY 2021-22 after their COD
- Thus in addition to the current installed capacity of 7423 MW additional 1214 MW power from NTPC is expected to be available in FY 2021-22 and 330 MW shall be available for FY 2023-24 from OPGC UNIT 3 & 4.
- In addition to the above, the State may also harness the unutilized surplus power which may be available from Captive Generating Units having total capacity of 7,000 MW to meet the upcoming demand of the State including industrial requirements subject to commercial viability.

GRIDCO: Power procurement and sale

- During 2019-20, GRIDCO procured 28,159 MU of energy at a cost of INR 8,288.21 crores which included renewable energy (solar and non-solar) of about 1276 MU.
- GRIDCO sold around 24,761.43 MU of energy to the four DISCOM utilities amounting to INR 8,288.21 crores for retail sale to the State consumers during 2019-20.
- GRIDCO has earned a revenue of Rs.577.95 crore at an average rate of Rs.3.34/KWh, by selling its surplus power of 1727.91 MU through trading during FY 2019-20 and has underdrawn 59.31 MU through UI at a cost of INR 15.26 crore from Eastern Grid.
- During 2019-20, GRIDCO has managed to overdraw 308.92 MU through UI from Eastern Grid at the cost of INR 119.95 crore and purchased through power exchange 1123.906 MU at a cost of INR 443.66 crore.

GRIDCO: Power banking

- GRIDCO has been very active in supplying electricity through Power Banking. During 2019-20, GRIDCO has returned 611.72 MU of power towards its returned obligation of banked power. It has availed 371.34 MU from April' 2019 to March' 2020 through Power Banking.
- Being a cashless transaction, power banking has helped GRIDCO to balance the State's power supply position effectively and at the same time provide much needed financial relief to its coffers.

Subsequent development of GRIDCO for Renewable Energy Action Plan:

- At present GRIDCO has 711 MW to its credit from different New & Renewable sources of Energy, out of which 81 MW is from Small Hydro Electric Projects, 437 MW from Solar PV Projects, 20 MW from one no. of Bio-mass Power Project and 173 MW from Wind sources.
- 24 MW Baitarani Power Project Pvt. Ltd. Got commissioned in August 2020, chasing the SHEP capacity to 81 MW. 18 MW Saptadhara SHEP Sri Avantika Projects Pvt. Ltd. Is likely to be commissioned in December 2020.
- GRIDCO has also executed PSA with SECI to avail total 350 MW wind power under MNRE Scheme, Phase-I, Phase-II, Phase-III, Phase-IV & Phase-VI out of which 173 MW is available now and rest to be made available within next two years.
- GRIDCO as an intermediary procurer through e-bidding Reverse Auction process has executed with M/s. Aditya Birla Renewables Pvt. Ltd., Mumbai on 28.12.2018 for implementation of 75 MW solar project. 25 MW Boudh solar project & 25 MW Baragarh solar project have been commissioned in March & Sept, 2020 respectively.
- GRIDCO has signed PSA with SECI on dated 21.08.2018 to avail 300 MW solar power under ISTS-connected Solar power project scheme, expected to be available by November 2020.
- GRIDCO shall avail the entire solar power from the 8 MW Solar PV project to be implemented in the un-utilised lands available at OPTCL Grid Substations by GEDCOL, for which PPA has been executed with GEDCOL on 1st September 2020.
- GRIDCO has also signed PSA with SECI to avail another 200 MW solar power through ISTS-connected solar power project scheme, to be available by June 2021.

GRIDCO: Finance

- During the Financial year 2019-20, GRIDCO has witnessed a turnover of INR 7581.45 crore but still suffered losses of INR 1352.14 crore due to low hydel conditions along with lower availability of IPP Power leading to sourcing of more costly Thermal Power and subdued power market. The financial position is expected to improve further during coming years with improvement in operational areas like power sourcing, trading, power banking and recovery of dues from DISCOM utilities.

B. Odisha Hydro Power Corporation Ltd. (OHPC):

3.12.22 Odisha Hydro Power Corporation (OHPC) Ltd., set up in 1995, has six ongoing Hydro-Electric projects and one joint Hydro-Electric project having total installed capacity of 2087.5 MW which is a distinct improvement over its initial capacity of 1,272 MW at the time of incorporation. OHPC generates hydro power and supplies the same to the state at a cheapest rate.

- OHPC provides the cheapest power to the State Grid. The average tariff approved by OERC for the financial year 2019-20 is 87.73 paise/kwh
- During 2019-20, 5,597.55 MU (excluding Machhkund), and 6304.10 MU (including Machhkund) electricity was generated with a gross revenue collection of INR 480.09 crore. The profit after tax for the year 2018-19 is INR 144.39 crore.
- OHPC is categorized as Gold rated PSU.

C. Odisha Power Generation Corporation (OPGC):

3.12.23 OPGC is a Gold category State PSU incorporated in 1984 and jointly managed by the Government of Odisha and AES, a private US Company. The paid-up share capital of OPGC is INR 1,822.49 Crore as on 31.03.2019, of which the share of the Government of Odisha is 51%. It works to establish, operate and maintain electric power generation station, tie lines, sub-stations and transmission lines & connections therewith. It develops and deals in fuels i.e., coal, lignite, coke, coke-bed methane etc.

- The company has set up two thermal power plants of 210 MW each in the IB Thermal Power Station, Banaharpali in Jharsuguda district at a project cost of INR 1,135 crore.
- Further OPGC has set up another two thermal power plants of 660 MW each adjacent to its old units at a cost of INR 11,150 crore.
- The State Government has decided to provide financial assistance through equity infusion to OPGC. For this purpose, Govt. of Odisha has invested INR 679.46 crore up to March 2019.
- During 2019-20, the Corporation generated 2643.54 MU power with Plant Load Factor (PLF) of 71.65 in Stage- I and 3852.25 MU power with Plant Load Factor (PLF) of 49.13 % in Stage II with total turnover of INR 1646.36 crore and net loss after tax of INR 144.16 crore .

D. Odisha Power Transmission Corporation Ltd. (OPTCL):

3.12.24 Odisha Power Transmission Corporation Limited (OPTCL) ensures development of an effective and economical system of Intra-State and Inter-State transmission lines for smooth flow of electricity from generating station to load centre.

3.12.25 The infrastructure of OPTCL network is as follows: -

155 nos. of Grid Sub-Stations including Switching Station with transmission capacity of 20376 MVA and 14250 Ckt.Kms.of transmission lines of 400 KV, 220 KV and 132 KV levels. The present peak demand of the State is around 4200 MW, which is handled by the existing network and equipment of the system. The ongoing projects of OPTCL include construction of new Grid substations, EHT Lines, augmentation of existing substation capacity, up-gradation/replacement of conductor of transmission lines, OPGW connectivity, and provision of Digital Tele Protection Coupler, renovation of earthing system etc.

Important Operation & Maintenance Activities during 2019-20

- 477.5 MVA Transmission capacity addition in 15 nos. of Grid S/s.
- Completed replacement of old conductors with new ones in 220 kV Meramundali-Bhanjanagar-I and Joda TTPS II, 132kV TTPS-Duburi-I, 132 kV
- Conversion of S/C (Single Circuit) to D/C(Double Circuit) of 132 kV Jayanagar -Sunabeda line, 132 kV Jayanagar -Tentulikhunti..
- Installation of Capacitor Banks 10 MVAR at Sonepur has been completed.
- Addition of transformer bays at Budhipadar, New Balangir, Sambalpur, Rayagada, Jayanagar and Chandpur.
- Substation Automation System (SAS): A protection upgradation and SAS is completed for 132/33 kV Grid Substation at Aska, Rayagada, Bhanjanagar and Sambalpur. The substation has been equipped with IEC 61850 complied IED and distributed architecture with Bay Control Units.
- Substation Automation System having IEC 61,850 complied protection relays adopting distributed architecture with retrofitting Bay Control Units has been completed for Mendhasala, Kesura and Bhawanipatna.
- Substation Automation System (SAS) of 16 number of Grid Substations are to be executed shortly on OPTCL funding.
- 7 numbers of Grid Substations are to be taken up on PSDF funding
- Energy conservation is followed through replacement by LED.

E. Odisha Thermal Power Corporation Ltd (OTPC):

3.12.26 The Odisha Thermal Power Corporation Limited (OTPC) is a joint venture company having equal shares of Odisha Mining Corporation Ltd (OMC) and the Odisha Hydro Power Corporation Ltd (OHPC).

- OTPCL is setting up a coal based super critical thermal power plant of 3,200 MW (3x800 +1x800MW) future capacity in Kamakhyanagar Tahasil of Dhenkanal district. The total land for the project including the railway corridor is finalized at 1,833.927 acres. The cost of the project is estimated at INR 18,218 crores (INR 7.59 crore per MW). By the end of October 2019 an expenditure of INR 263.83 crore has been incurred in the project.
- Power Purchase Agreement (PPA) for the sale of entire power of OTPC has been executed with GRIDCO.
- The coal requirement of the above Power Plant is 12.07 million tonnes per annum. Tentuloi coal block was allocated to OTPCL by the Government of India, but cancelled on July'2019 as it is deep cast mine not viable for the project and advised to apply afresh for a new coal block.

F. Odisha Renewable Energy Development Agency (OREDA):

3.12.27 Thermal and hydro-based energy continue to dominate the energy supply sources in Odisha. However, the State Government is keen to tap alternative energy sources. The Odisha Renewable Energy Development Agency is the Nodal agency for implementation of various renewable energy programmes from natural resources for the benefit of the society, environment and to ensure energy securing for the people. In order to promote renewable energy in the state renewable energy policy 2016 was launched. It works towards a long-term solution for meeting energy needs and reducing dependence on conventional energy sources and achieving the climate change objectives. Major initiatives of OREDA during the year 2019-20 are highlighted below:

- 4912 Households electrified under SAUBHAGYA
- Saura Jala nidhi is the new State sponsored scheme. This is the first scheme to enhance the livelihood of marginal farmers with holdings of 0.5 acre or less. Total 200 numbers achieved in 2019-20.
- 1914 number of solar pumps have been commissioned in the State for drinking water purposes.
- For irrigation purpose 176 number of Solar Pumps have been installed.
- 9049 number of Solar Street lights have been installed.
- 3257 number of Improved cooking stoves have been distributed
- 65 Bio-gas plants were commissioned.
- 1819 Solar lanterns were distributed to handicraft and handloom artisans.
- During 2019-20, 0.42 MW on- Grid-Roof Top and 0.68 MW off Grid-Roof Top project commissioned.

G. Odisha Coal & Power limited (OCPL):

3.12.28 OCPL is a joint venture company of Odisha Power Generation Corporation Ltd. (OPGC) and Odisha Hydro Power Corporation Ltd. (OHPC) having a share ratio of 51:49 Manoharpur Coal Blocks have been allotted to OCPL by Govt. Of India for exclusively to OPGC expansion power plant (4X660 MW). The estimated project cost is INR 2143 crore, the land acquisition is almost completed and coal production started from October' 2019.

Impact of Covid-19 on Energy Sector

3.12.29 Covid-19 pandemic has short circuited Odishas' power sector. The shutdown/lockdown has led to slide in demand for power consumption and lower power generation during the 1st half of 2020. The pandemic has also seriously affected utility companies like DISCOMs and bulk supplier GRIDCO.

3.12.30 The Demand of power is basically classified as domestic, commercial and Industrial, Agriculture & transportation has also become a significant load on power grid. The commercial/Industrial demand of power reduced significantly due to Covid-19 pandemic, as the business activities reduced drastically in this crisis time, not in the state or country but a global issue. The domestic load increases, due to changes of life style of staying/working from home. The urban domestic consumption declined by 21.09 MU during April-October 2020 in comparison to the some times of the previous year, but as rural domestic consumption is concerned the same is increased by 166.45 MU in the same period. Similar is the case of urban commercial consumption, which declined by 32.33 MU whereas 1.36 MU increase in case of rural commercial consumption. This divesting situation creates new challenges in the financial/technical activities of power sector. This may adversely affect the network equipment such as, sub-station, distribution transformers and protection equipment. The DISCOMS also suffer huge revenue losses.

3.12.31 During covid-19 outbreak, the percentage demand of electricity from these sectors has declined, the peak period demand also declined substantially due to lockdown of factories/Industries and also shopping markets. From March, 2020 to June, the demand for power reduced by 14% as compared to previous year. Because of reduction in demand, the revenue gap of GRIDCO has widened, as it has to pay the fixed charges to power generating plants as per power purchase agreement. OPTCL & GRIDCO were asked to reduce their operation cost through adoption of innovative techno based approaches. The total demand of High Tension (HT) category units declined by 162.03 MU during the period from April to October 2020 as compared to the same period of 2019-20 due to the lockdown of industries and institutions.

3.12.32 The impacts due to pandemic has posed various challenges and consequentially opened the doors for new opportunities and improvements in the power sector. DISCOMS are also investing now on improved system flexibilities to tackle the technical issues due to load reduction and shifting of daily peak demand. Odisha Electricity Regulatory Commission (OERC) has not increased the tariff for this year in view of the present pandemic situation.

3.13 Construction sector

Construction sector is an essential ingredient to growing economy. Its highest share to GSDP indicates a buoyant economy of the State. The sector is not only bears significance as growth potential, but also envisages huge employment potential for the State. It provides the avenue for large scale absorption of surplus labour of decelerating agriculture sector in Odisha.

3.13.1 The construction sector forms an important sector for Odisha, contributing 6.7% (2020-21 AE) of the State's GVA and the second largest employer after agriculture. The construction sector contributed 6.7% of the State's total GVA and 18.4% of the industry sector GVA in 2020-21(AE). However, the share of the sector has been witnessing a declining trend, like the trend observed at all-India level. From 21.5% of industry GVA (9.4% in total GVA) in the year 2011-12, the share is estimated to decline to 18.4% in 2020-21 (AE) (6.7% in total GVA). Growth in the sector has been volatile with the annual average growth of around 2.1% between the years 2012-13 and 2019-20. However, the year 2017-18 witnessed the highest growth in the last eight years, growing at 8.26%.

3.13.2 Given the poor working conditions, owing to the intrinsic nature of the sector, the State Government has undertaken various initiatives on the social and economic security of the construction workers in the State. Odisha Building and Other Construction Workers (RE&CS) Rules, 2002 and Odisha Building and Other Construction (BOC) Workers Welfare Board, constituted in 2004, continue to provide social and economic benefits to BOC workers. The Board extends benefits to BOC workers in the form of educational assistance, assistance for purchase of working tools, bi-cycle and safety equipment, marriage assistance, maternity benefit, death and funeral assistance, accident, medical expense for treatment of major ailments, assistance for Recognition of Prior Learning (RPL) and skill development.

3.13.3 New schemes like Nirman Shramik Pucca Ghar Yojana (Rural) and Nirman Shramik Pension Yojana are being implemented by the Board since 2016. Nirman Shramik Pucca Gharojana (Rural) aims at extending housing assistance to the beneficiaries completing one year of registration. Nirman Shramik Pension Yojana is implemented to extend old age, widow and disability pension to the eligible beneficiaries.

3.13.4 A new scheme, 'Construction of Rental Housing Complex (RHC) 'Ashraya' in urban areas' has been undertaken by the Board for providing temporary accommodation with basic amenities at affordable rent to the migrant construction workers during 2017. Fund of INR 40 crores has already been placed for implementation of the scheme. In the first phase, 10 urban areas have been selected for grounding the RHC, which include five Municipal Corporations and five Municipalities. The construction activity is under process.

Summary of Major Government Initiatives in the Industry Sector

Initiative	Objective	Progress in brief
Government initiatives for Development of MSME	<ol style="list-style-type: none"> 1. Focus on development of industrial corridor along Biju Express Highway 2. Develop a Central Incubator Hub and Time Bund Grievance Redressal System for Start-up of Eco System. 3. Odisha should evolve as one of the top three destinations for establishment of MSMEs in India. 4. Target 5 to 10 products of the State which have recognition to support for the development of this product and create systems to scale up operations, ensure quality standard and effective marketing. 5. Engage professional consultancy agencies to support the department in conceptualisation and execution in a professional manner. 	

Special Economic Zone (SEZ) Policy - 2015	To attract investments, stimulate for efficient use and value of local resources, increase of goods and services, develop world-class infrastructure and increase employment opportunities.	It has covered thrust areas like, IT, biotechnology, manufacturing, automobiles, textile & handlooms, pharmaceuticals, tourism and primary metal based downstream and ancillary industries.
Ease of doing business	To ensure a hassle-free business Environment to the investors for investing in the State.	GO_SWIFT has been introduced in the State as a single window system. All existing technological applications of the Industry Department including GO-PLUS, GO-SMILE, GO-CARE, Automated post allotment application and State project monitoring group portal have been integrated with GO-SWIFT and access to all the services is now available through a single sign-on user credential.
Single Window Concept and Public Private Partnership (PPP)	To mobilise the private sector efficiency for development of economic and quality infrastructure in the State.	Establishment of an info park in Bhubaneswar, Development of Haridaspur- Pardeep Rail link jointly by Rail Bikas Nigam Ltd. and user Industries, Promotion of SEZs at different locations, Establishment of Bio-Tech Park and development of second Info-City for establishment of IT industry at BBSR.
Make-In Odisha Conclave	To showcase the policy and regulatory environment, investment opportunities across the focus sector and manufacturing process of the State.	Receipt of overwhelming response from the investor community and investment intents worth over INR 4.23 Lakh crore were announced. The project is expected to provide employment to over 6.03 Lakh people in the State.
Odisha Start-Up Policy 2016	To offer incentives to start-ups and Other stakeholders over and above the start-up policy of Govt. of India and other existing policies in the State.	Comprehensive end-to-end Start-Up Odisha Portal (www.stratupodisha.gov.in) was launched to serve as on stop destination for start-ups and incubators). 356 start-ups have been recognised under this policy.
Implementation of 5T	One common portal "Mo Bidyut" was launched on 19th October, 2020.	Government of Odisha launched this portal for providing new connection within 48 hours covering domestic, GPS, SPP, Pumping and Agricultural category of consumers having load upto 5 Kilowatt. 340 numbers of new service connections released and 14 number of applications in process.

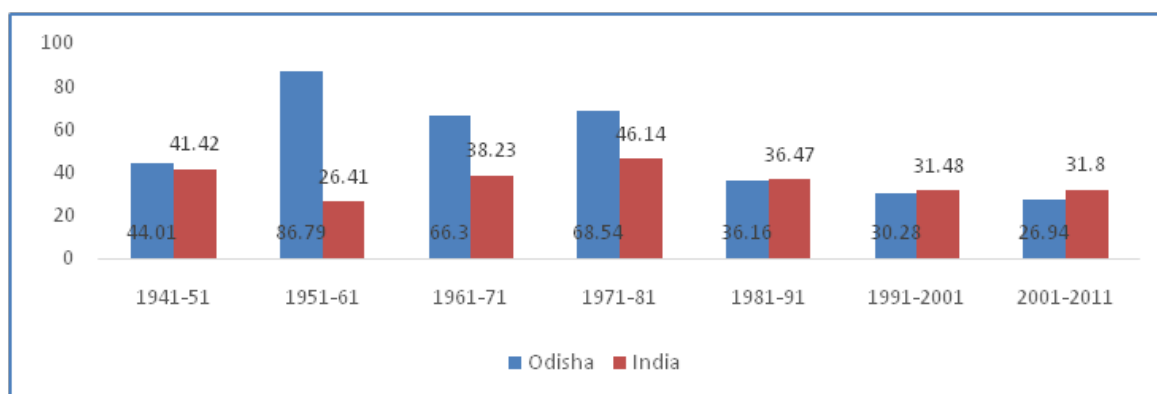
Urban Development Tackling Urban Poor and Infrastructure

Urbanization in Odisha picks up with faster growth. The concerted efforts and initiatives of Government of Odisha on Urban governance and urban infrastructure play the element role in stabilizing and improving the trend and process of urbanization in the State. UNNATI shows the way to urban transformation. State Government's Slum Development policy and Slum Dweller's Act play the prime role in alleviating urban poverty in Odisha.

4.1 Profile of Urban Odisha

4.1.1 Odisha is one of the major states of India having a population of over 4.20 crore and an area of about 155,707 sq.km. There are 223 number of towns in the State as per census categories, 2011. While decadal growth rate of the population of this State was around 14% and it was 26.94% for the urban areas. The trend of decadal growth rate of urban population of Odisha and India during 1951-2001 is given as below

Fig: 4.1: Trend of decadal growth rate (in %) of Urban Population of Odisha and India during 1951-2011



Source : Census of India, 2011

4.1.2 This high urban growth rate is mainly due to migration of poor people from rural to urban areas in search of better livelihood opportunities and a higher quality of living. Nearly 70 lakh individuals are living in towns & cities in Odisha as per Government of India Survey Report.

4.1.3 Around 82.60 million population migrated to urban area in the Country, growing from 53 million in 2001, achieving a growth rate of 55%. The State had over 2 million migration to its urban areas. Rural -Urban migration increased by 39%, in comparison with 2001. Females continued to be the dominant migrants, though the proportion of female migrants to total migrants has reduced from 57% in 2001 to 53% in 2011 in Odisha.

4.1.4 At present, Odisha has 114 ULBs consisting of 5 Municipal Corporations, 48 Municipalities and 61 NACs.

4.2 Urbanization in Odisha

4.2.1 Consistent rise in urbanization with speedy economic development has been observed in Odisha. Urban population as a percentage of total State population rise from 14.99% in 2001 to 16.69% in 2011. Similarly, number of towns rise from 132 in 2001 to 223 in 2011. Urban Population and its share in total Population of Odisha from 1951 to 2011 is given as under

Table 4.1: Urban Population and its share in total Population of Odisha from 1951 to 2011

Census Year	Total Population	Urban Population	Share in total Population in %
1951	1,46,45,946	5,94,070	4.06
1961	1,75,48,846	11,09,650	6.32
1971	2,19,44,615	18,45,395	8.41
1981	2,63,70,271	31,10,287	11.79
1991	3,16,59,736	42,34,983	13.38
2001	3,68,04,660	55,17,238	14.99
2011	4,19,74,218	70,03,656	16.69

Source: Census of India

4.2.2 The number of towns in Odisha as per census categories (by population) in 2011 is presented in Table 4.2. The figure depicts that class-V town form the largest share of urban areas.

Table 4.2: Number of Towns/Cities as per Census Categories, 2011.

Cities / Towns Category	No. of Towns
Class I Cities(Population 1,00,000 and more)	10
Class II towns (Population 50,000 – 99999)	14
Class III towns (Population 20,000 – 49,999)	43
Class – IV towns (Population 10,000 – 19,999)	49
Class – V towns (Population 5,000 – 9,999)	78
Class - VI towns (Population 4,999 and below)	29
Total	223

Source- Census of India, 2011.

4.2.3 Influx of population to urban areas also contribute to the growth of informal settlements. As per 2011 Census, 23.09% of the urban population of the State were living in slums without any security of tenure.

4.3 Urban Poverty

4.3.1: It is clearly visible that intervention of NITI Aayog and mandate of SDG, for reduction of poverty in urban areas, play a significant role in measuring poverty, identifying/ tracking the poor and allocating resources for poverty alleviation programmes.

4.3.2: One of the realistic challenges faced during the process of urbanization is to achieve inclusive growth in urban areas. The imbalance between infrastructure and employment opportunity growth leads to urban poverty immediately. The ever growing slum population lives in overcrowded, unhygienic polluted areas, which lack basic amenities like proper housing facilities, clean drinking water and sanitation facilities etc.

4.3.3 There is remarkable urban poverty reduction between 2004-05 and 2011-12 as presented in the following table.

Table 4.3: Poverty reduction in Odisha and India between 2004-05 and 2011-12

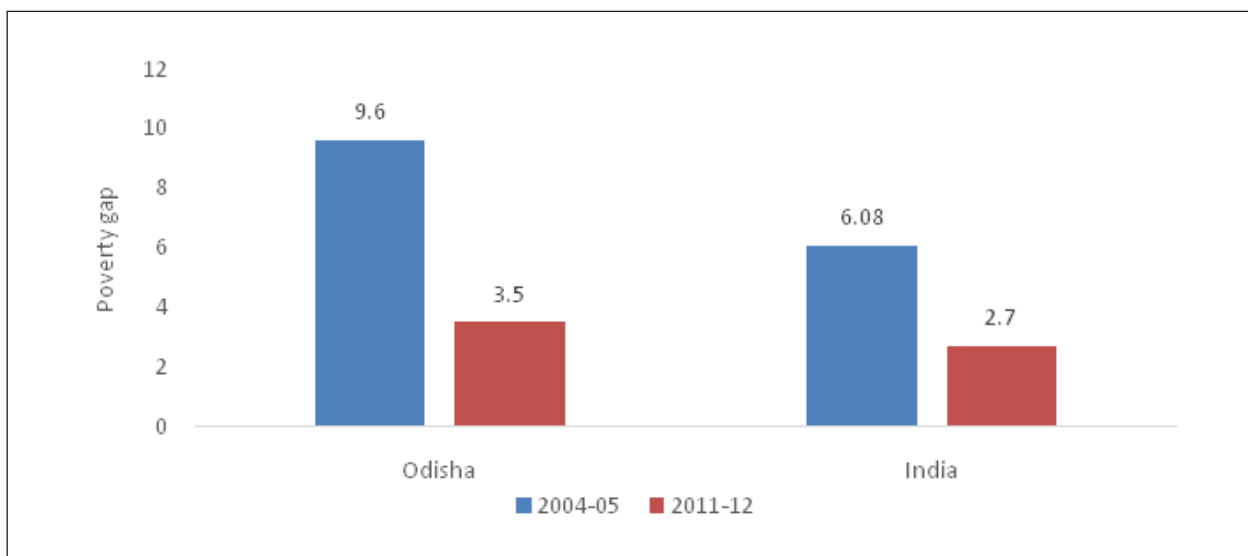
Year	Odisha		India		Odisha	India
	Rural	Urban	Rural	Urban	Total	Total
2004-05	60.80	37.60	41.80	25.70	57.20	37.20
2011-12	35.69	17.29	25.70	13.70	32.59	21.92
Poverty Reduction	25.11	20.31	16.10	12.00	24.61	15.28

Source: NITI Ayog & DES Odisha

The rapid reduction is far higher than the National level, though poverty level is higher.

4.3.4 Poverty Gap Ratio (PGR) is the standard indicator to measure the magnitude of deprivation and reflects the degree to which mean consumption of the poor falls short of the established poverty line. The poverty lines for 2011-12 (Urban MRP method) was INR 861/- for urban Odisha as against INR 1000/- for urban India. Figure 4.2 reflects that state has made significant improvement in the PGR during the period 2004-05 to 2011-12 as against reduction witnessed at National level.

Fig 4.2 Significant improvement in Urban Poverty Gap Ratio.



4.3.5: Socio Economic & Caste Census -2011

Poverty of Odisha has been re-defined, re-measured and re-identified on the adopted Principles of Socio-Economic & Caste Census. (SECC - 2011). The finding of SECC-2011 evaluated the predefined indicators of automatic exclusion, inclusion & deprivation criteria. The poverty profile of Odisha has been prepared by the combined indicators of 7 deprivation and 5 compulsory inclusion criteria. Odisha had 86.78 lakh rural households (87.28%) and 12.64 lakh urban households (12.72%) out of total 99.42 lakh households in the State as per SECC - 2011.

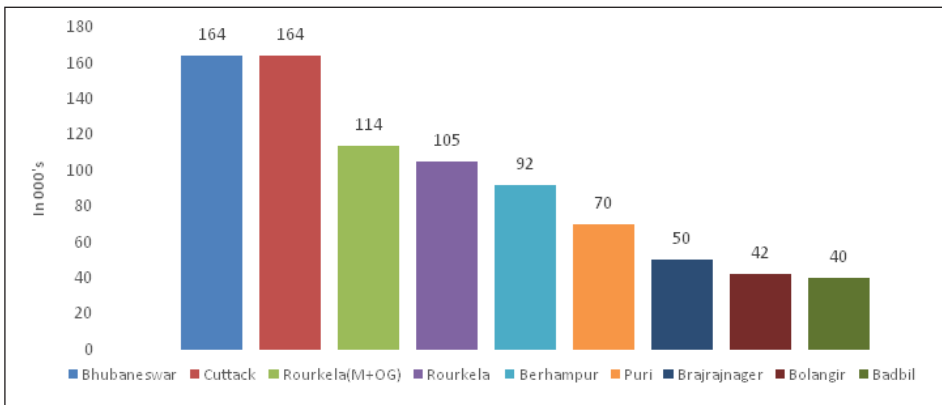
4.3.6 Urban poverty reduction in Odisha.

Implementing the '5T' initiatives by the Hon'ble Chief Minister with close alignment of UN SDGs such as No Poverty, Zero Hunger, Good Health & Well-being, clean Water and Sanitation, Decent work and Economics Growth, Industry, Innovation and Infrastructure, Sustainable cities & Communities, State Government have initiated a number of programmes to transform the lives of urban residents.

4.4 Slum Development

4.4.1 Poverty and homelessness forces of the poor families to settle in slum habitations in urban areas. These habitations are usually densely populated and devoid of basic sanitation and hygiene facilities, raising concerns over health, education and standard of living. As per 2011 census, 15.60 lakhs population of 3.50 lakhs household live in slum areas. Total slum population of the state constitute 3.72% of total population and 22% of the total urban population of Odisha. Among major cities/towns, Bhubaneswar and Cuttack had the highest slum population of 1.64 lakhs each followed by Rourkela (M+ OG) with 1.14 lakhs slum population in 2011.

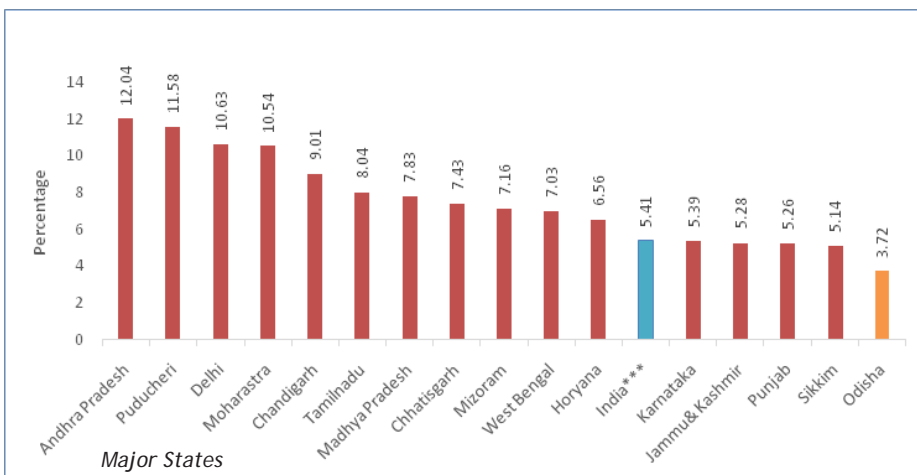
Figure-4.3: Slum Population in major cities in Odisha, 2011.



Source - Census of India, 2011.

4.4.2 Odisha had a comparatively low population of slum proportion at 3.72% of the total population as shown in Figure 4.4, Highest is Andhra Pradesh (undivided) 12% followed by Puducherry (11%) and Delhi (11%). Major state wise slum population is presented in the following Fig.(4.4)

Figure- 4.4: Slum Population (%) in Major State in India, 2011



4.5 Urban Housing

4.5.1 The Odisha Urban Housing Mission (OUHM) was launched by the Hon'ble Chief Minister of Odisha on 11th October, 2015 recognizing the need for an effective and efficient institutional mechanism to achieve the objectives of "Housing for all" in urban areas.

4.5.2 Based on the estimates of Housing for all plan of action (HFAPOA) prepared by OUHM, there are housing shortage for 5, 02,175 households out of which only 89,418 households hold land titles and the rest were landless. Pradhan Mantri Awas Yojana (PMAY)-Urban is major programme implemented in urban areas to meet the housing shortage.

4.5.3 The mission seeks to fulfill the housing requirements of urban poor, including slum dwellers by the following ways.

- In Situ Slum Redevelopment using land as a resource.
- Affordable housing for weaker sections through credit link subsidy scheme.
- Affordable housing in partnership with Public and Private Sectors.
- Subsidy for Beneficiary - Led individual (BLC) house construction for EWS.
- There is provision for constructing houses for landless EWS households in PPP model by monetizing the land.

4.5.4 To assist the implementation of Odisha Urban Housing Mission (OUHM) at the District level, District Urban Housing Societies (DUHS) have been established in 30 districts along with one at Bhubaneswar Municipal Corporation.

4.5.5 A total of 1,24,887 houses in 114 ULBs have been sanctioned under BLC of which 69,698 houses have been grounded.

4.5.6 About 14,262 houses have been sanctioned under affordable Housing in partnership and in situ Slum Rehabilitation out of which 7762 houses have been grounded.

4.5.7 Odisha Urban Housing Mission (OUHM) has been working with JAGA Mission to ensure that land rights and housing is made available to the slum dwellers and to transform the slums into liveable habitats. 10,092 households, who received land right certificates, have already been sanctioned houses under PMAY - (Urban).

4.6 Urban Power

4.6.1 Another important intervention by the Government is to provide sustainable, uniform Energy Efficient Street Lighting system in urban areas. The Government has specifically initiated a drive to retrofit street light with EESL 109 ULBs. In the second phase, 2,01,157 street lights have been installed against the target of 2,38,000. In the third phase, Government has identified 61,079 light points at uncovered streets/roads in all ULBs and has refitted 3,148 with LED lighting under the Green field street lighting project.

4.7 Smart City

4.7.1 Bhubaneswar Smart City Limited (BSCL), which was incorporated in 2016, aims to promote Bhubaneswar as a liveable, enter into contract, partnership and service delivery arrangements with Indian & Foreign Firms. Main thrust areas are to undertake comprehensive development by promoting mixed land use, to review the activities of the Smart City Mission including budget, implementation of projects under Smart City Proposal (SCP) and coordination with other mission's schemes and activities of various Departments. Area based development and Pan-City solution are two major components of Smart City proposal. Area based development focuses on comprehensive development of a selected area within the city where as Pan-City solution focuses on spreading of technological intervention to entire city catering to smart solution of citizens.

In 2019-20, two infrastructure projects were completed out of 8 infrastructure projects taken up. Six infrastructure projects such as BMC - KOMC Building, Smart Janapath, MLCP Saheed Nagar, MLCP, Rajamahal, IPSC, Bapujinagar and Sensury Park are in the implementation stage and are expected to be completed by 2020-21.

4.7.2 An innovative project i.e People centric programme for making Bhubaneswar socially smart city has also been taken up in addition to main projects. It aims to strengthen the social components of the Smart city. During 2019-20, 92 slums and 35 educational institutions have been covered.

4.7.3 Under pan-city solution, the capex of the MSI projects has been targeted for completion by September, 2020.

4.7.4 Achievements: - By implementation of Smart Janapath Project, systematic street parking for four wheelers and two wheelers has been ensured. Travel time has been reduced substantially and systematic discharge of rain water has reduced water logging during heavy rain thereby urban flood has been avoided. Implementation of ATSC and MSI project has resulted in better traffic management, detection of Traffic violation, online services of Building plan, Grievance redresses, trade license, property tax and holding tax etc. tracking of Mo Buses, Ambulances, PCR & BMC vehicles in Bhubaneswar. The common payment card system (odyssey city card) has also boosted the cashless transaction for multipurpose services like payment of property tax, holding tax, water bill, vehicle parking fees etc. Implementation of socially smart project has empowered the urban youth at slum level and at educational institutions to take leadership to address to issues / challenges of the community.

4.8 Urban Water Supply

4.8.1 Government of Odisha have emphasized on improving the level of urban drinking water service in order to ensure more equitable, efficient and sustainable urban water supply system. The State has given a mandate for universal coverage with adequate and quality drinking water supply and equitable access to the services by all categories of people.

4.8.2 In the first phase, Water Corporation of Odisha (WATCO) a not-for-profit company has been established with committed mandate to provide water and waste water related services on sustainable basis in Bhubaneswar, Khurda and Jatani Municipal areas. It will be extended to other Urban Local Bodies of Odisha in course of time.

4.8.3 A specific urban water policy, consistent with the State Water Policy was developed in order to address the technical, institutional, social and environmental challenges facing the urban water supply service. The policy includes provision of universal access to potable piped water supply on a 24X7 basis at an affordable price, equitable, sustainable and eco-friendly distribution in urban areas.

4.8.4 Some of the notable mile-stones in urban water supply infrastructure improvement includes

- Increase in investments in the urban water supply sector - from annual INR190 crores to INR3597 crores.
- Daily water supply effected in all 114 ULBs supplying about 1000 MLD of drinking water.
- Water supply distribution networks have increased from 5383 Kms to 11325 Kms.
- Forty nine ULBs which were water deficient in supply, became water sufficient by supplying the desired minimum 70-135 lpcd.
- Household service connections have increased from 3 lakhs to 6 lakhs (100% increase).
- Nine water testing laboratories have been established to monitor the quality of water supply.

4.8.5 Drink From Tap

- Mission“Drink from Tap” is a Comprehensive Mission that will critically examine risk management for continuous water supply from catchment to consumer and also enables consumers to directly drink from tap.
- The Mission will systematically co-ordinate among water supply authorities, consumers as well as other stakeholders. The mission will aim to achieve 24X 7 water supply (including 100% metering), quality surveillance and assurance to ensure Drink from Tap quality, community participation in water supply management.
- The Drink from tap mission along with Metering and 24 X 7 water supply has been completed in five pilot zones at Bhubaneswar and Puri and one sub-pilot zone at Bhubaneswar. People benefited under the mission, have the opportunity to use water directly from the tap without use of any in house storage and daily pumping and also without using additional filtration such as R.O., filters etc. The mission is expected to be implemented across the State for which a Memorandum of Understanding has been signed with UNICEF for technical assistance.
- Water Corporation of India (WATCO) has started unique reform initiative i.e. JalaSathi - in Bhubaneswar and Puri. It aims to connect more than 12 lakh households with the help of 5000 JalaSathi from women self-help group (WSHG) across the state in a phased manner. Contract agreements have been signed between WATCO and the Area Level Federation of Women Self Help Group (WSHG), furthering the State Government’s aim to strengthen community partnership.
- “Water Supply to Greater Berhampur with Janivili as source” was taken up by the Government under State Plan in convergence with funding from AMRUT with an investment of INR431.30 crore. Eight underground reservoirs, having total capacity of 2.0 ML and one elevated service reservoirs, having a capacity of 1.50 ML have been completed. The project aims to benefit 6.74 lakhs urban and 1.76 lakhs rural population of 52 villages enroute the raw water pipe lines.

- Improvement of water supply to Brajarajnagar and Belpaharwas taken up by Government under state plan in convergence with funding from District Mineral Foundation (DMF) with an investment of INR234.76 crore. One underground reservoir of capacity of 1.5ML, 144 KMs of distribution pipe line and 35.50 Kms rising main have been completed.
- Development of water supply infrastructure in Baripada, Sambalpur, Rourkela & Jharsuguda were taken up by Government under state plan in convergence with funding from UIDSSMT (Urban Infrastructure Development Scheme for Small Medium Towns) with an invest of INR318.03 crore. 14 underground reservoirs and 6 elevated service reservoirs having total capacity of 12-41 ML, 208.30 Kms of distribution of pipe lines and 40.10 kms of rising main have been completed.

4.8.6 **BASUDHA** - Government of Odisha's Flagship Programme with a mandate to provide piped water to all in Urban Odisha, Projects have been taken up under state's flagship programme- "BASUDHA" (Buxi Jgabandhu Assured Water Supply to Habitation) in convergence with various other scheme like UIDSSMT, AMRUT, DMF, OMBADC to ensure water through universal coverage of piped water supply and provision of 100% house hold projects connections to all areas in all 114 urban local bodies. During 2019-20, 615 urban water supply projects were under taken with budget support of INR 346.00 Crores, out of these 301 were completed.

Details of achievement of water supply and sewerage schemes under State Plan during 2019-20 indicated in Table 4.4

Table 4.4: Achievement of water supply and sewerage schemes under State Plan during 2019-20

SI No	Scheme	No of Project		Budget Provision in Lakhs	Expenditure incurred in Lakhs
		Sanctioned	Completed		
1	Urban Water supply	615	301	23258.60	14689.00
2	Hand pump Tube wells	45	35	28.30	28.30
3	Water supply to Anganwadi and School	22	22	19.99	19.99
4	Painting and Branding of ESRs	43	43	132.11	132.11
5	Household service connection	349	198	5327.74	5327.74
6	DG on Wheel	16	1	1233.26	1233.26
7	Information, Education, Communication	28	17	100.00	89.67
8	Service level bench marking	37	3	3474.98	222.87
9	Automation of Water treatment plant & system	13	3	300	17.02
10	Computerization and e-Governance	60	13	200.00	100.56
11	Development of water testing laboratory	28	25	300.00	296.90
12	Efficiency measures for urban water supply system.	1	0	0.01	0.00
13	Land Acquisition charges	1	0	0.01	0.00
14	Decretal dues	2	1	15.00	12.93
15	Urban Sewerage	10	0	10.00	0.00
16	Capacity Development and preparation of DPR	50	5	200.00	83.40
	Total	1310	667	34600.00	22253.73

Source: H&UD Department

4.9 Urban Road Transport

4.9.1. The twin city of Bhubaneswar and Cuttack have generated huge demand for more developed roads and modern public transport system. Government have introduced City Bus service in major cities / towns and now prioritized the need to provide last mile connectivity with introduction and promotion of e-vehicles.

4.9.2. “Mo Bus” has been implemented to strengthen the public transport in the capital region of the state under Bhubaneswar City Bus Modernization Programme (BCBMP) as a part of Smart City Mission Programme. At present, a fleet of 200 buses, equipped with free Wi-Fi, clean and technologically advanced equipment, catering to around one lakh passengers daily spread across to 250 km network in 21 routes in the twin city is operated by CRUT. Net work is expected to be increased / expanded with addition of 189 more buses.

4.9.3. Introduction of e-vehicles - Fifty electronic buses will soon play in the capital region for which tendering process has been completed and agency has been selected.

4.9.4. Bicycle sharing has been introduced in Bhubaneswar as a part of providing last mile opportunity to the citizens and also providing transportation facility during off hours.

4.9.5. Inter State Bus Terminal (ISBT) at Baramunda, Bhubaneswar. It has been decided by Government to develop Baramunda Bus Terminal (ISBT) with international amenities for which the responsibility has been given to Bhubaneswar Development Authority (BDA). The project is scheduled to be completed within 24 months and will be financed in 40:40:20 ratio from State Government, loan to be availed by B.D.A. and C.I.D.F. funding.

4.9.6. Financial Assistance is being provided to the ULBs to develop at least one bus terminal in each ULB with minimum bare needs for passengers.

4.10 Urban Sanitation

4.10.1 State Government have initiated multipronged approach to achieve Swachha Bharat, accelerate the universal sanitation consciousness to make Odisha open defecation free and improve levels of cleanness through solid and liquid waste managements. Main thrust areas - Elimination of open defecation by providing Individual House Hold Latrine (IHHL), Community Toilets (C.T.), Hybrid Toilets and Public Toilets. Modern and Scientific Municipal Solid Waste (MSW) Management, effect behavioral change in adopting healthy sanitation practices, generate awareness about sanitation and its linkage with public health, capacity building of all stake holders of ULB, create an enabling environment for private sector participation in capex (Capital expenditure) and Opex (operation and maintenance).

4.10.2 All the 114 ULBs were declared as “Open Defecation Free (ODF), 111 ULBs certified as ODF, Baddil Municipality Certified as ODF + and Berhampur Municipal Corporation Certified as ODF ++. Location of community Toilets (CT) and Public Toilet (PTs) have been uploaded on Google Map to facilitate easy access and identification.

4.10.3 The Hon’ble Chief Minister has laid foundation stones for 242 Micro Composting Centers (MCCs) through Video Conferencing during 2019. These MCCs along with pit composting and Barrel composting have enabled processing of wet waste, generating organic manure, branded as “Mo Khata” and helping

in gradual replacement of chemical fertilizers. All ULBs have also started establishing Material Recovery Facilities (MRFs) for processing recyclable dry waste. Bidding process for procuring equipment for MCCs and MRFs has been done through the "Government e-market place (GEM) portal, which is one of the brightest examples of Transparency, one of the 'Ts' of 5 'T' principle. In addition of GOI release of INR 100.45 crore, Government of Odisha released a sum of INR 467.00 crore in favour of different ULBs for solid waste management. For close and effective monitoring of urban sanitation activities, a web-application namely, "Swachha Sahar Odisha" has been developed. A Bimonthly News letter depicting all the prime events and developments in Urban sanitation has been published. Battery operated vehicles (BoV) has been used for collection of segregated waste from the door steps. Restricted use of Plastics has been enforced in each ULB.

4.10.4 Information Education & Communication (IEC) & Behavioral Change Communication. Training of Trainers (TOT) has been conducted, who in turn imparted training to 28,606 sanitation workers and other stake holders to strengthen quality sanitation activities. Swachha Sathis and supervisors induced behavioral changes among households by door to door campaign in all the ULBs. Wall painting, sensitization meeting, leaflet distribution and installation of large scale hoardings on sanitation & SWM have been made in all the wards and places of high footfalls. To facilitate scoring under "Citizen Feedback", "Swachhata App" in odia language has been developed and put to use.

4.10.5 Special Recognition -Urban category for the Indian Sanitation Coalition (ISC) FICCI Award, 2019, was received by the State Government. For outstanding achievement in Swachha Survekshan 2019, four ULBs (Paradeep, Jajpur, Karanjia and Tarabha) of Odisha were felicitated by Government of India as fastest mover cities.

4.11 JAGA Mission

4.11.1 With coverage of approximately 1.8 million population covering all the 114 ULBs, this is one of the largest initiative taken by Government to reduce vulnerability of the urban poor by increasing tenure security. It is realized that slum dwellers are the lifeline of the city and the state cannot be developed without their upliftment. The main objective is to transform the existing slums into liveable habitats. The Hon'ble Chief Minister launched Odisha Livable Habitats Mission to promote sustainable development of habitat with a view to ensuring equitable supply of land, shelter and services at affordable prices to all sections of urban poor. Today, roughly one-in-four people living in Odisha's urban areas live in slums, where residents have no land rights and no security of tenure. Without this, they are excluded from basic services, unable to enroll children in school, open bank account or access a range of Government benefits and schemes.

4.11.2 Four pronged strategies have been adopted by the Government to achieve the following objective-

- Grant of Land rights to all households living in slums in all urban areas.
- Transforming the living conditions in slums with basic civic services, amenities and infrastructures.
- Enabling households who have obtained land rights to improve their housing.
- Mainstreaming through participatory planning and Governance through which slum dwellers can participate in making plans for their own settlements.

4.11.3 Grant of Land Rights Certificates (LRC) - Door to Door Urban Slum Household Area (USHA) survey was conducted in Angul, Gopalpur, Anandapur, Badbil, Champua, Joda, Keonjhar, Bolangir ULBs

covering 24,500 households with stickering and layout mapping. Since inception, 58,440 households have been granted LRCs.

4.11.4 Land Entitlement Certificates (LEC)- Government has decided to provide Land Entitlement Certificate (LEC) to all eligible cases as the issue of Land Right Certificate is a time consuming process due to change of land classification, revenue case proceedings, Forest Land Conversion etc. This is an interim measure to give statutory recognition and can be used for availing other benefits.

4.11.5 Slum profiling exercise - This exercise is designed to engage and support slum residents and readers to learn about their own slum and participate in the service and infrastructure gap analysis process. The Jaga Mission Team organized such profiling exercise in 1194 slums of the five Municipal Corporations during this year. These were organized through Focus Group Discussion (FGDs) and Key Informant Interviews (KII). The residents were asked about the local priorities such as water, toilet, housing, road, street lighting, drain etc, the exercise has helped the ULBs to develop a plan for slum up-gradation and service delivery.

4.11.6 Vision / Neighbourhood Mapping- This is the dream of local residents on how their locality should look like in the future and translate such dreams onto a map. The Jaga fellows shared the drone map with SDA members, overarching a transparent tracing sheet. Slum dwellers mapped on that proposed street grids, drain network, electrical poles and water supply network and infrastructure plan. This exercise was completed in 117 slums in Khurdha, Puri & Dhenkanal districts.

4.11.7 Open space and Infrastructure Development - For improving quality of life of slum dwellers, Jaga Mission has focused on development of open space within the slums. Open space development was done in six slums of Bhubaneswar, Dhenkanal & Konark. Two community toilets with 25 seats, one micro composting unit, drain of 629 running mt. and pedestrian spine laying pavers block 1950 sq.mt. were also completed in Konark.

4.11.8 Odisha won the “World Habitat Award”, global recognition of its ambitious unique initiative Jaga Mission. This award is given by World Habitat, UK- based organization, in Partnership with United Nation (UN) habitat, every year, in recognition of innovative, outstanding, revolutionary ideas, projects and programs from across the world.

4.11.9 Government of Odisha and Tata Trusts were awarded “India Geospatial Excellence Award” for technological innovation in Odisha Land Rights & Jaga Mission programme by Geo Smart India.

4.12 Zero Hunger- AAHAAR

4.12.1 Objective of the AAHAAR programme is to supply subsidised meal to needy people in urban areas at an affordable cost of INR 5/- in a dignified environment. The programme helps to alleviate hunger in a significant manner as it is duly appreciated by urban poor. Nearly 1 lakh hot cooked meals are served in 158 Aahaar Kendras in 114 ULBs. Meal services are extended at night in 51 Aahaar Kendras. 100% of Aahaar Kendras are ISO certified, which reflects the quality of services. Each meal cost INR 23/- for which beneficiary contributes INR 5/- and State Government INR 18/-. Funds required for the programme are mobilized through CSR activities and donations from individuals, institutions and CSR initiatives. Six Women Self Help Group (WSHG) are directly associated with the management of 11 Aahaar Kendras in Bolangir, Kandhamal and Malkangiri Districts.

4.13 Dindayal Antodaya Yojana- National Urban Livelihood Mission (DAY-NULM)

4.13.1 The DAY-NULM objective is to reduce poverty and vulnerability of the urban poor household by enabling them to access gainful self-employment and skilled wage employment opportunities, resulting in an appreciable improvement in their livelihoods on a sustainable basis. The Mission addressed the livelihood concerns of the urban street vendors by facilitating access to suitable spaces, institutional credit, social security and skills for accessing emerging market opportunities. It also aims at providing shelter equipped with essential services to the urban homeless in a phased manner. The programme has major six components. Social mobilization & Institutional Development, Employment through skill Training & placement, Self-employment Programme, Capacity Building & Training, Shelter for Urban homeless, support to Urban Street Vendors.

4.13.2 Social Mobilization & Institutional Development (SM&ID)- Special emphasis is given on the mobilization of vulnerable sections in the urban poor households such as SCs, STs, Minorities, female headed households. Persons with disabilities, destitute, migrant labourers etc. to form their own institutions for effective implementation of sustained poverty reduction programme.

4.13.3 Employment through Skill Training & Placement (EST&P) - It develops targeted strategic to upgrade the skill level of the urban poor and overcome occupational vulnerability and achieve gainful employments.

4.13.4 Under SEP, employed and unemployed urban poor are encouraged to set up small enterprises relating to manufacturing, servicing & petty business for which there is considerable local demand.

4.13.5 Capacity Building & Training (CB&T) - It provides high quality technical assistance for urban livelihood promotion and urban poverty alleviation.

4.13.6 Shelter for Urban Homeless (SUH) - The main objective of the component is to provide shelter and other essential services to the poorest of the poor segment of urban societies.

4.13.7 Support to Urban Street Vendors - This component aims at upgrading the skill of street vendors, support micro enterprises development, credit enablement and supporting social security options. It also provides constitution and functioning of Town Vending Committee, registration of vendors, timing restriction, provision of basic civil facilities, monitoring mechanism etc.

4.13.8 Achievement under DAY - NULM

Under SM & ID component, 1269 SAGs were formed during 2019-20. A total of 31,183 number of SHG groups have been formed. Out of them, 30425 SHGs have opened their bank accounts for financial inclusion, including 983 SHGs in 2019-20. A total of 16,855 SHGs have been trained & 17,168 SHGs have been given with Revolving Funds. An amount of INR 2408.95 lakh has been spent so far under SM&ID component, including INR 357.89 lakh in 2019-20. 2700 SHG members from 9 cities were trained on digital financial literacy. At present, 60 women are engaged as Jalasathis across & works of Bhubaneswar Municipal Corporation & it is expected that in coming days, around 5000 women will be engaged as Jalasathis across the State. Under self-employment component 11,433 individual beneficiaries, 918 SEP Groups & 6362 women SHG groups have been provided with bank loans. Till date 32 Shelters for Urban Homeless (SUH) centers have been operationalized. Altogether, the survey of 114 towns has been completed and 63128 nos. of street vendors have been identified out of which 8889 street vendors have been ID cards. During 2019-20, 2648 street vendors from 23 towns have been trained under "Odisha Urban Street Vendor Policy-2012".

4.14 Government Interventions, Plans & Policies

4.14.1 Odisha is one of the leading States in the country for initiating various urban reforms with an aim to improve service delivery, mobilize resources, transparent municipal functioning and accountability of functionaries. The State has won an incentive award of INR 11.04 crores from Ministry of Housing Urban Affairs (MOHUA) for effective implementation of AMRUT (Atal Mission for Rejuvenation and Urban Transformation) reforms in 2017-18. Government has adopted the principle of 5Ts (Transparency, Technology, and Team work, Time limit & Transformation) to bring about spectacular change in the Administration and Service delivery.

4.14.2 Trade License, Certificates will be issued on “Demand Approval Basis”- instantly, marriage certificate will be issued on the same day of personal appearance of the couple for registration. In coordination with H & F. W. Department, efforts will be made to issue Birth & Death Certificate as same day service on-line basis. All citizen services like water supply connection, sewerage connection and cesspool services will be integrated and a common on-line application will be developed for providing service on ANY TIME ANY WHERE BASIS. Certificates will be issued without pre-verification on the basis of “Trust & Issue Principle”

4.14.3 Infrastructure of the Common Service Centers (CSC) will be modernized and services of other departments will be available in the centre. All the CSCs will be upgraded to “Municipal Service Pavilion” with improved facilities to provide “Citizen Centre Services in a people friendly ambience”

4.14.4 Ward office for every ward in respect of Municipal Corporations, one ward office for a cluster of wards for all Municipalities & NACs will be opened to take the Municipal office near the door step of the citizen.

4.14.5 Unique address will be given to every house by digital door numbering along with new Id for each street.

4.14.6 Collection of Property Tax/ Holding Tax will be streamlined through on-line as well as through outsourcing agency. Advance tax will also be accepted from anywhere through on-line facility for any period.

4.14.7 On-line Building plan approval system will be implemented throughout the State. Model Building plans will be made available to citizens for standardized plot sizes. It will be approved on deemed approval basis without field verification and certification by architect. Accreditation and empowerment of architect will be introduced for streamlining, transparency in the inspection of the building and for issue of occupancy certificate on completion.

4.14.8 State has taken up a very ambitious programme 24 X 7 water supply with 100% quality guarantee for safe drinking water to the consumer “Drink from Tap Mission”.

4.14.9 Government has shifted its focus from centralized treatment of solid waste management to decentralized micro composting system involving women Self Help Group (WSHG) as “ Swachha Sathi”. Total payment will be around to INR 500 crore to WSHGs in a 5 year period.

4.14.10 The Bhubaneswar Development Authority (Planning & Building Standards) Regulations - 2018 came into force on 26th May, 2018 after due approval of Government.

4.14.11 After the notification of Comprehensive Development Plan (CDP) 2010, new villages have been included within the BDA jurisdiction. At present BDA area comprises of 568 Revenue Village with an area 1110 Sq.Kms. BDA has decided to prepare a new CDP for the entire jurisdiction which includes preparation of CDP for newly included area and revision of existing CDP, 2010.

1st land pooling scheme in Bhubaneswar: Under the scheme, the landowners would give 40 percent of their area to BDA, but the Development Authority would not give any compensation but will ensure infrastructure such as roads, hospitals, schools, parks, electricity lines, water and sewerage facilities on the remaining 60 percent area.

To manage urban expansion and improve socio-economic activities through a structured process, the Bhubaneswar Development Authority started state's first ever Town Planning Scheme through land pooling. Inaugurating the scheme by distributing Record of Rights to 11 landowners of Sahajpur village on the outskirts of Bhubaneswar, Hon'ble Chief Minister said the scheme would usher in a new area of planned development in the state. This is a fair, transparent and practical way of expanding the cities in a planned manner. The scheme will be implemented in a time bound manner and create a model for the rest of our cities to emulate. This will help to plan the cities in a sustainable manner and enable an organic growth while ensuring safety nets for the vulnerable sections. The BDA has already prepared the plan of action to implement the first town Planning Scheme covering parts of Mouzas of Sahajpur, Naragada, Sijuput and Paikapur over an area of 746.70 acres a first of its kind project in the State. In the first phase 358 numbers of Record of Rights (RoR) will be distributed to the land owners of Sahajpur village. The Town planning scheme is a winner for both land owners and the authority. The land owner usually gets a percentage of his holding back in rectangular shape nearby his or her original holding. One may also get additional Floor Space Index due to which the value of the returned land will be a multiple of the worth of his original holding, even though the plot size has shrunk. In future also, BDA will adopt the land pooling method instead of the traditional land acquisition for infrastructure development and urban growth in Bhubaneswar and its outskirts.

4.14.12 The Jalasathi initiative was launched by the Hon'ble Chief Minister of Odisha to facilitate effective water management through participation of the community at the ward level i.e. SHG members as Jalasathis. Main functions of the Jalasathis are sensitization on use of PS and water quality sample testing, visit to households in the assigned ward for collection of water service charges, sharing of feedback on the progress of work for resolution of grievances and planning forward.

4.14.13 Amnesty scheme for regularization of unauthorized constructions- With an intent to bring all the unplanned areas or unauthorized layout in to the fold of plan development and to address the issue of building permission on the sub-divided plots, those have not been sub-divided in accordance with the provision of the Planning and Building Standards Regulations in force, the State Government had formulated the scheme for regularization of such unauthorized layouts. It had earlier notified a scheme for regularization of unauthorized construction for greater acceptance and benefit of general public. Government have also notified a new scheme with relax compounding charges.

4.14.14 Odisha Land Rights to Slumdwellers Act, 2017 - The Government have enacted this historic legislation to provide land rights to slum dwellers and for re-development, rehabilitation and up-

gradation of slums in the urban area of the State. In order to bring all the urban slums into the fold of plan development, Government promote inclusive growth and ensure delivery of basic urban services to the urban poor.

4.15 Tackling of Covid-19 in Urban Areas

Housing and Urban Development Department has taken up several measures to control the impact of covid-19 in urban areas which includes preventive and precautionary measures, Health management, Management of returnees and Quarantine persons, Containment zones, sanitization initiatives, Welfare of distressed persons and welfare of animals and creating opportunities to help the livelihood of urban poor. Some of the important initiatives are engagement of ward members and SwachhaSathis for spreading awareness at community level, disseminating information as prevention and precautionary measures for covid, ensuring health protocols for citizens, stickering of households with positive patients, contact tracing, synchronising the activity of all front line workers for identification of symptomatic care, Counselling of slum dwellers through work committee / Slum Dwellers Associations, establishment of quarantine Centre /Temporary Medical Centres(QC/TMC) and its Management which includes food and shelter and Yogo etc., Establishment and operationalization of Help Desk for registration of migrants, Stamping and health screening of fraternity at arrival points, keeping migrants at QC/TMCs and relieve after quarantine, ensuring health protocols and skill mapping of quarantine migrants etc,

In management of containment zones, fixing the containment zones and managing perimeter control with entry and exit checks, Surveillance of containment zones and delivery of essential commodities are some important activities done by the Department.

In sanitation, Street and lane clearing campaign (Gali Safai Abhiyan) reaching to unreachable areas and cleaning Garbage Volunerable points (GVP), engagement of sanitation experts, massive drain cleaning, desilting, disinfecting of urban areas to ensure cleanliness and hygiene, tagline (Mo gali Swachha Gali) propogated by Swachha Sathis, Sanitation of all Government Buildings, Roads and Market areas, Health check up of frontline sanitation worker, ensuring PPE for all frontline workers, quality maintenance of community and Public Toilets, provision and procurement of water jetting machine for CT, PT and Aahaar Centre, Thermal fogging and use of blow misters are implemented immediately.

For Welfare of distress persons, the department feed them through hot cooked meals/ dry foods/ quality foods to needy through Aahaar Kendras in and around Hospital premises, and feeding of street animals regularly. To increase the livelihood opportunities of the urban poor, assistance has been given to Street vendors and urban wage Employment initiatives has been taken in large scale.

Government have taken a number of measures to combat the spread of Covid-19 and help the poor families to sustain their livelihood during the complete shutdown/lockdown. An amount of INR 545.37lakh was spent for food expenditure for TMCs/QCs, INR 121.31 lakh for personal hygiene kit, INR 180.40 lakh for bed sheet & pillow cover for TMCs/QCs, INR 210.27 lakh for cleaning, security and sanitation. An amount of INR 746.96 lakh was spent for free food distribution for homeless, beggars and other needy people. Financial assistance was given to registered street vendors (INR 1791.77lakh), feeding of stray animals (INR 122.83 lakh), Community based decentralized strategy for Covid-19 (INR 203.50 lakh) and INR 459.86 lakh was released as incentives to migrants.

Growing Services Sector

The services sector, termed as tertiary sector, continues to serve as the largest contributor to the State's economy since 2011-12 in terms of its share to GSDP, economic growth & employment. The sector witnessed highest real growth of 9.42% in 2015-16 and 6.92% in 2019-20 (first Revised Estimate). Its share to GSDP was 40.70% in 2019-20 (1st RE) and expected to grow to 42.5% in 2020-21(AE). The average growth rate for the last 5 years was estimated to be 6.8%. Among the various segments of services sector, Trade, Repair, Hotels and Restaurants, taken together, is the leading sub-sector with the majority share to output from services. Odisha is a net-exporter of goods by rail, accounting for 20.3% of the total outward movement of goods in India among the states. It primarily exports metals and minerals. The banking sector performed impressively as the number of bank branches, deposits and advances increased notably by 4.86%, 10.47% and 11.90% respectively during 2019-20 over the previous year. The % of advances to Priority sector, Agriculture and weaker section to total advances remains higher than the national benchmark norms. The NPA and Overdue is 6.76% and 24.14% of total advances respectively. The Credit-deposit ratio is 60.41, marginally above the benchmark of 60. Till 2019-20, 1.54 crore bank A/Cs have been opened in the state under the Jan Dhan Yojana, ensuring inclusive growth and Financial inclusion.

The State has a huge potential for development of tourism, given its rich cultural heritage. Domestic tourists form the largest proportion (99%) of total tourists. The State is taking steps for increasing its road infrastructure for industrial development. While road density is comparable to other States, Odisha lacks an adequate rail network. The State's telecom infrastructure is relatively underdeveloped. Consequently, Tele-density and internet penetration is lower than the national average. Odisha is the first State in the country to adopt the model of Self-Help Groups (SHGs) as a provider of banking services, and also availed bank credit of 0.66% of total credit financed by SCBs in the State in 2019-20, ensuring financial inclusion. As the economy progresses, the share of services sector in Gross State Value Added (GSVA) is expected to increase further. The State is committed to provide enabling infrastructure for the growth of service sector.

5.1 Introduction

“Poverty reduction more strongly correlated with growth of services than with growth of manufacturing”, World Bank, Geneva, July 2012 (in Role of Services in Economic Development).

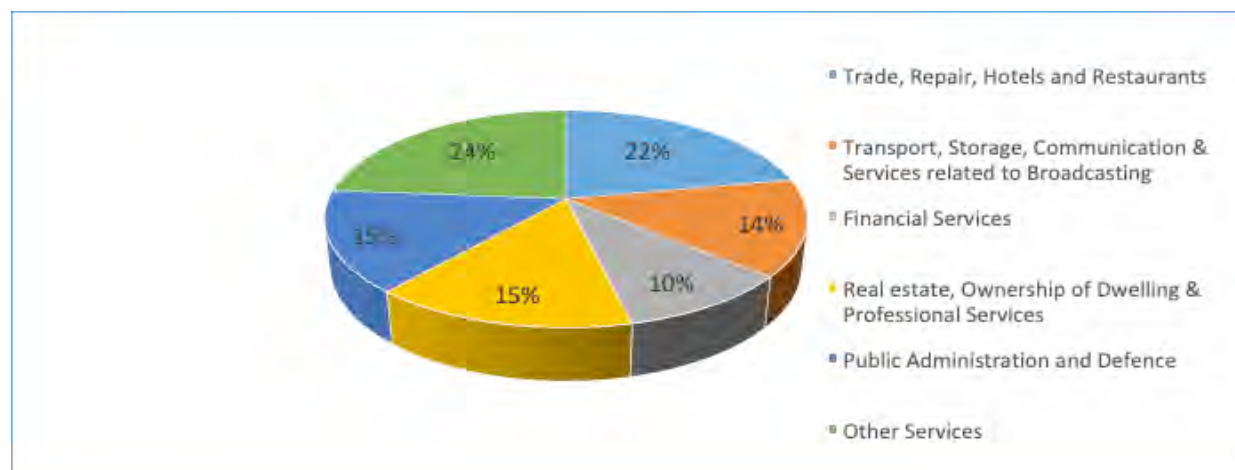
5.1.1 Rising income necessitates the demand for more services like banking, tourism, transport, communication and trade. Consequently, the share of service sector in the economy's output grows. Services sector also support the growth of other sectors in the economy. With consistent rise in per-capita income and improving socio-economic indicators, share of the service sector in Gross State Value Added (GSVA) has grown from 38.5% in 2011-12 to 42.5% in 2020-21 (AE). The sector grew at a rapid rate registering a highest growth of 9.42% in 2015-16 and in 2020-21 (AE), it registered a growth rate of (-) 3.18%.

The service sector constitutes 42.5% of GSVA in 2020-21 (AE) providing employment to nearly 1/4 of the total workforce in the State

5.1.2 The services sector also provides employment to a significant proportion of workforce in Odisha. The recently available periodic labour force survey data for 2018-19 shows that nearly 24.8% of workers are engaged in services sector in Odisha. It is evident that this sector is an important contributor and driver of growth and development of the State economy.

5.1.3 The composition of the sub-sectors in services has remained similar over the years, with trade, repair, hotels and restaurants contributing the largest share over the last nine years and marginally decrease during 2020-21 (AE). Figure 5.1 presents the share of various sub-sectors in the GSVA by services sector as per advance estimates for 2020-21. Trade, repair, hotels and restaurants account for about 22.0% share of the total output from services, followed by transport and communication.

Figure 5.1: Share of various sub-sectors of services to GSVA under services in Odisha, 2020-21 (AE)



Note: Share calculated at current prices

Source: Directorate of Economics and Statistics, Odisha

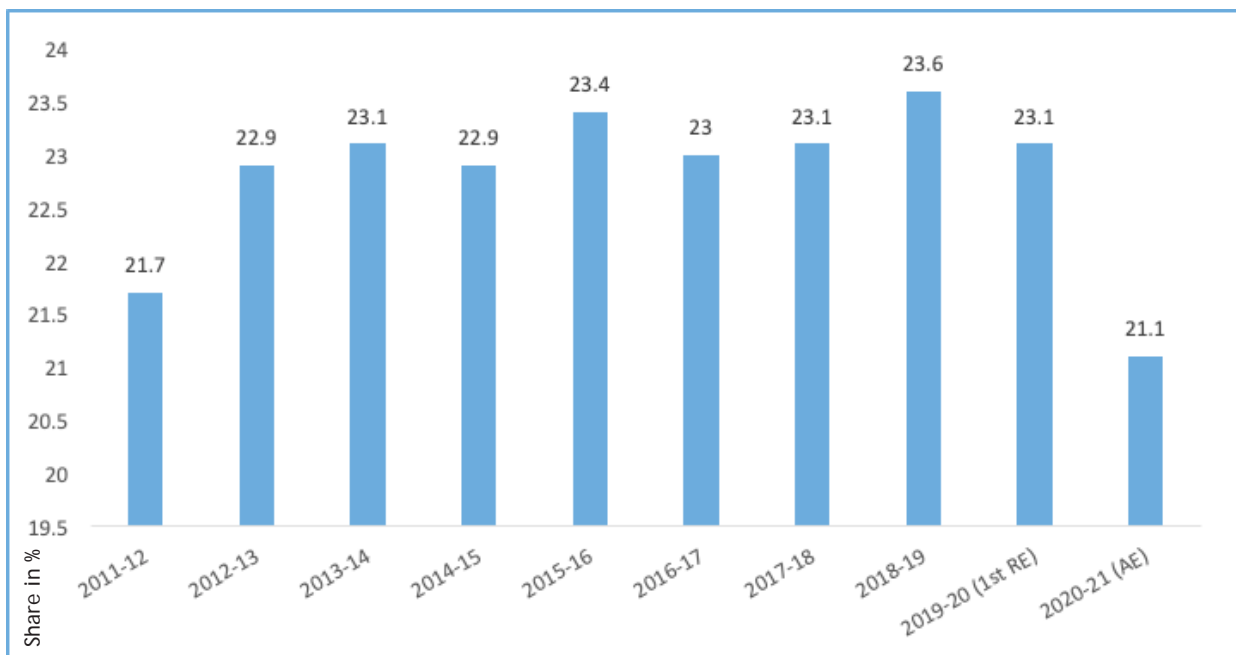
5.2 Trade and Repair

5.2.1 Trade and repair sector is the largest contributor to the service sector's output in the State. The share of this sub-sector has consistently been above 20% in GSVA from services, as presented in Figure 5.2. The sub-sector is also the third largest employer in the State, following agriculture and construction and the largest employer in the service sector. In 2015-16, 10.5% of the total work force was engaged

in trade and repair in Odisha, which makes over one-third of the total workers employed in the services sector. The sub-sector has also shown strong growth in 2012-13 (12.65%). During 2019-20 (RE), the sector reported growth of 5.02%, though advance estimates for 2020-21 indicates a negative growth of (-) 9.0% due to COVID -19 impact.

Trade and repair is the leading service sector in Odisha

Figure 5.2: Share of trade and repair in GVA from services in Odisha



Source: Directorate of Economics and Statistics, Odisha

Shares calculated throughout the chapter are in current prices. Growth rates have been calculated at constant prices (2011-12). Services sector includes, wholesale and retail trade; repair of motor vehicles and motorcycles; transportation and storage ; accommodation and food service activities; information and communication; financial and insurance activities; real estate activities; professional, scientific and technical activities; administrative and support service activities; public administration and defence; compulsory social security; education; human health and social work activities; arts, entertainment and recreation; other service activities; activities of households as employers; undifferentiated goods and services producing activities of households for own use; and activities of extra territorial organizations and bodies.

5.3 Inter-state trade of goods

5.3.1 Odisha is the largest inter-State exporter of goods (by rail) amongst all States in the country, accounting for 20.3% of the total outward movement of goods (as of 2016-17) given its natural resource endowment. The State is a net exporter of goods, with outward flow of goods more than five times the inward flow. Given Odisha's position as the 'mineral hub of the country', top exports from the State are primarily metal and mining goods (coal and coke, cement, iron ore, etc.)

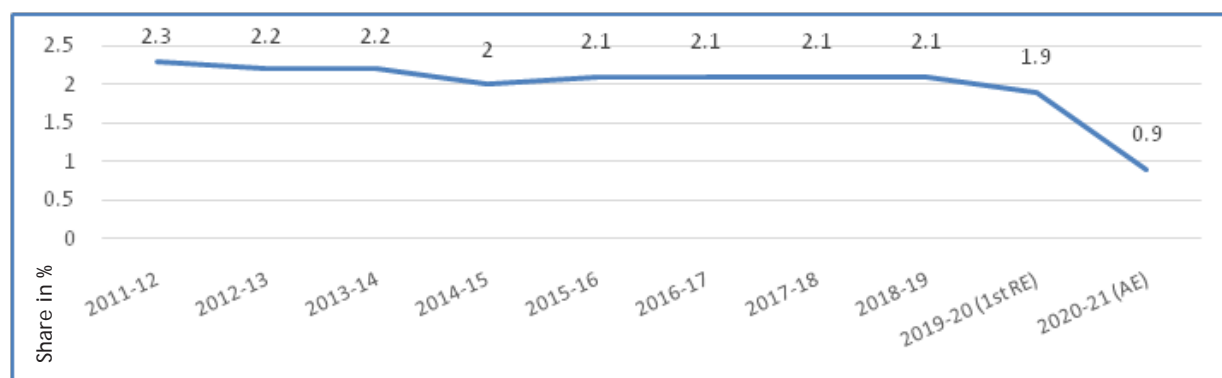
Odisha has the highest share in inter state outward movement of goods via rails (2016-17)

5.4 Tourism

5.4.1 Tourism is the travel for recreational, leisure or business purposes. Odisha, India's best kept secret has tremendous potential in tourism sector. Known for its temples, beaches, monuments, arts and crafts, historical monuments, lakes and wildlife sanctuaries, Odisha has a lot to offer to the tourists. Most importantly, its hospitable people make Odisha one of the favourite tourist's destinations in India. Tourism has long-term multiplier effects on the output and employment in an economy. The sector is highly labour intensive and generates employment through forward and backward linkages. Tourism sector has been accorded important status in Odisha and Odisha Tourism taking spectacular steps for development and promotion of tourism in the state.

5.4.2 The contribution of the sub-sector of 'Hotels and Restaurants' to GSVa from services is relatively small as compared to other sectors. Even as 'Trade, Repair, Hotels and Restaurants' group contributed more than 20% to GSVa in 2020-21 (AE), the contribution of its part, viz. 'Hotels and Restaurants' was 2.0% up to 2018-19, implying bigger role of trade and repair services. The share is only 0.9% in 2020-21 (AE) with a contribution of INR 1640.46 crore. The contribution of the sector to the State GSVa has almost remained constant in the past few years and expected to decline as per advance estimate of 2020-21.

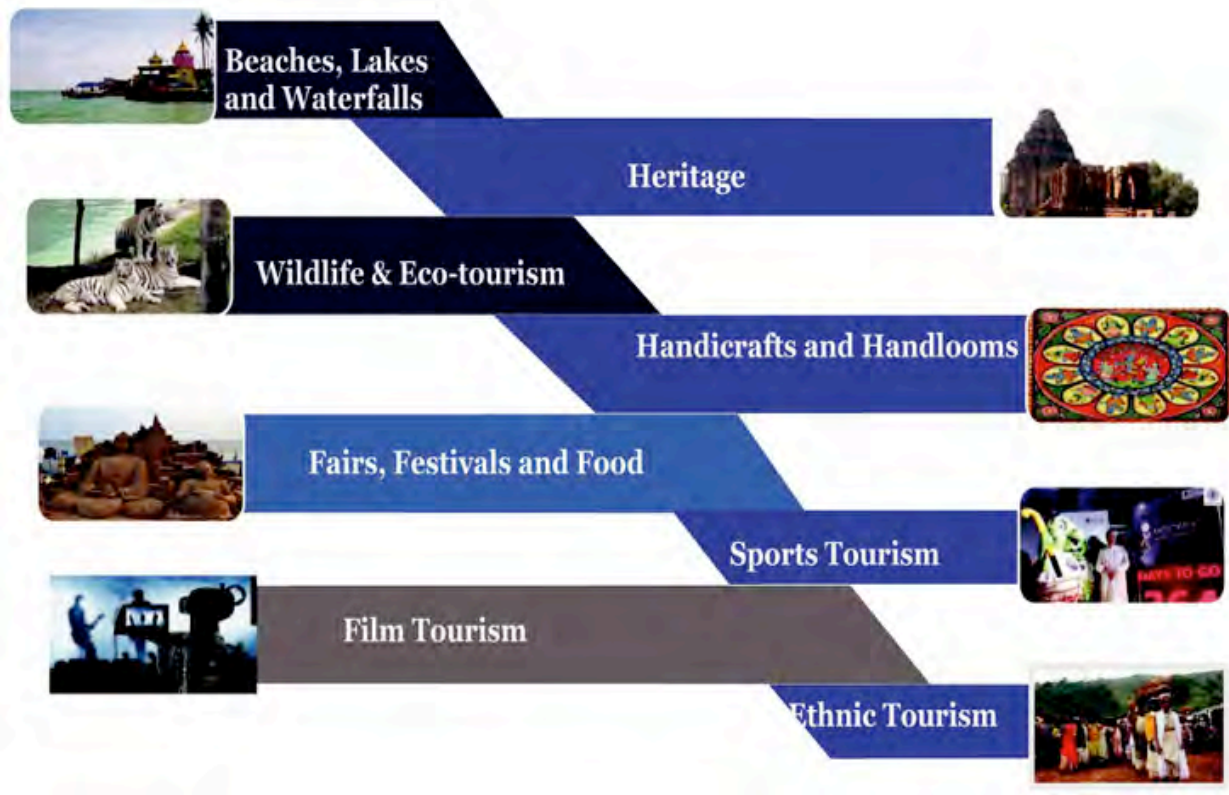
Figure 5.3 Share of hotels and restaurants to GSVa under Services in Odisha



Source: Directorate of Economics and Statistics, Odisha

5.4.3 The low share of Hotels and Restaurants to services output may be due to geographical and structural reasons. Lack of adequate air and rail connectivity to the non-coastal parts of the state also hampers tourist footfalls. Although there exists ample scope for developing tourism in the State given its rich cultural heritage & natural endowments, the State needs to expedite its investment in tourism infrastructure & other facilities in order to attract more tourists every year.

Figure 5.4 Avenues for tourism in Odisha

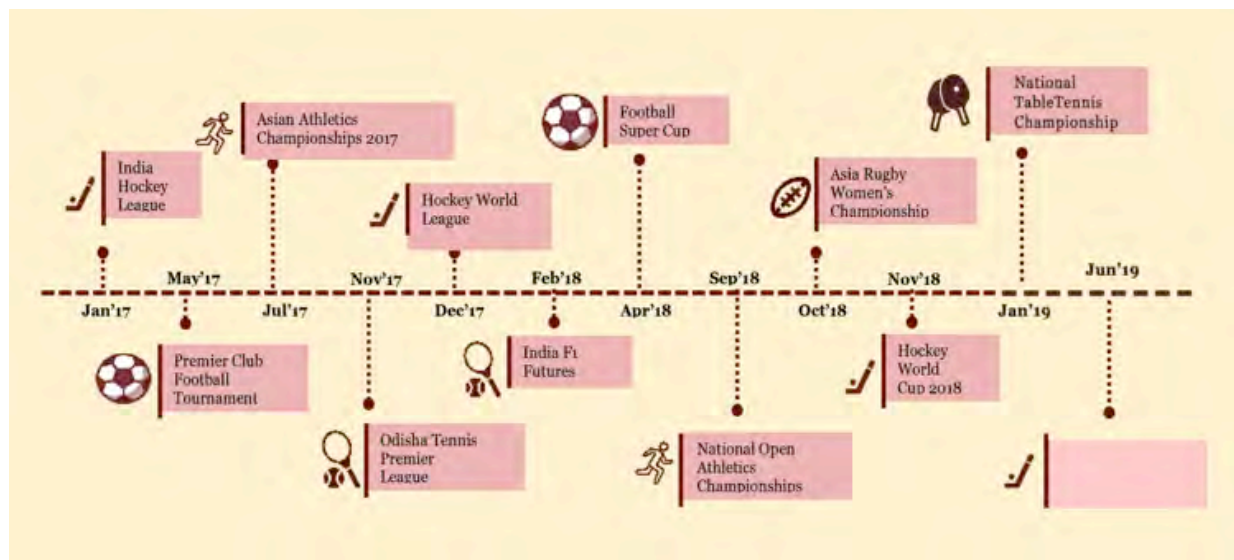


Tourism can play the role of a catalyst in income generation at the bottom of the pyramid if supporting infrastructure is developed

5.4.4 The State offers enormous potential in development of tourism across sub-sectors. Various forms of tourism-cultural, religious, eco-tourism, etc. have grown significantly in the past few years and contributed towards the State's output. The focus can be expanded to upcoming areas like sports tourism and film tourism. The development of infrastructure for tourists has enormous potential for employment and income generation, foreign exchange earnings and value addition for the State. Tourism policies implemented by the State are also targeted towards the same.

Box 5.1: Sports Tourism-Promising Avenue for Tourism Growth in Odisha

Odisha has emerged as the Sports Capital of India. It has played host to several national and international sports events, particularly in the past two years. Hockey World Cup 2018 was the latest mega sporting event hosted by the State. The influx of tourists during these events contribute significantly to the rise in tourism output for the State. The State has seen increase in revenue from Leisure and Tourism.

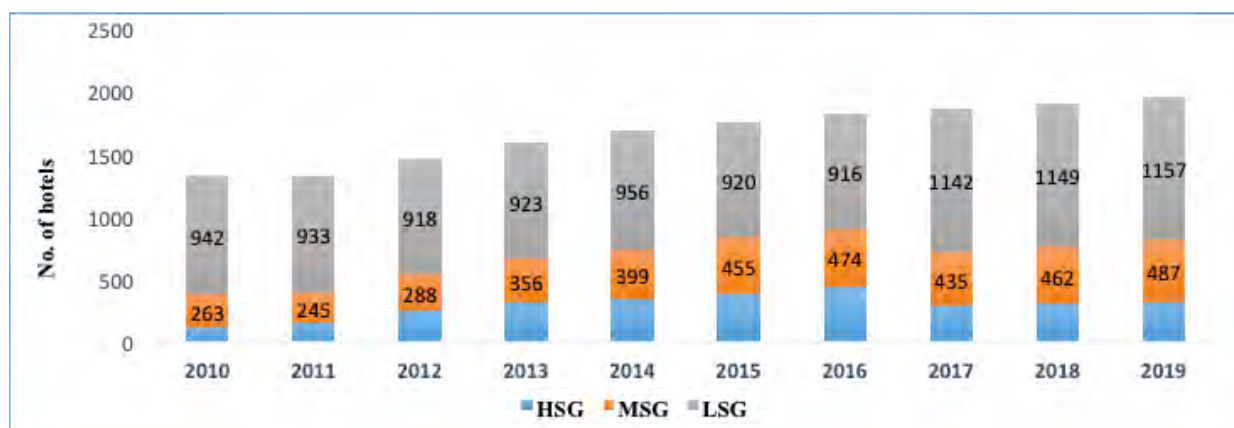


5.4.5 Tourism Event and Fairs: For development of tourism in the State, 22 Nos. of Travel and Tourism Fairs, 11 Nos. of Road Shows at National Level, 12 Nos. of State Level Events and one National Level Conference have been organised during 2019-20 by sponsorship and financial assistance. Besides, an International Event had been organised at London to attract International tourists.

I. Tourism Infrastructure

5.4.6 Development of hotel infrastructure is a major driver which determines the growth of tourism. The number of hotels and restaurants in the State has increased from 1328 in 2011 to 1,961 in 2019. At the end of 2019, the State had 41,207 rooms and 82,377 beds to accommodate its tourists. Hotels in Odisha are divided into three major categories such as High Spending Groups (HSGs), Middle Spending Groups (MSGs) and Low Spending Groups (LSGs) as per hotel tariff structure and spending capacity of tourists. Over the past 10 years, the share of HSG and MSG hotels has increased, from 28.58% of total hotels in 2010 to 41.80% in 2019. The growth in LSG hotels is exhibiting a fluctuating trend during the last 10 years period. As Odisha is growing as an industrial hub, it would be beneficial to invest in MSG and HSG hotels in order to attract business tourism and introduce greater diversification in tourist attractions.

Figure 5.5 Number of hotels in Odisha by tariff category

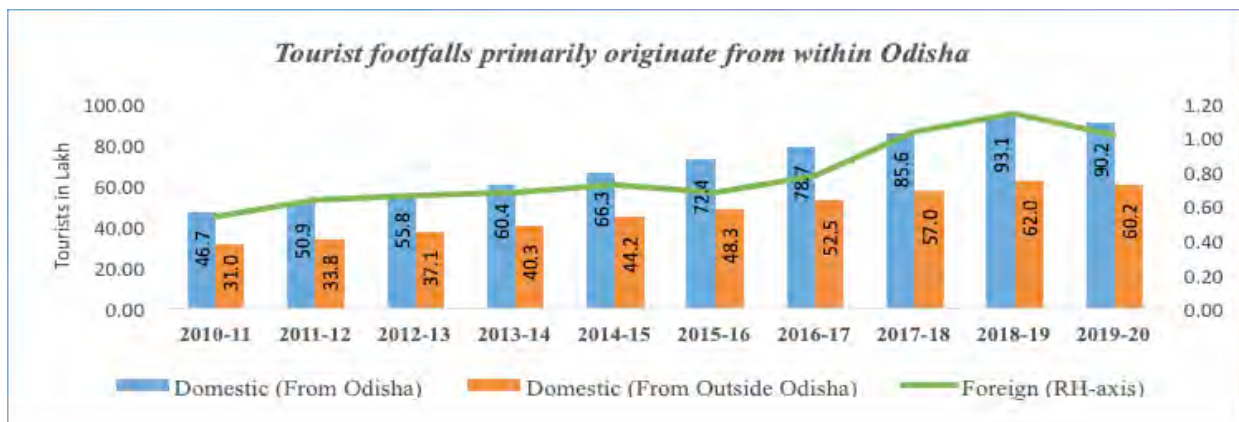


Source: Directorate of Tourism, Odisha

II. Growth of Tourists

5.4.7 Odisha tourism has seen good expansion in recent years with an increase in both domestic and foreign tourists. About 150.36 lakh domestic tourists (from within and outside the State) and 1.01 lakh foreign tourists visited Odisha during 2019-20, registering growth rate of (-) 3.06% and (-) 11.57% respectively over the previous year. The downfall in tourist visitation during 2019-20 is attributed to cyclone FANI which hit the State during May, 2019. Domestic tourists drive the growth of the tourism sector in Odisha. Tourist inflow in the State was consistently impressive with an annual average growth rate of 7.68 % in the last 10 years. Even foreign tourists inflow to the State was robust with 32.90% and 10.41% growth rates in 2017-18 and 2018-19 respectively. Foreign tourist inflow showed negative growth (-)11.57% during 2019-20. Composition of tourist arrivals shows that domestic tourists form more than 99% of the total tourists visiting the State. Within domestic tourists, the majority (60%) are from Odisha. This highlights the need for marketing Odisha's tourism not to just foreign tourists, but also within the country.

Figure 5.6 Number of tourists (in lakhs) in Odisha



Source: Directorate of Tourism, Odisha

5.4.8 Even though footfall of domestic tourists are significantly higher than that from foreign tourists, the latter stay for longer periods and spend more on an average as compared to their domestic counterparts. However, given their smaller numbers, net inflow of money from domestic tourists is considerably higher. The findings of Tourist Profile Survey 2013-14 by the Tourism Department, Government of Odisha, show that average duration of stay is 11 days in case of a foreign tourist and 3.7 days in case of a domestic tourist. Similarly, the average per capita expenditure was found to be INR 4,167 in the case of foreign tourists and INR 2,763 in the case of domestic tourists. Earnings from domestic tourists amounted to INR 14,969.81 crore in 2019-20, while that from foreign tourists was INR 419.17 crore. The earnings from domestic tourists have increased significantly since 2013-14, except in 2019-20, indicative of the increased footfall of tourists as discussed in the previous section.

Table 5.1 Inflow of money via tourist spending in Odisha, (INR crore)

Year	From Domestic Tourists	From Foreign Tourists
2013-14	10288.60	308.94
2014-15	11297.91	331.01
2015-16	12336.93	308.78
2016-17	13405.27	355.22
2017-18	14579.72	472.10
2018-19	15441.67	474.00
2019-20	14969.81	419.17

Source: Directorate of Tourism, Odisha

5.4.9: During 2020-21, an outlay of 385.13 crore was provisioned for implementation of projects in the trust areas such as (i) completion of ongoing projects, (ii) Projecting Odisha in the domestic as well as Overseas markets as favoured tourists destination, (iii) creating appropriate environment for attracting private sector investment in a big way, (iv) restructuring Department to increase further efficiency.

5.4.10 Pathani Samanta Planetarium: The planetarium attracts tourists throughout the year, more on special occasions. During 2019-20, in all 1,40,760 adult and child tourists visited the planetarium and INR 33.23 lakh was collected as revenue.

III. New Initiatives

5.4.11 Eastern India's first glamorous camping festival **Eco Retreat** was held successfully at Konark during 15 Dec 2019 to 15 Feb 2020 comprising 50 luxury tented accommodations on the pristine Ramchandi Beach, a music festival with 12 high profile performances, a vibrant food & beverage festival and beach markets, apart from a host of water sports, adventure activities and trails to key tourist destinations.

5.4.12 Odisha Tourism redeveloped its website on the Adobe Experience Manager (AEM) platform as an integrated end-to-end planning portal with the additional scope of User Generated Content and a portal for tourism sector stakeholders such as hotels, tour operators to register and promote their packages. Key on the agenda of the Department of Tourism is the revamping of the website www.odishatourism.gov.in as one-stop solution for tourists/ visitors.

5.4.13 New promotional campaign to promote Odisha as a prominent tourism destination brand, the Department of Tourism has brought out 16 new creatives on new "**Odishaaah!**" campaign on multiple themes for advertisement. Attractive and innovative advertisements released in some leading magazines (International/ National/ Regional) for promoting Odisha as a tourist destination.

5.4.14 The Department signed an MoU with **Kerala Shipping & Inland Navigation Corporation (KSINC)** to acquire technical support in planning and developing diverse water tourism and recreation products. Besides Asia's largest brackish water lagoon Chilika lake, the state boasts a 482 km coastline and eight major reservoirs besides several other pristine water bodies where surveys have ascertained the feasibility of setting up sustainable water sports & recreation and tourism products such as houseboats.

5.4.15 With a view to promoting Odisha Tourism in the national market in general and metro cities in particular, Odisha Tourism has undertaken Out of Home (OOH) branding at Mumbai, New Delhi, Kolkata, Chennai, Bangalore and Hyderabad Airports. Besides, branding of the Mumbai Metro. Bhubaneswar's Biju Patnaik International Airport has also been extensively branded to showcase tourism to inbound visitors.

5.4.16 Odisha Tourism has become a global partner of International Hockey Federation (FIH) for a period of 5 years. The global partner status will provide significant visibility and benefits to Odisha Tourism at the global level across different media, viz. print, electronic and digital, apart from scope for Odisha Tourism to activate a series of innovative on-turf and market-specific marketing campaigns. This collaboration with FIH heralds a virtuous relationship with the potential to further boost Odisha's brand equity globally, enroute to the Hockey World Cup 2023 to be held in Bhubaneswar's Kalinga Stadium and Rourkela's Biju Patnaik Hockey Stadium in January 2023.

Health Tourism

5.4.17 Travels taken for dual purpose of Tourism & medical treatment within the same State & from other States is treated as Health Tourism. Health tourism is a wider term for travel that focuses on medical treatments and the use of healthcare services. The medical tourism is a recent phenomenon. This sector grows exponentially and emerges as a major force for the growth of services exports world wide. The term medical tourism has been coined by travel agencies and the mass media to describe the rapidly growing practice of travelling across international borders to obtain hi-tech medical care. It is the fastest growing sector in the 21st century and also because many countries are interested in taking advantage for its economic potential. Countries are capitalizing their popularity as tourist destinations by combining high quality medical services at competitive prices with tourist packages.

5.4.18 The present health care facilities in Odisha are conducive for successful development of medical tourism in the state. However, it requires further improvement and attention by the service providers and policy makers. The NSS study, thus undertaken was to explore key issues and challenges in development of medical tourism in Odisha & suggest corrective measures to facilitate medical tourism for projecting Odisha as a medical tourism destination.

5.4.19 As per National Sample Survey conducted in the NSS 72nd round during July, 2014- June, 2015 under Domestic Tourism in India, the estimated numbers of overnight visitors-trips during last 365 days in respect of Odisha has been reflected in the following Table-5.2

Table 5.2 Estimated Nos. of overnight visitors-trips completed for dual purpose of tourism & health care during last 365 days for the year July, 2014-June,2015

Sl No.	Visitors trips/purpose	Rural		Urban		Total	
1	Nos. of visitor-trips	16,02,800		2,26,500		18,29,300	
2	Visitors- trips for health purpose per 1000 trips (With main destination)	Same State (Odisha)	Other States	Same State (Odisha)	Other States	Same State	Other States
	Total	345	289	240	14	585	303

Source: NSS Report No 580: Domestic Tourism in India

5.4.20 Impact of Covid-19 pandemic on Tourism: Overall, Odisha hospitality & Tourism industry was operationally down to zero activity from 24th March, 2020 to September, 2020, effectively resulting in almost half of potential annual revenue lost. All segment of Tourism i.e MICE Tourism, Sport Tourism, Festival Tourism & Religious Tourism were worst hit. The progress on Master plans & development projects suffered delayed due to logistical issues. The key challenge was to launch innovative campaign and product to revive tourist activity by adoption of risk mitigation guidelines and hygiene practices in units throughout the State as it progressively opened up.

5.4.21 Covid-19 related policy and intervention :

- (a) DoT issued Covid-19 preparedness protocol as a manual for Tourist destination to implement precautionary measures
- (b) Covid-19 Risk mitigation and hygiene training sessions were conducted
- (c) Development of comprehensive "Safety First Module "
- (d) Road safety campaign was initiated to boost tourism activity
- (e) Odisha returned to its celebrated glamping events" the Eco-Retreats" this time at 5 diversity location -Bhitarkanika, Konark, Daringibadi, Satakosia and Hiraakud. Eco-Retreat , Odisha will receive guest till February, 2021.
- (f) Continuation of state level festivals.
- (g) Master plan of key destinations with key projects such as Talsari- Udayapur beach, Puri-Konark beach and Samuka beach festival are being developed along State's 480 kms. long coast line.
- (h) Procuring house boats for operation at Bhitarkanika backwater/Chilika lake/Hiraakud Reservoir
- (i) Conduct of virtual Roadshows across important source sites in neighbouring states of Andhra Pradesh , Chhatisgarh, Jharkhanda & West Bengal.
- (j) Media Coverage of Covid-Ready activities
- (k) Conduct of Multiple Webinars to account for stakeholders issues and opinion .

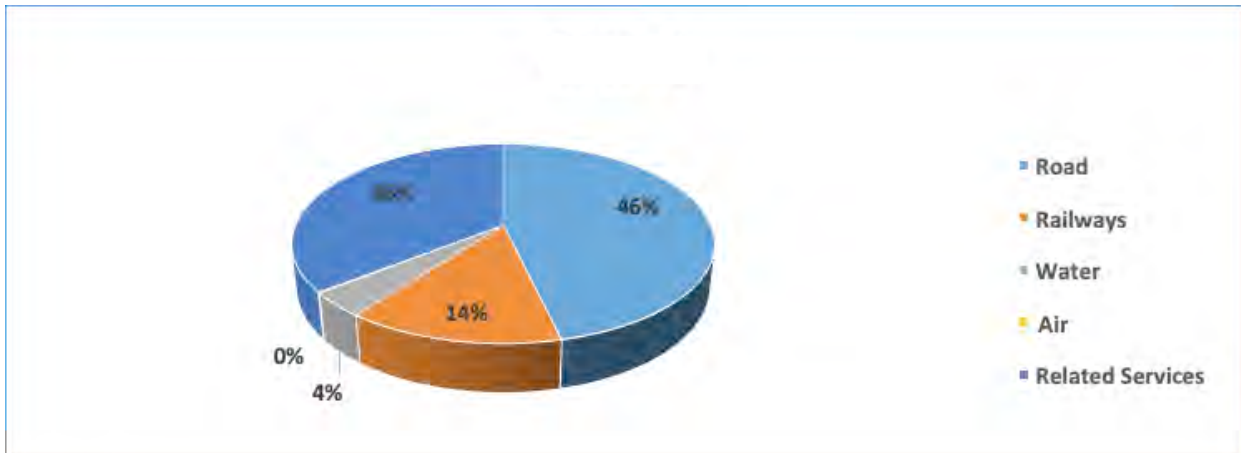
5.5 Transport

5.5.1 This sector with its multimodal channels has been supporting growth of mining and manufacturing sectors including trading. It exhibited an average annual sectoral growth rate of 4.13% between 2012-13 and 20-21(AE). However, it grew at a rate of (-) 16.18% in the year 2020-21 (AE). The percentage share of Transport, Storage, Communication and Services related to broadcasting sector is estimated to 6.09% as per 2020-21(AE) whereas the same was 6.19% in 2019-20 (RE).

5.5.2 Road transport contributes the largest share of GSVA in transport services. Transport services constitute four modes of transportation: road, rail, water and air. Road transport, with over 46% share of transport GSVA is followed by railways, which contribute over 14% of the GSVA of transport services during 2020-21 (AE).

5.5.3: The composition of output under transport has been presented in Figure 5.7. The share of road transport was highest i.e 51.46% in 2011-12 but declined slightly thereafter, reaching 46.30% in 2020-21(AE). The share of railway and air transport to transport GSVA also declined in 2020-21(AE) i.e.14% and 0.18% respectively.

Figure 5.7: Share of Road, Railway, Water and Air to GSVA under transport in Odisha (in %), 2020-21(AE)

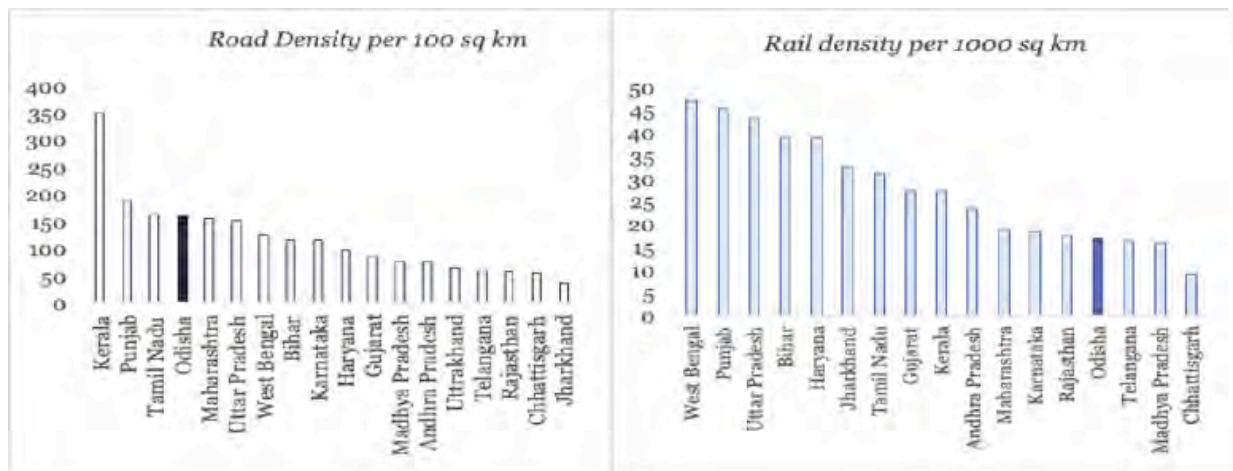


Source: Directorate of Economics and Statistics, Odisha

Roads

5.5.4 Road infrastructure provides the crucial last mile connectivity to human settlements, commercial, industrial and cultural establishments. The road network of the State consists of national highways, express highways, state highways, major district roads, other district roads, rural roads, urban roads, Panchayat Samiti (PS) roads, Gram Panchayat (GP) roads, forest roads, irrigation roads and Grid Corporation of Odisha (GRIDCO) Roads. In the absence of adequate rail network in Odisha, roads play the predominant role in accommodating passenger and freight movements. Odisha is among the top five non-special category states in terms of surfaced roads' density, while it lags behind in rail density.

Figure 5.8 Road and rail density across states



Source: Transport Research Wing, Ministry of Road Transport (2015) and Highways, Gol and Indian Railways Year Book, 2017-18

5.5.5 The State had a total road length of 2,69,799 kms by the end of 2019-20, growing at a rate of 0.43% over 2018-19. Other District Roads (ODR) witnessed the highest growth of 25.06% over the last year. The road length of various road types is presented in Table 5.3.

Road transport

5.5.6 Road transport accommodates an overwhelming proportion of passenger and freight traffic among all major modes of transport in Odisha. The total road network of 2.70 lakh kms accommodates a vehicle population of 91.23 lakhs (by the end of March,20). Further, growth in vehicle population of 9.26% is much more as against a growth rate of mere 0.43% of road length during 2019-20 in the State.

Table 5.3 : Length of different types of roads in Odisha, 2019-20

Type of roads	Length (Kms)
National highways	4,848
Express highways	38
State highways	4,173
*Urban roads	18,591
Rural roads	47,295
Major district roads	2,781
Other district roads	18,841
GP/PS roads	1,59,292
*Forest roads	7,575
*Irrigation roads	6,277
*GRIDCO roads	88
Total	2,69,799

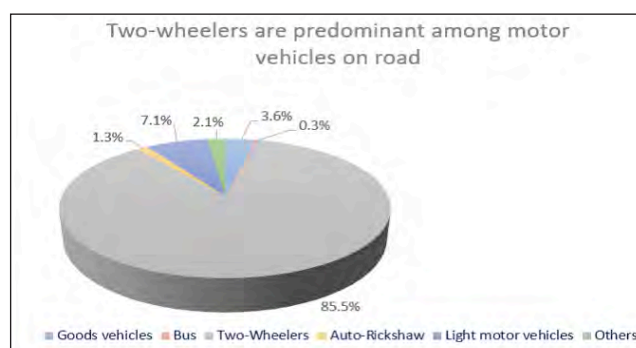
*Figure relates to the year 2018-19, Source: C.E, NH; C.E, R&B;EIC,RW and P.R. Deptt.

5.5.7 This sub-sector in Odisha operates with public private convergence. It involves regulation and revenue collection, road safety, training, policy, legal issues, etc. The institutional mechanisms for effective administration of road transport include 35 RTOs at Regional level, Transport Commissioner of State level Odisha Road Safety Society and Driving Training Schools/Institutes.

Motor Vehicle Registration

5.5.8. **Motor Vehicle (MV) Population** has grown manifold in Odisha. As on 31st March, 2020, the State had 91.23 lakh 'registered' and 72.69 lakh 'on road' vehicles. As regards to new vehicles, 8.34 lakh new vehicles were registered during 2019-20 with an annual growth rate of 10% over 2018-19. As shown in Fig.-5.9, more than 85% of the MV population on road are 2-wheelers followed by light motor vehicles (7.2%). The predominance of personalised vehicles like two-wheelers, cars, etc. poses a problem for the State in terms of traffic congestion in cities, auto pollution, parking and road accident.

Figure 5.9 Distribution of motor vehicles in the State (in %)



Source: Office of Transport Commissioner, Odisha

5.5.9 The MV tax components include MV tax, addl. tax, arrear tax, penalty and fees like compounding fees, fees for Driving License (DL), fees for conductor license, registration fees, fees for issue of fitness certificate, permits and miscellaneous fees. MV revenue in Odisha grew by 7.08% in 2019-20, from INR 1,767 crore in 2018-19 to INR 1,892 crore in 2019-20, which was less than the growth rate of MV revenue in 2018-19 (14.37%). The MV revenue collected was 93% of its target in 2019-20.

Impact of COVID-19 Pandemic and Intervention in Transport sector

5.5.10 The transport sector has been drastically affected by COVID-19 impact. Due to imposition of nationwide lockdown from 23rd March, 20 to the end of November, 20, a significant loss in revenue collection, amounting to INR 192.56 crore has been caused as compared to revenue collection in the same period of last year in the state. Similarly, there was 65% loss in VCR collection due to COVID-19 impact. Besides, there was 41% decline in the sale of new vehicles, indicating indirect effect on the vehicle production. Precautionary measures such as physical distancing, frequent cleaning, mask and Face Shield to crews has put an additional financial burden on OSRTC.

5.5.11 During COVID-19 lockdown, OSRTC has provided 384 special buses to rescue people who were returning to their home on foot. Provisions were made for plying special inter-state buses for immigrants returning to their homes.

5.5.12 Twelve (12) numbers of border check posts are operated to manage the immigrants. These people were provided with mask and sanitizer to break the inter-state transmission of pandemic.

5.5.13 Sanitisation works have been undertaken for transportation of these migrants from rail-stations, bus-stands to their TMC and Quarantine Centres.

5.5.14 The OSRTC has resumed its bus services in a phased manner from September, 2020. As of today, a total of 162 buses are under operation in 104 routes, covering 59,764 kms per day and Passengers are being encouraged for digital payments and booking of online tickets.

Railway

5.5.15 Railway routes pass through twenty-four districts of the State, excluding Boudh, Deogarh, Kandhamal, Kendrapara, Malkangiri and Nabarangapur. The density of coverage is relatively high in some regions of the State, while central Odisha remains largely untouched. A large disparity across districts exists. By the end of 2019-20, the State had 2,652 km of railway lines with 243 railway stations and 60 passenger halts and 2,422 kms. of broad gauge electrified tracks. During 2019-20, a total of 97.38 million passengers travelled and total revenue of INR 20,904.34 Cr. was collected. Overall railway coverage is poor in the State and this has hampered the pace of its socio-economic development. The State has acquired land acquisition process in respect of 14 numbers of railway projects in the State. Besides, the State is involved in 3 numbers of new railway projects on cost sharing basis. They are (i) Khurdha road to Balangir, (ii) Jeypore to Malkangiri (iii) Jeypore to Nabarangpur.

Ports

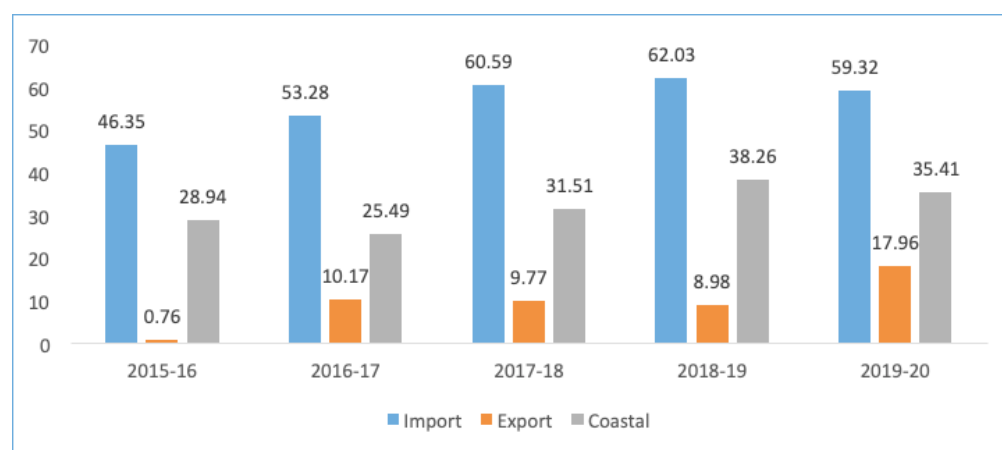
5.5.16 Odisha's coastal line provides it with a strategic advantage in terms of ease of access of trade via ports. Paradip Port, declared as the 8th major port of India, is the only major port in the State. It is the largest port in India in terms of average output per ship-berth-day. During 2019-20, 112.69 million tons of cargo was handled with 48% increase over 2015-16. In the past 5 years, while the volume of imports and coastal via the port has been significantly higher than the volume of exports, the total cargo handled has been increasingly steadily. The government is undertaking capacity addition projects in the Port,

viz. Southern oil jetty, multipurpose clean cargo berth, deep drought coal berth and deep drought iron ore berth on Build-Operate-Transfer (BOT) basis. This is expected to increase cargo handling capacity and volume of exports-imports-coastal handled by the port.

Table 5.4 Total Cargo handled by Paradeep Port.

Year	Import	Export	Coastal	Total traffic handled
2015-16	46.35	0.76	28.94	76.05
2016-17	53.28	10.17	25.49	88.94
2017-18	60.59	9.77	31.51	101.87
2018-19	62.03	8.98	38.26	109.27
2019-20	59.32	17.96	35.41	112.69

Figure 5.10 Cargo handled at Paradip Port in Odisha (in million tonnes)



Source: Paradip Port Trust, Odisha

Other ports

5.5.17 With 480 kms of Coastline, Odisha has 14 potential sites for development of non-major ports development. These minor ports are located at Gopalpur, Bahuda Muhan and Palur in Ganjam district; Baliharchandi and Astaranga in Puri district; Jatadhar Muhan in Jagatsinghpur district; Inchuri, Chandipur, Bahabalpur, Choumukh and Bichitrapur in Balasore district and Dhamra and Chudamani in Bhadrak district and Riverine Port in Kendrapara district on river Mahanadi. Out of these 14 sites, two non-major ports of Dhamara and Gopalpur have been made operational. Three other major ports, i.e., Subarnarekha mouth (Choumukh), Astaranga and Riverine ports on Mahanadi are in pipeline with Public Private Partnership (PPP) mode. All other non-major ports are to be developed by PPP mode. Revenue of INR 109.64 Crore have been collected from the ports sector in the financial year 2019-20.

5.5.18 The Traffic handled in 2 non-major ports of Gopalpur & Dhamara from 2016-17 to 2019-20 has been presented in Table -5.5. The total Traffic handled in these two non-major ports during 2019-20 was 35.26 MMT. The Traffic handled under import was more than export in all the years except in 2019-20 in Gopalpur port. Export, imports including Coastal shipping were in increasing trend. The growth of Traffic handled was 57% in 2019-20 over 2016-17.

Table 5.5: Traffic handled in two non-major ports of Gopalpur & Dhamara from 2016-17 to 2019-20

Name of Port	Finance year	Traffic handled (In MMT)			
		Import	Export	Coastal Shipping	Total
Dhamara	2016-17	14.36	3.61	3.44	21.41
	2017-18	14.38	3.21	3.89	21.45
	2018-19	12.75	3.94	3.98	20.67
	2019-20	18.81	7.46	3.44	29.71
Gopalpur	2016-17	0.28	0.74	0.03	1.05
	2017-18	0.66	0.44	0.04	1.14
	2018-19	1.01	0.40	0.10	1.51
	2019-20	2.34	2.89	0.32	5.55

Source: Commerce & Transport Deptt

Inland Water Transport (IWT)

5.5.19 IWT has vast potential but poor network in Odisha. It can extend passenger and freight services to people in the absence of road transport and railway services in some areas. Passenger motor launch services are operative in 6 (six) different water routes in two sectors, i.e., Chandbali and Balugaon sectors. Chandbali sector provides four launch services to Aradi (18kms), to Dhamara-Talachua (35 kms) and to Bhitarkanika (for tourist purpose), while Balugaon sector provides seven launch services to Kalijai (15 kms) and to Krusnaprasadgada (18 kms) and Nuagarah (Astaranga-Kaliakana-Gandakul (20 kms). Jetties/ waiting rooms are constructed in the water routes. It has been proposed to develop IWT service in the State by enhancing passenger capacity, identification of new water ways as well as modernisation of Jetty facilities. During 2019-20, 1.31 lakh passengers moved by IWT and INR 21.56 lakh revenue was collected from fares.

5.5.20 Sahid Baji Rout Naujatra Surakhya Yojana : Under this scheme of GoO , life saving equipments (Lifeboy , Lifejacket & Fire extinguisher) are procured and distributed to boat and launch owners as one time assistance on subsidy (95%) and to PSU operated boats/launchers to ensure the safety of passengers. In the first phase implemented in June, 2017 ,the equipments were distributed for the boats in Khordha & Puri districts for safe navigation in Chilika. The process for 2nd phase has been completed.

5.5.21 The survey and registration of boats : As per "Odisha boat rule -2004", all types of boats are being registered and checked for safe navigation of passenger boat & launch services in the State. As on 2019-20, totally, 2908 numbers of passenger boats have been registered.

Civil Aviation

5.5.22 The Directorate of Civil Aviation looks after the use and maintenance of the State Government's passenger aircraft and trainer aircrafts, training of student pilots and construction and development of airstrips in the State. There are 20 airstrips across the districts of which 12 are owned by the Government of Odisha. There are 16(sixteen) helipads in Odisha. Steps have been taken for construction of a new Airstrip in Malkangiri. During 2019-20, INR 1999.99 lakh has been allotted for development and expansion of runways upto 5000ft in 4 airstrips i.e Jeypore, Rangeilunda, Sativata (In Baragarh district) and Amarda Road (in Mayurbhanj district) on priority basis . Besides, steps are being taken for revival of abandoned Airport at Khandapara in the district of Nayagarh. Biju Patnaik airport is the only international airport in the State. At present, this airport provides connectivity to New Delhi, Mumbai, Chennai, Kolkata, Bengaluru, Hyderabad, Vizak, Ranchi, Kuala Lumpur and Bangkok. There is also a plan for expansion of Flying Training and to develop a satellite Training Base in the State at Birasal air strip in Dhenkanal district.

5.5.23 RCS-UDAN:As per Govt of India approved National Civil Aviation policy-2016 (NACP-2016) to stimulate Regional Aviation growth under Regional Connectivity Scheme (RCS), Govt of Odisha has taken proactive steps for improvement of Rourkela Airport in Sundergarh district ,Utkela Airport in Kalahandi district and Jeypore Airport in Koraput district into a full-fledged airports under RCS-UDAN scheme. Besides, Jharsuguda Airport has been developed into a full-fledged commercial Airport with efforts of State Govt. & started its Flight operation on 31.03.2019 from Jharsuguda to New Delhi, Hyderabad, Kolkata, Raipur & Bhubaneswar under RCS-UDAN.

The Airport recorded the highest growth rate in passenger traffic in 2017-18, ferrying 3.24 lakh passengers (growth of 39.4% over the previous year). The revenue earning of the airport has more than doubled from INR 41.47 crore in 2013-14 to INR 93.99 crore in 2017-18.

5.5.24 The impact of COVID-19 on Aviation Sector: The outbreak of COVID-19 has led to the freezing of flight operations both domestic and international by the end of March,2020. It has restricted passengers movement mainly to prevent the spread of Corona virus. There has been loss of revenue and job in aviation sector have been lost. Flying training activities of Government Aviation Training Institute of GATI was stopped till 20.5.2020.

5.6 Telecommunications

5.6.1 It is a well-known fact that the Telecom sector has a multiplier impact on the economy, contributing to economic growth and the GDP. Digital connectivity facilitates & online citizen centric services ensures better e-governance. With rapid globalisation and increasing reach of internet, development of telecom infrastructure is a sine qua non in the growth of economic infrastructure. Telecommunication is a Central subject and the State Government plays a supporting role for increasing mobile connectivity in the state.

5.6.2 The "communications and services related to broadcasting" sub-sector's contribution to services

GSVA stood at 3.76% in 2019-20. This sub-sector’s share has largely remained around 4% in the past nine years. The contribution of the sub-sector to overall output has grown at a high rate of 17.90% in 2014-15 and (-) 3.61% in 2020-21 (AE).

5.6.3 The communications sector is still at a developing stage in the State as inferred by the tele-density and internet subscriber base. The Table-5.6 and Fig.-5.11 & Fig.-5.12 reveal that the overall Tele-density of Odisha is 76.46, while the national average is 87.37. Similarly, Internet subscribers per 100 population of the State is 43.95 in comparison to the national average of 55.12. In Odisha, Wireless Tele-density is 62.25 in rural areas and 137.14 in Urban areas. The share of wireless subscribers is 99.37% whereas the same of wireline is only 0.63% in the State, which is well comparable to national average of 98.28% and 1.72% respectively. Similarly, the Internet subscription per 100 population in Rural areas stands at 34.51 whereas it is 85.98 in case of Urban areas. Thus, there is significant urban-rural difference in the state both for Tele-density and Internet subscription. It is also seen that while overall Tele-density and internet subscription per 100 population in Odisha is lower than National level, it is comparable when urban regions are related for both. This implies that in urban regions, the status of telecom infrastructure is adequate and at par with national average. On this backdrop, increasing internet services needs to be focused on in rural regions in the State.

Figure 5.11: Telecom indicators: Odisha and India (As on 31.03.2020)

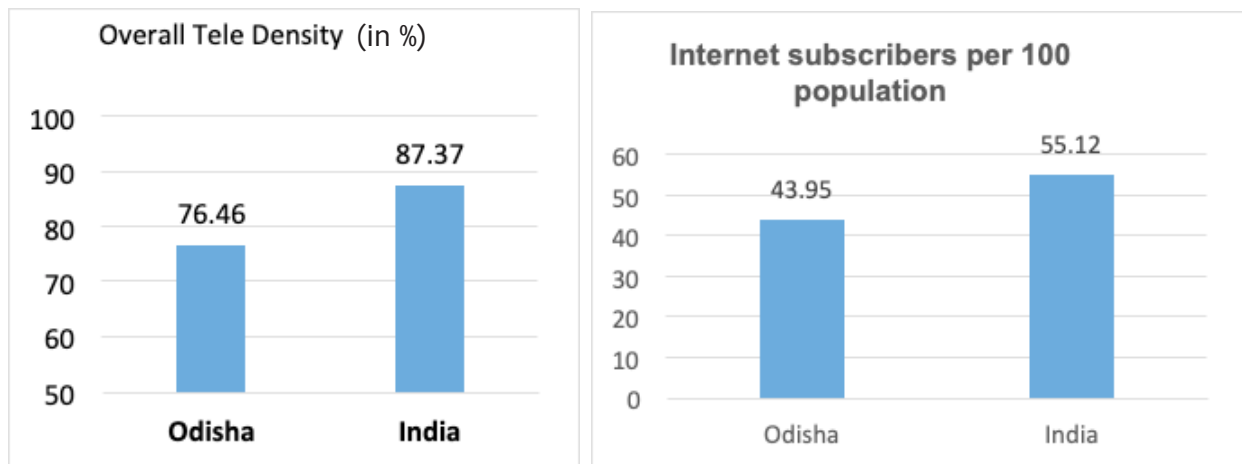
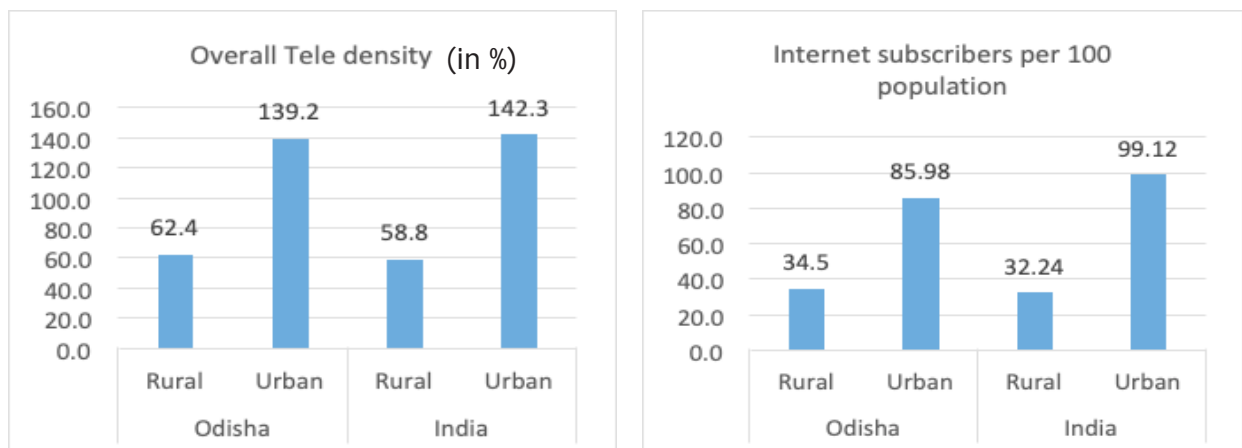


Figure 5.12 Telecom indicators: Urban and rural regions



Source: TRAI, Govt of India

Table 5.6 Telecommunication status of Odisha and India (As on 31 March 2020)

Indicator	Odisha			India		
	Total	Rural	Urban	Total	Rural	Urban
Wireless Tele-density (%)	75.98	62.25	137.14	85.87	58.54	131.41
Wireline Tele-density (%)	0.48	0.11	2.10	1.50	0.25	3.90
Overall Tele-density (%)	76.46	62.37	139.24	87.37	58.79	142.31
Total subscribers (in millions)	33.54	22.34	11.20	1177.97	521.51	656.46
Wireless subscribers (in millions)	33.33	22.30	11.03	1157.75	519.27	638.48
Wireline subscribers (in millions)	0.21	0.04	0.17	20.22	2.24	17.97
Total Internet subscribers (millions)	19.28	12.36	6.91	743.20	285.97	457.23
Broadband subscribers (millions)	17.70	11.18	6.52	687.44	258.61	428.83
Narrowband subscribers (millions)	1.58	1.18	0.40	55.76	27.36	28.40
Internet subscribers per 100 population	43.95	34.51	85.98	55.12	32.34	99.12

Source: TRAI, Govt, as on March 2020

5.6.4 A survey was conducted by the Department of Telecommunication, Government of India involving Block Level Officers during 2016-17 for assessing the number of villages having no connectivity. It was found that out of total 51,311 villages of the State, about 11,000 villages do not have mobile connectivity. Out of this, 10,000 villages come under LWE affected area. Special funding is required to set up more number of mobile towers in these uncovered areas for improving the Tele-density in the State.

5.6.5 Government of Odisha has notified the Odisha Mobile Towers, Optical Fibre Cable and Related Telecom Infrastructure Policy, 2017 to assist the Telecom Service Providers/Infrastructure Providers for obtaining RoW permission in a given time frame. Telecom Service Providers/Infrastructure Providers are yet to come forward to install telecom infrastructure in villages of Gajapati, Kalahandi, Kandhamal, Malkangiri, Koraput and Rayagada districts of the State.

5.6.6 The matter of low mobile penetration in Odisha has been raised consistently in various forums such as Eastern Zonal Council and also with Department of Telecommunications, Govt. of India. Similarly, to increase the internet penetration in Odisha, a coordinated effort is required by the various stakeholders involved in the Bharat Net project.

5.6.7 Under LWE Phase-II, on 23.5.2018, the Union Cabinet has approved to set up 483 Nos. of Mobile connectivity based Towers (Voice-2G +data-4G) in LWE affected 18 districts of Odisha including other LWE affected States. The projects are under progress.

5.7 Financial Services

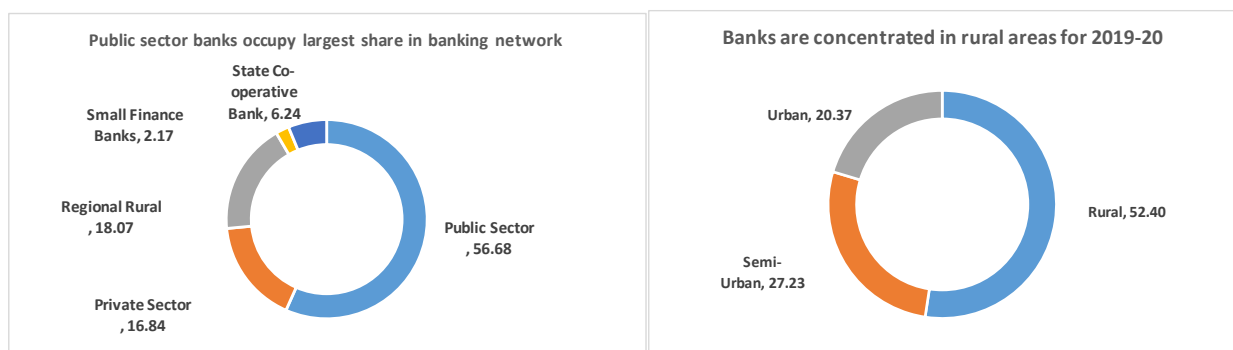
5.7.1 Financial services, viz. banking (savings, deposit and credit), insurance etc. play the role of catalyst in the growth of the economy through provision of avenues for investment and risk management. As the economy grows, with increasing per capita income and wealth, the demand for financial services increases as well. In Odisha, financial services account for a share of around 9.07% in the GSVAs arising from services sector (2019-20) and increased to 9.96% in 2020-21 (AE). The growth rate of the sub-sector was increased tremendously during 2017-18 (13.19%). As per advance estimate of 2020-21, it was 9.49%.

5.7.2 The extent of availability of financial services depends on the infrastructure of financial institutions present in the State. Banks are the most pivotal component of institutional finance mechanism. Banking network not only promotes financial inclusion, but also enables diversification of economic activities and productive investment. It shoulders the responsibility for mobilising public savings.

I. Banking Network in the state

5.7.3 Odisha has 18 public sector banks, 18 private sector banks, 2 rural banks, 3 Jana Small finance banks and 1 state cooperative bank with a total of 5,450 branches as of March 2020. Public sector bank branches constitute 57% of total branches as depicted in Fig. 5.13. The average population served by a bank branch is 8,642. Further, 52% of total bank branches are located in rural areas of the State. Bank branches distribution is rather skewed as 52% of bank branches serve about 82% of total population living in rural areas while 48% of bank branches serve only 18% urban population. During 2019-20, 140 new branches of banks (14 in public sector, 65 in private sector and 61 in Jana small finance bank sector) have been opened in the State.

Figure 5.13 Distribution of banks by region and category (in %) in Odisha



Source: SLBC (158th & 159th issue), March 2020

II. Bank deposits, advances and credit deposit ratio

5.7.4 Growth in bank deposits and advances is an indication of flow of credit in the economy and Consumer demand. Total deposits of all banks in Odisha grew by 10.97% in 2019-20 over 2018-19. Advances sanctioned and utilised grew by a higher rate of 11.90%, indicative of higher demand for credit in the economy. More than 96% of total bank deposits were with commercial banks.

5.7.5 Agriculture, MSME, Weaker sections & Housing are the leading sub-sectors in terms of very high growth of bank advances in 2019-20. Growth rate of priority sub-sectors such as Agriculture (6.57%),

MSME (6.57%), Weaker sections (7.72%), Housing (7.51%) was higher than that of total advances. Out of total advances by banks in the State, 88.92% was sanctioned and utilised within the State. Priority sector advances were 59.34% of the total advances, way above the minimum benchmark rate of 40%. This indicates the compliance of banks with priority sector lending norms, as well as demand from the agriculture and MSME sector, education, and housing loans for credit. Advances to minority community (-22.48%) and education (-15.26%) showed negative growth over the last year. The details are in Table 5.7 & Fig. 5.14.

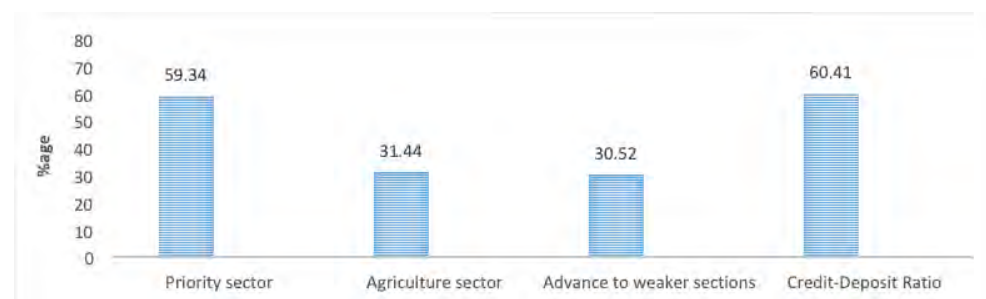
Table 5.7 Major banking indicators in Odisha

Indicators	2018-19	2019-20	Growth in %
Total deposit	3,14,478.16	3,48,975.92	10.97
Total advance utilised in the state	2,06,786.24	2,10,827.84	1.95
Total advance sanctioned and utilised in the State	1,67,544.90	1,87,474.66	11.90
Priority sector advance	1,05,049.79	1,11,248.52	5.90
Agriculture advance	55,310.21	58,944.03	6.57
MSME advance whi	38,627.53	41165.76	6.57
Education loan	1,961.19	1661.85	(-)15.26
Housing loan	14,369.52	15,448.31	7.51
Advance to minority community	5,148.34	4,011.34	(-)22.08
Advance to weaker section	31,519.83	33,952.40	7.72

Source: SLBC (158th and 159th issue), March 2020

5.7.6 Priority sector lending in the State was well above their respective benchmark rates. For an inclusive development of economy, it is essential that credit flow and investment be disbursed uniformly and not be concentrated in areas of high returns only. To ensure the same, the Reserve Bank of India requires banks in the country to advance at least 40% of their loans under priority sector lending which comprises of advances to agriculture, MSME, education, housing and weaker sections of the society. In case of Odisha, banks are compliant with the norms for lending in respective sectors as is evident from the figure below. Credit-Deposit (CD) ratio is the proportion of loan created by banks from deposits it receives. High ratio indicates banks are generating more credit from its deposits and vice versa. The national norm of benchmark CD ratio in India is maintained at 60%. In Odisha, the CD ratio(excluding advance sanctioned in other state and utilised in our state) for 2019-20 was 53.72%.

Figure 5.14 Priority sector lending and credit-deposit ratio of banks in Odisha, 2019-20



Note: 1) Figures for priority sector and agriculture sector are as percentage of total advances, 2) Figure for advances to weaker sections is as percentage of priority sector advances 3) Figures in boxes give the benchmark for the indicators

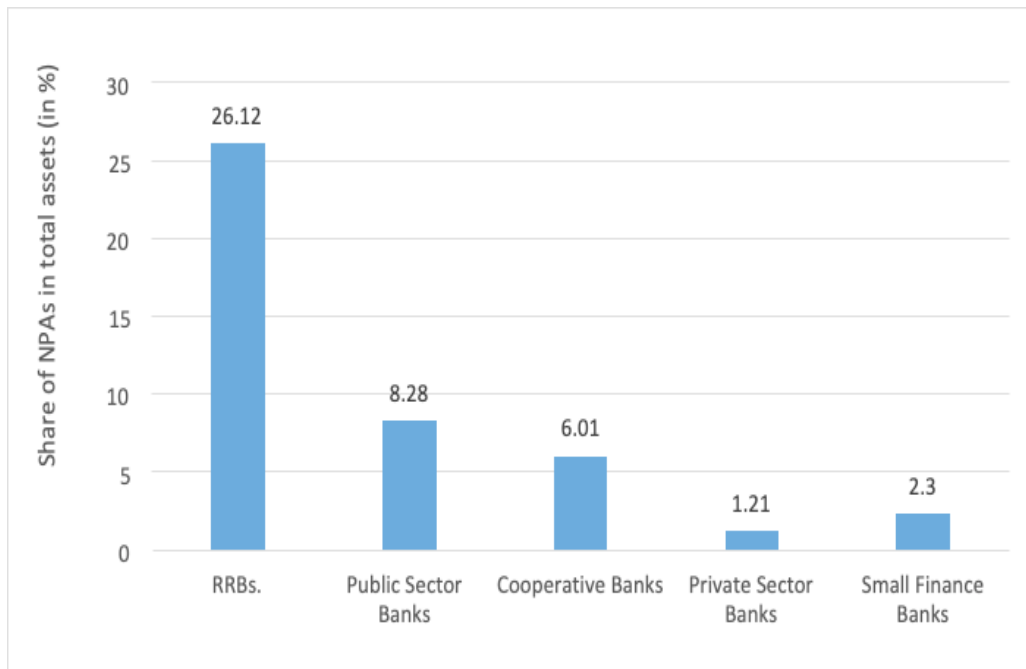
Source: SLBC (158th & 159th issue), March 2020

5.7.7 Public sector banks play a pivotal role in the banking sector in the State, accounting for the larger proportion of bank branches (56.68%) as well as majority share (72.35%) of total deposits and majority share (63.17%) of total advances. Between commercial banks and cooperative banks, share of the latter in total deposit is very small (3.34%). This indicates the increasingly important role of commercial banks in credit flow in the State.

III. Non-Performing Asset (NPA)

5.7.8 Public sector banks in Odisha have higher NPAs levels than private sector banks, similar to the trend seen at all-India level. An asset including a leased asset becomes non-performing when it ceases to generate income for the banks. Share of non-performing assets in total assets in Odisha, as on March, 2020, is given in Figure 5.15.

Figure 5.15 Share of non-performing assets in total assets of banks, by type



Source: SLBC (158th & 159th issue), March 2020

5.7.9 During, 2019-20, the overall gross NPA and overdue amounts were 6.76% and 24.14% for the banks in the State, which are significantly less as compared to 2017-18 level i.e. 10.60% and 36.70% but still alarming. With regard to government-sponsored schemes, the NPA and overdue percentages are even higher. RRBs had the highest NPA percentage of 26.12. Within the sector, education loan and Agriculture allied loan had the highest NPAs. The NPA percentage ranging between 2.5% to 15% and overdue ranging between 13% to 56% for all major schemes are surely a matter of concern. NPA and overdue badly affect the productive recycling of funds. Introduction of a dynamic recovery mechanism will promote reinvestment and ensure better recycling of funds by banks largely. Details are given in Table 5.8.

Table 5.8 Sector wise non-performing assets and overdue as on 31 March, 2020

Sectors	NPA (%)	Overdue (%)
Short term crop loan	10.35	21.57
Agricultural term loan	11.34	44.91
Agriculture allied	14.87	48.24
Total agriculture	11.13	25.26
MSME sector	8.97	29.47
Education loan	12.43	55.09
Housing loan	2.92	13.25
Total priority sector	9.97	25.38
Total advance	6.76	24.14

Source : SLBC (158th & 159th issue) March, 2020

IV. Cooperatives

5.7.10 Odisha has a well-structured cooperative sector comprising of three-tier institutional networks, namely short-term agricultural cooperative credit, long-term agricultural co-operative credit and non-agricultural credit cooperatives which play a pivotal role in the dispensation of farm and non-farm credit in the State.

V. Short-term agricultural credit

5.7.11 Even as commercial banks hold close to 97% share in disbursement of total advances with the cooperative sector accounting for the remaining small share, the role is reversed in the case of agricultural credit. Market share of cooperatives in short-term agricultural credit sector is about 64%, with commercial banks accounting for the smaller share of 34%. Short term Crop loan in 2019-20 was INR 13071.03 crore financed to 31.64 lakh members with growth rate of 2.04% over 2018-19. Between 2010-11 and 2019-20, the short term crop loan dispensation has become more than trebled. The per capita crop loan increased from about INR 17,000 in 2010-11 to INR 41,000 in 2019-20.

5.7.12 The short-term agricultural credit sector provides financial credit support for agricultural operations including purchase of agricultural inputs like certified high yielding varieties of seeds, fertilisers, pesticides and agricultural implements. It also renders assistance for storage and marketing of agricultural produce and helps members to get remunerative prices for their produce. The State has 2,708 Primary Agriculture Cooperative Societies (PACS) including 214 Large sized Adivasi Multi-Purpose Cooperative Societies (LAMPCS) and 6 Farmers' Service Cooperative Societies (FSCS), 17 District Central Cooperative Banks in the middle-tier as with 291 agricultural financing branches with the Odisha State Cooperative Bank (OSCB) at the apex level. The network of PACS, LAMPCS and FSCS covers almost all the 6801 GPs of the State for providing easy access of credit to small & marginal farmers along with marginalised sections of the society.

VI. Agricultural Term Loan

5.7.13 The co-operative credit sector provides term loans, also called investment credit, for agricultural and allied purposes, capital investment, asset creation, land improvement, farm mechanisation, plantations, horticulture and other non-farm activities. During 2019-20, a sum of INR 313.41 crore has been provided as agricultural term loan to 28,656 members

VII. Kissan credit cards (KCC)

5.7.14 The Kissan credit cards scheme was introduced in the state through District Co-operative Central Bank (DCCB) & Primary Agricultural credit Society(PACS) since 1998-99. The scheme aims at providing timely, adequately & hassle free credit to farmers, based on their land holding ,cropping pattern & scale of finance. Under the scheme once the credit limit is sanctioned crop-wise, the scheme remains valid, basically for 3 years .The farmer members are supplied with Pass book & Cheque books to avail credit through agricultural financing branches of DCCBS. The KCCS are being converted into smart Rupay cards to provide the farmers drawal facilities in ATMs & PoS outlets. Totally, 40,75,172 KCCs have been issued by the DCCBs/PACs as on 31.03.2020.

5.8 Financial Inclusion

5.8.1 The essence of financial inclusion is to ensure delivery of financial services, which include bank account for savings and transaction purposes, low cost credit for productive, personal and other purposes, financial advisory services, insurance facilities (life and non-life), etc. Financial inclusion plays an important role in the overall development at the grass root level in this State. Financial inclusion broadens the resource base of the financial system by developing a culture of savings among a large segment of rural population and plays its own role in the process of economic development. Further, by bringing low-income groups within the perimeter of formal banking sector, financial inclusion protects their financial wealth and other resources in exigent/demanding circumstances.

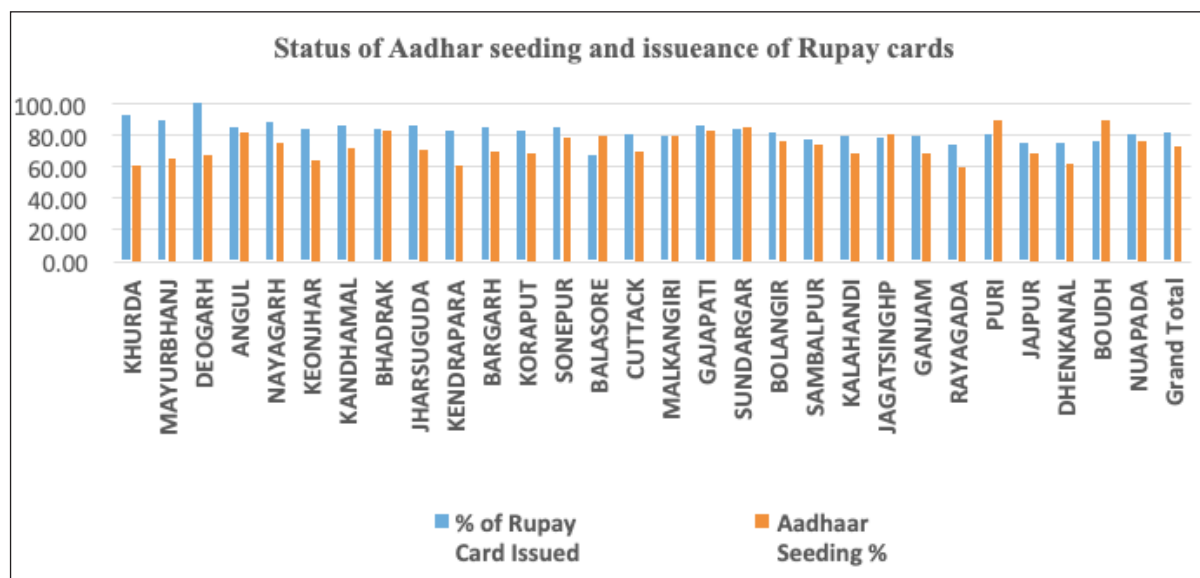
5.8.2 This section presents details of progress of schemes targeted towards increasing access to financial services in the State.

(a) Access to banking services

5.8.3 As per Census 2011, only 45% of households in Odisha availed of banking services, as compared to 58.7% at the national level. The push towards financial inclusion in the form of Jan DhanYojana has led to significant progress. As of March 2020, more than 1.54 crore bank accounts have been opened under the Jan DhanYojana in Odisha. These were primarily concentrated in rural areas (111.29 lakh accounts as compared to around 43.13 lakh accounts in urban areas). In all, 1.27 crore accounts were opened in public sector banks, followed by sponsored Regional Rural Banks (RRBs) and private sector banks.

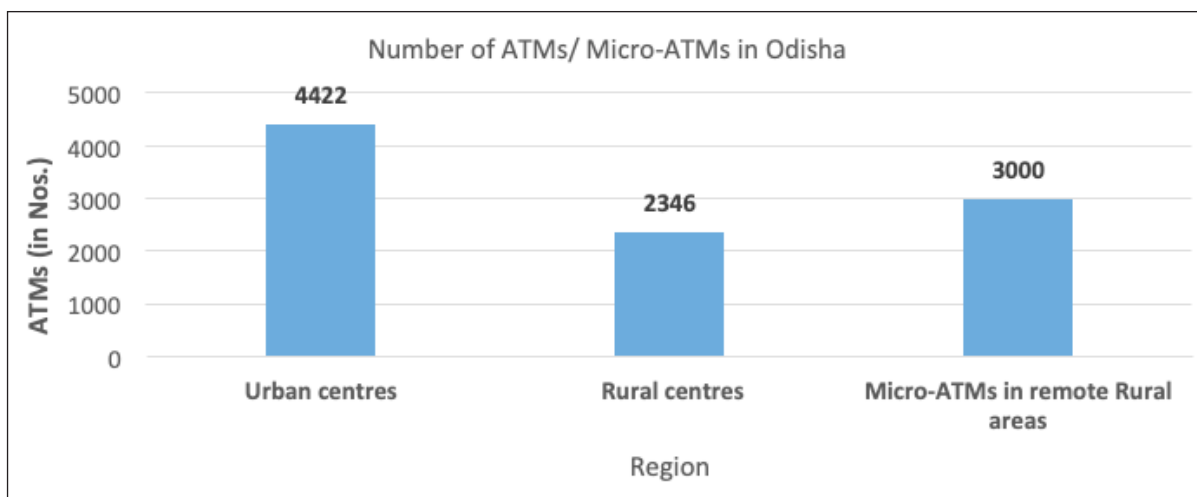
5.8.4 District-wise analysis reveals that out of the 1.54 crore Basic Savings Bank Deposit accounts opened, Mayurbhanj (7.39%), Ganjam (6.15%) and Khurda (5.59%) were the top three districts. On the whole, Rupay cards have been issued for 81.39% of Basic Savings Bank Deposits (BSBD) Accounts and Aadhar seeding was done for 72.34%.

Figure 5.16 Status of Aadhar seeding and issuance of Rupay cards



Source: State-Level Bank Committee (SLBC) (158th and 159th issue), March 2020

Figure 5.17 Presence of ATMs in rural and urban Odisha (As on 31.03.2020)



Source: SLBC, 158th & 159th Issue, March, 20 & Co-operation Deptt.

5.8.5 Even though 52% of bank branches are located in rural areas, the availability of ATMs is skewed towards urban/semi-urban areas. In all, 4,422 ATMs are present in urban centres in the State as compared to 2,346 in rural areas as depicted in Fig. 5.17. The present status of branch and ATM opening in the State indicates that banks are yet to give due importance for installation of ATM at rural branches. Besides, under the financial assistance from NABARD, 3,000 Micro-ATMs were procured by DCCB to be installed in PACS and LAMPCS to provide basic banking services to the Account holders of DCCS in remote localities where banking services are not available.

5.8.6 To promote financial inclusion through penetration of banking services in rural areas and to provide sustainable banking services in unbanked areas, a phase-wise approach has been adopted to provide doorstep banking services in unbanked areas. In terms of revised guidelines on Branch Authorisation

policy, 78 unbanked rural centres having population of more than 5,000 and without a bank branch of a Scheduled Commercial Bank (SCB) were to be covered by banking outlets. As on 24.05.2018, 12 Brick and Mortar Branches and 65 Business Correspondent (BC)/Customer Service Points (CSP) have been opened in said unbanked rural centres. Similarly, out of 1,474 unbanked GPs, 1,058 have at least one banking outlet as on 31 March 2018. Out of 2,268 uncovered villages, 2197 BCs have been deployed by 23 SCBs as on 31.5.19. Further, 8 numbers of Brick and Mortar Branches/outlets have been opened in 5 Aspirational Districts as on 13.6.2019.

5.8.7 As on 31.3.2019, 7284 BC locations have been set up in 7,284 villages and also 45,962 outlets have been opened in 45,888 allotted villages by 24 SCBs for providing financial services in every village having population below 2,000.

5.8.8 As on 3.3.20, the Banks have been requested to open Bricks and Mortar Branches in un-banking GPs immediately.

5.8.9 Digital connectivity is necessary to ensure financial inclusion. As on 18.5.2020, 3610 GPs/BHQs have been connected through Optical Fibre Cable under Bharat Net Phase-I covering 18 districts.

5.8.10 To promote financial inclusion, the Deptt. of Post, Gol, have opened IPPB (Indian Post & Promotion Bank) on 01.09.2018 with 33 Bricks and Mortar branches, one branch in each district Hqrs. The IPPB is spearheading financial inclusion of un-banked population. All post offices serve as a branch for themselves. As of now, 33 IPPB branches and 8253 numbers of Access points/ Micro- ATMs and Mobile banking are operational for common man.

5.8.11 **Jan Dhan Darshak GIS App:** As per Ministry of Finance, Gol, 45,036 Nos. of villages have been mapped in Jan Dhan Darshak GIS App where 376 villages are uncovered which doesn't have branches/ IPPB/BC. The concerned banks have been requested to update the covered villages in the App and to arrange to open banking Outlets in the uncovered 376 villages.

5.8.12 Odisha received the National Award for outstanding performance in Financial Inclusion under DAY-NRULM in 2018. Further, Gajapati District received cash award from NITI AYOJ for best performance in Financial Inclusion among Aspirational Districts of India.

5.8.13 NABARD initiative for FI: It has provided fund to banks under FIF for financial inclusion and banking technology schemes for banking services in rural areas. Banks have been instructed to prepare financial inclusion plan. As on 31st March, 2020, NABARD has extended financial grant of Rs.6.18 crore for creating awareness on financial inclusion. On supply side, NABARD has been providing financial support to scheduled commercial banks (SCB), RRBs and Rural Co-operative banks (SCB and DCCBs) for connectivity infrastructure like V-SAT, Mobile booster and Solar power supply to ensure uninterrupted financial services and banking technology infrastructure like Micro-ATM, POS/m-POS, on-boarding BHIM UPI, activation of RuPay Cards at Micro ATMs etc. to improve digital transactions in rural areas.. On demand side, financial support has been provided to banks for Mobile Demonstration Van for conducting Financial and Digital literacy camps in rural areas to create awareness about financial and digital literacy among people.

5.8.14 Govt. of Odisha initiative : Govt. of Odisha have decided to provide space in Bharat Nirman Rajiv Gandhi Seva Kendra (BNRGSK) Buildings/GP Offices to open brick and mortar bank branches /HTA/BC in GP Hqrs. for public sector banks/ RRBs/ Private sector banks ,free of costs for the next 5 years and continuance of the existing banking operations in BNRGSK Buildings / GP offices in the GPs having no banks / post offices.

PMFBY (Pradhan Mantri Fasal BimaYojana)

5.8.15 The scheme has been launched nationwide since agricultural year, 2016-17 in place of earlier scheme viz. Modified National Agricultural Insurance Scheme (MNAIS), Weather-based Crop Insurance scheme and the National Agriculture Insurance Scheme (NAIS). This crop insurance scheme aims at providing insurance to farmers in case of crop loss in Notified crops in stages of premature sowing, standing crop, mid-season adversity, localised calamities, post harvest losses & pest affects etc, which are non-preventive natural risk.

The Notified crops are (1) Paddy, (2) Groundnut (3) Cotton (4) Ginger (5) Turmeric (6) Maize (7) Red Gram (8) Ragi in Kharif season & (1) Paddy (2) Groundnut (3) Mustard (4) Potato (5) Blackgram (6) Greengram (7) Onion (8) Sugarcane (9) Sunflower in Rabi season .

The GPs/ULBs is unit of insurance for Paddy & Blocks for other Notified minor crops. All loanee & non-loanee farmers including share cropping tenant farmers are eligible for coverage under the scheme . The scheme is optional for both loanee & non-loanee from Kharif-20. The maximum premium payable by farmers is 2.0% for Karif & 1.5% for Rabi season.

Under the scheme ,Remote Sensing Technology and Smart Phones are being used for selection of CCEs plots and capturing of CCEs data. Further, it has been proposed to use drone for expedite the crop loss estimation.

In all ,30.67 lakh loanee and 19.16 lakh non- loanee farmers have been covered with an area coverage of 14.94 lakh ha. & insured amount of INR 12,523.56 crore during 2019-20.

5.8.15 Table 5.9 shows status on various financial inclusion indicators in Odisha. It can be observed that as compared with the performance in 2018, the accessibility of formal financial services in terms of ATMs per lakh population has improved. Specifically, the extent of credit given by Scheduled Commercial Banks per person has enhanced from INR 42,695 in 2018 to INR 44,762 in 2019. The trend of financial inclusion in other indicators has shown upward movement'

Table 5.9: Key indicators of financial inclusion as on 31.03.20

Indicators	Odisha	
	2019	2020
Number of ATMs per lakh population	14.9	20.74
Number of Bank Branches per lakh population	11.68	11.57
Proportion of Credit Financed by Banks to SHGs	0.63	0.66
Number of Post offices per lakh population	18.13	17.52
Total Credit by SCBs per person(In INR)	42,695	44,762
Total deposits in RRBs per person (In INR)	3926	4063
Advance to weaker sections per person(In INR)	6955	7,209

Source: RBI, IRDA, UBI, SLBC (158th and 159th Issue, March, 2020)

(b) Increasing access to finance through Self Help Groups

5.8.16 Odisha became the first State in the country to adopt Self Help Groups (SHG) based model for financial inclusion to extend banking services in the unbanked areas. The SHGs formed under the Odisha Livelihood Mission (OLM) will provide banking services. OLM has entered into an agreement with SBI, Odisha Gramya Bank (OGB), Utkal Gramya Bank (UGB) and other banks for financial inclusion. The agreements assume significance as around 70% of the Gram Panchayats (GP) in the State do not have

brick and mortar bank branches. As per the agreements, OLM will function as corporate agent and around 3 lakh SHGs operating under it will be the banking correspondent. In the first phase, SHGs will be engaged as Business Correspondents in around 1,000 remote GPs in scheduled areas having no banking facilities. Gradually in subsequent phases, it will be extended to 4,000 un-banked GPs and entire State will be covered under the financial inclusion plan. Government is providing interest subventions to Women-SHG in the State (under OLM / NULM / NRLM/Mission Shakti), whose loan accounts are regular, as a result of which effective interest was charged @ 1% upto 31.3.2019, which was very nominal with an aim to arrest NPA to a great extent.

5.8.17 In the meantime, the State Govt. has renamed the Interest Subvention scheme as “**Mission Shakti Loan**”-interest free loan for WSHGs and approved to provide interest free loans i.e at 0% per annum for WSHGs for loans upto INR 3 lakh effective from 1st April 2019 to accelerate the SHG- Bank linkage programme in the state and to further livelihood promotion of Women SHGs. During 2019-20, totally, 2,02,604 SHGs have been credit linked with banks, availing a total credit of Rs,2,315.53 Cr.

5.8.18 **Posting of Bank Mitra and Formation of BLRC Committee:** It has been decided for posting of Bank Mitras and formation of BLRC (Bank Linkage and Recovery Committee) at all bank branches engaged in WSHG bank linkage. In all, 3471 Bank branches are involved in financing SHGs and only 1065 BLRCs have been formed for facilitating bank linkage and recovery of NPA. By the end of March,2020,, 1511 Bank Mitras have been positioned in all branches in intensive blocks to facilitate SHG financing.

5.8.19 **Mudra Loans for SHG members:** As per Gol announcement, one woman in every SHG will be made eligible for a loan upto 1.00 lakh under MUDRA scheme. NRLM has allotted a target to our State for linking 68,000 SHG members under MUDRA for 2019-20.

5.8.20 “**Mission one GP one BC Sakhi**”: DAY-NRLM, has advised a Roll out Plan, called “Mission one GP one BC Sakhi” for positioning of WSHG members as BC Agents. All banks have been advised to deploy WSHG members as BC in Sub Service Area. It has been decided to implement DIGI pay services like AEPS withdrawal and Fund transfer through Android Mobile. OLM is in a process to engage WSHG members as DIGI pay Sakhi who may subsequently be engaged as BC Agent in Sub service Area.

5.8.21 The highly acclaimed “**SHG-Bank-Linkage programme**” has been one of the major initiative of NABARD in the field of micro-credit. NABARD has been providing financial assistance to various institution and agencies to conduct training and capacity building programme for the stakeholders. During 2019-20, NABARD ,Odisha has facilitated credit linkage of 72,611 SHGs and JLGs(Joint Liability Group) with formal financial institutions. Around 79 anchor NGOs have been assisting the promotion of WSHGs in the 19 Backward and Left Wing Extremism affected districts of Odisha.

5.8.22 Under the NABARD project “**e-Shakti**”, the details of more than 1.20 lakh SHGs have been digitised in 15 districts of Odisha. The aim of this project is as follows;

- i) Improving the quality of interface between SHG members and banks for efficient and hassle free delivery of banking services.
- ii) Integrating SHG members with the national financial inclusion agenda
- iii) Facilitate convergence of delivery system with SHGs using Addhaar linked identity

Table 5.10 : Government policies on banking sector

Initiative	Objective	Progress in brief
Pradhan Mantri Surakhya Bima Yojana (PMBSY)	Covers accidental insurance of INR 2 Lakhs for death/full disability for 18 to 70 years with a yearly premium of INR 12	By the end of March 2020, 54.64 lakh persons were enrolled in this scheme
Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY)	A life insurance scheme for the age group of 18 to 50 years, with yearly premium of INR 330 for coverage of INR 2 lakhs	By the end of March 2020, 16.29 lakh persons were enrolled in the scheme.
Atal Pension Yojana (APY)	A pension benefit to the people of unorganised sector between the age group of 18 to 40 years after attaining the age of 60	By the end of March 2020, 6.61 lakh persons were enrolled in the scheme.
Pradhan Mantri Fasal Bima Yojana (PMFBY)	Covers loanee farmers on a compulsory and non-loanee farmers on a voluntary basis for loss of crops due to non-preventable natural risk. From Kharif 2020 the scheme is optional both for loanee and non-loanee farmers	During Kharif 2019, 28.78 lakh loanee farmers (application count) and 18.82 lakh non-loanee farmers (application count) were covered with area coverage of 18.44 lakh hectares and insured amount of INR 1207700.08 lakh and during Rabi 2019-20, 1.88 lakh loanee farmers (application count) and 0.14 lakh non-loanee farmers (application count) were covered with area coverage of 0.66 lakh hectors and insured amount of INR 44624.73 lakh.

Source: State-Level Bank Committee (SLBC) (158th & 159th issue), March 2020

Chapter 6

Social Sector, Human Development and Quality of Life

Chapter-6

Social Sector, Human Development and Quality of Life

6.1 Introduction

Social sector is a critical and vital sector for the economy of Odisha and includes several important components such as health and medical care, education, water supply and sanitation, poverty alleviation, housing and social safety nets. This sector plays a significant role in human development. The elements of liberalization and economic reforms have played a key role in the areas of social infrastructure and development. Important aspects of human development are now governed within economic sphere where market and private philanthropy play a vital role. Due to rapidly globalizing competitive market place coupled with the increasing need to expand quality of life at the grass root level and to spur innovative thought, policy makers in the country as well as in the state are slowly but surely setting the social sector on the reform track.

Human Development is about people, more than economic growth, more than income and wealth and more than producing commodities and accumulating capital. A person's access to income may be one of the choices, but it is not the sum total of human endeavour. Human development emphasizes on the people and their capabilities in assessing development. It gives importance to the richness of human life rather to the richness of the economy in which the person lives. It covers not only the economic growth and sharing, but also all kinds of human needs, hunger and unemployment. In the contemporary era, human development is in greater need of analysis and the word has come widely used in public discourse probably more so than ever before in its history (Payne & Phillips, 2010). There are six basic pillars of human development, namely, equity, sustainability, productivity, empowerment, cooperation and security. Equity is the idea of fairness for every person, between men and women; everyone has the right to education and health care. Sustainability is the view that we all have the right to earn a living that can sustain our lives and have access to a more even distribution of goods. Productivity states the full participation of people in the process of income generation. Empowerment is the freedom of the people to influence development and decisions that affect their lives. Human development also helps in reducing civil disturbances in the society and in increasing political stability.

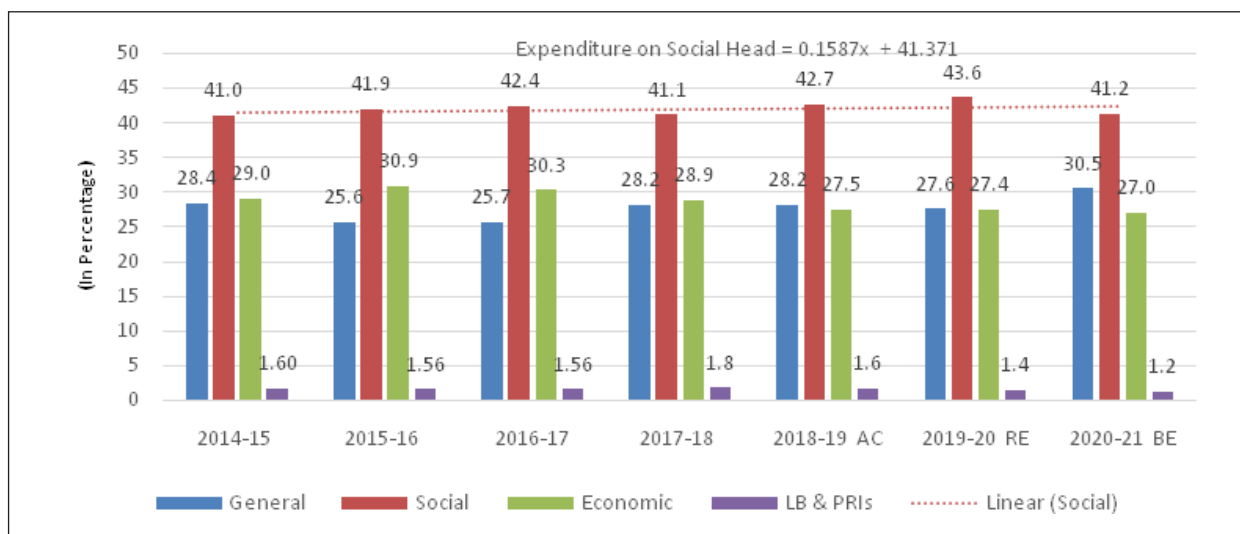
The Quality of Life is the study of people that states how and why people from various groups change or remain same over periods of time. It is a way to understand trajectory of overall progress of human life. In economic sense the core to this understanding is capacity approach. It is the process of enlarging people's choices, to lead a long and healthy life, to be educated, to enjoy a decent standard of living, freedom, other guaranteed human rights and various ingredients of self-respect. The critical elements of human development are long and healthy life, access to knowledge, decent standard of living, gender security, human security, environmental sustainability and political and community participation. In his chapter, an attempt has been made to assess state's performance on social sector, human development and quality of life and various interventions undertaken by the State Government to strengthen social infrastructure leading to better quality of life.

6.1.1 Allocation for Human Resource Development

A. Government of Odisha has maintained its share of social spending in overall expenditure.

The share of the expenditure on the Social Sector in Government Revenue Expenditure in the Budget has been steadily increasing (Figure 6.1). Social sector expenditure comprises expenditure for education, health, housing, urban and rural development, welfare of SC/STs, among others. As per 2020-21 Budget Estimates (BE), social sector spending is 41.2% of total expenditure.

Figure 6.1: Percentage share of Government Revenue expenditure, Odisha from 2014-15 to 2020-21 (BE)



Source: State Budget, Government of Odisha.

B. Decent Standard of Living

Odisha Government has significantly managed to improve its Per-Capita Income (PCI) ranking across states. In 2019-20, Odisha's Per-capita Income is INR 1,04,566 (Revised Estimates) up from INR 98,181 in 2018-19. Since 2012-13, average growth in per-capita income in Odisha has been 7.67% annually. This has contributed significantly in providing decent standard of living in the State. Rising per capita income is a prerequisite to have a decent standard of living. As per World Bank study (2016) consumption inequality in the state is lower than national average. Not only that, the study confirms that the poverty reduction is faster in the state in comparison to many low income states. As per the Planning Commission's report Odisha reduced the poverty rate by 24.61% since 2004-05 which is the second highest across all the states and far ahead of the national rate of 15.28%. Faster poverty reduction with lower consumption inequality reflects a healthy development in the state.

6.2 Health and Human development

6.2.1 Government of Odisha is committed to provide accessible, equitable and affordable health care services to the people of Odisha. During the last one decade Government has taken several reform measures for strengthening delivery of health care services in the state through outcome based participatory bottom up planning process with additional resource allocation through National Health Mission (NHM) and more resource allocation under state budget to address local health issues and needs of the vulnerable communities, backward classes including SC and ST communities of the state. Due to effective policy formulation and monitoring at each level significant improvement has been observed in

many key health indicators which has been reported in various National Health Surveys. Human resource management, infrastructure, supply chain management and e-governance through 5T initiatives are also played a vital role in improvement of health care in Odisha. The improvements have been the outcome of concerted and continued efforts of the State Government towards establishing more efficient systems through effective planning. Faced with the historical burden of poverty and backwardness, Odisha has made significant strides in improving health outcomes through particular emphasis on health sector reforms.

6.2.2 Life Expectancy

Life expectancy at birth in Odisha is comparable at the national level. There is a significant improvement in life expectancy at birth from 64.8 years to 69.3 years (one full year) during the period 2014-18 from the period 2009-2013. Female life expectancy is higher than male which follows the national trend. Life expectancy of Odisha is better than many other states such as Madhya Pradesh, Uttar Pradesh, Jharkhand, Chhattisgarh and Assam. This is a multi-dimensional phenomena demanding multipronged approach to improve it over a period (Table 6.1).

Table-6.1: Life Expectancy,: Odisha vrs India

Indicator	Odisha	India
Life Expectancy, 2014-18	69.3	69.4
Life Expectancy (Male), 2014-18	68.0	68.2
Life Expectancy (Female), 2014-18	70.8	70.7

Source : SRS, Census of India

6.2.3 Health Infrastructures

The status of the health care infrastructures is an important parameter of the progress of the state in the social sector in general and health subsector in particular. Establishment of physical infrastructures like buildings, equipment, vehicles etc. along with adequate human resources of all categories will upgrade the health care services in the state. There is consistent effort of the state Government to establish more and more Medical Colleges either by Government or through PPP mode or even encouraging the private sector to come forward with such projects. At present there are seven Government Medical Colleges and one Government Dental College in the State three Medical and three Dental Colleges established privately in the State. Two more medical Colleges are to be functional from 2021-22. More and more Medical Colleges are being established in the backward regions of the State where treatment in a Medical College Hospital was a pipe dream for the rural poor people. More ever the provision of incentives to the doctors and paramedical staff working in the Medical Colleges of the KBK regions is a step towards mobilizing human resources to the newly established Medical Colleges. This incentive system was also extended to the faculties of VIIMSAR Burla to mobilize super specialists to the western Odisha. Three Ayurvedic Colleges and 4 Homeopathic Colleges are running under the government sector. Besides, 32 District Headquarters Hospitals, 33 Sub-Divisional Hospitals, 381 CHCs, 1324 PHCs, 6688 Subcentres, 619 Ayurvedic Dispensaries and 561 Homeopathic Dispensaries constitute the core structure of the State's medical facilities. Details of Health Infrastructures in the State is placed in Table- 6.2 below.

Table No. 6.2 Health Infrastructure in the State

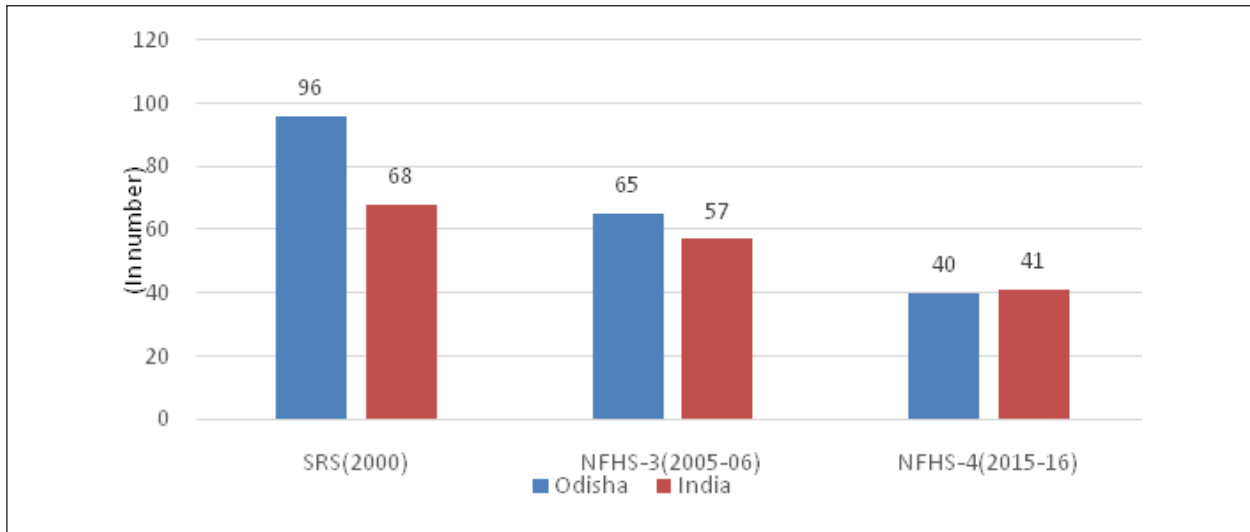
Health Facilities	Numbers
Medical College and Hospitals	7
District Hospitals (in 30 districts + Capital Hospital, BBSR & R.G.H RKL)	32
Sub-Divisional Hospitals	32
Community Health Centres	374
Urban Community Health Centres	7
Other Hospitals	54
Infectious Disease Hospitals	5
Cancer Institute	1
Training Centres	5
Primary Health Centres (N)	1233
Urban Primary Health Centres	91
Sub-Centres	6688
A.N.M. Training Schools	21
G.N.M. Training School	8
M.P.H.W.(Male) Training School	3
Ayurvedic Hospitals (not attached to College)	2
Ayurvedic College & Hospitals	3
Ayurvedic Dispensaries	619
Homoeopathic College & Hospitals	4
Homoeopathic Dispensaries	561
Unani Dispensaries	9

(Source : SHRMU, 2019)

6.2.4 Infant Mortality :

As per NFHS, 2015-16, Infant Mortality Rate (IMR) in Odisha is 40 per 1,000 live births that is comparable to national average of 41. The rate is 20 in Urban Odisha and 43 in rural .This is indeed an achievement for the State given the high rates of IMR in late 1990s as compared to India. Several health initiatives by the State like IMR Mission in the year 2001, followed by Nabajyoti scheme in 2004 had focused on reduction of IMR at an accelerated rate. In addition to these, the State has devised a special strategy in the year 2015-16 for accelerating the reduction of IMR with a target to achieve 30 by 2020. As per SRS Bulletin 2018, the IMR of Odisha is 40 whereas the rate for India is 32.Odisha performed well in comparison to the States like Assam , Madhya Pradesh etc.

Figure:6.2: Infant Mortality Rate Point Decrease : Odisha -56 India -27

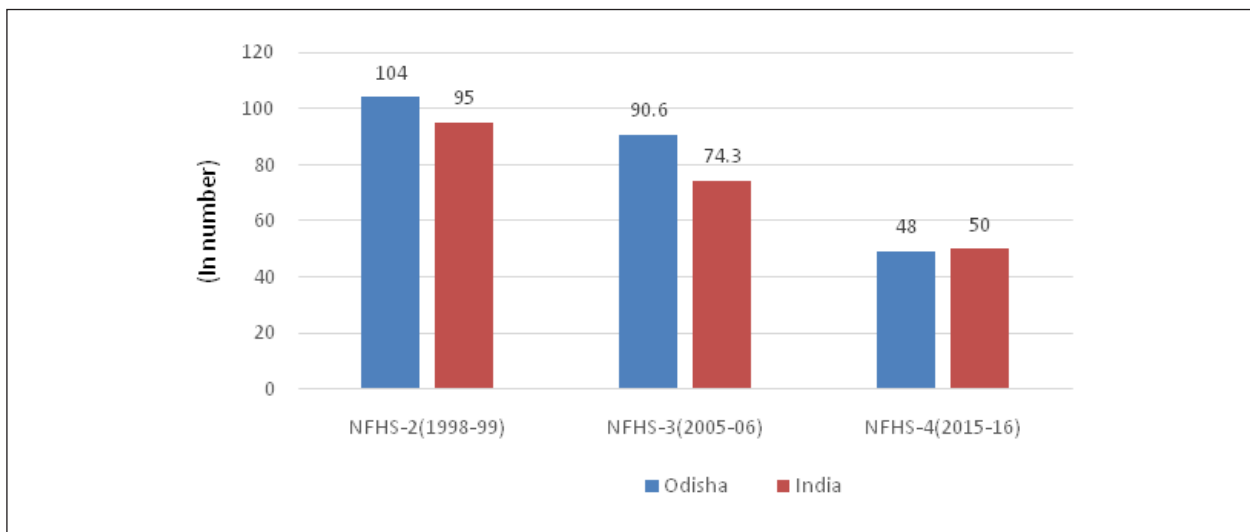


Source: National Family Health Survey

6.2.5 Under-5 Mortality :

The under-5 mortality rate of the State has also declined from 104 in 1998-99 to 48 per 1000 live births in 2015-16(NFHS-4) which is better than all India point decline from 94.9 to 50 during the said period. The rate is 24 in Urban Odisha and 52 in rural. Such a remarkable achievement of the State may be due to consistent efforts of the State in implementing remedial plans like establishment of Newborn Care Corners, Newborn Stabilization units, Sick Newborn Care Units, Nutrition Rehabilitation Centres etc. As per SRS Bulletin 2018, the Under -5 Mortality rate of Odisha is 44 whereas the rate for India is 36. Odisha performed well in comparison to the States like Uttar Pradesh , Madhya Pradesh etc.

Figure: 6. 3 : Under-5 Mortality Point Decrease : Odisha- 56 India -45



Source: National Family Health Survey

6.2.6 Post-natal Care

Examining the reports of NFHS it can be concluded that better care for women during pregnancy and child birth contributed to controlled infant mortality and malnutrition etc. which in turn builds a healthy India. As per NFHS -4(2015-16) survey about 64% of mothers have antenatal check up during their first trimester in Odisha and 58.6% in all India . Similarly, 61.9% mothers attend 4 antenatal care check up in Odisha which is 51.2% in all India. About 73% of the total mothers in Odisha received postnatal cares from trained health personnel with in 2days of delivery which is higher than the all India rate of 62.4%. The highlights of important Maternal and Child Health care indicators are listed below in Table- 6.3

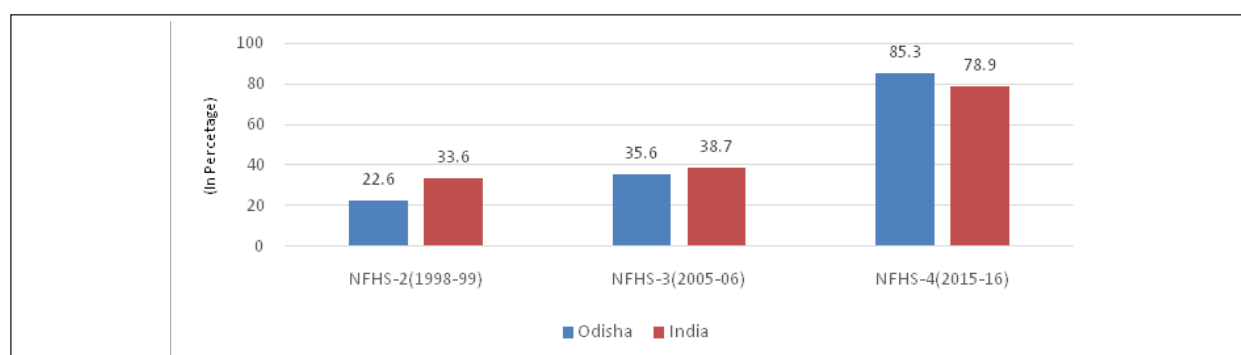
Table- 6.3: Key MCH Indicators : Odisha vrs. India(in %)

Indicators	Odisha (NFHS-2015-16)	India (NFHS(2015-16)
Mothers who had antenatal check up in the first trimester	64	58.6
Mother who had at least four full antenatal care	61.9	51.2
Mother who had full antenatal care	23	21
Registered Pregnancies for MCP card	97.2	89.3
Children born at home taken to health check up with in 24 hrs of birth	6.9	2.5
Mothers who received financial assistance under JSY	72.6	36.4

6.2.7 Institutional Delivery

Due to spread of education & awareness and extension of health facilities to the remote areas more and more women are now giving birth at health centres. So the institutional delivery rate have substantially improved as against 22.6% coverage in 1998-99 (NFHS-2) to 85.3% in 2015-16(NFHS-4) which is better than the national average of 78.9%. The performance of the State in this indicator is better than the States like West Bengal, Uttar Pradesh, Rajsthan, Madhya Pradesh, Haryana, Bihar etc. Odisha recorded 47.1 point increase in Institutional Births in Public facility from 28.8% in 2005-06 to 75.9% in 2015-16. This is much higher than the all India average of 52.1%. Since 2000, Odisha has made significant achievement in improving institutional delivery by 62.8 points which is second highest in the country after Sikkim (63.28 point) and far better than national average of 45.3point improvement. The rapid improvement may be due to effective implementation of JSY, JSSK, Free Drug Scheme, 108/102 ambulance services, establishment of Maa Gruha etc. The active participation of ASHAs in every village has already bridged the gaps between community and service providers for utilization of public health facilities and increased institutional deliveries. The recent steps taken in the Aspirational districts is commendable as the underdeveloped districts are going to surpass the rate very shortly.

Figure- 6.4: % of Institutional Delivery Rate increase: Odisha-63, India- 45

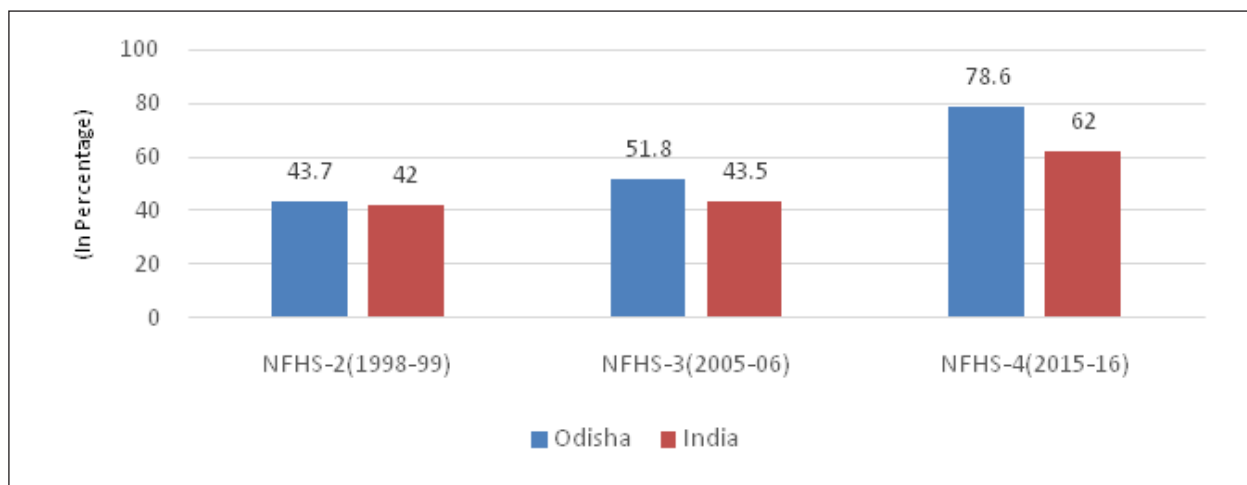


Source: National Family Health Survey

6.2.8 Immunization

Immunization is a basic need of the new born babies as they are susceptible to many diseases. To achieve the target full immunization the health department launched a lot of schemes. Complete eradication of polio is a milestone in the history of the department. Not only polio, the State has tremendous achievement in terms of protecting children from preventable diseases like TB, diphtheria, pertussis, whooping cough, tetanus, measles etc. About 94% of the children received BCG vaccine, 83% Polio vaccine, 89% DPT vaccine, 88% Measles vaccines, 83% Hepatitis vaccine and 69% vitamin A dose. The Public Health Facilities extended support of vaccination in 98.3% children and the rest covered by private institutions. The full immunization coverage among children aged 12-23 months has increased substantially from 43.7 % (NFHS-2, 1999) to 78.6% in 2015-16 (NFHS-4) in Odisha compared to national average of 62%. Moreover, the achievement of Odisha is far better than the major States like Gujrat(2.6%),Maharastra (22.1%),Tamilnadu (19.1%) and jumped from 16th rank in 2000 to 5th rank in 2015-16.

Figure 6.5: Children 12-23 months fully immunized (%) Point increase

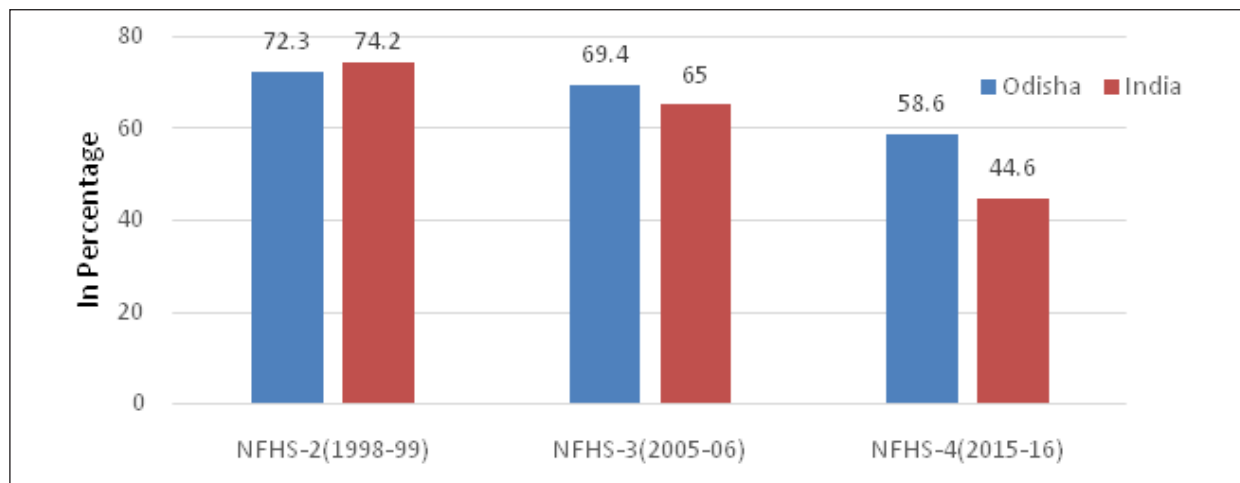


Source : National Family Health Survey

6.2.9 Child Malnutrition

As per NFHS-4 (2015-16) Odisha recorded 20.5 point decrease in pregnant women age 15-49 years who are anaemic (<11.0g/dl) from 68.1% in 2005-06 to 47.6% in 2015-16 and is better than all India average of 50.4%. The anaemic mothers supplement to the rate of Low Birth Weight (LBW). The anaemia rate among children in the age group of 6-59 months has also decreased from 65% in 2005-06 to 44.6% in 2015-16 which is far better than 58.6% of all India average. Such achievements may be attributed to the special cares taken to the SAM and MAM types of children in convergence with the field workers of WCD department. Supplementary nutrition programme is a leading step in this regard.

Figure-6.6: Children age 6-59 months who are anaemic (%) point decrease: Odisha- 29.6 India -13.7



Source: National Family Health Survey.

Over the years Odisha not only achieved better results in child nutrition but also in the related indicators in comparison to the all India average. The backward districts are now focus points in this regard through aspirational district programmes. Some of the indicators are listed below in table-6.4.

Table-6.4: Key indicators of child nutrition(in %)

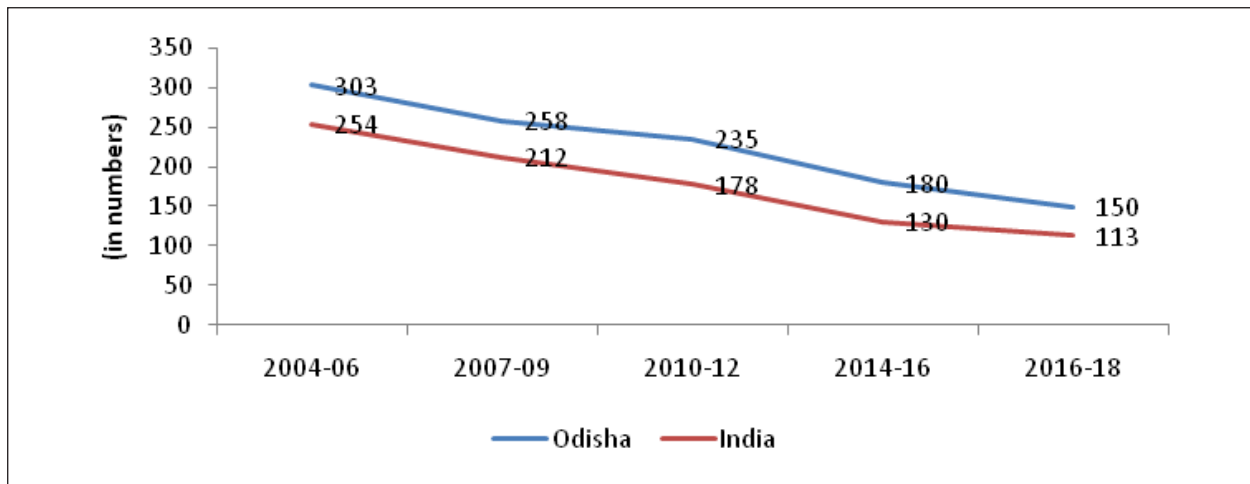
Indicators	Odisha (NFHS-2015-16)	India (NFHS(2015-16))
Children under 3years breastfed within one hour of birth	68.5	41.6
Children under 6 months exclusively breastfed	65.6	54.9
Children age 6-8 months receiving solid or semi-solid food and breast milk	54.9	42.7
Children under 5years who are stunted	34.1	38.4
Children under 5years who are wasted	20.4	21.0
Children under 5years who are under weight	34.4	35.8

Source: National Family Health Survey.

6.2.10 Reproductive and Maternal Health:

Traditionally Indian women keep the family members well-nourished and neglect themselves especially in taking nutritious food. Even during their pregnancy period they fail to take nutritious food either due to poverty or in some cases due to conservative traditions. This not only creates the problem of LBW but also maternal mortality in many cases. However, the maternal mortality ratio has become consistently reducing. As per SRS 1997-98 it was 346 in 1997-98 and gradually fell down to 150 during 2016-18 (SRS -2016-18). The rate of MMR for all India is 113. However, Odisha has better performance than Assam, Rajasthan and Uttar Pradesh as per the estimates of NITI Ayog. The situation improved and MMR declined but still it remained behind the targeted MMR of 119 in Odisha and 100 at the all India level by the end of 11th plan period. The interventions like Janani Suraksha Yojana, 108/102 ambulance services, establishment Maa Gruha etc. are effectively implemented in the State resulting diminishing MMR.

Figure 6.7: Comparative trend of MMR between India and Odisha



Source: SRS/NITI Ayog

The ante-natal and post-natal cares are necessary both for healthy motherhood and safe child birth. The number of women and infants who received ante-natal and post-natal care is necessary for healthy motherhood and safe child birth. Such number has been increasing over the years. The pregnancy burden of women can be judged from the General Fertility Rate (GFR) and the order of deliveries of eligible women. GFR in Odisha was less than the all India rate and has declined marginally from 83.9 in 2010 to 79.3 in 2011. Higher birth orders indicate longer reproductive span and associated with child bearing problems. Early marriage in the State is one of the important reason for higher fertility rate. As per NFHS survey 2015-16, 21.3% women in the State marry before 18 years of age and 7.6% become mother with in the age group of 15-19. The all India figure is more alarming. 26.8% women in the country marry before 18 years of age and 7.9% become mother with in the age group of 15-19.

As per the SRS data 2018, the birth rate in Odisha is 18.2 as against the national average of 20. The State has a lower birth rate in comparison to the big States like Madhya Pradesh, Assam, Bihar, Haryana, Rajasthan and Uttar Pradesh. Details of GFR and TFR of Odisha and India are reported in table 6.5.

Table 6.5 : Comparative figures of GFR and TFR

Year	GFR		TFR	
	Odisha	India	Odisha	India
2015	69.0	76.2	2.0	2.3
2016	-	-	2.1	2.2
2017	64.3	72.4	1.9	2.2
2018	63.4	70.4	1.9	2.2

Source: SRS Bulletin/National Family Health Survey

6.2.11 Ayurvedic and Homeopathic Institutions

With the emergence of life style diseases among all sections of the society people have started realising the importance of traditional methods of treatment. AYUSH system of medicine assumed significance with this background. The people of Odisha prefer AYUSH as the system of treatment for their indigenous, economical and gentler therapies for cure of diseases and improving quality of lives. At present 4 Homeopathic and 3 Ayurvedic medical colleges are functioning in the State. As many as 561 Homeopathic and 620 Ayurvedic dispensaries are working under the State sector. Details of AYUSH institutions are placed below in table-6.6.

Table 6.6: Government Ayurvedic and Homeopathic Medical Institutions and Services in Odisha

Year	Type of Model institutions	Medical Colleges	Hospitals	Dispensaries	Doctors in Position	No. of Beds	Patients treated (in Lakh.)
2015	Homeopathic	4	4	561	304	125	41.72
	Ayurvedic	3	5	619	483	468	51.99
	Unani	0	0	9	4	0	5.01
2016	Homeopathic	4	4	561	417	135	42.9
	Ayurvedic	3	5	619	437	418	54.26
	Unani	0	0	9	4	0	0.01
2017	Homeopathic	4	4	561	423	135	54.46
	Ayurvedic	3	5	620	445	468	57.67
	Unani	0	0	9	3	0	0.09
2018	Homeopathic	4	4	561	440	135	NA
	Ayurvedic	3	5	620	469	468	NA
	Unani	0	0	9	3	0	NA
2019	Homeopathic	4	4	561	299	135	29.48
	Ayurvedic	3	5	620	254	468	35.37
	Unani	0	0	9	0	0	0

Source : Directorate of AYUSH, Odisha, Bhubaneswar.

6.2.12 Employees State Insurance (ESI) Scheme:

Employees State Insurance Scheme is an integrated multi-dimensional health insurance and social security scheme being implemented in the State since 1960. It is one of the most effective and sustainable social security measures available to the industrial workers. At present medical care is provided to more than six lakh insured persons and their dependants through 5 ESI Hospitals, 40 ESI Dispensaries and 14 important centres in 20 districts. There are 297 beds to provide medical services to the employees. Besides, there are two annex wards and one 50 bed ESI Model Hospital at Rourkela run by ESI Corporation. The ESI Corporation has prescribed an expenditure ceiling of Rs.2150 on medical care per insured person per annum from 1st April, 2015. It is shared between ESI Corporation and the State government in the agreed ratio of 7:1 and the expenditure incurred excess the ceiling limit is to be borne by the State government. Apart from the health care services, ESI is also engaged in immunisation and family welfare programmes in these hospitals. The details are given in table -6.6. One AIDS cell has been set up at the ESI Directorate to implement AIDS control programmes which is fully financed by National AIDS Control Organisation (NACO). One STD laboratory and clinic functioning in ESI Hospital, Bhubaneswar since 2004-05 has been upgraded to VCTC. As per the guidelines of Odisha Pollution Control Board hospital waste management in ESI Hospital Choudwar (100 beds) and Bhubaneswar (50 beds) has been entrusted to M/S Sani Clean (P) Ltd on a contract basis since 2004.

Table 6.7 Family Welfare and Immunisation Programmes conducted under ESI Scheme in Odisha

Name of the Programmes	Achievement during the Year(in nos)				
	2015-16	2016-17	2017-18	2018-19	2019-20
Family Welfare Programmes					
Vasectomy	0	7	7	6	5
Tubectomy	48	59	41	38	35
IUD	40	71	51	62	67
MTP	62	83	83	94	88
Oral Pils	4331	5849	3281	3310	3402
Nirodh	9678	8659	9427	9706	9628
Immunization Programmes					
BCG	2099	2013	1780	1823	1846
Polio	9805	9518	8755	9302	9643
DPT	10220	9826	9481	9402	8549
T.Toxoid	12315	11132	4811	5918	6124
Measeals	614	673	658	742	482

Source : Directorate of ESI Scheme, Bhubaneswar

6.2.13 Family Welfare Programmes of Government:

To avoid the incidence of population explosion in the country family planning measures started in operation which were then renamed as family welfare programmes with broader scope .With the aim of stabilising population growth , the programme strategy has been to motivate eligible couples to limit their family size by adopting various family planning methods. It seeks to promote responsible parenthood with focus on one child norm. Table 6.8 shows the progress of family welfare programme in Odisha since 2009-10.

Table 6.8: Progress of Family Welfare Programmes in Odisha (in lakh number)

Year	Sterilisation	IUD Insertion	Conventional contraceptive users	Oral pills users	Medical Termination of Pregnancy	No. of Equivalent Sterilisation
2015-16	1.17	1.95	1.04	1.63	2.42	2.06
2016-17	1.08	1.98	1.24	1.58	0.22	1.98
2017-18	0.88	1.67	1.27	1.51	NA	NA
2018-19	0.82	1.64	1.26	1.38	0.18	1.59
2019-20	0.79	1.77	1.27	1.31	0.15	1.59

Source: Directorate of Health and Family Welfare, Odisha ,Bhubaneswar

6.2.14 Major Interventions in the Health Sector undertaken by Government of Odisha

A. Maternal Health Interventions.

In order to reduce Maternal Mortality Ratio of the Odisha several steps have been taken up under NHM. Those includes:

- **Operationalization of First Referral Unit:** 94 FRUs at strategic locations across the State for providing C-Section facility along with specialized Manpower and infrastructure.
- **Delivery points:** State has target of 1190 delivery points of which 530 institutions are functional and steps have been taken for functionalizing remaining DPs.

- **Janani Surakya Yojana (JSY):** In order to improve institutional delivery and safe delivery incentive is being provided to mothers under JSY since 2005-06. Due to JSY the institutional delivery has increased from 28.8 % in 2005-06 to 85% in 2015-16 as per NFHS-4.
- **Janani Shisu Surakshya Karyakram (JSSK):** Under JSSK, Free services which include free drug, blood, diagnosis, diet & referral services are provided to all pregnant women and sick newborn and infants (upto 1 year). In last six years 27, 27, 105 no. of pregnant women & children availd free referral transport services under the scheme.
- **Personnel regular trainingis** imparted which includes Skilled Attendant at Birth (SAB) training, Life saving anesthesia skill (LSAS), Emergency obstetrics care (EmOC) training & Basic Emergency obstetrics care (BEmOC) training for operationalization of L3, L2 & L1 institutions.
- **Maternal death review (MDR)** committees are formed at State and district level to review the maternal death initiate corrective action.
- **Village Health & Nutrition Day:** Fixed day health & Nutrition day (VHND) is being organized every Tuesday / Friday at village Anganwadi centers. In 2019-20, 5, 65, 774 sessions conduted in the state.
- **LaQshya:** Under this programme the LR & MOT are being standardized for providing quality care services. The target is set to standardize all Medical Colleges & FRUs as prospective target. Till date LR & OTs of 11 facilities have been certified by State & LR & OTs of 9 facilities have been certified by National level.
- **Maternity Waiting Homes (MWH/Maa Gruha)** The Maa Gruha are established near to delivery points to accommodate the expected delivery cases from difficult geographical pockets at least before 7-10 days of Expected Date of Delivery for having safe institutional delivery. So far 80 MWH are operational out of 106 targeted.
- **Initiatives for Anaemia Control:** IFA & Calcium Supplementation - About 7 Lakhs Pregnant women covered during 2019-20. Inj. Iron sucrose & Blood transfusion services- made available at Institution level for pregnant women with severe anemia. One time de-worming of all pregnant woman ensured during pregnancy in second trimester.
- **PMSMA:** This programme focused on screening of antenatal cases by doctor preferably O&G specialist at least one during 2nd or 3rd trimester. This activity is implemented in 9th of every month on fixed day basis. PMSMA also encourages participation of private practitioner. All the facilities in the level of CHC and above are implementing this programme as per mandate. The prime objective of the programme is to screen for high risk pregnancies and initiate its management as appropriate. Till March 2020, 6, 58, 666 no. of antenatal cases have been screened & 45, 050 no. of high risk pregnancies detected.

B. Child Health

Odisha has been working towards reducing its child mortality rates as a priority through various programmes & strategies. Major interventions undertaken through NHM are as follows:

- **New Born Care Corner (NBCC):** For preventing mortality and brain damage immediately after birth, 560 Newborn Care Corners are established at all functional delivery points.

- **New Born Stabilization Units (NBSU):** For treatment of moderately sick & low birth weight newborns and for stabilization of sick newborns prior to referral, 45 Newborn Stabilization Units are currently operational in the State.
- **Special Newborn Care Units (SNCU):** The State has established 40 out of 45 Special Newborn Care Units (SNCU) for treatment of severely sick newborns at different medical college & hospitals, District headquarter hospitals, Sub-divisional hospitals & selected CHCs based on the annual delivery load.
- **Kangaroo Mother Care (KMC) Units:** KMC units have been established in all 40 SNCUs adjoining the SNCU for providing Kangaroo Mother Care to low birth weight & sick newborns.
- **Home Based Newborn Care(HBNC):** All ASHAs have been trained for making home visits to newborns for early identification and referral of newborns with danger signs and providing counselling to caregivers on home based newborn care. During 2019_20- 5, 41, 251 no. of newborns have been visited under the pogramme.
- **Intensified Diarrhoea Control Month (IDCM):** An intensified diarrhoea control fortnight is held every year from 2015 during the monsoons, where prophylactic ORS packet was distributed by ASHA to each household for prevention & control of diarrhoea in both adults & children. In the 2019 round, 66% under five children & 67% households were distributed with prophylactic ORS packets. Further, 99% under five diarrhoeal cases were treated with ORS and 92% adult diarrhoea cases were treated with ORS.
- **National Newborn Week (NNW):** A week of dedicated IEC activities was carried out during November 15th to 21st, 2019 for awareness generation on newborn care at home. 9264 newborns were visited by ASHA and 75238 mothers were counselled by the ASHA in group meetings.
- **India Newborn Action Plan (INAP):** Under the India Newborn Action Plan (INAP), all newborns are to be administered with Vitamin K1 for preventing the newborn deaths occurring due to vitamin K deficiency bleeding disorders. During April to Dec. 2019, 81% of all live births in the State were administered with Vitamin K1. Similarly, INAP also advocates administration of antenatal corticosteroids to all pregnant women identified with preterm labour, in order to prevent newborn deaths occurring due to respiratory distress syndrome.
- **Child Health Review (CDR):** Child death review has been implemented in the state during 2015-16 under which committees have been formed at State and District level for detailed review and analysis of each under five child death and taking necessary corrective actions.
- **Routine Immunization:** The State is providing immunization services to children & pregnant women to prevent 11 vaccine preventable diseases i.e. as per immunization schedule Govt. of India, through fixed immunization day approach (In Wednesday).Special immunization drive also taken up in low coverage areas under Mission Indradhanush and introduction of new vaccines as per Gol guidelines viz. Measles Rubella (MR),Japanese Encephalitis, TD also being done in the State.
- **Trainings and capacity buildings:** In view of effective and efficient services the trainings are being provided to concerned personnel at various levels such as Facility based IMNCI training & Facility Based Newborn Care (FBNC) training for Staff Nurses and Medical Officers and various knowledge based training on improving newborn and child health care.



C. Rashtriya Bal Swasthya Karyakram (RBSK):

Rashtriya Bal Swasthya Karyakram (RBSK) is a National Flagship Programme under NHM rolled out in Odisha since March-2014 which aims to cover 1.07 crores of children from Birth till 18 years under its domain. The Programme targets at identification and treatment of 38 health conditions to be addressed through '4D' approach which includes Defect at Birth, Deficiencies, Childhood Disease and Developmental Delay & Disabilities.

Screening of 0-18 Years children at AWC, School & +2 Junior Colleges:

- Children which consists of 4 member: 1 AYUSH MO Male, 1 AYUSH MO Female, 1 SN/ANM, 1 Pharmacist
- The team visit at least once in a year to Non-Residential Schools, Twice to AWCs & quarterly to the Residential Schools.
- Under RBSK, New Born hearing screening of all new born at District Hospital & SNCU discharge babies are initiated at DEIC.

Early Intervention Services through District Early Intervention Centers (DEIC)

- District Early Intervention Centres (DEIC)s are functional at 29 DHH for children seeking special care (secondary & tertiary care). A team of professionals from different specialities (MO MBBS, Paed. Specialist, MO Dental, Physiotherapist, Audiologist, Optometrist, Psychologist, Special Educator, Dental technician, etc) are engaged for providing special treatment and therapeutic services.

D. Free Transportation Services

Emergency Medical Ambulance Service (EMAS): EMAS Ambulance Service is operational in the State since 5th March 2013, to provide quality emergency care transport within the shortest possible time in an emergency free of cost from the doorstep of the patient to the appropriate care in a hospital. Presently 512 ambulances are operational and so far more than 26 lakhs patients have been benefited from the service.

Referral Transport Ambulance Service (Janani Express/102): Referral Transport Ambulance Service (Janani Express) is operational in the State since 14th July 2014, providing free referral transport service to all pregnant women and sick infants seeking health care services at Government health facilities. Presently under this scheme, 493 out of 500 ambulances are operational and more than 25 lakhs beneficiaries have been benefited so far.



104 Health Helpline: Initially 104 Health Helpline with 10 seats was launched on 13th October 2015, for making outgoing calls for follow-up sample beneficiaries registered under RCH for availing desired services in time and to verify the services provided by service providers (ANM and ASHA) with special calls to high risk pregnant women on monthly basis and to those defaulters of services as per need. As per the mandate 104 Health Helpline has to contact 200 beneficiaries per day. Periodical calls are made for survey related to various indicators of services under JSSK.



To assess level of satisfaction on the treatment & services available in the public health institutions outgoing calls are being made randomly to the patients/relations with effect from 23rd July 2019 and so far 20,625 people have been covered in the survey, with a satisfaction level of 90%. Subsequently the incoming call facility was introduced with effect from 15th November 2019, providing information, advice and counselling to the needy people in the areas of RMNCHA+ & related schemes implemented in the State, provide health advice, information on various facilities in their area like hospitals, Blood Bank, Pharmacies, Diagnostic services etc., besides registration of Grievances pertaining to payment related to various schemes under National Health Mission for their redressal in time, counselling services on Family Planning, HIV/AIDs, Adolescent Health and advice on First aid; Nutrition and hygiene; maternal & child health care services, besides. During Covid-19, it has acted as a helpline and also used for counseling of the Covid patients.

Boat Ambulance Service: To provide transportation to sick and injured in riverine areas in the districts of Kendrapara, Kalahandi, Koraput and Malkangiri, Govt. has sanctioned 6 (six) Boat Ambulances out of State fund, as feeder service to both Emergency Medical Ambulance Service and Referral Transport Services.

E. Hospital Accreditation:

Status: One DHH (DHH Kalahandi), one FRU CHC (CHC Ghatagaon, Keonjhar) one Non FRU CHC (CHC Mandasahi, Jagatsinghpur), 3 UPHCs of Berhampur city (UPHC Ambapua, UPHC Askaroad, UPHC Agasahi) are NQAS Certified.

Incentive for Certification:

- DHH/ RU CHC will get INR 10000/- per bed per year for all functional beds of the concerned hospital.
- Non FRU CHC/PHC will get INR 3 lakh per year.

F. Other key Initiatives

- **Nidaan Scheme:** Free Diagnostic Services at identified Public Health Facilities both through own system and PPP mode implemented.
- **Sahay Scheme:** Free dialysis services provided to all patients at 29 identified Public Health Facilities both through own system and PPP mode.
- **ANMOL:** ANM On Line” is an android based application, developed to facilitate seamless work of ANMs as well as ensuring collection of good quality data and its digitization at its source. It has been implemented in all 30 districts. NCD App application is also loaded in the tablet for recording the enrollment and screening details by ANMs.
- **SAMMPurNA Scheme:** For accelerated reduction of IMR and MMR in the State, a state specific scheme -‘SAMMPurNA’ has been implemented in the State since 2015-16. Major interventions include identification, referral and treatment /management of high risk pregnant women and children, provisioning of mother and baby kit, reimbursement of transport cost @ INR 1,000/- for institutional delivery of Pregnant women in notified difficult villages, provision of stretchers for transportation of patients from difficult villages, organization of integrated VHND and Immunisation sessions at under-served and hard to reach areas, establishment of High Dependency Units (HDU) for management of critical obstetric cases, establishment of Paediatric Intensive Care Units (PICUs) for management of critical paediatrics cases at District Headquarter Hospitals.
- **Cancer Care-cum-Chemo Units at DHH:** Cancer Chemotherapy is being started with 6-bedded Day Care Chemotherapy units in order to ensure cancer care services at 25 District Headquarter Hospitals including Cancer Chemotherapy and Palliative Care.
- **Sunetra:** Aims at providing comprehensive, accessible, affordable and equitable eye care to people of all age groups. Vision centres equipped with appropriate eye-care facilities and trained manpower will be established across the State in govt. facilities.
- **Nikshay Poshan Yojana:** More than 59,900 Tuberculosis Patients received Cash incentive under Nikshay Poshan Yojana through DBT.
- **Ama Clinic:** Annually more than 10 lakhs slum populations are getting range of specialist healthcare services at doorstep through Ama Clinic - Specialist Services in Urban PHCs/CHCs.
- **Strengthening Blood services:** Steps taken for functionalisation of the State Blood Cell. DEOs engaged for smooth functionlisation of e-blood bank system& reporting. 81 Blood Bank officials trained at National Institute of Biologicals.
- **Khusi:** Scheme for providing free sanitary napkins to school girls from Class 6 to 12 in all the government and government-aided schools in the state.



6.2.15 Role of Health Sector in COVID-19 Situation of Odisha:

The year 2020-21 started with Covid pandemic which forced the Department to issue various guideline & protocols for citizens and public and private health facilities to prevent rapid spread of this pandemic in the State. For smooth management of Covid situation, total 17,647 Temporary Medical Camps (TMCs) with

8, 26, 079 beds and 178 COVID Care Centers with 21, 059 beds were set up in the State to quarantine the migrants and to provide proper medical facilities to the asymptomatic peoples till they are not tested positive for COVID-19 to reduce the rush at the 48 dedicated COVID hospitals. Odisha was among the first states to establish one of the country’s biggest 1000-bed dedicated Covid hospitals in a record time of just two weeks Over 32,000 general beds, 8,000 oxygen supported beds and 1600 ICU beds in these dedicated COVID health facilities were made operational. State managed to test more than 78 lakh cases till 8th February 2021 at various testing centres and



has more than 95% recovery rate and 0.4 fatality rate which is one of the best in the country and above national average. With consistent effort by State Government the cases have drastically come down and now Covid vaccination drive has been taken up to vaccinate our Health care workers, Front line workers followed by above 50 years population.

Health Condition of Women and Children

6.2.16 The Government of Odisha is committed towards improvement of nutrition levels of population especially women and children. Without proper nutrition or the essential nutrients, women and their children are at increased risk for disease and poor health outcomes. The topic of maternal and child nutrition includes preconception, antenatal and postnatal maternal nutrition, women’s nutrition throughout their reproductive years, as well as foetal, neonatal, and child nutrition. Implementation of supplementary nutrition programme, universalisation of Anganwadi services, pre-school education programme, and improved infrastructure has contributed in the achievements seen in the nutrition indicators for Odisha.

Table 6.9: Budget for nutrition schemes in Odisha

Sl. No.	Year	Budget for ICDS	Budget for supplementary nutrition(INR in Cr.)	% supplementary Nutrition to ICDS budget
1	2019-20	2316.28	1035.88	44.72
2	2020-21	2492.79	1122.28	45.02

Source: W&CD and MS, Odisha

6.2.17 Odisha’s improvement over improvement of indicators of malnutrition is best in country.

Nutrition surveys conducted show a declining trend in the nutrition indicators. As per Comprehensive National Nutrition Survey, 2016 (CNNS-16), stunting among children U5 (low height for age) has come down to 29% from 34%; wasting from 20.4% to 14% and underweight from 34.4% to 33% (in comparison to NHFS-4 report); Anaemia has come down to 37.2% in children (1-4 years). Odisha is 14th in terms of decline in stunting (Kerala is the best state with 19.7%), 14th in terms of decline in wasting (Mizoram is the best state with 6%) 18th in terms of decline in underweight as per NFHS-4 wrt NFHS-3. (Mizoram is the best state with 12%). NFHS-5 is currently being conducted in the state and the results are expected to be published in 2021.

6.2.18 The Government of Odisha is implementing multiple schemes aimed at improving the nutrition and health status of women and children. Different components of Integrated Child Development Schemes along with their progress are mentioned below:

Table 6.10: Integrated child development schemes initiated by Government of Odisha

S.No.	Intervention	Brief description
1	Supplementary Nutrition Programme (SNP)	<ul style="list-style-type: none"> Odisha is one of the pioneer states in the country to decentralize SNP in 2011 as per the direction of the Hon'ble Supreme Court of India. Supplementary nutrition is provided at the AWCs for 300 days a year for the children, pregnant and nursing women and is aimed at improving health and nutritional status of the vulnerable population. Ration cost has been standardised and weekly menu developed for morning snacks, HCM and THR taking care of the calorie and protein requirement for each category of beneficiary. Under SNP, Take Home Ration (THR) is provided in the form of a ready to eat mix locally called 'Chhatua' and eggs to children (6 months to 3 years), pregnant and nursing women and out of school adolescent girls (11-14 years). Standardised menu for HCM is followed at the AWCs for the preschool children. Under SNP 41.27 lakh beneficiaries are covered.
2	Early Childhood Care and Education (ECCE)	<ul style="list-style-type: none"> Early childhood care and education is one of the core services of the Anganwadi centers. ECCE is directed towards providing and ensuring a natural, joyful and stimulating environment, with emphasis on necessary inputs for optimal growth and development of the children. A slew of initiatives have been taken up for strengthening of ECCE in the State: ECCE curriculum revised with focus on pre primary school readiness, corner activities, inclusiveness, early stimulation, involving the parents and community in early childhood development has been launched on 19th August, 2019. In view of the continued closure of Anganwadi Centres due to COVID -19 pandemic, Ghare Ghare Arunima a colourful calendar with fulfilled activities, has been released and shared every month as per the theme of Nua Arunima. This was to keep the child engaged and stimulated through meaningful activities at home and to keep them school ready. This innovative approach caters to 16,13775 Anganwadi children across 72587 AWCs of the state and has drawn huge response. Vatsalya, a campaign to institutionalise care and stimulation of children under three years of age through concrete policy intervention has been launched on 17th November 2020. This initiative aims to sensitize parents and facilitators to work towards optimal development of a child through care and stimulation in the early years. Components of VATSALYA includes

		<ul style="list-style-type: none"> • Capacity building of facilitators and parents • Preparation and use of low cost play material • Messaging through comprehended IEC/SBCC materials including use of the WCD mascot; Tiki Mausi to motivate parents and children alike proposed to institutionalise care & stimulation of children under threes. • Men-streaming (Men will be involved in the child rearing through various IEC campaigns, capacity building etc.) • ‘Kuni Calendar’, ‘Responsive Parenting’ posters in 11 mother tongues, Parents+ module in Odia, flip book on happy parenting and videos on Vatsalya & Tiki Mausi on early stimulation- all centred around under threes with components of stimulation responsive parenting have been developed and shared with the districts. • Child Assessment Card has been institutionalized for every child. • Child friendly demonstrative model AWC ‘Prarambhik’ established at HETC(Anganwadi Workers Training Centre), Bhubaneswar.
3	Fixed Immunization day	<p>Fixed Immunization day is observed on Wednesdays at Anganwadi Centers (AWC) for immunization of children and expectant mothers as per the national immunization schedule. The PHC and its subordinate health infrastructure carry out immunization of infants where Anganwadi Worker (AWW) assists the health functionaries for immunization, organizes the sessions and maintains the immunization records.</p> <p>Upto Dec 2020, 7.48 lakh pregnant women and 6.74 lakh infants have been immunized through routine annual immunization.</p>
4	Health Check-up at AWCs	<p>Village Health Sanitation and Nutrition Day (VHSND) named as MamataDiwas in the State provides a platform for health checkup of pregnant and nursing women and children in convergence with the Department of Health and Family Welfare.</p> <p>Basic components of primary healthcare services include</p> <ul style="list-style-type: none"> • early registration of pregnancy • basic ANC and PNC care • deworming & IFA supplementation • counseling on early breastfeeding • identification and referral of high-risk cases of children and pregnant women <p>An average of 51260 VHSND sessions are held every month. As of Dec. 2020, 5.90 L pregnant & nursing women and 23.26 L children (0-6 yrs) underwent health check up across AWCs in the state.</p>

5	Referral Services	<p>Referral services are an important service under ICDS. Pregnant women, severely underweight children, SAM children in need of urgent medical attention and treatment are identified and referred to higher medical institutions for treatment.</p> <p>AWWs with the support of ASHAs and ANMs, identify such cases and refer for necessary action. High risk pregnant cases are identified and referred to the medical institutions before the expected date of delivery. SAM children are referred to VHSND for health checkup.</p> <p>Upto Dec 2020, 223411 Pregnant women/Nursing women, 195202 children (0-3 yrs), 116446 (3-6 yrs) were referred to higher medical institutions for treatment.</p>
6	Nutrition and Health Education (N.H.Ed.)	<p>N.H.Ed. is a key element of ICDS. All women in the age group of 15-45 years are covered by this component and are counselled on health, nutrition and development needs of the children and families. N.H.Ed. comprises information on</p> <ul style="list-style-type: none"> • basic health • nutrition • childcare and development • infant feeding practices • utilization of health services • family planning and environmental sanitation <p>This is imparted through counselling sessions during home visits and on the Fixed Immunization Days (FIDs) and on the occasion when there is gathering of women in mothers' meetings etc. in the area. 66061 NHEd sessions were held across AWCs in the state upto December 2020.</p>
7	Infrastructure strengthening	<p>Strengthening infrastructure under ICDS i.e. construction of AWC buildings, toilets in AWCs, ensuring drinking water facilities and electricity is a thrust area of the State. Currently, 46,761 AWCs are functioning in their own buildings, 10147 in school buildings, 10328 in community buildings and 5351 in rented buildings. Construction of AWCs is being taken up in convergence with MGNREGS with the following features:</p> <ul style="list-style-type: none"> • Beautification of external walls; • Interior designs; • Mamata corner; • Kitchen gardens, boundary walls; • Kitchens, drinking water facility, toilets and • Electrification. <p>Under MGNREGS, 28,661 AWCs have been sanctioned for construction, out of which 9669 have been completed, 10409 are under construction and the rest will be taken up for construction after identification of land.</p>

8	Odisha Nutrition Action Plan (ONAP)	Multi Sectoral Plan for nutrition has been launched in the state in December 2016. It charts a road map for planning of multi-sectoral interventions to improve nutritional status of women and children. Nutrition Secretariat has been constituted in the Department to enable and strengthen inter-departmental convergence with more than 10 departments in planning and implementation of nutrition-specific and nutrition-sensitive activities. A slew of Nutrition interventions are being implemented by the Departments of W&CD-MS, H&FW, PR&DW, ST & SC respectively.
9	Creches in Particularly Vulnerable Tribal Groups (PVTG)	Creches for children from 6 months to 3 years have been set up in PVTG and hard to reach areas to prevent under nutrition. Crèches as day care centers have been set up in rural and tribal areas where women are engaged in outside work and for wage. 210 creches have been set up in 6 Districts (Rayagada, Kalahandi, Malkangiri, Koraput, Nabarangpur, Keonjhar). In addition, a Crèche Resource Centre has been established at Bhubaneswar for scaling up the crèche initiative.
10	Vulnerability mapping of families with SAM children	Vulnerability mapping of families with SAM children (linked to social security schemes): Districts identify SAM children by conducting growth monitoring of all children (6 months - 5 years) at the AWCs. SAM children having complications are referred to the Nutritional Rehabilitation Centers for treatment and the children not having any medical complications are managed in the community. Districts conduct vulnerability assessment of the families having SAM children and link them with the development schemes of the various Departments. ICDS functionaries of the block & district level have been asked to adopt SAM/ MAM/ SUW children and take full responsibility for improvement of their nutritional status.
11	State wide campaign on Complementary Feeding	A state-wide campaign has been launched to improve complementary food and feeding practices of under two years age children in four focused districts Koraput, Nabarangpur, Rayagada and Keonjhar. A 16-month state-wide campaign has been designed to create awareness on the importance of complementary foods and feeding among key stakeholders, community influencers and faith leaders.
12	JibanSampark	Project 'Jiban Sampark' launched for the welfare of the Particularly Vulnerable Tribal Groups. The project aims at improving uptake of health and nutrition services they are entitled to. The other stakeholder departments are H&FW and ST & SC Development.
13	PadaPushtiKaryakram	The Project currently being implemented in Muniguda block in Rayagada district, enables delivery of Supplementary Nutrition to children (Hot cooked meals) in remote hamlets / tagged villages in hard-to-reach areas through participatory community involvement of mothers groups. Dry ration of Hot cooked meal for the beneficiaries of the hamlet / tagged village, procured by the AWW, is decentralised from AWC to the hamlets and is handed-over to the mothers groups on a monthly basis. The members of mothers groups voluntarily participate in cooking and feeding children of their hamlet on a rotation basis.

14	Malati Devi Prak Vidyalaya Poshak Yojana	2 pairs of uniforms, shoes, socks and sweaters provided to 16.14 Lakh pre-school children during 2020-21 to address improvement of attendance in AWCs.
15	Promotion of Dietary Diversity to address malnutrition in convergence with OLM	<p>Agro-ecology: Promotion of nutri-gardens and the use/ consumption of organic food. Objective is to include the cultivation of vegetables, primarily grown in the backyard, to be consumed by the family; all this using the appropriate agricultural practices coupled with the best health quality of vegetables (organic and traditional seeds).</p> <p>Mo Upakari Bagicha in convergence with OLM and Department of Horticulture is being promoted at the AWCs and at the household of high risk pregnant women. 20487 no. of kitchen garden have been established in AWCs.</p>
16	Introduction of millets in SNP in Keonjhar and Sundergarh	Introduction of millets in the morning snacks of preschool children has been introduced in Keonjhar and Sundergarh districts since September 2020 with funding from District Mineral Fund. The package includes provisioning of 2 ragiladoos per week/ child in Keonjhar district and 4 ladoos per week/ child in Sundergarh district. The ragiladoos are in addition to the existing entitlements of morning snacks under ICDS.
17	Community based events at AWCs to promote nutrition	<p>Community Based Events, such as Godhbharai, Suposhan Diwas and Annaprasan Diwas etc are observed at the AWCs. 921831 no of Community Based Events have been held at AWCs upto Dec. 2020.</p> <p>Godhbharai ceremony is observed for the pregnant women at the AWCs. They are registered for ante-natal care, provided MCP cards, imparted Nutrition & Health Education (NHEd), including counselled on IFA supplementation, institutional delivery and IYCF practices.</p> <p>Annaprashan Diwas is organized at the AWCs to initiate complimentary feeding to children on attaining six months and to educate mothers on IYCF practices, immunization etc.</p>

6.2.19 Special Initiatives under Maternal Benefit

MAMATA a flagship conditional cash transfer maternity benefit scheme of the state was launched in September 2011. It's prime objectives to reduce maternal and infant mortality by improving the health & nutrition status of pregnant and lactating women and their infants. The scheme targets to motivate pregnant and lactating women to seek maternal and child health services and adopt optimal nutrition behaviours and

practice. It intends to partially compensate wage loss for working women so that they can take adequate rest and nutritious diet during the critical periods of pregnancy and post pregnancy. This scheme is operational in 30 districts across the state.



Target group

The pregnant and lactating women of 19 years of age or above for their first two live births, except all govt. / public sector undertakings (central and state) employees and their wives, will be eligible to get benefits under the scheme. This two live birth norm is relaxed for Particularly Vulnerable Tribal Group (PVTG) pregnant women.

Benefits

The women receive INR 5000/- in 2 tranches i.e. INR 3000/- after 6 months of pregnancy and INR 2000/- after the infant completes the age of 10 months upon fulfilling certain conditions which are beneficial for their health and nutrition as well as their babies. Under the scheme, money is transferred directly to the bank accounts of the beneficiaries through 'Direct Benefit Transfer' (DBT).



Since inception of the scheme more than 44.68 lakhs beneficiaries are covered and More than 2100.90 crore amounts of funds has been e- transferred directly to beneficiaries bank accounts by Nov' 2020.

6.2.20 5T and Mo Sarkar initiatives

As a 5Ts initiative under e-Governance to ensure transparency and to make MAMATA scheme more citizen centric, hassle and paper free, an App based MIS integrated with a Mobile application has been developed by the WCD Department which is operational in all districts of the state from 1st August 2020. The scheme is using 181 Helpline no. for grievance management related to MAMATA scheme.

Objective

- Shifting from paper based report to digitalised report
- Registration process made more citizen centric
- SMS package enabled in MIS to make the scheme more transparent and hassle free
- Effective real time based monitoring/ reports
- No parking of funds in different bank accounts
- Effective grievance management

Key features

- Mobile based App for Supervisors (for verification of reports, effective monitoring)
- Mobile based App for AWW (for registration, submission of reports, tracking the beneficiaries etc.)
- Mobile based App for General Citizen (for easy registration and tracking the update self status on payment, conditions fulfilled and update status of her application)
- Web based MIS for CDPOs (for verification, approval, real time based reports etc.)
- Web based MIS for district and state level officials for effective monitoring of the scheme.
- 181-Helpline no. for grievance management

Additional features of MIS:

- SMS package enabled to give SMS to beneficiaries time to time regarding their successful registration, payment, conditions to be fulfilled, exit status etc.
- Web based AADHAR verification process is integrated with MIS/ app.

Progress till date:

An amount of INR 57,17,46000/- has been disbursed covering 2,24,641 nos. of beneficiaries through newly developed App based MAMATA MIS from 1st August 2020 to 24th November 2020.

Extension of relaxation to Particularly Vulnerable Groups (PVTGs) beneficiaries for another 05 years:

According to State policy for Girl child and women, 2014, the Particularly Vulnerable Tribal Groups are relaxed for the live birth norms to get benefits and they are eligible to get the benefit irrespective of any live births under MAMATA scheme. The State government has extended the same policy i.e. the eligibility criteria for PVTGs to avail MAMATA benefits for another 05 years in 2019.

Mo Sarkar:

Mo Sarkar is an initiative under the '5Ts for good governance and citizen centric services. The prime focus is to ensure transparency and improved delivery of services to the citizens by receiving feedback from the beneficiaries. The Hon'ble Chief Minister announced the inclusion of the MAMATA Scheme under 'Mo Sarkar' programme on 17.12.2019.

More than 2057 feedback calls have already been delivered by this Department by 17th March 2020. Almost all feedback received from MAMATA beneficiaries were positive and satisfied with the services of AWWs/AWHs at the grass root level.

6.2.21 Special provisions during COVID-19 Pandemic**Package for Migrant Labourers**

Covid-19 pandemic gave rise to lock down and shut down like situation which forced migrant labour class people of Odisha to return to their home districts for various reasons. The Pregnant Women from migrant labourers in particular and the pregnant women in general also face problem getting registration under MAMATA scheme during the lockdown period.

Therefore, considering the above circumstances and after careful consideration the following relaxations are made in the revised MAMATA guidelines:

A. Extension of time line for registration of beneficiaries:

Revised guidelines for MAMATA scheme, mentions the following regarding registration of beneficiaries. For claiming the first instalment under MAMATA scheme, a pregnant woman may be allowed to register within- 4 months of conception. In view of the above situation, following relaxation is allowed:

If due to COVID-19, pregnancies are not registered within the dateline prescribed in the guideline of MAMATA scheme, as an exception, the same may be done within 6 months of conception, and in case of extreme contingency the same may be extended by another one month.

B. Additional condition for migrant workers who returned to the state due to lock down :

Many migrant workers have come back to the state due to lock down. As per guideline they are also eligible to get the benefits under MAMATA scheme if they register for their pregnancy within the stipulated norms and on compliance of certain conditions.

Since they were staying in other states and there is a possibility that they might have availed/ registered themselves under national scheme or any other state scheme. Similarly, certain health services might have been obtained in respective state, which are not required to be complied again in Odisha.

Therefore, it is decided that for migrant workers returned to the state due to COVID-19, following additional conditions may be imposed:

1. Registration of pregnancy is to be done within the relaxed time mentioned above.
2. They should not have availed/ registered for maternity benefit schemes in other states. For this purpose, applicant should submit one plain paper undertaking of non-registration/ non receipt of similar benefits in any other state.
3. Antenatal services received in other states shall also be considered while examining eligibility and compliance of conditions. They should not be asked to once again go through the same, e.g. one counselling session at the AWC/ Village Health and Nutrition Day (VHND)/ Home Visit, at least one TT vaccination, at least 2 antenatal check-up, IFA tablets etc.
4. As per the revised guidelines of MAMATA scheme, first 4 conditions for 1st instalment should be verified from MCP card issued by any State Govt, and 5th condition of counselling session/ VSHND/ Home Visit should be done afresh in the state

6.3 Education: Way to Human Development

Education is a bare necessity in a civic society which empowers individuals with ability to think, reason, aspire and pursue individual objectives. It also provides people with freedom to express. Education is an important input to develop clear and unbiased logical thinking. Hence education is essential for the comprehensive development of human beings. It is one of the core capabilities which helps people transform their lives to something they value, determining prosperity and economic health of populates of an economy. Odisha has made remarkable progress in educational attainment rates. This has been accompanying by development in school infrastructure. Dovetailing of funds from different schemes have been made at different levels to finance school infrastructure. Mo School Abhijan aims at collecting funds from the old students for such purpose. Indicators such as Enrolment rates, completion rates and other physical infrastructure like construction of school buildings/ classrooms, drinking water facilities, toilet facilities and appointment of teachers compare favourably with other States. The following sections review the State's progress over these indicators.

6.3.1 Odisha is at the fore front of adoption and implementation of SDGs. The Government is committed to achieve the SDG 4 for education- 'Ensure inclusive and quality education for all and promote lifelong learning' by 2030. This include completion of free primary and secondary schooling for all girls and boys, equal access to affordable vocational training to eliminate gender and wealth disparities and universal access to a quality higher education. Besides, the enactment of Right to Education Act, 2009 (RTE), by the Government of India and the Odisha Right of Children to Free and Compulsory Education Rules, 2010 and Right to Education Cell with the support from UNICEF indicates the top priority accorded to the education sector in the State.

6.3.2 Odisha has made significant progress in educational attainment as well as in educational infrastructure indicators, particularly at the primary level. Enrolment rates, completion rates and other physical infrastructure like construction of school buildings/classrooms, drinking water facilities, toilet facilities and appointment of teachers compare favourably with other States. The concept model class room is a step forward to provide improved infrastructure in rural areas.

Literacy

Literacy improves self-esteem, enhances social status and decision making power and confidence level of individual in the society. It has both forward and backward linkage with human development outcomes.

6.3.3 Odisha has made rapid improvements in the literacy rates in the past few decades. Literacy rates are considered a key indicator of educational performance. As per Census 2011, Odisha's literacy rate was 72.9%, registering a decadal increase of 9.8 percentage points. The literacy rate was almost at par with the country's literacy rate (72.99%). Odisha ranked 10th among the 15 major States.

As per the 71st round of National Sample Survey (2014), Odisha's overall literacy rate was 75.5%, with male and female literacy rate at 83.2% and 67.8%, respectively.

6.3.4 According to 2011 Census, the female literacy rate of 64% was closet to the national average (India female literacy: 65.5%). The gains in education for females have resulted in remarkable reduction of the gender gap in literacy rate from 24.9 percentage points in 2001 to 17.6 percentage points in 2011.

6.3.5 The SC and ST communities had relatively lower literacy rates of 69.02% and 52.24% respectively in 2011. However, it is showing a rising trend over a period of time. (Further, the gender gap has also decreased, i.e. from 31.7% in 1991 to 20.4% in 2011 for SCs and 24.2 to 22.5% over the same period for STs).

6.3.6 The increase in literacy rate in Odisha during the decade may be due to continuous efforts of the State Government to improve the access and quality of education. Establishment of residential schools for tribals (Ashram Schools), particularly for girls in tribal dominated areas, establishment of good number of 'Odisha Adarsha Vidyalaya' in each block, Mo School Abhiyan' in secondary schools and enrolment of 2.5 lakh girl students under 'Odisha Girls' Incentive Programme' are some of the initiatives taken by the State government that aim at improvements in education levels in the State. It is to be mentioned here that 1746 institutes and 6898 hostels are being run by ST and SC Development Department.

Elementary and Secondary education

Odisha is one of the pioneer States to implement Right of Children to free and compulsory education. The State aims at not only to provide necessary infrastructure for primary and upper primary schools, but also to ensure 100% enrolment and quality education to children in between the age group of 6-14yrs.

In Odisha, according to 2011 census, there were 56.34 lakhs children in the age group of 6-14, out of which 56.26 lakhs children are studying in 0.55 lakhs schools and 0.08 lakh children are reported to be out of school as per the SD MIS, 2019-20. There are 692 numbers of privately managed aided upper primary schools in the State wherein 1325 teachers are receiving Grant-in-Aid from Government. Government is providing grant-in-aid to 916 UP ME Schools also.

6.3.7 Universalisation of primary education under the RTE Act paved the way for making education accessible to all. The status of access to education in Odisha can be accessed through different indicators such as enrolment ratio, pupil teacher ratio, drop-out rate, transition rate, buildings and infrastructure, in both primary and upper primary (together termed as ' elementary') and secondary schools. These are discussed in the following sections.

6.3.8 Enrolment ratio indicates the extent of achievement in universalisation of education. Gross enrolment ratio is defined as the percentage of total student enrolment at a particular level of education (here, elementary) as a ratio of the population in the relevant age group, while Net Enrolment Ratio considers the same ratio with enrolment of only students in the official age group (6-11 years for primary and 11-14 years for upper primary level).

6.3.9 From Figure, 6.8 it is observed that GER and NER at primary levels has increased in the past 5 years, since 2014-15. This indicates that more children are being enrolled in school. At the upper primary level, GER is less than 100. The decline in GER at both levels of schooling may indicate that children are being enrolled in schools at the proper age and their progression from one class to other is also at a normal pace. This is supported by increase in the NER at upper primary level from 2014-15 to 2019-20 and decrease at primary level during this period. Increasing the net enrolment ratios to 100% can achieve the objective of universalisation of elementary education.

Figure 6.8 (a) Trend in Gross Enrolment Ratios in Elementary Education

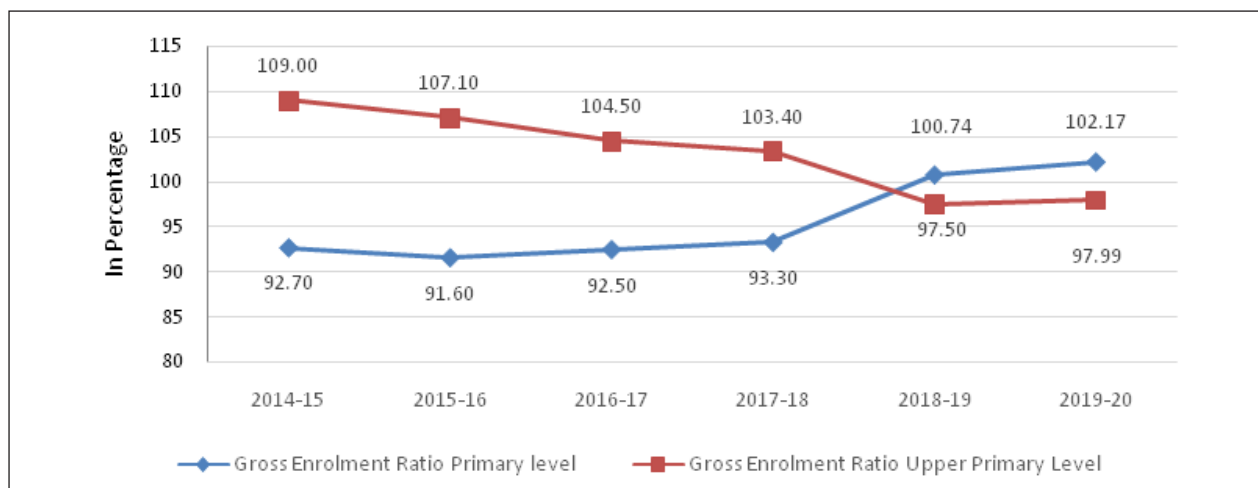
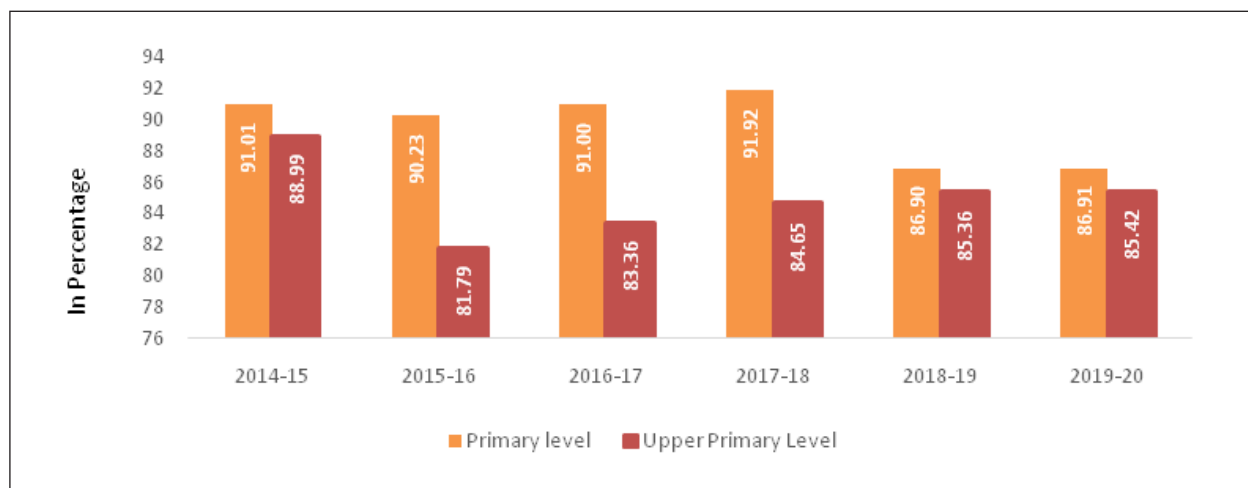


Figure 6.8(b): Trend in Net Enrolment Ratios in Elementary Education



Source: OSEPA

6.3.10 Dropout rates relate to the proportion of students failing to complete a particular level of education or not enrolling for the next level. The dropout rates in the case of both primary and upper primary education have increased over the years in the State, which is a matter of concern. Dropout rates for primary education increased from 1.63 in 2014-15 to 5.42 in 2018-19 and in 2019-20 it fell down to 1.55. The trend at upper primary schooling is similar. Gender wise disaggregation shows that dropout rates have increased for both boys and girls across all social groups, particularly those from STs. This needs to be addressed as access to education involves not only bringing children to school in terms of enrolment but also making sure that they remain in school. In order to reduce the dropout rates, higher transitional rate need to be achieved. In the backward districts focus is given on this point as an indicator of the Aspirational District Programme.

The main reasons for the high dropout rates among ST, SC and girl students may be the socio-cultural norms, lack of access to education, disability, migration of families, early marriage etc. To overcome this issues, the State Government have taken lot of steps by establishing 182 Kasturba Gandhi Balika Vidyalaya (KGBV) with 18400 inmates in 23 districts for ST & SC girls, 16 Residential Hostels for urban deprived children with 1000 capacity in 11 districts, 165 seasonal hostels for 7169 migrant children in source point at Baragarh, Bolangir, Kalahandi, Nuapada and Mayurbhanj districts during 2018-19. One KGBV has been opened in Bhadrak district for muslim minority girls. Besides, Mother Tongue Based Multilingual Education (MLE) has been introduced at primary level to address the issue of language barrier faced by the children of tribal communities. It is operational in 1485 schools of 17 tribal dominated districts in 21 Tribal Languages during 2018-19. As many as 3369 Shikhya Sahayaks for MLE programme are placed in MLE adopted schools to teach the children in mother tongue.

Table 6.11: Dropout rates at primary and upper primary level of education

Level/Year	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Primary	1.63	2.82	4.20	5.81	5.42	1.55
Upper Primary	4.21	3.87	5.15	5.45	6.93	4.56

Source: Directorate of Elementary Education and Director, OSEPA

6.3.11 PTR (Pupil Teacher Ratio) is an indicator reflecting the efficacy in managing the school curriculum. It is defined as the average number of pupils per teacher in a school in a given year. The RTE Act prescribes that the PTR should be 30:1 and 35:1, at the primary and upper primary level respectively. Odisha's PTR for the corresponding levels stood at 18:1 and 20:1 during 2019-20 which are better than the prescribed norms. At the secondary level, PTR in Odisha was 18:1 during this period.

6.3.12 Gender disparity still prevails in education especially in the remote backward areas. Gender Parity Index (GPI) in education reflects the discrimination against girls in access to educational opportunities. Closer the GPI is to one, higher is the State to achieving gender equality. The GPI of primary education, upper primary education and secondary education are 0.94, 0.92 and 0.93 respectively during 2018-19. This is an encouraging sign considering that GPI at all levels is very close to 1. However, gender disparities still prevails in terms of enrolment and dropout rates for elementary education for which continuous efforts are being made by the government to improve the net in take of girls in schools and their retention.

The Transition rate is the number of students admitted to the first grade of a higher level of education in a given year, expressed as a percentage of the number of students enrolled in the final grade of the lower level of education in the previous year. The rate is 90.94 from primary to upper primary level. In order to make it 100 in the backward & aspirational districts, the teachers are instructed to ensure that the pass out students get admitted in the next higher schools. The results of such initiatives started coming.

Learning Outcomes

6.3.13 Learning outcomes at school level provide the information on the ability of the students to understand the subject material and teaching. The National Achievement Survey conducted during 2017 by the Ministry of Human Resource Development (MHRD) provides information about the knowledge and abilities of students in government and government-aided elementary schools. It was observed that performance of students is below the national average in language, mathematics and EVS for class III students on an average, 62% of the responses by students were correct in Maths and the scores for EVS and Language stood at 60% and 64%, respectively. Top 3 districts in terms of mean scores were Jagatsinghpur (80), Cuttack (74) and Nayagarh (70). The bottom three districts were Kandhamal (48), Sambalpur (46) and Koraput (45).

6.3.14 Learning outcomes in Odisha seems to improve with advancements in the education level in case of Maths and Science subjects. The NAS for Class VIII indicates that, on an average, percentage of correct responses in Maths by students in Odisha (44) was higher than the national average (42). In case of science, the scores were same. But, in Language and social science, the performance was below national average.

6.3.15 ASER survey results indicate that there is scope for improvement in reading and arithmetics skills for primary class students. The ASER survey (Annual Status of Education Report) is an annual survey that aims to provide estimates of children's schooling status and basic learning levels for each State and rural district in India. It is conducted by the non-government organisation, Pratham. ASER is only focusing on basic learning of the rural students. In Odisha, 38.7% of Standard III children could read a Standard II level text, while 8.6% could not even read a letter. For arithmetic tasks, 36.5% of Standard III students could recognise numbers from 10-99 and 21.5% could perform subtraction. Further, there is improvement in reading levels. In 2012, 26.5% of Standard III students could read a Standard II level text, which had increased to 38.7% in 2018.

6.3.16 The State government is making continuous efforts to improve the quality of education through up-gradation of curriculum, teacher training and improving the conditions of school infrastructure so that it is conducive to enhance the learning ability.

Remedial materials on UJJWAL for Odia-1, Odia-2, Mathematics-1, Mathematics-2, English for the children of Class II to V is a major intervention for ensuring quality education in Odisha. UTTAHAN materials for Mathematics, Odia, English and science for the children of Class VI to VIII is another major intervention for ensuring quality education in Odisha. GANITA KALIKA ANDOLAN is a programme being implemented in collaboration with AKSHARA foundation Bangalore in two districts namely Bolangir and Raygada on a pilot basis.. "Utkarsh" has been under taken to promote quality education at secondary level in all 30 districts. For Utkarsh teacher trainings were organised for English, Odia, Math & Science subjects. Further, the State is part of NITI Ayog's ' SATH-E' (Sustainable Action for Transforming Human Capital in Education) project, which is envisaged as a programme that aims to transform elementary and secondary school education with the objective is to achieve a significant improvement in one or more areas of access, equity, learning outcomes and governance.

Output

6.3.17 Odisha made remarkable stride in education by free and compulsory education, especially in rural and backward areas in the age group of 6-14 years. During 2015-16, there existed 36760 number of functional primary schools, with 133541 teachers. Further, over the past 5 years the PTR has consistently improved from 25:1 in 2015-16 to 18:1 in 2019-20, going ahead of the norms as prescribed by the RTE Act. At the upper primary level too, the number of schools has decreased from 22795 in 2015-16 to 21719 in 2019-20. The decrease in the number of school due to closure and merger of schools having poor student strength.

Table 6.12 Number of primary and upper primary schools, teachers and PTR in Odisha

Year	No. of Primary Schools	No. of Primary Teachers	PTR	Upper Primary		
				No. of Schools	No. of Teachers	PTR
2015-16	36,760	1,33,541	25:1	22,795	72,472	23:1
2016-17	36,318	1,32,927	24:1	23,096	72,380	23:1
2017-18	36,070	1,31,544	23:1	22,019	75,558	24:1
2018-19	34,923	1,29,841	20:1	21781	75,012	23:1
2019-20	33,340	1,49,518	18:1	21719	1,19,111	20:1

NB : During 2019-20 large number of schools having poor student strength were closed.

Source: Status of Elementary and Secondary Education in Odisha,

Education infrastructure

6.3.18 Adequacy of teachers, infrastructure surrounding the school and provision of mid-day meals are known to impact learning performance of students. Odisha performs relatively well as compared to other major States in terms of most school infrastructure indicators.

As of 2015-16, only 3.6% of schools in Odisha were single-teacher schools, ranking fifth out of 17 States. The average number of teachers per school in the State stood at 4.6.

More than 90% of schools were approachable by all-weather roads; however, this figure is still low as compared to other States and efforts need to be focused on making the school accessible to all. The objective of Rashtriya Madhyamik Shiksha Abhiyan (RMSA) for Secondary Education is to make quality education available, accessible and affordable to the target population in the age group of 14-18 years with relevant skills and to develop life skills, use of ICT, organization and leadership and community services. For secondary schools, under Rashtriya Madhyamik Shiksha Abhiyan, the State Government provides access to secondary education within a reasonable distance of any habitation (5kms. for secondary and 7-10 kms. for higher secondary schools). Special reference is given to economically weaker sections of the society, the educationally backward, the girls and the disabled children residing in rural areas and other marginalised categories like SC, ST, OBC and Educationally Backward Minorities (EBM). The State performs favourably in terms of provision of mid-day meals, as a service prevalent in close to 99% of schools. Odisha ranks 4th among States on this parameter.

As regards civil infrastructure facilities during 2019-20, out of 47,247 elementary schools, 47,181 schools (99.86%) have their own building with 46,830 schools with girls' toilets; 47247 schools (100%) have drinking water facilities and 41640 schools (88.13%) have ramps for disabled students.

Scholarship/Incentive Programmes

6.3.19 Three scholarships namely Odia Bhasa Bruti, Mukhyamantri Medha Bruti and Best School Award have been introduced by the State Govt. during 2018-19 in order to promote talent in Odia Medium Government and Aided Schools of the State.

With a view to check the dropout rate at secondary level and increase the transition rate, Odisha Government have introduced the Chief Minister's Free Bicycle Distribution scheme for Class X girl students of Government School in 2011. Later on it was extended to Aided Schools, Madrasa and Sanskrit Tolls. From 2016-17 the scheme has been implemented for class-IX students instead of Class-X. During 2017-18, the scheme has been included under "Gangadhar Meher Sikhya Manabrudhi Yojana". During 2019-20 there was budgetary provision of INR.158.00 to cover 6, 07, 692 lakh students.

Table 6.13: Scholarship programmes for Secondary Education in Odisha (2018-19)

Sl. No.	Name of Scholarship	No. of Scholarship	Criteria
1	Odia Bhasa Bruti	3594 students	@ 10 students per Block, 10 students per Municipal Corporation, 5 students per Municipality, 2 students per NAC who have secured highest mark in Odia in the HSC Exam- one time scholarship of INR.5000/- each
2	Mukhya Mantri Medha Bruti	35940 students	@ 100 per Block, 100 per Municipal Corporation 50 per Municipality 20 per NAC who have secured good marks in HSC Exam- INR.5000/- one time scholarship
3	Best School Award	1061 schools	@ 3 per Block, 2 per MC, 1 per Municipality, 1 per NAC with good result in HSC Exam - award of INR.1,00,000/- each

Source: S & ME Deptt, Government of Odisha.

Higher Education

6.3.20 Although Odisha has limited century old institutes, it has a long educational heritage. The premier university like Utkal and century old Ravenshaw College (now Ravenshaw University) have created many stalwarts working in all the fields of life. Higher education system in Odisha is based on a glorious tradition of learning and research and has a solid foundation of a value system with humanity and service as its cardinal principles. Access to higher education expands the opportunities for skill development of the youth. Completion of graduate or post graduate course acts to distinguish the degree holder as a specialist in the subject matter and consequently open up employment or entrepreneurial prospects.

The State capital Bhubaneswar has become an educational hub due to establishment of a large number of technical and general educational institutes. As per All India Survey on Higher Education 2018, during 2018-19, as many as 54 foreign students are pursuing Ph. D courses, 69 in Post Graduate courses and 393 in Under Graduate Courses in the State.

Higher Education in Odisha comprises of Degree and Post Graduate level education including M. Phil. and Ph. D. course. Since July 2016, the Junior Colleges have been separated from Degree Colleges and put under School and Mass Education Dept. During 2018-19, there were 51 Government Degree Colleges and 820 private degree colleges imparting education to about 6.5 lakh students. The number of State universities has increased to 14 including 03 newly established universities i.e. Rajendra University, Bolangir, Kalahandi University, Bhawanipatna and Madhusudan Law University, Cuttack.

Table 6.14: Type and number of Higher Education Institutions in Odisha.

Category of Degree Colleges/ Universities	Number
Government Colleges	51
Non-government Aided colleges (488 category)	580
Non-government unaided colleges	240
Self-financing colleges	150
Aided Sanskrit Colleges	50
Other Department	02
University	23
a) State University	15
b) Deemed to be universities	03
c) Private Universities	05

Source : Higher Education Department, Odisha.

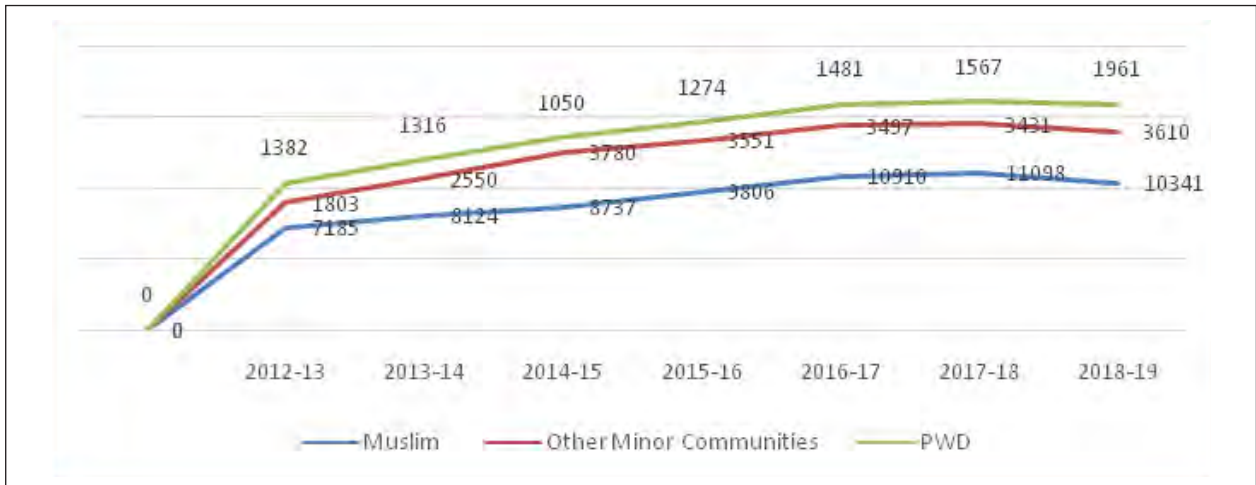
6.3.21 As per the All India Survey on Higher Education during 2018-19, Odisha has 23 colleges per lakh population (18-23 years) as against all India average of 28. Odisha compares favorably with Assam, Bihar, Chandigarh, Jharkhand and West Bengal in this respect. Average enrollment per college is 682 which is at par with the national average of 693. Out of the total age group, the age group 18-23 usually enroll themselves in higher education system. During 2012, there were 7, 67, 100 students enrolled in Higher Education system in Odisha which became 10, 19, 192 in 2018 in this age group. Out of those 83077 enrolled in Post Graduate courses and 7, 80, 144 in Under Graduate Courses.

6.3.22 The enrollment rate of Muslim and other minor communities in Higher education is increasing day by day. Similarly, the rates of enrollments of other minor communities and PWD persons are also

encouraging over periods. During 2012-13, 7185 Muslim, 1803 other minor communities and 1382 no. of PWD students enrolled in higher education. Those figures increased to 10341, 3610 and 1961 respectively for the above communities in 2018-19.

Figure 6.9 : Enrollment of Minorities and PWD in Higher Education in Odisha

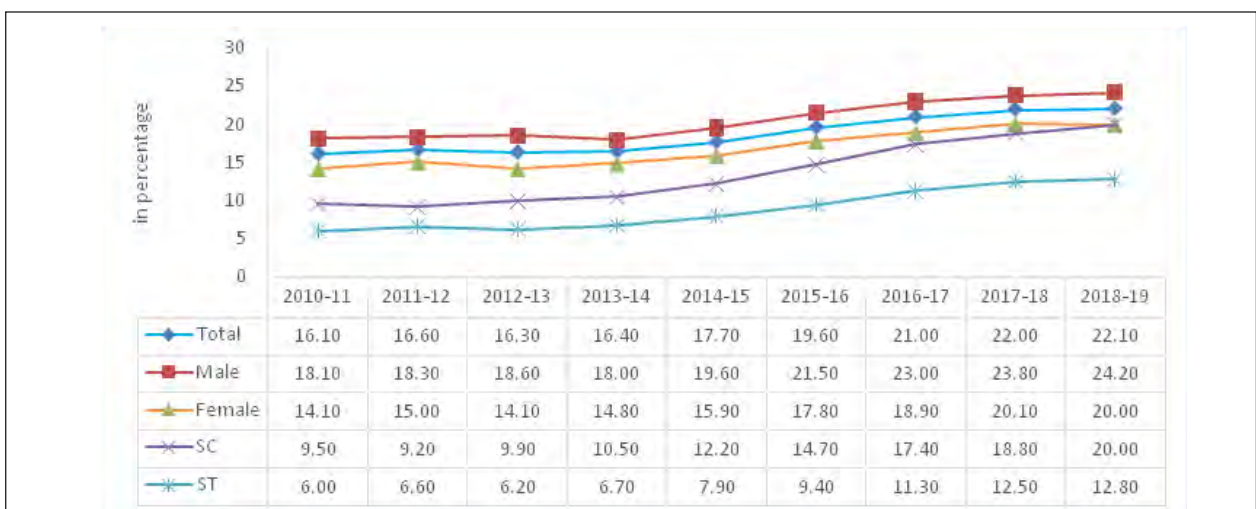
(in numbers)



Source: All India Survey on higher Education 2018-19

6.3.23 Odisha's Gross Enrolment Ratio (GER) in higher education has been increasing during the last one decade. In 2010-11, the rate was 16.10 which increased to 22.10 in 2018-19 which was slightly below the national average 26.30. During this year, the GER in case of male was 24.2 and 20 for the females. The GER for SC and ST for this period were 20 and 12.80 respectively. In both the cases, the national averages are ahead of the State average. The All India figures are 23 and 17.2 respectively. Disparity in access to education is seen in terms of lower GER for females and SC/ ST social groups. The same trend also appears at all India level.

Figure 6.10 : Increasing GER in Higher Education

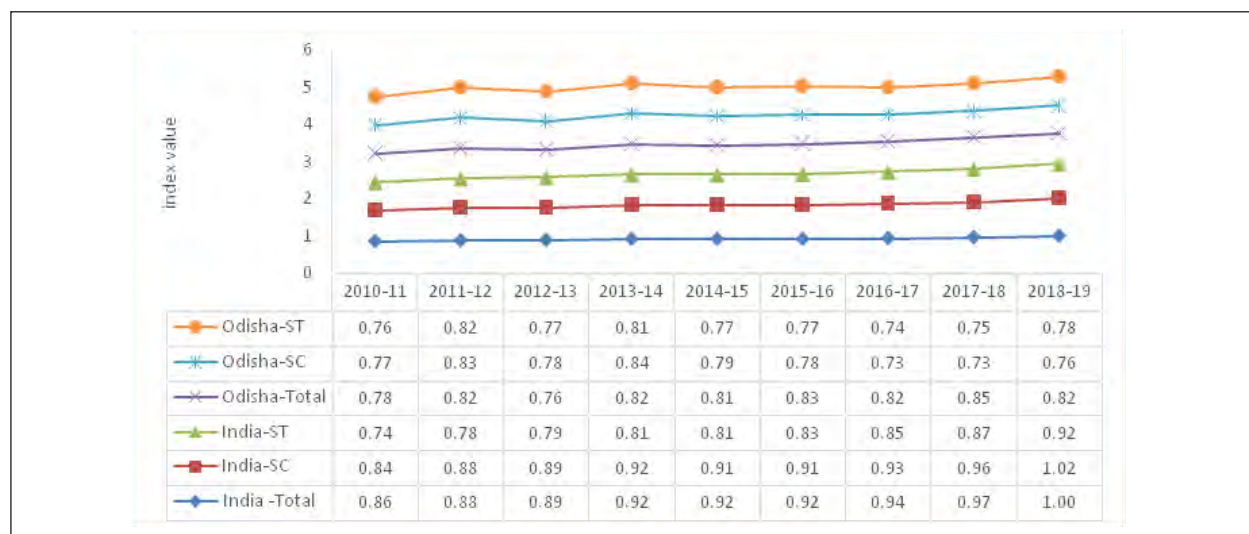


Source: All India Survey on Higher Education 2018-19.

6.3.24 One of the important parameters of quality education is the Pupil Teacher Ratio (PTR). As per All India Survey on Higher Education, the rate was 21 during 2011-12 which increased to 28 during 2018-19 which is greater than the national average of 26.

6.3.25 Higher education at the present age must be inclusive education in nature not only in respect of curriculum but also covering all the Genders and Communities of the Societies. The female population constitutes all most 50 % of the total population but their representation in many stages of Education is far from the National target. The Gender Parity Index (GPI) reflects the lower enrollment rates of females against their male counterparts. As per the All India Survey on Higher Education, the GPI of Odisha was 0.78 in 2010-11 against the national average of 0.86. The rate for scheduled caste and scheduled tribe are 0.77 and 0.76 respectively. With different programmes having incentives for girls education raised the GPI to 0.85 during 2017-18 and again fell to 0.82 during 2018-19 in the State. The rate in case of SC and ST are still discouraging.

Figure-6.11: Gender Parity Index in Higher Education



Source: All India Survey on Higher Education 2018-19.

Vocational and Technical Education

6.3.26 India is on the cusp of a demographic dividend with one of the youngest workforce in the world. At the same time, with rapidly changing technology, automation of job and increased globalization, the skill sets required at the work place are also changing. As a result, there- exists a gap between the skill demands of industry and the available skills of the youth. Therefore Skill Development has emerged as a key strategy to realize youth potential. In order to enhance employability of youth, efforts have to be made with regard to enter the workforce with required skill sets.

6.3.27 Based on the growth trends and contribution to State GDP, emerging skill requirements varies across the sectors. As per the Odisha Skill Gap Report - 2012, the demands for skills in primary, secondary and tertiary sectors are likely to arise from the following areas:

Table 6.15: Skill development requirements in Odisha across sectors.

Primary sector	Secondary sector	Tertiary sector
Food processing, floriculture, horticulture (especially cashews, mangoes, pineapple), animal husbandry and fisheries	Automobile and components, chemicals and pharmaceuticals, construction material and building hardware and electronics hardware.	Healthcare, IT & ITeS, media and entertainment, tourism, transportation and logistics Hospitality.

Source: Skill Gap Assessment for the State of Odisha: A District Wise Analysis, 2012

'Skilled-in-Odisha' Initiative

6.3.28 It is projected that by 2026, there will be a demand for 22.58 lakh highly skilled and 62.11 lakh semi-skilled professionals (Skill Gap Assessment report for Odisha, 2012). To meet this huge demand, Odisha has made concerted efforts towards skill development with its 'Skilled in Odisha' initiative. Odisha Skill Development Authority (OSDA) has been established to provide overall direction, guidance and implementation of skill development programmes in the State by covering different skill sectors. OSDA works with an overarching mission to bring transformative human development through skilling of youth and making 'Skilled-in-Odisha' a global brand. Both technical and vocational education is being promoted by the State under this programme.

Chief Minister's Employment Generation Programme

6.3.29 In order to provide employable skill training to 150 youths from each GP of the State, for improving employability, Government of Odisha had launched an inclusive skill development strategy in the name of Chief Minister's Employment Generation Programme (CMEGP) in 2014-15 under which 13, 66, 116 youths have been imparted skill training over a period of six years (2014-15 to 2019-20). Odisha has been awarded the 1st prize by the Ministry of Rural Development, Government of India for best implementation of DDUGKY Programme consecutively for FY 2016-17 and 2017-18.

Table 6.16: No. of youths skilled under Chief Minister's Employment Generation Programme

Years	No. of Youths skilled
2014-15	1,35,166
2015-16	2,92,123
2016-17	1,95,855
2017-18	2,25,858
2018-19	1,89,299
2019-20	3,27,815
Total	13,66,116

Source: Skill Development & Technical Education Department

Increased participation of Women in Skill sector

6.3.30 Government of Odisha is encouraging greater participation of women in vocational and technical education. A special scheme 'SUDAKHYA' has been launched by the State government to encourage increased enrolment of girl students into ITIs, hitherto an uncharted. As a result, girls' enrolment in Government ITIs have gone up from 7% to 18% during year 2018-19 and to 15.68% during the year 2019-20 and to 16.83% during the year 2020-21. It is a fact that the total number of girls enrolled during the year 2020-21 has been increased drastically.

India Skills Competition- Odisha schemes with second highest medal tally

6.3.31 Odisha Skills- 2018 was organized to give exposure to our youth to national / international level skill competitions where in more than 7,000 youth from across the State had competed in various trades. From among them, 76 students qualified to the Eastern Regional Skills Competitions and finally 33 of them qualified to compete at India Skills 2018. Odisha emerged the second highest State in the medal tally in the said competition, winning of four Gold, nine silver, six bronze and two Medallions of Excellence. Out of them, four have represented the country at Eurasian High-tech Skills Competition-2018 in Russia and four have represented the country in World Skills Asia-2018 in Abu Dhabi and brought laurels to the country. Three of our participants also represented the country in World Skills-2019 held in Kazan, Russia. Odisha Skill competition has been made an annual event.

6.3.32 OSDA is conducting Placement Linked Training Programme through private/ government Project Implementing Agencies (PIAs) since 2011-12 to 2019-20 94,936 youths have been trained. During this period 24,118 youths have been placed under the programme.

Promoting Entrepreneurship -Through 'Nano-Unicorns'

6.3.33 Nano-Unicorn Project was started by OSDA in the year 2017-18, with the aim to give boost to entrepreneurship development at nano level, thereby promoting micro entrepreneurship culture in Odisha. OSDA acts as then nodal point for selecting, training, mentoring the 250 identified new Nano Entrepreneurs and providing risk capital @ INR 1,04,00,000/- extended to these 'Nano-Unicorns'. Many of them have started earning handsome profit and employing 2 to 3 persons in their projects.

Initiatives for 'New ITI'

6.3.34 In order to strengthen the Technical and Vocational Education and Training (TVET) eco-system in the State, a number of innovative initiatives have been taken to create the 'New ITIs':

- Centralised On line Admission for all ITIs.
- Online Examination for all ITIs.
- Developing Websites for all Government ITIs.
- Social Media presence of all Government ITIs through facebook/ Twitter.
- Increase girls' enrolment from 15.68% in 2019-20 to 16.83% by 2020-21.

6.3.35 New Achievement in Education Sector

Odisha Adarsh Vidyalaya: Two hundred fourteen (214) Odisha Adarsh Vidyalaya started functioning in 214 blocks covering 29 districts from 2016-17 to 2019-20. 36 more will be more operational from the academic session 2020-21. 30 OAVs upgraded to senior secondary from 2019-20 and 30 more will be in 2020-21. Total 58,712 students enrolled in 214 OAVs.

Mo School Abhijan: 'Mo School' is a first-of-its-kind initiative by a State for strengthening citizen-government partnership in school education. It seems to have become a successful alumni contribution programme of the State government as the project cost has touched INR 100 crore mark by now. It has provided a platform to donate funds, materials and services for over all development of schools in the State. It was launched by the Honorable Chief Minister of Odisha Sri Naveen Pattnaik on Children's

Day, 14th of Nov 2017. Since the programme started in June 2018 schools have reported 1,49,536 contributors with total contribution of INR. 33,60,01,428 till August 2019. Accordingly, the Mo School Abhijan has sanctioned a total of 1205 projects from 9950 schools in 308 blocks with a matching grant of INR.67,09,22,856. Besides, the School and Mass Education Department has sanctioned 1257 projects in 708 schools with a project cost of INR.6,45,30,387. Thus, the Mo School Abhijan cost now touched to INR.100,69,24,284. Meanwhile, the Executive Council of Mo School Abhijan has agreed to collaborate with the Alumni groups in improving the 100-year and 50-year old schools across the State.

Garima Award: The School Certification Programme (Garima) recognizes and rewards schools that are performing in terms of learning Outcomes and motivate the rest to improve their performance. Under this programme, schools can nominate themselves to be assessed and certified under three, categories: Bronze, Silver and Gold. The following are the key objectives of the programme.

- To identify good performing schools on the basis of academic performance.
- To encourage schools to help students to accomplish grade level Learning outcomes.
- To generate healthy competition amongst schools in the block/district.
- To recognize and reward these school HMs and Teachers.
- To recognize and reward schools, clusters and blocks that are ensuring students at appropriate learning outcomes.

Education for ST and SC communities

6.3.36 As a priority and an intervention, the State government is committed to improving the educational status of SC and ST communities by implementing various interventions like free education, award of scholarships, boarding facilities, free text books and reading and writing materials etc. This is driven by the fact that education related indicators for SC/STs continue to be significantly lower than the State average. Historical backward status of SC / STs cannot remain the status quo any more. Their welfare and development, through special focus on increasing access to education, will lead to overall growth of the State as well, given their large population in the State.

6.3.37 As mentioned in the previous sections, tribal literacy in Odisha has kept pace with the increasing literacy rate in the State, rising significantly from 22.37% in 1991 to 52.24% in 2011. It is noteworthy that when the percentage rise of tribal female literacy at the national level between 2001 and 2011 was 41.97, the corresponding rise for Odisha was phenomenal at 76.29. The same pattern is echoed in tribal male and total tribal literacy rate. This speaks volumes about the untiring and sustained efforts of the Government towards progress of female tribal education.

Expanding Access to Education for the ST and SC children

6.3.38 Odisha is one of the leading States in providing residential schooling facility to tribal students. 1746 residential schools and about 6898 hostels for ST and SC students in the State provide primary to senior secondary education to more than 4.50 lakh ST / SC students. The residential facilities greatly address access-related difficulties faced by tribal children of remote regions and reduce burden of the disadvantaged tribal families by taking care of all expenses towards their children's education.

6.5.39 About 70% of these residential schools are concentrated in 12 tribal dominated Districts. These schools have very high proportion of ST students (81%) followed by SC students (11%) and others (8%). The increasing thrust on the girls' education is evident from the high proportion of girls (60%) in the total enrolment in these schools.

Hostel Facilities for the ST and SC students

6.3.40 To increase the enrolment rate of the educationally backward communities like SC and ST the State Government has taken an other major intervention for the in the form of creation of hostels to enable tribal students from remote regions over come the challenges of spatial isolation and for facilitating easy access to educational facilities. The increase in number of hostels in last 2 decades have been phenomenal with more than 250% growth in the last 16 years. There has been significant thrust on girls' hostels as creation of hostel facility for ST and SC girls is one of the flagship programme of the Government. This also registered the substantial increase in the female literacy among the ST population.

6.3.41 Presently, around 6898 hostels are providing accommodation facility for education purposes to more than 4.50 lakh ST and SC students of which around 2.75 lakh are girls. The hostel facilities have greatly influenced the enrolment and retention position of tribal students and significantly contribute in continue education and completion of schooling by the disadvantaged ST and SC students. These facilities also reduced the dropout rate among the tribals.

Scholarships

6.3.42 Scholarship is another major scheme of State Government for incentivizing the educational attainment among the tribal students, catering to more than 17.94 lakh ST and SC students at pre-matric level and about 3.34 lakh at post-matric level. Scholarship is a great source of financial support to disadvantaged students for their continued education. The State government spends more than INR.1196.00 crores annually on various Scholarship schemes of which about 50% comes from the State's own resources.

Table 6.17: Educational institutions under SSD Department as of 2019-20

Category	No. of Schools
Ekalavya Model Residential Schools(EMRS)	19
Higher secondary schools (HSS)	62
High schools (Co-ed)	249
Girls high schools	173
Ashram schools	705
Secondary teachers training schools	2
Residential Sevashrams	5
Educational complex for PVTGs (15 ECs upgraded to High Schools)	19
Sevashrams	501
B.Ed. training colleges	1
Kalinga Model Residential Schools (KMRS)	10
Total	1746

Source: ST and SC Department, Odisha.

6.3.43 A special Financial Assistance Scheme to ST students have been initiated during 2014-15 where in the entire cost of education for ST students pursuing their studies in National Level Institutions is borne by the State Government. The State Government over and above their usual Scholarship entitlements providing students of Standard IX and X further additional cash incentive to ST and SC girls at the rate of INR.950 per annum.

6.3.44 In order to steer the monitoring activities in the schools and hostels and to make the monitoring officials at different levels account able, school and Hostel Monitoring Cell has been introduced with central help line facilities in 1000 residential schools. This facility has enabled girl boarders to report directly to the department issues relating to sexual harassment and abuse, management of mess activities, health issues etc.

6.3.45 OGIP in an add-on cash incentive programme aim edat facilitating increased participation no fST and SC girl students in the Secondary Education. Under Odisha Girls Incentive Programme (OGIP) 1.96 lakh students have been benefitted during 2019-20 with financial assistance of INR. 18.88 Cr. The girls students of Class IX and X are provided with a cash incentive of INR 950 per annum.

6.3.46 In order to create interest and to imbibe scientific temper among ST/ SC students in the field of science, school level, zonal level science exhibition and State level competitions are being conducted among the students of High Schools,Girls High Schools / EMRSs from the year 2010-11 by way of conducting Sishu Utsab "SARGIFUL". This festival provides a platform for students reading in SSD schools to showcase their skills, talents and support in enhancing the holistic development through hd iffereentworkshops and to get opportunity in participating various competitions for their grooming.

Major initiatives for ST/ SC education

Table 6.18: Schemes, policies and programmes in education sector for SC/ ST communities.

Initiative	Objective	Progress in brief
ANWESHA	To provide quality education to SC and ST students	ANWESHA provides quality education to ST/SC students in 178 best private schools in 17 districts. Under this scheme, over 23,000 ST and SC students are getting free quality education in the best private schools in these districts. Free Lodging and boarding facility are being provided to students; including school fees, uniforms, study material, tutors etc. amounting to INR. 8304.20 lakh was allotted for 21682 beneficiaries in 2019-20.
AKANKSHA	To provide hostel facility in Urban areas for ST/ SC students for higher education studying in post-matric level courses.	Urban Hostel programme 'AKANKSHA' is implemented for providing free boarding and lodging facilities to ST/SC students perusing Post-matric levels of Education like Professional, Technical, Degree and Plus Two courses in Bhubaneswar. Hostels in Bhubaneswar accommodate 550 students. The programme has been expanded to Berhampur, Sambalpur and Rourkela. Proposal for another 6 hostels is in the pipeline. An amount of INR 27.31 lakh was provided during the year 2019-20 for 250 hostellers.
PRERANA	PostMatric scholarship to eligible SC /ST students through Direct Benefit Transfer (DBT) mode	1.68 lakh ST and 1.66 lakh SC students havebeen benefitted through PRERANA during 2019-20 amounting to INR 524.97 cr. Out of the total beneficiaries 51% are boys and 49% are girls .
SUVIDYA	To spread the joy of literacy and numeracy to tribal children in Odisha	The ST & SC Development, Minorities & Backward Classes Welfare Department, Odisha has signed a MoU with Akshara Foundation for Mission SUVIDYA in December 2019 in the presence of Hon'ble Chief Minister of Odisha, Shri Naveen Pattnaik.

Mission SUVIDYA

6.3.47 In order to improve and standardize and bench mark infrastructure, basic amenities and human resources the management processes, systems procedures in SSD hostels a composite package under Mission Suvidya has been launched by Hon'ble Chief Minister on 04.12.2019. As part of this Mission, NABET-QCI collaborated with Department to assess, evaluate and bench mark these hostels. The evaluation of the residential hostels was based primarily on seven parameters with the objective to provide concrete recommendations to prepare these hostels for ISO 9001:2015 certification.

Under Phase I of the project NABET assessed total 246 residential hostels in two districts - Keonjhar (156 hostels) and Sambalpur (90 hostels) respectively. Of these, 60 hostels in Keonjhar and 12 in Sambalpur were selected for intensive interventions of gap filling towards attaining ISO 9001:2015 certification. All 44 hostels assessed before the imposition of the COVID-19 lockdown, qualified the assessment parameters and were awarded ISO certification.

Encouraged by the results, the ST & SC Development Department has taken up remote assessment of 1252 hostels in 10 more districts under the upscaled phase.

6.3.48 Impact of Covid-19 on Odisha's Education Scenario

After the Gol announced the complete nation-wide lockdown on 23rd March 2020, all educational institutions in Odisha were shut to contain the spread of the virus and to abide by the lockdown norms. The decision on school reopening which had been on hold since has been reopened w.e.f. 08.01.2021 after the Centre's decision and reviewing the COVID-19 situation in Odisha so far as Class-X and Class-XII are concerned to prepare the students for Board Examinations. The following initiatives taken by School and Mass education for continued education and supplementary nutrition for vulnerable students.

(a) Continuance of Mid-Day meals: The Department of School and Mass Education, GoO instructed all Collectors to provide Mid-Day meal dry rations to school children for the period 16th March to 13th June 2020 through fair price shops or PDS retailers. In June 2020, the Department of School and Mass Education, GoO invoked Section-145 of MDM Rules (2015) to pay the food security allowance consisting of food grains as per entitlement of the child and prevailing cooking cost. This was also in line with the Gol's order that the Food Security Allowance under the Mid-day Meal Scheme be provided during the lockdown, summer vacation and later when schools had not reopened. The money was transferred to the student's or parent's account by DBT mode.

(b) School syllabus reduced by 30 percent for this academic year: In August 2020, the School and Mass Education Department of the GoO reduced the syllabus for the academic year 2020-21 by 30 per cent, in view of ongoing COVID-19 pandemic. The state government's decision is applicable for classes I to XII.

(c) 'Radio Pathsala' and 'Radio Surbhi': With schools closed since 17th March 2020, due to the COVID-19 pandemic, the School and Mass Education Department, GoO announced that students from classes one to eight of government-run institutes in Odisha will be taught via radio from Monday 28th September 2020. The Department had provided textbooks to school children earlier.

Lessons conducted for two classes each day are aired through all radio stations in the state. The audio programme is also uploaded in the central government's DIKSHA online platform. Students from Class I to VIII learn their lessons through a class of 15 minutes duration everyday from 10 a.m. to 10.15 a.m. conducted by experienced teachers.

Like 'Radio Pathsala', differently abled students are being taught through a community radio programme Radio Surbhi during the pandemic.

(d) Odisha ShikshaSanjog': A digital learning programme through WhatsApp groups has been initiated since 19th April 2020 to engage students in teaching learning activities during lock down situation due to COVID-19.

Community based teaching-learning programmes are adopted in different districts like Shiksha Setu (Bargarh), Shiksha Sanklapa (Jajpur) Shiksha Sanjibani (Bhadrak), Mo Shiksha Sathi and Ashara Pathe (Sundargarh).

(e) Madhu App: A syllabi-based e-learning App in Odia language dedicated to provide mother tongue based virtual classroom experience focusing on Self-learning and self-assessment of learning achievement in online mode.

Telecast of Video Lessons in Doordarshan (Odia Channel) going on for Grade-10 since April 2020. Recording of video lessons for Grade 9 and 12 are going on for telecast in Swayamprabha Channel.

(f) Teacher training on-line: 1,37,705 teachers trained on making educational videos through Smart phone to facilitate Odisha ShikshaSanjog, 163 Principals of OAVs trained on understanding School Leadership. 3122 Teachers trained on Ganita Kalika Andolan. 3258 English teachers trained through MOOC provided by British Council on Learner and Classrooms organised by Mo School, Odisha. 517 DEO, BEO and Headmasters trained online on Knowledge series which was organised by Mo School, Odisha.

Students are also being imparted online classes through smart phones. However with poor mobile connectivity in some parts of Odisha, online classes failed to reach many students of the State. Of the 60 lakh students, the Department could hardly reach 22 lakh students during the lockdown. The situation worsened further when the lockdown was lifted. Many parents returning to their workplaces took the only smartphone in the family with them. As per the Department's assessment, the number of students taking online classes dropped to 6-7 lakhs after the lockdown measures were eased.

Hence, the School and Mass Education Department turned to All India Radio to reach out to children in remote parts of the State. The AIR service reaches the remote parts of the State. Also, radio is cheap compared to smart phones and the recurring cost is also low. The School and Mass Education Department hoped to cover more students with the radio school programme.

Three hours of classroom instruction are also available through Doordarshan, the autonomous public service broadcaster founded by the GoI and owned by the Broadcasting Ministry of India. These three-hour, daily classes on Doordarshan are part of the continuing education programme for the students of Class X, XI and XII.

Learning goes digital during the pandemic

With education shifting from classroom teaching to online instruction, the GoO roped in IT major Tata Consultancy Services (TCS) to integrate digital learning system across its schools in the State. With technical help from TCS, the government is all set to introduce TCS iON Digital Class Room, a virtual classroom, for students in 101 Utkarsh schools and 214 AdarshVidyalayas (model schools) in the State from the on-going 2020-21 academic session.

6.4 Poverty measurement

6.4.1 Ending poverty in all its forms every where forms the first goal of the Sustainable Development agenda. Poverty is more than just the lack of income or access to resources- it manifests itself in diminished opportunities for education, social discrimination and the inability to participate in decision-making processes. SDG 1 thus calls or ensuring social protection, enhancing access to basic services and building resilience against the impacts of natural disasters which can cause severe damage to people's resources and livelihoods (United Nations in India).

Consumption Expenditure and Poverty

6.4.2 The latest poverty estimates at national and state-level are available for 2011-12. The erstwhile Planning Commission, now NITI Aayog estimated the poverty line based on consumption expenditure surveys conducted by the National Sample Survey Office (NSSO). Prior to 2011-12 as well, consumption expenditure-based methods were used to estimate the poverty line. Consumption expenditure is less volatile over time, considered to be measured more reliably than income and hence offers good estimate of economic well-being.

6.4.3 The last available poverty estimates are quite dated. In order to formulate targeted policy responses based on the ever-changing economic structure of the State, it is imperative to examine the changes in consumption expenditure, to provide for a rough estimate for developments in the economy. In this section, changes in Monthly Per Capita Consumption Expenditure (MPCE) in Odisha are considered based on two surveys:

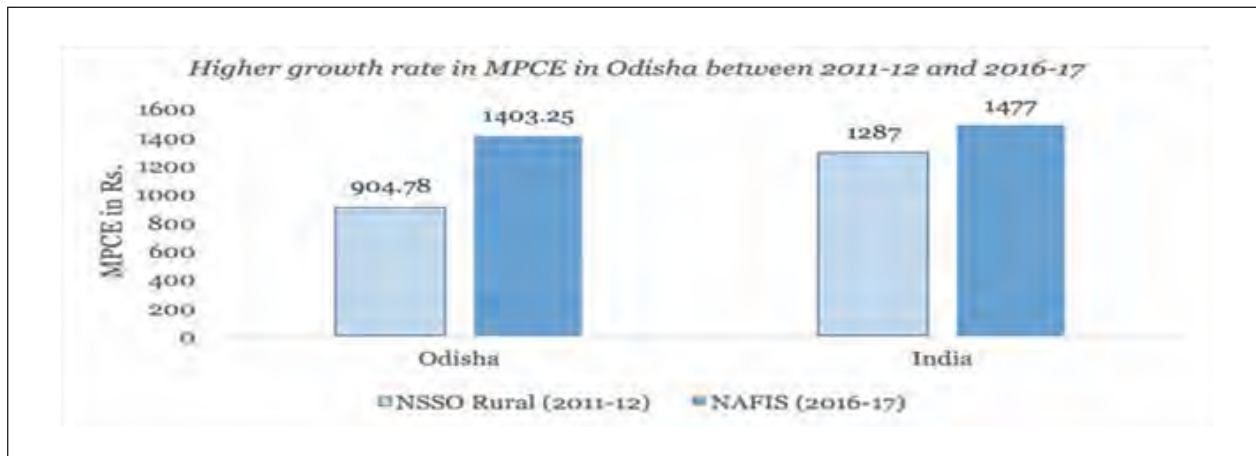
- Consumption expenditure data is available from NABARD's first ever survey on Financial Inclusion (NABARD All India Rural Financial Inclusion Survey (NAFIS) for the year 2016-17. The latest NSSO consumption expenditure data for the year 2011-12.

6.4.4 Since sample coverage is different between NSSO survey (2011-12) and NAFIS (2016-17), the consumption expenditure estimates from the two set of surveys are not strictly comparable. However, NAFIS has followed the same definition of consumption expenditure as followed by NSSO. In the absence of updated poverty estimates, comparisons between these surveys is helpful to gauge the poverty conditions in the State.

6.4.5 As per the NAFIS (2016-17), monthly per capita consumption expenditure for Odisha is INR 1,403.25. This is an increment of more than 55% over the MPCE in rural Odisha as per NSSO estimates of 2011-12 with a CAGR of 9.2%. The corresponding MPCE for all-India is INR 1,477. Even as Odisha's MPCE is lower than the national average, there seems to be a convergence in expenditure: growth rate in MPCE for Odisha (9.2%) was much higher than that witnessed at all-India level (2.8%).

6.4.6 Government has implemented several schemes with the objective of enhancing livelihood. 2011-12 is an indicative of improved economic well-being in the State, which would have opportunities for the poor and vulnerable, as detailed in the next section. The increase in consumption expenditure further contributed to reduction in poverty. Latest poverty estimates would throw a clearer picture on actual poverty reduction in the country and the State.

Figure 6.12: Monthly per capita consumption expenditure of Odisha vis-à-vis India



Source: NSSO 68th round survey, 2011-12 and NAFIS, 2016-17

Note: The two surveys are not strictly comparable

However, the dent in poverty from 2004-05 to 2011-12 has been quite significant in Odisha in comparison to other states. With a 24.6 percentage points decline, HCR in 2011-12 stood at 32.59%. 82 lakh poor in the State were pulled out of poverty in the span of eight years. India recorded 15 percentage points of poverty reduction during the same period.

6.4.7 During 2011-12, the HCR of SC and ST communities in rural Odisha were 41.4% and 63.5% respectively. It is noticed that poverty among ST and SC communities has reduced at a faster rate i.e by 20.88 and 26.51 percentage points respectively from 2004-05 to 2011-12 compared to overall poverty reduction.

6.4.8 Poverty Gap Ratio (PGR) is the standard indicator to measure the extent of depth of poverty or magnitude of deprivation in any jurisdiction. It reflects the degree to which means consumption of the poor falls short of the official poverty line, indicating the depth of poverty. The PGR declined significantly in rural areas of Odisha from 17.37 in 2004-05 to 7.01 in 2011-12, while in urban areas the decline was from 9.60 to 3.15 during the same period. In India, the PGR declined from 9.64 to 5.05 in rural areas and from 6.08 to 2.70 in urban areas between 2004-05 and 2011-12.

Major Initiatives for Poverty Alleviation

6.4.9 The State and Central Government have made concerted efforts in implementing a series of poverty alleviation programmes to reduce the dimension, deprivation and inequality in poverty in Odisha. These programmes have direct bearing on social security, living standard, livelihood, human development and economic wellbeing of the poor, vulnerable and weaker sections of the society in the long run. Table 6.18 gives a list of key interventions for poverty reduction. Details of some of the schemes are presented in the next section.

Table 6.19 Key interventions towards poverty alleviation in Odisha

Theme	Programme and objectives	Target group
Housing	PMAY, Biju Pucca Ghar, Mo Kudia	Economically weaker, houseless and lower income group
Employment generation	National Rural Livelihood Mission (NRLM), Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)	Unemployed persons in Unorganised labour force
Food security	Rupee One per kg of rice, Targeted Public Distribution System (TPDS), Antyodaya Anna Yojana (AAY), Mid-Day Meal (MDM), Supplementary Nutrition Program (SNP)	Persons identified as poor
Social security	Madhubabu Pension Yojana, Aam Aadmi Bima Yojana (AABY)	Persons identified as poor
Economic infrastructure	Critical irrigation projects such as OCTMP (Odisha Community Tank Management Project)	Rural poor
Livelihood opportunities	Odisha Tribal Empowerment and Livelihood Programme (OTELP), JEEBIKA	Tribal and other vulnerable communities

Housing: PMAY(Grameen)

6.4.10 The houseless poor families and those living in less than two kutchha rooms as per SECC, 2011 survey are eligible for availing housing assistance to construct minimum of 25sq.mtr.of house. The housing assistance is INR 1.3 lakh in IAP districts and INR 1.2 lakh in non-IAP districts. 4.58 lakh houses have been constructed in 2018-19 under PMAY. During 2019-20, 3,57,914 number of houses completed and in 2020-21 (up to July) 99,131 number of houses completed in the state.

Housing: Biju Pucca Ghar

6.4.11 Biju Pucca Ghar Yojana is a State plan scheme and is designed to provide new houses to the deserving and genuinely poor rural households not having any pucca house. The objective of the scheme is to convert all kutchha houses in to pucca houses in rural areas of the state in a fixed time frame in a mission mode. Preference is given to the following groups:

- Poor women in distress, physically challenged, mentally challenged, victims of domestic violence, destitute widows, women headed households, adult orphans of Government registered institutions, victims of leprosy and AIDS,
- Poor victims of fire or flood
- Tribal households whose houses are “fully collapsed” due to elephant menace,
- Primitive Tribes Groups (PTG) may be given priority without insisting on title of land.
- Livelihood Odisha Tribal Empowerment and Livelihood Programme (OTELP)

During 2019-20, 15,567 number of houses completed and in 2020-21 (up to July) 1,477 number of houses completed in the state.

Other Housing schemes

6.4.12 In the line of PMAY and BPGY, the state government has been taking up Nirman Shramik Pucca Ghar Yojana for the registered nirman shramiks otherwise eligible for houses, Pucca Ghar Yojana (Mining) for the mines affected villages and BPGY (Titili) for Titili (cyclone) affected people of Raygada and Gajapati districts. The number of houses completed during 2020-21 (up to July) in those schemes are 1245, 69 and 1279 respectively.

Employment Generation: MGNREGS

6.4.13 The basic objective of MGNREGS is to enhance livelihood security in rural areas by providing atleast 100 days of guaranteed employment in a financial year to every rural household whose adult members are willing to do unskilled manual work and creation of sustainable assets both for individual and community. During 2019-20, 1114.40 lakh person days have been created in the State under the scheme. During 2020-21 (upto 15th December), 1483.91 lakh person days have been generated under the scheme. Out of the person days 14.09 % belong to SC, 36.48% for ST and 44.21 % for women. Special focus was laid on engaging the migrant labourers during Covid-19 with an enhanced wage rate of INR.298/ per person per day.

Employment Generation: National Rural Livelihoods Mission (NRLM)

6.4.14 The Ministry of Rural Development (MoRD), Government of India in June 2011, launched national Rural Livelihoods Mission (NRLM). In Odisha, the centrally sponsored programme. Swarnajayanti Gram Swarajgar Yojana (SGSY) has been restructured as National Rural Livelihoods Mission (NRLM). Odisha was the first state in the country to launch National Rural Livelihoods Mission in its bid to bring down rural poverty by promoting diversified and gainful self-employment to the rural poor. Odisha Livelihood Mission (OLM) is implementing the scheme with an objective to enhance the socio-economic condition of rural poor through promotion of sustainable community based institutions. The targeted poor households are mobilized into Self Help Groups (SHGs) which are in turn federated into higher-level institutions at village as Cluster Level Forums (CLFs) and Gram Panchayat Level Federation (GPLF). Youths are trained under the Placement Linked Skill Development Programme. Households are covered under livelihood intervention producer group that include agriculture/ horticulture, livestock and non-farm sectors etc. SHGs are credit-linked to improve access to finance. Rural Self Employment Institutes (RSETIs) are setup in all 30 districts of the State to promote rural entrepreneurship and self-employment.

During 2020-21 9 (up to July) 3909 SHGs promoted, 6666 SHGs availed Community Investment Fund and 1467 Cluster Level forum availed Vulnerability Reduction Fund (VRF) to redress special need of SHG members with vulnerabilities. Other achievements of the scheme are listed below:

- (a) Intensive livelihood programme activities implemented in 254 blocks.
- (b) 5386 households in 103 clusters are engaged in organic farming.
- (c) 2895 Mahila Kisans mobilised into 110 Producers Groups in 7 blocks of 3 districts are engaged in Tasar rearing.
- (d) 3,24,372 house holds have been identified for establishment of Nutri-garden under the programme Mo Upakari Bagicha .

- (e) 22,524 SHGs received INR.258.22 Crores towards bank loan.
- (f) 2089 SHGs are involved in mask production and 74 SHGs in Sanitizer production and 14 SHGs engaged in hand wash production.
- (g) 2010 SHGs availed COVID-19 special loan amounting to INR.1,244.54 lakh.

KBK Districts in Odisha: Journey towards development

6.4.15 The eight districts of Koraput, Malkangiri, Nabarangpur, Rayagada, Bolangir, Subarnapur, Kalahandi and Nuapada (carved out of the erstwhile districts of Koraput, Bolangir and Kalahandi are known as KBK districts) are considered to be under severe poverty. Multiple socio-economic indicators signal the backward nature of the KBK districts: high poverty, low literacy rates, high mortality rates etc. The persistence of under development in these districts is a combination of historical, geographical, social, economic and demographic factors.

Weak agro-climatic conditions, poor connectivity and infrastructure, physical isolation and low social capabilities among tribals characterise this region, which suffers from multiple deprivations and backwardness: (i) tribal backwardness, (ii) hill area backwardness and (iii) backwardness due to severe natural calamities. KBK districts are largely in hilly and forested regions: difficulty in geographical accessibility continues to pose a hindrance to delivery of public services. The region is also home to a large proportion of tribal population, which have been historically disadvantaged. Majority of tribal communities continue to depend upon subsistence agriculture. Agriculture in this region is not productive and high yielding because of its undulating landscape, poor quality of the soil, dry nature of the land and scarce water resources. Rural poor and tribals in particular face severe food insecurity and depend on forests for their livelihood and subsistence. However, agricultural production fluctuates from year to year under the impact of natural calamities: droughts and floods, which affects this region. Vulnerability to recurring droughts and famine like situations, have led to distress migration of the poor during non-agricultural season. Forests are subjected to degradation of vary ingdegrees on account of severe biotic pressure, intensive use, shifting cultivation, mining, diversion for developmental projects and lack of adequate investment for their sustainable management.

The economic development of the State cannot be brought to the take-off stage, unless this region gets special attention of the planners and policy makers. To address regional disparities in development, the State Government has been implementing the Biju KBK Plan since 2006-07. It aims to create opportunities for socio-economic-human capital development of the eight KBK districts and improve quality of life of people of the region, disadvantaged groups in particular. District Sector programme relate to Bijli, Sadak, Pani and Livelihood initiatives. Between 2009 & 2017, 24,228 projects have been completed at the cost of INR 1076 crore under the BKBK plan. The Plan performed noticeably better in 'Sadak' projects(14,643) followed by 'Pani' projects (5,744) and 'Bijli' projects (1,071) during the last eight years.

Except Subarnapur, all seven KBK districts are now part of the Transformation of Aspirational Districts Programme of the central government, which aims to expeditiously improve the socio-economic status of 117 districts from across 28 states. The programme focuses on five main themes-health & nutrition ,education, agriculture & water resources, financial inclusion & skill development and basic infrastructure, which have direct bearing on the quality of life and economic productivity of citizens. Districts of Gajapati and Koraput ranked three and eight respectively in Agriculture and Water Resources field upto Oct 2020. Nabarangpur district ranked 8th in Basic Infrastructure, Rayagada second in Education and Nuapada stood 6th in Finacial inclusion and Skill development among the 117 aspirational districts.

6.5 Water Supply and Sanitation

Water Supply

6.5.1 The SDG 6 on clean water and sanitation aims to ensure availability and sustainable management of water and sanitation facilities for all. The goal is closely interrelated with other SDGs such as those of No Poverty (SDG 1) and Good Health and Well Being (Goal 3), absence of which affects the access to and availability of Water Supply and Sanitation (WSS) facilities. Odisha's efforts in ensuring this are emerged with central sector schemes such as NRDWP (National Rural Drinking Water Supply Programme), Swachh Bharat Mission and urban reforms like AMRUT, etc.

6.5.2 Access to water has been one of the major challenges in the State. As per Census 2011, 48% of urban households and only 7.5% of rural households had access to tap water. This was lower than the corresponding proportions of 70.6% and 30.8% at the national level. In the year 2019, 94% of urban households had access to water supply. The State and Central Government's efforts in increasing access to water supply have led to 98% of habitations being fully covered under the NRDWP in rural areas.

6.5.3 Table 6.19 gives the status of population and habitations having piped water supply under NRDWP as of April 2020. It may be seen that 26.80% of habitations in Odisha have Piped Water Supply (PWS): 26.38% of total habitations are fully covered and 0.48% of in habitant sarepartially covered or quality affected. In total 44.57% of population has access to piped water supply as compared to 49.14% of population at all India level. As there is considerable gap both at the State and national level, the Government of Odisha is committed to improve the PWS facilities in the State.

Table: 6.20: Status of Piped Water Supply (as on 1.4.2020)

	% of Habitation			% of Population		
	Total	Fully covered	Partially covered + quality affected	Total	Fully covered	Partially covered + quality affected
Odisha	26.80	26.38	0.48	44.95	44.57	0.55
India	40.31	30.02	10.29	49.14	37.11	12.59

Source: NRDWP data

6.5.4 **URBAN WATERSUPPLY:** The State Government is committed to provide equitable, affordable, sustainable safe and sufficient water supply to all urban population including urban poor in a time bound manner and to achieve the service level bench mark of 135 lpcd with 100% coverage of urban households by covering 2025 wards in 114 ULBs of Odisha

Sanitation

6.5.5 Lack of sanitation facilities had always been a glaring developmental issue in India, including in Odisha. As per Census 2011, out of total 81.4 lakh rural households in the State, 85.9 % households did not own any latrine facilities. The push for construction of toilets under the Swachh Bharat Mission Grameen (SBMG) has led to a rapid increase in coverage of household latrines, and their usage. The State has been declared Open Defecation Free (ODF), with an Individual Household Latrine (IHHL) count of 84.1 lakh in rural Odisha. Out of these, 71.5 lakh IHHLs have been facilitated through the SBMG program during the FY 2014-15 to FY 2019-20 period. As part of the 2nd phase of the SBMG program, Solid and Liquid Waste Management (SLWM) is being implemented in the villages since FY 2020-21. The target is to make rural Odisha ODF plus, with focus on Sanitation Sustainability and SLWM, covering all villages by 2024-25.

6.5.6 In Odisha, studies have noted multiple reasons for low position in access and use of sanitation facilities:

- Lack of access to a latrine was state das the primary reason why people practiced open defecation (OD) and lack of cash income on the part of economically poor families was one of the reasons for not opting to install a government-subsidized latrine, despite the available subsidy, since participation requires making a small contribution to toilet construction. Those surveyed thought sanitation costs were high and unaffordable.
- House holds that had latrine facilities but continued to practice OD cited reasons such as purity (containing faeces in the latrine pit inside the compound is perceived to be 'impure'), structural and design problems (small toilet size, no roof, water availability), habits (example: rural men have the habit of going for OD) and socialising, etc.

6.5.7 The journey towards making Odisha ODF is dependent on government efforts and also increased participation of people which calls for attitudinal and behavioural change. It depends on changing perception towards cleanliness, building and using toilets and maintaining personal hygiene. This implies creating a behavioural change in an individual to help break old cultural habits. Increased information, education and communication (IEC) activities like door-to-door IPC (inter personal communication), rallies, felicitation of champions and mass mobile sation of communities, will contribute to increased awareness.

III. Major initiatives for increasing access to water supply & sanitation

Table 6.21: Schemes, policies, programmes for water supply & sanitation

Initiative	Objective	Achievements
Swachh Bharat Mission Grameen	To provide every citizen with an access to sanitation facilities, including toilets, solid and liquid waste disposal system and ensuring overall village cleanliness.	ODF status has been achieved for 46,785 villages, 6,798-gram panchayats, 314 blocks and 30 districts. Solid & Liquid Waste Management has been initiated in the rural areas of the State. The 'Byelaws on Solid Waste Management in Gram Panchayats of Odisha 2019' has been adopted by all 6,798-gram panchayats. The Odisha Rural Sanitation Policy 2020 has been promulgated.

6.6 Welfare of Women and Children, Elderly, Disabled and SC/ST Communities

6.6.1 **Development and Empowerment of Women:** The principle of gender equality is enshrined in the Indian Constitution. It grants equality to women and empowers the State to adopt measures of positive discrimination in favour of women. SDG 5 also calls for ending all discrimination against women and girls, as it is not only a basic human right, but also crucial for a sustainable future given the role that women empowerment plays in economic growth and development. Women, however, experience considerable disadvantage and discrimination in the society owing to gender bias. This bias reveals itself in the form of disparities in access to education, health services and other social development indicators.

6.6.2 The status of women in the society and economy can be gauged through numerous demographic, sector-specific and economic indicators-mapped from birth to death. Through these, challenges faced by women-and the corresponding policy response to alleviate the same can be ideated. In the following sections, a few of the major indicators are discussed.

6.6.3 The sex ratio in Odisha compares favourably with the national average. As per Census 2011, there are 979 females for every 1,000 males in Odisha. Similarly, in rural Odisha, the sex ratio is higher (989) and in urban Odisha, it stands at 932. In comparison, India's sex ratio is 943. Odisha is in fact ranked in the top five of major States in terms of sex ratio. The child sex ratio of the state (941) is better than the national standard (918) but the concern is about the declining trend.

6.6.4 The State government has implemented the Biju Kanya Ratna Yojana (Amari Jhia Amari Shakti) scheme, with the objective of creating an enabling environment for the birth, survival and development of the girl child along with ensuring enrolment and retention of girls in educational institutions. The focus is on creating mass awareness on addressing gender discrimination against girls, improved status of nutrition, health, education, sex ratio at birth and child sex ratio. Launched in September 2016 in the districts of Angul, Dhenkanal and Ganjam, which have low child sex ratio, the programme aims to sensitise the community as well as all stakeholders on the importances of the girl child.

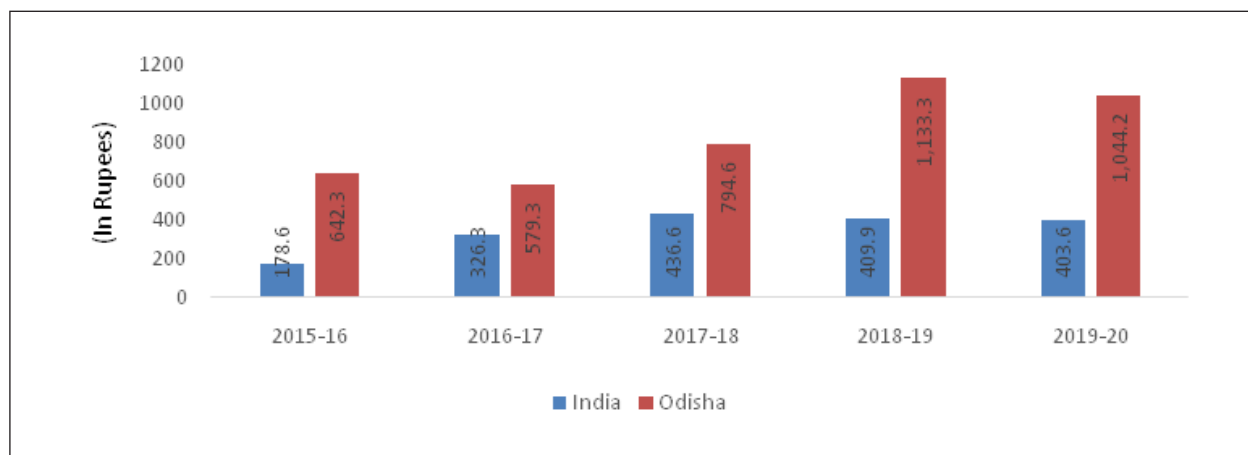
6.6.5 Further, the Odisha State Policy for Girls and Women adopted in 2014, has the mission of creating an enabling environment for girls and women that promotes equal opportunities, eliminates discrimination, ensures holistic development and empowerment and enhances capacities. As discussed in the previous sections, female literacy rate (64%) in Odisha is much lower than male literacy rate (81.6%). Considering the historically under developed status of Odisha, there is clearly a large gap to be filled in order to bring female literacy rate at par with males. However, Odisha is on the path of steady progress and female literacy rates have increased sharply in the past few decades, which resulted in reduction of the gender gap from 24.9% in 2001 to 17.6% in 2011.

6.6.6 Even as Odisha has made significant improvement in education indicators, there is still considerable distance to cover in terms of achieving gender parity in access to education. Median years of schooling in Odisha for females (4 years) are lower than males (6.1 years); this phenomenon is also pervasive across the country. Though the dropout rate in 2017-18 for girls was lower than that for boys, for most of the preceding years, it has been higher. GPIs at elementary and secondary level are more than 0.9; the State targets to reach complete parity with GPI of 1.

Per capita expenditure on women in India and Odisha in women specific Schemes

6.6.7 In India, per capita women expenditure was lowest in FY 2006-07 and highest in 2017-18. Taking the last three fiscal periods into account, there is a constant decline in per capita woman expenditure in India. On the other hand, Odisha's per capita women expenditure increased from INR.794.57 in FY 2017-18 to INR.1133.31 in FY 2018-19. However, there is a decline from INR.1133.31 in FY 2018-19 to INR.1044.24 in FY 2019-20. In this regard, the state needs to focus on more public investment for women through it in much ahead of national standard.

Figure 6.13: Per capita expenditure on woman (100% schemes and programmes)



Source: Gender and Child Budget Statement, Government of Odisha

State intervention on Gender Mainstreaming

6.6.8 Odisha government has been making concerted efforts in sensitising and implementing various schemes and programmes for its women. These schemes and programmes have a direct and indirect bearing on the welfare and development of women in the state especially in the sphere of health, protection, employment and education etc. These schemes include state sector schemes, central sector schemes, centrally sponsored schemes, EOM and SDRF.

6.6.9 Odisha has vastly improved its health care facilities targeted towards women, as is evident in the progress made in reduction of maternal mortality ratio, access to health care facilities for pregnant women and increase in proportion of institutional births. The progress has ensured that the State now ranks above national average and most states in maternity care indicators. As was discussed in the previous sections, Odisha's institutional delivery rates at 85.3% which is higher than all India average of 78.9%. In other indicators too, Odisha ranks favourably.

6.6.10 Distribution of females in the labour force has increased in the State in the past 3 decades. The proportion of women workers (work participation rate, which is defined as the percentage of total workers to the total population) in urban and rural areas stood at 29.7% and 14.1%, respectively in 2011. The proportion of women in total main workers has increased from 16.2% in 1981 to 17.9% in 2011, while the proportion of women marginal workers as compared to total marginal workers has declined from 85.8% to 54.52% over the same period. This appears to be the outcome of increased literacy among women and higher participation of women in the service sector.

6.6.11 Labour force participation rate (LFPR) of females is, however, significantly lower than males in the state, mirroring the trend at the national level. Not only there is intra-state differential between male and female in LFPR, it also shows a wide gap in comparison to national average. This is particularly so in urban Odisha, though a part of it may be attributed to regional disparity in attainment of higher education levels, since urban areas have more and better opportunities for education, more women might be opting for higher education and delaying the entry in the labour force market.

Table 6.22: Labour force participation rate (age15-59 years), 2018-19 (in %)

State	Rural			Urban			Total		
	Female	Male	Total	Female	Male	Total	Female	Male	Total
Odisha	25.2	79.8	52.1	20.3	75.0	47.0	24.4	79.0	51.2
India	26.4	76.4	51.5	20.4	73.7	47.5	24.5	75.5	50.2

Source: Periodic Labour Force Survey, 2018-19

6.6.12 Gender disparity in wages exists across rural and urban Odisha, more so in urban areas, for salaried employees. While the gap between male and female average monthly wage is INR 6,676 in urban areas, the gap is narrow at INR 4,944 in the rural region.

6.6.13 Women’s position in entrepreneurship also needs to be strengthened. A glance at statistics in distribution of proprietary establishments indicates that males, both at the State and national level, own an over whelming majority of establishments. In Odisha, females own 14% of proprietary establishments, across rural and urban regions. At the national level, the figures are slightly higher and skewed towards females in rural areas as compared to urban.

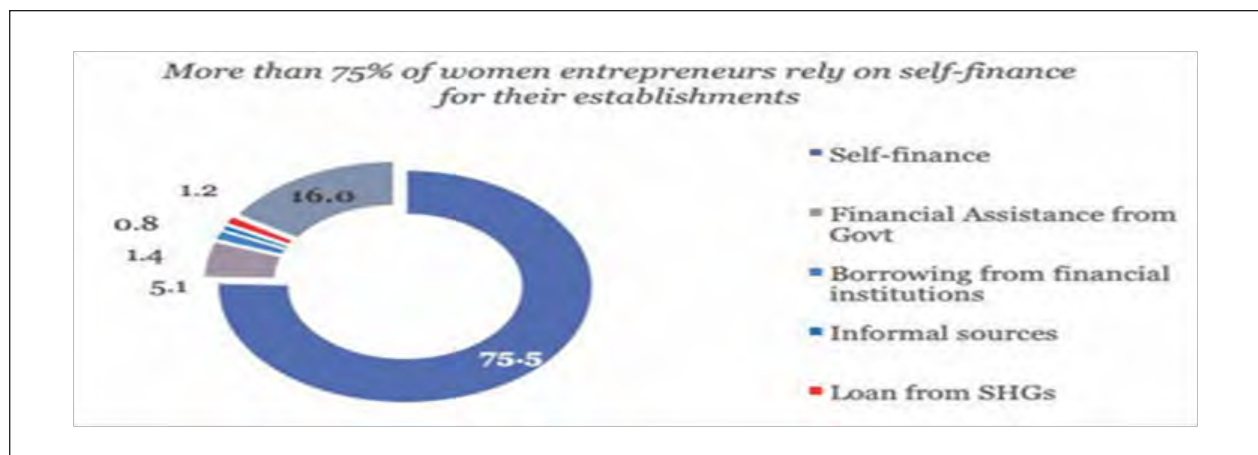
Table 6.23 Distribution of proprietary establishments, by sex of owner, 2014

State	Rural			Urban			Total		
	Female	Male	% Female	Female	Male	% Female	Female	Male	% Female
Odisha	17,946	1,09,417	14	2,183	13,495	14	20,129	1,22,912	14
India	2,58,633	8,23,609	24	1,37,485	5,83,264	19	3,96,118	14,06,873	22

Source: Sixth Economic Census (2013-14), Ministry of Statistics and Programme Implementation.

6.6.14 The link between access to finance and women entrepreneurs becomes stronger when one considers their major sources of finance; more than 75% of establishments by women entrepreneurs have been self-financed. Donations and transfers account for 15%, while financial assistance from the government accounts for another 5%. Increasing the sources of external finance for women can yield results so that they are not financially constrained, in order to encourage entrepreneurship.

Figure 6.14: Distribution of major sources of finance for establishments under women entrepreneurs



Source: Sixth Economic Census (2013-14), Ministry of Statistics and Programme Implementation

6.6.15 The State has undertaken multiple initiatives to encourage women entrepreneurship. The Odisha rural development and Marketing Society (ORMAS) has widened the scope of marketing of products of Women Self Help Groups (WSHGs) through Pallishree Melas and "Sisir Saras". The Mahila Vikas Samabay Nigam (MVSN) provides funds for training of the poor and needy women in traditional occupations to upgrade their skills and sell their products. Mukhya Mantri Mahila Sashakti Karana Yojana (MMMSY) aims at socio-economic empowerment of WSHGs under Mission Shakti through formation of new WSHGs, training and capacity building, livelihood and skill development of all WSHGs in the state and linkages with financial institutions.

Mission Shakti: Towards Women Empowerment

6.6.16. One of the flagship programmes of the State is Mission Shakti- the women's self-help group (SHG) movement. Today there are 6 lakh SHGs in Odisha having 70 lakh women as members. "Mission Shakti" is the State's self-help mission for empowering women through promotion of Women Self Help Groups (WSHGs) to take up various socio-economic activities. The Mission was launched in the state on 8th March 2001 on the eve of International Women's Day.

Mission Shakti has become a silent revolution in the state transforming the lives of 70,00,010 women under 6,02,013 women SHGs. The mission was started with an initial objective of forming two lakh groups in two years. By 2006-07, 2,48,689 women SHGs had been formed which increased to 3,14,646 by 2016-17. Consequent upon creation of new Directorate, the number of SHGs crossed 6 lakh in the State having about 70 lakh members.

During 2018-19, Mission Shakti focused on formation of groups, linking them to banks, providing seed money to women SHGs, undertaking a 360 degree IEC campaign for awareness creation and educating women on social entitlements & Government schemes through various means.

During 2019-20, the major focus has been on convergence with different Government Departments for provisioning of Government Services & procurement of goods by Mission Shakti SHGs, upscaling financial inclusion initiatives & deepening the State interest subvention programme, giving an impetus to marketing of SHG products and adopting digital solutions for more efficient programme monitoring & dissemination of information.

A. Adoption of Unique Convergence Model for Livelihood Promotion

The Cabinet in its 1st meeting on 29.05.2019 directed the provisioning of Government Services & Goods worth INR. 5000 cr in 5 years from Mission Shakti SHGs. Accordingly tie ups were done with the following departments.

- (i) Department of Women & Child Development and Mission Shakti for Supply of pre-school uniforms in AWCs,
- (ii) Food Supplies & Consumer Welfare Department for paddy procurement operations and appointment of WSHGs as fair price shop dealers under the Public Distribution System (PDS),
- (iii) Agriculture & Farmers Empowerment Department for engagement of women SHGs as agents for managing the seed-processing & Godown of OSSC, Small nursery management, Bee Keeping, Preservation unit under Mission for Integrated Development of Horticulture (MIDH) scheme,
- (iv) School & Mass Education Department for Mid-Day Meal (MDM) management,

- (v) Department of Energy for Engaging SHGs for electricity meter reading and collection of charges at GP/ ward level,
- (vi) Department of Forest and Environment for Conservation of existing forest and restoration of degraded forests by SHGs, Engaging SHGs under AmaJangalYojana for sustainable forest management and Processing and value addition to the available non-timber forest produce (NTFP) items,
- (vii) Department of Housing and Urban Development for Running Common Service Centres in urban local bodies, Aahaar Kendra management, JalaSathi and SwachhaSathi in urban areas,
- (viii) Fisheries and Animal Resources Development Department for Pisciculture in Gram Panchayat tanks, value addition to fish and semi commercial layer farming in deep litter system,
- (ix) Health & Family Welfare Department for Supply of hospital diets and engagement as Swasthya Mitra
- (x) Directorate of Watershed & Soil Conservation for engagement of WSHGs as Site Supervisors in excavation of farm ponds under MGNREGS.

In the first year 2019-20, services and goods worth INR 1,010 cr have been procured. Some examples of convergence with Government departments for provisioning of services are-

- (i) Preparation of Take Home Ration (THR) for 72,587 Anganwadi Centres (AWCs) in the State. Under the ICDS programme, THR is supplied to pregnant women, nursing mothers, children (aged 6 months to 3 Years) and severely underweight children (aged 6 months to 6 years) totalling 25,63,952 beneficiaries. THR is a mix of wheat, ground nut, Bengal gram and sugar, presently procured & supplied in a decentralised manner through 548 SHGs in the State.
- (ii). Pisciculture (fish farming) in Gram Panchayat Tanks by women SHGs has been undertaken across the state in convergence with the Directorate of Fisheries. Under this programme, women SHGs are given priority for lease of GP tanks on long term basis. 4346 GP tanks (1969 tanks during FY 2018-19 & 2377 GP tanks during FY 2019-20) covering an area of 3579.42 ha have been leased out. SHGs receive one time input subsidy under the seed and feed components. Having doorstep marketability, this livelihood activity has proved to be very successful in enhancing the income of SHG members & supplementing the nutrition intake of women and children. Harvest of fish worth Rs. 37.98 cr has been made in 2176 GP tanks during the year 2019-20.

Table 6.24. Fish Farming by women SHGs in GP tanks

Year	SHGs that stocked fingerlings	No of SHGs harvested fish	No of tanks harvested	Quantity of fish harvested (in Quintal)	Value of harvesting (Rs in cr)	Subsidy released (Rs in cr)
2018-19	1969	1810	1862	33744	44.80	14.95
2019-20	2377	2154	2176	25866	37.98	13.25
Total	4346	3964	4038	59610	82.78	28.20

Source: Mission Shakti, Odisha

- (iii) Paddy procurement operations involving SHGs were successfully piloted in 17 Gram Panchayats of Kalahandi District during Rabi 2019. Paddy was procured by SHGs in RMC market yards / mandis on behalf of the Odisha State Civil Supplies Corporation (OSCSC). The groups were imparted training on procurement of paddy using the digital platform of Paddy - Procurement Automation System (P-PAS). Online transactions were done and farmers were credited with Minimum Support Price (MSP) within stipulated time. 2,47,196 quintals of paddy were procured in Kalahandi district during Rabi resulting in

a turnover of INR 43.26 cr, with SHGs earning commissions of INR. 77.25 lakh, an average of INR 4.5 lakh per group. During the Kharif procurement 2019-20, paddy procurement was undertaken by 199 WSHGs in 11 districts, procuring 23.07 lakh quintal of paddy worth INR 419 cr and commissions of INR. 7.2 cr.

(iv) Commercial layer farming under Deep Litter System to augment egg production in the state has been undertaken in convergence with Directorate of Animal Husbandry and Veterinary Services. 1,600 units have been programmed covering 1,600 WSHGs under this project. In each unit, the SHG will be provided with 200 layer birds. This will augment the production of eggs in the state apart from aiding nutrition of women & children. 1552 SHGs across 30 districts have been selected so far based on the selection criteria.

(v). The District Level Federation of SHGs in Koraput district, is engaged in hospital diet management in Saheed Laxman Nayak Medical College and Hospital generating an annual turnover of INR 48 lakh.

(vi) A convergence programme with School & Mass Education Department for Mid-Day Meal (MDM) management has been initiated with a view to engage more SHGs across the state. Currently 14,719 WSHGs are actively engaged in the MDM programme.

(vii) 834 SHGs are engaged in different Gram Panchayats (GP) for electricity meter reading, billing and collection of electricity charges in convergence with the Energy Department. On raising of bills, collection of bill amount & facilitating new consumers, they are given a commission. Collection of electricity charges increased as SHG members have access to women members of a family & can successfully persuade them to pay charges.

(viii) SHGs are also involved in supply of pre-school uniform and school uniforms across the state. During the year 2019-20, 639 SHGs were involved in this activity.

(ix) In convergence with Directorate of Soil Conservation & Watershed, 7203 SHGs have been selected to be engaged as Site Supervisors for excavation of farm ponds under MGNREGS. The work has commenced in 3971 sites during 2019-20.

Table 6.25: Cumulative Turnover of IGAs undertaken by WSHGs under convergence mode (FY 2019 - 20)

Sl. No	Name of the Convergence Livelihood Activity	Cumulative Turnover during FY 2019-20 (Rs. in cr)
1	Mid-Day Meal Management	65.46
2	Paddy Procurement	556.31
3	Electricity Meter Reading	56.62
4	Pisciculture in Gram Panchayat tanks	29.73
5	Distribution of eggs to AWCs	4.29
6	Silk Saree through Boyanika	1.5
7	Supply of toiletries to Ashram Schools	2.94
8	Dietary Service in Hospitals	1.85
9	Non Timber Forest Produce (NTFP)	8.08
10	PDS Dealership	51.71
11	Spices and turmeric (Ashram School)	3.97
12	Floriculture (Horticulture)	1.23

13	Supply of Pre School Uniform	52.36
14	Any Other IG Activities	43.67
15	Exhibitions	7.03
16	ORMAS	84.18
17	TDCC & OTELP	0.94
18	OLM	38.27
	Total	1010.14

Source: Mission Shakti, Odisha

The unique livelihood convergence model adopted by Mission Shakti has provided WSHGs with business worth INR. 1010.14 crore during the financial year 2019-20. Enabling environment, favourable policies and supportive governance have acted as key catalysts for women entrepreneurship initiatives in the state.

B. Upscaling Financial Inclusion Initiatives of Mission Shakti

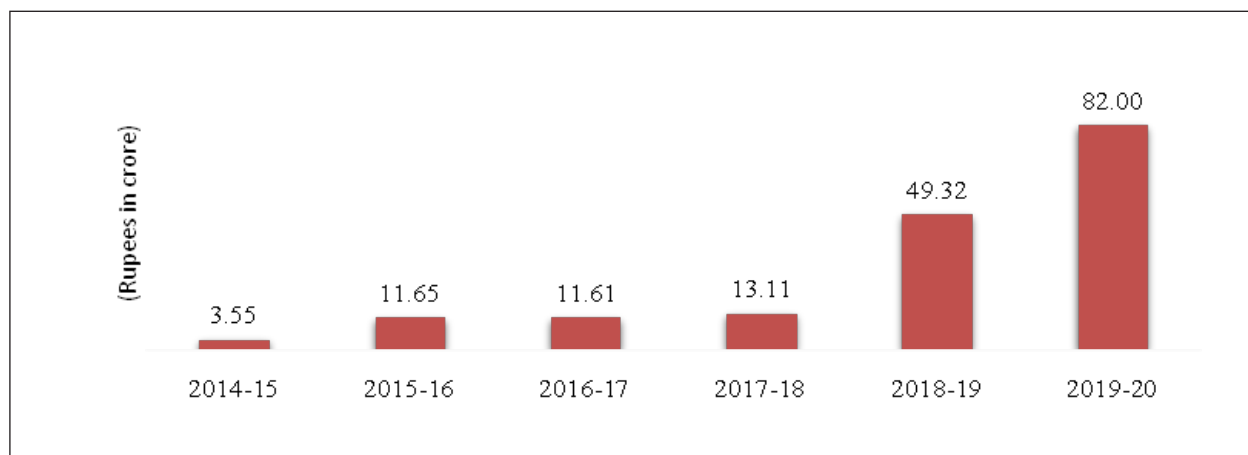
Facilitation of bank credit linkage to SHGs for nurturing women entrepreneurship is a key objective of Mission Shakti. Against physical and financial bank credit linkage targets of 1.25 lakh SHGs and INR. 1,900 crore respectively during the FY 2019-20, 1,54,639 SHGs have been provided with bank linkage amounting to INR. 2307.93 cr. The average loan size is INR.1.5 lakh. During the FY 2018-19, 1,59,520 SHGs had been credit linked with loan amounting to INR. 1744.57 crore with an average loan size of Rs. 1.09 lakh. With 37% increase in the average SHG loan size as compared to that of last FY, Mission Shakti is committed to further enhance the average SHG loan size upto INR2 lakh.

Considering the growth in credit off take of SHGs and to further reduce the interest burden, to encourage SHGs to invest more capital in livelihood activities, State Government introduced interest free Mission Shakti Loans up to INR. 3 lakh at 0 % annual rate of interest for women SHGs from 1st April 2019. This Interest Subvention scheme has been named as "Mission Shakti Loan" - Interest Subvention Scheme. This aims at accelerating the SHG bank linkage programme and livelihood promotion of women SHGs in the state. During the financial year 2018-19, interest subvention amounting to INR. 49.32 cr was credited to SHGs. In 2019-20, Interest Subvention amounting to INR. 81.74 cr was transferred to SHG accounts, an increase of 65.7%.

Directorate of Mission Shakti has so far cumulatively settled interest subvention claims amounting to INR. 140 crore benefitting more than 4 lakh SHGs towards reimbursement of interest paid against bank loans.

The interest burden leveraged, acts as a catalyst for SHGs towards taking up new challenges for setting up / scaling up enterprises thereby further strengthening local economy, contributing more to state GDP and generating more employment opportunities locally. To integrate online digital solutions to bolster the 'Mission Shakti Loan' implementation process, a state-of-the-art Management Information System (MIS) is being developed.

Figure: 6.15 Progress in Interest Subvention Claim Settlement



Under Digital Empowerment, financial assistance amounting to INR. 3000 per SHG to procure a smart phone of their choice from the open market had been provisioned. Out of 6.02 lakh WSHGs in the state, 3.11 lakh SHGs have received financial assistance for digital empowerment during 2018-19 in the first phase. Remaining SHGs have been provided with financial assistance during the financial year 2019-20 in second phase.

C. New Avenues for Facilitating Market Linkage

a. Mission Shakti Mela

For promoting products prepared by Mission Shakti Self Help Groups across the state, the Directorate of Mission Shakti organized for the first time a state level exclusive mega exhibition for SHGs - 'Mission Shakti Mela' from 5th December to 16th December 2019 at the IDCO Exhibition Ground, Unit - III, Bhubaneswar. This Mela had 202 stalls for display and sale of various handloom, handicraft, non-timber forest produce (NTFP), food items, spices and non-farm products. Besides, 12 stalls in the "Food Court" were also managed by women Self Help Groups & women entrepreneurs. During this exhibition-cum-sale, women SHG products worth INR. 6.055 cr were sold. In order to provide a permanent sale facility to SHGs at the grassroots level, Mission Shakti Gruhas were sanctioned for 5449 GPs. These Gruhas are to be constructed at every Gram Panchayat in a progressive manner over the next few years. They will provide a space in every Panchayat for SHGs to meet and also enable sale of SHG products.

b. Promotion of Producers Groups (PGs) in partnership with ORMAS

In order to provide greater bargaining power and reap the economies of scale through aggregation, Mission Shakti, in collaboration with Odisha Rural Development and Marketing Society (ORMAS), is promoting the cluster approach focusing on product quality, value addition, packaging, delivery and value chain management. A successful example of this aggregation is Gohaldih Sabai Producers Group, Mayurbhanj. This PG produces around 57 types of products made out of Sabai grass and has been successfully selling them on e-commerce platform as well as show rooms across the state with an annual turnover of INR 40 lakh. Mission Shakti is also partnering with ORMAS to strengthen 300 women Producer Groups across the state

c. Strengthening of Women SHG Federations

The Block Level Federations of WSHGs under Mission Shakti play an important role in the SHG framework. All the 338 BLFs have been supported with financial assistance @ INR.25,00,000/- as Revolving fund for income enhancement, livelihood activities and any other immediate needs. INR.1.5 lakh has been provided to each BLF as assistance for administrative expenditure. This enables Block Level Federations to play a leadership role for the SHGs at the block level and help them leverage funds for various activities.

The activities undertaken in 2019-20 are expected to pave the way for greater income generation avenues for women, access to diverse financial products, and to leverage tailor made digital solutions for more holistic empowerment of SHGs in the state.

6.6.17 Caring for the women in distress

- SwadharGruhas envision a supportive institutional framework for women victims of difficult circumstances. They provide shelter, food, clothing and health as well as economic and social security. There are 56 SwadharGruhas functional in Odisha.
- Ujjawala is a comprehensive scheme for prevention of trafficking, for rescue, rehabilitation and re-integration of victims of trafficking. 12UjjawalaHomes are running in the state.
- The 181 Women Helpline provides toll-free 24 hours telecom service to women affected by violence seeking support and information

6.6.18 Women Development

In order to improve the quality of life of vulnerable group of population like children, women and girls, the State Govt has enunciated series of welfare programmes in the form of education, healthcare and social security measures.

State Commission for Women: The Commission has organised District level Camp court to deliver justice at their door steps. Besides, legal awareness, camps have also been organised in District level to create awareness among the women folk, regarding legislation and different Govt schemes and programme for safeguarding the interest of women in Odisha.

Odisha State Social Welfare Board: It holds regular welfare activities, seminar to generate awareness among the community about women's problem and service grants from the Central and State Governments for the purpose of some welfare programme.

Mahila Vikas Samabaya Nigam: The MVSN provides funds for training of poor and needy women in traditional occupations for upgrading their skills as well as in new areas for enhancing their productivity and broadening their opportunities for self-employment and income-generation. MVSN is also the Nodal Agency for implementation of certain schemes under Mission Shakti, for implementation of the Govt. of India schemes with assistance from the Norwegian Government (NORAD) and under the Rashtriya Mahila Kosh (RMK).

Swadhar Greh: Swadhar Greh Scheme caters to primary needs of women in difficult circumstances. Swadhar Greh envisions a supportive institutional framework for women victims of difficult circumstances so that they could lead their life with all dignity. The objective is to cater to the primary need of shelter, food, clothing, medical treatment and care of the women in distress and who are without any social and economic support. Near about 2290 inmates are there in 54 Swadhar Greh in Odisha.

Ujjawala Scheme: Comprehensive scheme for prevention of Trafficking for Rescue, Rehabilitation and Reintegration of victims of Trafficking for Commercial Sexual Exploitation with an objective to prevent trafficking of women and children for commercial sexual exploitation through social mobilization and involvement of local communities, awareness generation programmes, generate public discourse through workshop, seminars and such events and any other innovative activity. There are 19 Ujjawala project operationalised in Odisha. Out of 19 projects, 11 Ujjawala Homes are running in the State. Near about 450 inmates are there in 11 Ujjawala Home in Odisha.

One Stop Centre: One Stop Centre is a hospital based centre to provide integrated support and assistance to women affected by violence and to facilitate immediate, emergency and non-emergency access to an integrated range of services including medical, legal psychological and counseling support. During the year 2019-20, 30 One Stop Centre have been operationalised in 30 Districts of the State.

Working Women's Hostels: Provision for envisaging safe and affordable hostel accommodation for working women, single, divorcees and separated women. Construction of 100 bedded Working Women's Hostel are in progress at Bhubaneswar, Sambalpur, Jajpur, Jharsuguda, Ganjam (Berhampur), Sundargarh (Rourkela), Dhenkanal and Rayagada.

Protection of Women from Domestic Violence: Protection Officers have been appointed at district level to address the issues of Domestic Violence under protection of Women from Domestic violence Act 2005 (PWDV Act 2005). All the Swadhar Homes, Ujjawala Homes, Short Stay Homes & Family Counselling Centres are declared as Service Provider. This year there is a budget provision of INR15.00 lakhs in the state plan for implementation of the Act under Violence Against Women.

Anti-Human Trafficking Measures: To facilitate integrated approach towards Crime against women and children 537 Mahila Sishu Desks have been set up in every police station in convergence with Home Dept.

Prohibition of Child Marriage: According to the Prohibition of Child Marriage Act 2006 & Orissa Prohibition of Child Marriage Rules 2009 the State Government have appointed Director, Social Welfare as Chief Child Marriage Prohibition Officer vide W & CD & MS Department Notification No-16786 dt 30.09.09. The Child Development Project Officers (CDPOs) as Child Marriage Prohibition Officers vide Notification No-16777 Dt-30.09.09. State Initiative for the year 2020-21:

- Notification of Chief Child Marriage Prohibition Officer and Child Marriage Prohibition Officer (2009).
- State PCMA Committee to review Act/ Rules and Implementation of strategy action plan.
- Strategy Action Plan to End Child Marriage (2019-24) developed and rolled out.
- State Rule for Prohibition of Child Marriage 2009 & State PCMA Amended Rule, 2019 notified.
- "ADVIKA - Every girl is unique", an adolescent empowerment programme launched

Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act 2013: The Act is to provide protection against Sexual Harassment of women at workplace and for prevention, redressal of complaints of sexual harassment. Local Complaints Committee (LCC) formed and notified in all 30 districts. Internal Complaints Committee (ICC) formed at Dept./ Directorates/ Corporations. Trainings provided to the members of ICCs & LCCs. IEC activities undertaken such as FAQ, booklet & Leaflet in English & Odia.

6.6.19 Child Welfare

To ensure the best interest of every child in the State, the Juvenile Justice (Care & Protection of Children) Act, 2015 and Odisha Juvenile Justice (Care and Protection of Children) Rules, 2018 are being implemented by the Department of Women and Child Development and Mission Shakti.

All matters pertaining to apprehension, detention, prosecution, penalty, rehabilitation and social reintegration in respect of children in conflict with law and rehabilitation, adoption, reintegration and restoration of children in need of care and protection have been taken care of for promoting the cause of children by implementing “Child Protection Services” “Beti Bachao Beti Padhao” and one State Sector Scheme namely “ Biju Kanya Ratna Yojana” .

Child Protection Services: Earlier known as Integrated Child Protection Scheme (ICPS), a centrally sponsored scheme with sharing ratio 60:40 (Central: State). The Scheme is working closely with all stakeholders including government departments, the voluntary sector, community groups, academia and, most importantly, families and children to create protective environment for children in the State. Statutory bodies like JJB, CWC and Service delivery structures like SCPS, SARA, DCPU, SJPU are in place as per the scheme.

The Statistics on Child Care Institutions functioning in the State are given in table 6.26

Table-6.26: Child Care Institutions in the State

Type of institutions	No. of the institutions
Children’s Home	191
Specialised Adoption Agency	29
Open Shelter	12
Observation Home	4
Special Home	4
Total	240

Source: WCD Dept., Odisha

IEC, Advocacy and Training programmes are undertaken in collaboration with reputed institutions like National Law University, Odisha Judicial Academy, Gopabandhu Academy of Administration, State Biju Pattanaik Police Academy, AIR - Cuttack, DD - Odia and regional new channels for promoting awareness on child protection services.

Biju Shishu Surakshya Yojana (BSSY): For creating a safety net for the children who are without biological or adoptive parents or legal guardians and children who are affected with /infected by HIV and found to be the most vulnerable, assuring for their protection, development and sustenance by all possible means, the scheme namely “Biju Shishu Surakshya Yojana” (BSSY) has been launched on 22.12.2016. . An amount of. INR 600.00 lakh has been provided from the State Budget during this FY 2020-21 for implementation of the scheme

Aftercare guideline: Grants in aid guideline, Juvenile Justice Fund management guideline have been formulated during the FY 2020-21.

The deptt has made special budget (INR 2.60cr) provision for supply of subsidized rice to the Govt. aided and NGO run CCIs and INR. 11.50 Crore towards financial support to Non-GIA Child Care Institutions. As per the 5T initiative, this year for the first time 31 children from Child Care Institutions were enrolled in state run CBSE school Adarsha Vidyalays.

Sishu Suchana Portal: The "Sishu Suchana", is an online process or complete automation of the entire activities coming under the Juvenile Justice Act. As per 5T initiative the portal has been upgraded and modified to add extra features for re-engineering of Grant-in-Aid mechanism, so that a robust Grant-in Aid mechanism is developed which bring Transformation, Transparency & Efficiency in the existing process. The existing GIA guideline has also been amended accordingly to support the portal.

Orphan Survey: As a part of 5T initiative a state wide survey of Orphans was conducted with the help of Aanganwadi workers, CDPOs and DCPOs in order to get an exact number of orphan children and to bring them to the protective network of the society through intervention where ever required.

Steps taken during COVID-19

The Deptt has initiated multiple interventions in view of COVID 19 pandemic. All advisories on COVID19 were issued to the field functionaries on time. Necessary Psycho Social Support to the children has been ensured. Utmost care has been provided to the children infected with Covid. OH & SH Berhampur was declared as Covid Care Centre for provision of best treatment of the inmates.

(i) All children have been provided online education through EDUSAT during the pandemic. All children were provided follow up over phone, in few cases house visit

(ii) Children were encouraged in creative activities also like painting, yoga, essay writing, gardening along with other indoor games following Covid SOP. They participated in competitions like MO PRATIVA in which some children have exhibited their inner talent.

Support to the Elderly

6.6.20 The elderly in Odisha (age 60 and above) account for close to 9.5% of the State's population (Census 2011). As the demographic structure of the State is expected to change in the next few decades, the proportion of elderly is expected to increase. In old age, the requirements for financial support and access to health care increase manifold; and majority of the support is expected to come from the State with the gradual disintegration of the joint family system. Hence, it is imperative to understand the economic conditions of the old-aged, to prepare an appropriate policy response for them in terms of pension requirements and health care infrastructure.

6.6.21 To address the issues of the elderly people, the State Government has taken multiple steps: Odisha was the first State in the country to launch the national programme for prevention and control of cancer, diabetes, cardiovascular disease and stroke and the national programme for health care for elderly in 2010-11. Apart from this, medical care financed through Odisha Treatment Fund, Old Age

Homes with financial support from the government and Emergency Feeding Programme in the KBK region are the other State schemes for elderly in Odisha. Further, the Madhu Babu Pension Yojana (MBPY) was introduced in 2008 by merging two pension schemes: "State Old Age Pension Rules, 1989" and "Odisha Disability Pension Rule, 1985". The rate of pension is INR.300 per month per beneficiary upto the age of 79 years and INR. 500 per month for 80 years and above. The State Government has launched awards namely "BAYOJYESTHA SAMMAN" for senior citizens and institutions that support their health and wellbeing.

Welfare and Protection of the Destitute Senior Citizen

6.6.22 To achieve the goals of the Odisha State Policy for Senior Citizen 2016, the State Government has launched a scheme "ABADANA" during 2018-19 for the welfare and protection of the Destitute Senior Citizens with a view to improve the quality of life of the elderly by providing basic activities, comprehensive rehabilitation services and programmes that shall encourage active and productive ageing. During 2018-19 budgetary allocation of INR.30.50 crore was made for supporting homes for the elderly INR. 2.50 crore towards other programme components such as sensitization and awareness of the maintenance and welfare of the parents and senior citizen (MWPAC) Act, 2007, Bayojoyestha Samman etc.

Welfare of Persons with Disability

6.6.23 As per 2011 Census, there were 12.44 lakh disabled persons in Odisha. A number of welfare schemes are being implemented in the State with exclusive financial support of State Government and support from the Government of India to bring the differently-abled into the main stream of the society.

A. Pension Schemes(2019-20)

- Government of Odisha is providing pension under Madhu Babu Pension Yojana (MBPY)-28,13, 704 nos. of beneficiaries.
- Government of India provides pension under National Social Assistance Programme (NSAP)-20,22,946 nos. of beneficiaries.
- Government of Odisha provides funds of INR.1819 crores annually under MBPY.
- Since Government of India provides funds amounting to INR 656 crores under NSAP and in order to maintain parity with the State Government pensioners under MBPY, Government of Odisha bears additional liability of INR 648 crores, over and above Government of India allotment yearly.
- The cover age of pensioners under the above schemes is the largest in terms of percentage of population covered in the country.

B. Old Age Homes:

For all round welfare of the Senior Citizens, Persons with Disabilities, Transgender, Drug addicts and Beggars, Government of Odisha decided to set up Integrated Infrastructure Complex in all 30 districts @ INR. 30.00 crores per district. The infrastructure Complex will aim at holistic care and improving the living standard of these people. The construction of the Complex in 9 districts has already been started over 25 acres of land in each district. This shall be the India's model scheme dedicated to the welfare of the vulnerable section of the society for which the State Government has already released INR. 100.17 crores in the last financial year.

Welfare of Transgender and Beggars

SWEEKRUTI :

6.6.24 For the promotion of the transgender equality and justice, the State Government has launched anovel scheme “Sweekruti” that shall strive for their social inclusion, empowerment and increased participation in the public life. Under this scheme provision has been made for their survey and identification, issue of multi-purpose smart cards, assistance to parents with transgender children, pre and post metric scholarships, personality development, skill up-gradation and entrepreneurship development along with critical services such as health care, legal aid, counselling services.

SAHAYA:

6.6.25 Beggars are the visible indicators of poverty in our society. In order to respond this issue, the State Government conducted a beggar identification survey in all districts of the State. A total of 6686 beggars were identified and a new scheme “SAHAYA” was launched by the State Government for their protection, care and rehabilitation.

Welfare of Scheduled Castes and Scheduled Tribes

6.6.26 Odisha occupies a unique position among the Indian States and Union Territories for having a rich and colourful tribal scenario. The scheduled tribes (ST) and scheduled castes (SC) constitute about 40% of the State’s total population (ST-22.85% and SC-17.13% as per 2011 census). About 44.7% area of Odisha has been notified as scheduled area. It extends over 119 blocks in thirteen districts, which covers about 68% of the total tribal population of the State. Out of 635 tribal communities in India, 62 are found in Odisha and 13 are Particularly Vulnerable Tribal Groups (PVTG). There are 93 scheduled caste communities in the State. The State Government implements several programmes for economic, educational and social development of the SC and ST communities.

Special Development Councils:

6.6.27 In order to ensure tribal development is more effective, inclusive and participatory, the State Government felt the necessity to involve tribals extensively at all stages of the development process, starting from identification of deficit areas, plan formulation, implementation and monitoring. Keeping the above objectives in view, Government has set up Special Development Council in 9 Districts of the State having the highest concentration of tribal population, such as Mayurbhanj, Kenonjhar, Sundergarh, Kandhamal, Gajapati, Koraput, Rayagada, Nabarangpur and Malkangiri covering 117 blocks, 2022 Gram Panchayats, 18687 village, about 14 lakhs ST households and 63.43 lakhs ST population. These Councils specially focus on preservation promotion and protection of tribal culture and traditions, heritage and unique identity of each tribe. The Special Development Councils have representation from each tribe residing in the district. It is a state plan scheme for tribal development. The following projects have been completed by 9 SDCs as on 31.03.2020 from the projects approved by them out of funds for 2017-18 and 2018-19:

- (i) 3771 sacred groves have been completed out of 4342 projected.
- (ii) 711 tribal weekly markets have been completed out of 811 identified.
- (iii) Total number of 86 Block level cultural festival has been organized out of 117 block level festivals. Out of the 9 district level cultural festivals targeted to be held, 6 have been completed.

- (iv) As many as 1582 Tribal cultural clubs have been identified out of which 974 have been completed.
- (v) As regards, providing Musical Instruments are concerned, out of 1554, 1530 clubs have been provided with Musical Instruments.
- (vi) 649 Dance Troupes have been identified and empanelled out of which 647 provided with dance Costumes.
- (vii) About 10724 Tribal delegates have undertaken Exposure visit out of 10864 delegates targeted as a confidence building measure.
- (viii) Artisan identity Cards have been issued to 32704 Tribal artisans.
- (ix) Printing of 21 Tribal Bilingual Dictionaries and 21 Tribal Trilingual Proficiency Modules has been completed and distribution of these books has been done in all 30 districts.
- (x) Around 3019 Tribal Youth Clubs have been identified for providing sport kits for promotion of sports and sports Kit distributed to 2059 Youth Clubs.
- (xi) 42 Tribal Resource centres have been constructed in Sundergarh district out of 49 decided to be taken up.
- (xii) Land has been identified for construction of Tribal Museum in all the 9 SDC districts and boundary wall construction started in 4 districts namely Gajapati, Nabarangpur, Sundargarh & Keonjhar.

Special Central Assistance (SCA) to Tribal Sub-Scheme (TSS)

6.6.28 Mission Jeevika: The Ministry of Tribal Affairs provides funds under Special Central Assistance to Tribal Sub-Scheme (SCA to TSS) as an additive to State Plan funds for Tribal Development. This grant is basically utilized for economic development of tribals residing in the Tribal Sub-Plan (TSP) areas. To ensure access to improved and sustainable livelihoods for tribal people in the TSP blocks, through effective planning and implementation of activities, SC & ST Development (SSD) Department through the OTDS has envisaged implementing "Livelihood Cluster Development Programme" in all the 22 ITDAs. Livelihood interventions suitable to local conditions, available resources and capacities of the tribal communities will be taken up in clusters under the new initiatives.

Broad Objectives:

Holistic development of the livelihood cluster through planned interventions to achieve the main objective of raising the income level and thereby living standards of the tribals through various interventions.

Under cluster development programme, tribal beneficiaries shall be facilitated to take up market linked production of few identified livelihood interventions covering minimum of 50 acres for a farm based cluster and minimum of 100 beneficiaries in case of any off-farm cluster in a contiguous patch.

Development of Livelihood clusters will give sustainable competitive advantage of the identified activities through introduction of better production practices, scale of production, better access to quality raw material, skill development, inputs support and marketing assistance.

Formation of cluster based producer group & registered under suitable Act to take care of their product collectivization, processing, value addition, social, economic need including marketing, etc.

To increase the annual income of at least 200 families in identified TSP blocks by 30% in the first year.

To bring fallow land, wasteland, FRA land and other unutilized land under cultivation and making them more productive through cluster development initiatives.

The Annual Action Plan for Mission Jeevika aims to cover more than 1 lakh tribal families with tentative budget of INR.154.40 crores under SCA. In the Plan, focus for convergence of different activities of Special Central Assistance with National / State flagship schemes such as Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), National Horticulture Mission (NHM), Rashtriya Krishi Vikas Yojana (RKVY), Biju Krushak Vikas Yojana (BKVY), etc. have been proposed in this Plan.

COVID-19 and Response under Mission Jeevika

The tribals were highly exploited during COVID-19. Before understanding COVID-19 by tribals the whole system was shutdown. At that time it was the right time for Rabi and Summer Crops. The department took the initiative to provide all essential support immediately to vulnerable tribal farmers. The ITDAs were instructed to provide necessary input and technical support to the tribal farmers by maintaining COVID-19 guidelines and aware the community about the COVID-19 safety measures. During that time, the awareness was so high that the villagers sealed their village boundaries with wood barricades. It was one of the emerged challenge at ITDA level where the district team put their best effort for providing all required support to the tribal farmers. The department also put attention on the returnee migrants and provide them livelihood support under Mission Jeevika and MGNRES, so that, no tribal house hold will be left out in getting livelihood support. The rapid implementation process was initiated to mitigate all necessary arrangement for the tribal farmers. The department initiated convergence with APC for field level technical support to ITDAs. It helped timely implementation of Mission Jeevika programme as well as the forward and backward market linkages of all tribal products with TDCCOL, ORMAS and other agencies. As many as 84808 no. of beneficiaries of the state benefitted under the scheme during 2020-21(up to Nov 2020). The expenditure on the scheme was INR 4116.03lakh from SCA and INR 435.54 from other schemes (convergence).

Major Activities Planned/ under taken under Mission Jeevika

Agriculture Development: The department has introduced cluster approach agriculture activities in continuous or contiguous patches having at least 50 acres of land. Numerous activities under Mission Jeevika Programme are being taken up according to local demand and marketing availability in cluster mode by ensuring huge production and greater degree of profitability. Under cluster mode, large patches of land are identified and farmers are introduced for cluster promotion activities through block demonstration, Replication and up scaling of best practices. To motivate the farmers, adequate training and meetings have been organised at different levels and necessary inputs are supplied. Under the agriculture activities, cotton, arhar, maize, sesamum, mustard, groundnut and paddy cultivation, etc. have been promoted as per the local demand and availability of market opportunities.

Farm Mechanisation: The tribal farmers have been supported for setup of Agro Service Centre, Pump Set, Power Tillers, Manual Sprayer and Power Weedier etc. with subsidised rate under State Agriculture Policy. During the current financial 2020-21 to till now, 9807 farmers have already availed the benefits.

Horticulture Development: Promotion of horticulture development is conducive in Odisha. The programme encompasses promotion of livelihood improvement and management of natural resources through people's participation and this model has made farming profitable. The department has taken lots of activities for promotion of horticulture development of tribal farmers through convergence mode. Along with Agri-Horti Forestry Plantation, HYV seasonal crops and off-season vegetable cultivations have been taken up for economic upliftment and social empowerment of marginalized tribal communities. Beyond this, it ensures the nutritional security of the tribal household. During the Current Financial Year 2020-21, 36391 beneficiaries have been covered under Horticulture Development.

Irrigation Facilities: Effective irrigation is the key to agriculture prosperity. The provisions have been made captive irrigation sources in cultivable fields through tube wells, dug wells, river lift, farm pond, Diversion Based Irrigation, Gravity Based Water Supply, Check dam, Check dam with Canal, etc. in convergence with OAIC, OLIC and MGNREGS. Few farmers have been provided pump sets also. During the current FY 2020-21, 792 beneficiaries have been covered so far under irrigation facilities.

Livestock promotion: Odisha is endowed with a large population of livestock. Next to agriculture, Animal Husbandry has the most important economic activity in rural areas. Promotion of Livestock is one of the primary assets of tribal farmers which ensure their income as well as nutrition. On priority basis, the department has provided financial assistance for Goatery and Back yard poultry to land less, small and marginal farmers to enhance their livelihood opportunities. During the financial year 2020-21, 2005 beneficiaries have been covered so far.

NTFP promotion: Seed Capital have been provided to ITDAs for collection of Non-Timber Forest Produces (NTFP), procurement of weighing scales and creation of primary value addition infrastructure such as Storage Godown and Drying yard etc.,

Pisciculture: Generally, the tribal people catch fish from the perennial sources and which is not sufficient for their income. In tribal areas there are windows of opportunities to promote pisciculture but due to lack of awareness and financial constraints, these water sources remained unused. To promote pisciculture activity, the department has constructed water harvesting structures in convergence mode both for irrigation and pisciculture. In the current financial year 2020-21, 1684 beneficiaries have been covered under pisciculture activities, where individual farmers as well as SHGs are provided financial and technical assistance.

Establishment of Production Processing Unit & Provision for Marketing facilities: Under Cluster livelihood programme, there is a provision for value addition as well as marketing of all cluster promoted products. The department has planned different activities according to the interest of farmers and marketing feasibilities.

Promotion of Lac Cultivation: Lac cultivation have been executed in few districts under TSP areas where Kusu, Babul, Pipal, Palas, Khari trees are abundant. It gives an additional income to tribal farmers from their existing resources. These programmes are being implemented in Baripada, Bonai, Karanjia, Nilagiri and Nabarangapur ITDAs.

Rubber Plantation: Odisha is a non traditional area for rubber plantation but still bright prospect for the growth and development of natural rubber exist in Mayurbhanj and Gajapati districts due to its favourable agro-climatic conditions. Rubber plantation was successfully undertaken by the department in 5 ITDAs

namely Baripada, Kaptipada, Karanjia, Rairangpur and Paralakhemundi. During the current financial year 2020-21, the department has provided maintenance and marketing support to tribal farmers.

Sericulture: Sericulture has been promoted in 6 ITDAs viz. Champua, Keonjhar, Baripada, Bonai, Karanjia and Rairangpur to facilitate rearing of silkworms and preservation of cocoons. The department has supported seed subsidies, training and demonstration on tasar reeling and spinning along with purchase of twin reeling charkha to tribal farmers engaged in Sericulture activities in coordination with the Dept. of Handlooms & Textile for establishment of processing units and marketing of the silk. During the current financial year 2020-21, 3500 beneficiaries have been covered in 3 ITDAs namely Baripada, Karanjia and Rairangpur in this activity.

SHG Linkages for IGA

Women SHGs have been given utmost importance for promotion of livelihood cluster programme, value addition and marketing of all tribal products. To make them prosper and self-reliant, the department provides financial assistance to women SHGs on regular basis for promotion of various income generation activities like goatery, pisciculture, mushroom farming, establishment of incense stick unit, tailoring unit, vegetable cultivation, seasonal business, Fly Ash Brick unit, Rice huller, leaf plate unit, etc. according to the interest and need of SHG members. These IGAs provide the members a suitable platform for their socio-economic empowerment. During 2019-20, INR 86.91 crore was received and utilised for supporting 28,970 tribal beneficiaries with various income generation activities and infrastructure development incidental to livelihood enhancement.

Grants under Article - 275(1) of the Constitution of India

6.6.29As per the provisions of Article 275(1) of the Constitution of India, the Ministry of Tribal Affairs gives annual grants to States to promote welfare of STs based on ST population in the State. The assistance covers the entire TSP area. Under this scheme, 100% grants are given to meet the cost of specific projects for tribal and raise the level of administration of Scheduled Areas. Projects like Ekalavya Model Residential Schools (EMRS) from Classes VI to XII, roads, bridges, minor irrigation projects, hostel buildings, educational complexes, drinking water facilities and electrification of tribal bastis and establishment of multipurpose service centres are usually implemented under the programme. During 2019-20, an amount of INR 151.10 crore was sanctioned under Article 275(1) and 1,345 infrastructure projects have been taken up, primarily in education, irrigation, connectivity etc.

Focused Area Development Programme (FADP)

6.6.30 FADP, a decadal Perspective Plan is being implemented by converging resources from SCA to TSP, Article 275(1), MGNREGS, NHM, RKVY and Biju Krushak Vikas Yojana (BKVY). During 2018-19, an amount of INR 51.00 crore have been sanctioned and utilised under Focused Area Development Programme (FADP) for supporting 45,254 tribal beneficiaries through various livelihood interventions.

Modified Area Development Approach (MADA)

6.6.31 Adopted during the 6th Plan, this programme aims at development of tribal populations residing outside TSP areas in contiguous patches having a population of 10,000 or more, of which, at least 50 percent are tribal. There are 45 MADA pockets in 46 blocks of 17 districts covering 5.68 lakh population. Individual family oriented income-generating schemes for ST communities and critical infrastructure development programmes are implemented in these pockets.

Clusters

6.6.32 The cluster approach was introduced during the 7th Plan in order to bring smaller areas with tribal concentrations beyond the MADA pockets into the main stream of development. Contiguous areas with at least 5,000 population (2001 census) and 50% tribal concentration are identified as clusters. There are 14 such clusters spread over 13 blocks in 10 districts covering 21,699 PVTG households (2015 survey) with 62,021 tribal population.

Micro Projects

6.6.33 Seventeen Micro Projects have been implemented in the State for all round development of 13 Particularly Vulnerable Tribal Groups (PVTGs), recognized by the Government of India, with 78,519 population residing in part of 20 blocks of 12 districts (based on the survey conducted in 2007). Out of these 17 Micro Projects, 13 are located within the Scheduled Areas and the remaining four outside the TSP area. During 2019-20, funds to the tune of INR 8.85 crore released under SCA to TSS for implementation of various infrastructure development programmes in the Micro Project areas.

Dispersed Tribal Development Programme (DTDP)

6.6.34 The dispersed ST population of the State (27 percent) located outside the ITDA /MADA/ Cluster pocket areas, is covered under a special project for tribal development called "Dispersed Tribal Development Programme (DTDP)". Odisha Scheduled Castes and Scheduled Tribes Development Finance Co-operative Corporation Ltd., is the nodal agency that operates DTDP for the total dispersed STs. For this population, DTDP has been implemented and has the following salient aspects:

- (i) To provide subsidy money for various bank able income generating schemes,
- (ii) To initiate community minor irrigation projects such as LIPs, WHS and Check-Dams,
- (iii) To conduct training programmes for promoting self-employment and wage-employment and
- (iv) To enrol ST households as members of cooperatives.

Protection of Civil Rights of SC and ST

- **Legal Aid Assistance:** Legal aid is being extended to SCs /STs to fight cases for establishing their rights, titles, interest and possession over disputed land and also for cases under the PCR Act, 1955 and the POA Act, 1989. State government have opened 390 legal aid cell in 314 block headquarters by engaging 697 legal retainers (30 numbers in district headquarters, 46 in sub-divisional headquarters and in 314 blocks of the State). These trainers have been trained to provide free legal services to ST/SC people. Besides this, the State Government have set 3 special courts in Balasore, Bolangir and Cuttack for speedy trial of cases.
- **Inter-Caste Marriages:** Cash incentives of INR 1.00 lakh (revised to INR 2.50 lakh with effect from 14.09.2017) is being provided for inter-caste marriages between SCs and other castes in Hindu communities for social integration and removal of untouchability. There has been an increasing trend of inter-caste marriages yearly from 558 to 978 between 2015 and 2020. The amount of incentives paid during 2019-20 (up to December) is INR 1914.69 lakh.

Implementation of FRA:

Forest Dwellers (Recognition of Forest Rights) Act 2006 has come into force with effect from January 2008. The act provides a comprehensive and empowering frame for implementation of both individual and community forest rights of the scheduled tribes and other traditional forest dwellers who primarily depend on forest for their bona fide livelihood and food security. As on 31.12.2020, 4,43,501 nos. of individual Forest rights and 6, 697 nos. of community rights as well as Community Forest Resources Rights covering an area of 6,58,833 acres and 2,41,904 acres respectively have been distributed. Out of the 4, 43, 501 Individual Forest Rights vested with the claimants, 2, 53, 746 have been benefited with convergence of various schemes and programmes of the Government. Besides it 11 nos. of Forest Villages/ Un-surveyed villages/ Habitations etc. have been converted into Revenue Villages through Notification of the Director, Land Record and Surveys, Cuttack. Correction of RoRs and maps in respect of 2,11,321 titles vested with the FRA claimants have been made which accounts for 47 %.

Atrocities against SC/ST communities:

6.6.35 Monetary Relief is being provided to the victims of atrocities belonging to SC/ ST communities after joint enquires conducted by the Senior Police officers and the Magistrates. During the year 2019-20 (up to December) INR.17.70 crore has been spent for payment of monetary relief to 1676 ST/SC atrocity victims. During the year 2020-21 (up to December) INR.19.3722 crore has been spent for payment of monetary relief to 1883 ST/SC atrocity victims.

Odisha SC and ST Development Finance Co-operative Corporation (OSFDC)

6.6.36 Established in 1979-80, OSFDC aims at implementing various economic development programmes for the benefit of poor SC, ST (DTDP) and scavenger communities of the State under various income generating schemes in Agriculture, Animal Husbandry, Fishery, Horticulture development, Village and Small industries etc. Per head subsidy is limited to INR.10,000/- for individual beneficiaries and INR.1.25 lakh for SHGs. There is also provision for skill development training through different Government and reputed training institutions.

Odisha PVTG Empowerment and Livelihood Improvement Programme (OPELIP)

6.6.37 OPELIP has been launched in 12 districts of Odisha viz. Malkangiri, Rayagada, Angul, Deogarh, Ganjam, Nuapada, Keonjhar, Sundargarh, Gajapati, Kandhamal, Kalahandi and Mayurbhanj covering 1125 villages and 89 GPs of 22 Blocks through 17 micro projects for duration years from 2016-17 to 2023-24 having financial outlay of INR 711.25 crore for 96,651 targeted households. During 2019-20 funds to the tune of INR 100.00 crore released and utilised to assist 31,527 beneficiaries.

Odisha Tribal Empowerment and Livelihood Programme (OTELP)

6.6.38 This programme is being implemented since 2005 by ST and SC Development Department, Government of Odisha with the financial assistance from DFID, IFAD and WFP to ensure the livelihood and food security of poor tribal households through equitable, self-managed and sustainable exploitation of natural resources. The new OTELP plus is a replication and covers 998 Micro Water-Sheds (MWS) in 50 Blocks of 10 districts covering 2695 villages and is to be funded out of State Plan and other convergence programmes.

During the year 2018-19, an amount of INR 65.54 crore has been spent out of an annual budget of INR 95.84 crore under this scheme benefitting 36,000 tribal beneficiaries. In convergence with MGNREGA,

OAIC& OLIC 3802 no. of water Harvesting Structures created covering 5036ha. Ayacut area benefitting 1348 no. of HH. 1931 no. of SHGs/Producer's groups were provided support to take up various livelihood programmes.

During the year 2019-20, an amount of INR 70.45 crore has been spent out of an annual budget of INR 94.51 crore under this scheme benefitting 1,91,701 tribal beneficiaries. Support provided to 256 vulnerable /dibyang HH for establishment of small processing units, tailoring units, mobile repairing units, catering units, ladies corners etc. Under livelihood cluster programme of SCA-TSS, 499ha. area covered in promotion of Agriculture & Horticulture Production Clusters benefitting 2317 beneficiaries.

During the year 2020-21 (Up to 31st December 2020), an amount of INR 58.07 crore has been spent out of an annual budget of INR 55.68 crore (including MGNREGA convergence) under this scheme benefitting 2714 tribal households. Support provided to 56 vulnerable /dibyang HH for establishment of small processing units, tailoring units, mobile repairing units, catering units, ladies corners etc. Under MGNREGA WADI plantation 2097 ha. area promoted & in total 16,95,114 mandays created till 31st December 2020.

6.6.39 Odisha Tribal Development Co-operative Corporation Ltd (TDCCOL) is a state level apex cooperative with an objective to prevent exploitation of tribal communities from middle man / money lender and make sure that basic household articles are available in and around the villages at fair price. Handicraft and handloom products are being sold with the brand name of "TRIBES ODISHA" and the minor forest produce and agricultural produces are sold under "ADISHA" brand. At present, TDCCOL is operating 10 outlets in district headquarters namely Bhubaneswar, Puri, Baripada, Rayagada, Koraput and Nabarangpur.

Koraput Coffee

6.6.40 Odisha got its first brand of coffee in the name of "Koraput Coffee" grown by the tribal. Setting up the plant will promote coffee grown in Koraput district of Odisha and help growers get fair price. It is an initiative of the district administration's coffee development trust with financial assistance from TDCCOL, Bhubaneswar with technical backup of Coffee Board, ITDA and CDT, Koraput. For growing Coffee and processing of the same in Koraput district bulk of funds from the Special Central Assistance (Left Wing Extremists) have been utilized during different years.

Chapter 7

Governance Reforms and Institution Building

Governance Reforms and Institution Building

Reforms and governance are an intertwined phenomena relating to state, government, and administration. Reforms serve as the tools which enable governments to meet organizational challenges, creating opportunities for government to make the process of governance suitable for changing environment. Good governance is associated with efficient and effective administration in a democratic framework which is citizen-friendly, citizen caring and responsive administration. Good governance emerged as a powerful idea when multilateral and bilateral agencies like the World Bank, UNDP, OECD, ADB, etc. realized that project success substantially depended on conditions of governance in the aid receiving countries. In general, good governance is perceived as a normative principle of administrative law, which obliges the State to perform its functions in a manner that promotes the values of efficiency, non-corruptibility, and responsiveness to civil society. United Nation Development Programme while defining concept of good governance placed greater emphasis on sustainable human development, elimination of poverty and effective public administration. The United Nations High Commissioner for Human Rights (UHCHR) identifies five key attributes of good governance as follows: 1) transparency; 2) responsibility; 3) accountability; 4) participation and; 5) responsiveness. The World Bank defines good governance as -“.. the one epitomized by predictable, open, and enlightened policy-making, a bureaucracy imbued with a professional ethos acting in furtherance of the public good, the rule of law, transparent processes, and a strong civil society participating in public affairs. Poor governance (on the other hand) is characterized by arbitrary policy making, unaccountable bureaucracies, un-enforced or unjust legal systems, the abuse of executive power, a civil society unengaged in public life and widespread corruption.”

The Government of Odisha is making continuous effort to improve the quality of Governance. The latest milestone undertaken by government is the implementation of 5T charter. The 5T charter is based on the philosophy of optimal utilization of Technology, Teamwork, Transparency and Time leading to Transformation is a Citizen centric governance model intended to provide effective service delivery. ‘Mo Sarkar,’ which literally translates into “My Government”, is an important transformative initiative under the 5Ts programme.

7.1 Features of Good Governance

The major characteristics of good governance brought out by the United Nations are that the authority and its institutions are accountable, effective and efficient, participatory, transparent, responsive, consensus oriented and equitable. The World Bank indicators of good governance encompass democracy, transparency and accountability which are the major yardsticks to measure the effectiveness and responsiveness of government administrations. Good governance must based on the following principles.

- Good education facilities with employment opportunities
- Development of basic capital infrastructures like roads, bridges, power, telecom, airport, irrigation and transport
- Secured public life, property, enforcement of law and order
- Effectiveness and efficiency of government machinery
- Good business environment
- Reducing inequalities in the society through appropriate measures
- Freedom of speech, of religion, of work and attitude
- Citizen centric services

7.1.1 This chapter discusses the various dimensions of governance reforms in the context of Govt. of Odisha. These include (i) Participatory Budget Initiative, (ii) Delivery of Public Services, (iii) Right to Information (iv) Law and order through Crime and Criminal Tracking Network and Systems (CCTNS) and Emergency Response Support System (ERSS), (v) Tackling corruption, (v) Accountability through Transparency, (vi) e-Governance and ICT interventions by Departments, (vii) Improved Governance through 5T & 'Mo Sarkar' and (viii) Empowering PRIs.

Box 1: Participatory Budget Initiative (PBI)

Citizen is at the center of all democratic machinery. Respecting and institutionalizing this fact, and setting an example for other states of the country, the Government of Odisha introduced the concept of the Participatory Budget Initiative (PBI), a budget consultation process in FY 2016-17. The PBI aims at capturing the opinions of the citizens on resource mobilization and allocation of public expenditure in preparing our State Budget. Engagement of citizens in the process of State Budget formulation is one of the most important tenets of good governance. It is a process which enables the citizens to work with the government towards making budget decisions that affect their lives. PBI provides opportunities for the public to participate, thereby making budget systems efficient.



Finance Department, Government of Odisha sought public opinion from its citizens on various issues pertaining to the budget. Public opinions were obtained directly and indirectly through a pre-budget consultation process and three PBI channels, i.e., the web portal on the Finance Department's website, WhatsApp, Short Messaging Services and Electronic Mail with the help of Electronic & Information Technology Department. These three channels went live from 15th December, 2019 to 15th January, 2020. The total number of registered responses as on the 15th January, 2020 stands at 1564.

Further, views were also obtained directly through the pre-budget consultation meetings held on 15th January, 2020. The consultation group comprised Former Finance Ministers, Former Finance Secretaries, Academicians, Bankers, Representatives from various Non-Government Organizations (NGOs), Industrialists, Journalists, Civil Society Representatives, and others. The analysis of the responses received is presented in the following table.

Table 7.1: Composition of the Responses (FY 2018-19 to FY 2020-21)

Components	2018-19	2019-20	2020-21			
	Total	Share of Responses (in %)	Total	Share of Responses (in %)	Total	Share of Responses (in %)
Revenue	145	7.51%	71	1.67%	41	2.62%
Own Tax Revenue (SOTR)	77	3.99%	29	0.68%	27	0.63%
Non- Tax Revenue (SONTR)	68	3.52%	42	0.99%	14	0.33%
Expenditure	1150	59.59%	3334	78.35%	1291	82.54%
Agriculture Budget	141	7.31%	337	7.92%	95	2.23%
Infrastructure	89	4.61%	161	3.78%	58	1.36%
General Service	605	31.35%	746	17.53%	63	1.48%
Social Service	178	9.22%	1823	42.84%	725	17.04%
Economic Service	137	7.10%	267	6.27%	350	8.23%
Others	635	32.90%	850	19.98%	232	14.83%
Economy and Cost Control	54	2.80%	69	1.62%	3	0.07%
Allocation for Services and Sectors	358	18.55%	392	9.21%	147	3.45%
Public Services Delivery	94	4.87%	128	3.01%	37	0.87%
Business and Economic Environment	35	1.81%	60	1.41%	7	0.16%
Social Welfare	94	4.87%	201	4.72%	38	0.89%
Grand Total	1930	100.00%	4255	100.00%	1564	100%

The Department Wise analysis of responses is prepared to intimate the respective departments to consider the relevant suggestions in the Budget for 2019-20 and 2020-21. It is also observed that although some of the suggestions may not be directly captured in the Budget, these will be quite helpful to address the concerns of the citizens and for policy making decisions. To further empower all the stakeholders, Government of Odisha has taken further steps towards citizen centric governance. Implementation of Mo Sarkar and 5T has been developed for bringing efficiency in the system.

7.2 Delivery of Public Services

7.2.1 Provision of basic services like health, education and infrastructure, are inaccessible to many economic agents - both consumers and producers of the economy. Thus, delivery of public goods and services in timely and efficient manner is instrumental for further economic development of a State like Odisha. Odisha Right to Public Services Act, 2012 in Odisha is an exemplary initiative by the State Government assure service delivery within a stipulated time period. The ORTPS Act, 2012 aims to cover various public services under a single umbrella at the State level. Different services which a citizen can obtain from different Departments as notified, along with time limit for delivery of such services.

- For delivery of each service notified, there shall be a Designated Officer to whom the citizen can make an application. The Designated Officer will provide the said service in a time bound manner.
- In case a citizen is unable to get the said services within the prescribed time limit, he/she may file an appeal before an Appellate Authority. The Appellate Authority will consider the case and pass necessary order.
- Any citizen aggrieved with the order of the Appellate Authority or in case of delay in providing the service within the prescribed time limit, may file a revision petition before the Revisional Authority.
- If the Revisional Authority found that the Designated Officer has failed to provide the service without enough and reasonable cause, he may impose a penalty against the Designated Officer not exceeding INR 5000/-.
- If the Revisional Authority observed that there is delay in providing the service, beyond the stipulated time, he may also impose a penalty not exceeding INR 250/- per each day of delay.
- The penalty shall be charged from the Designated Officer, Appellate Authority and the concerned subordinate staff and shall be in the proportion to be decided by the Revisional Authority.
- However, the Designated Officer, Appellate Authority and subordinate staff, will be given a reasonable opportunity of being heard before any penalty is imposed on him/her.
- Non-compliance of the order of the Revisional Authority shall amount to misconduct and make such Government servant liable for disciplinary action.

In total, 411 number of Public Services of 31 Departments have been notified under the Odisha Right to Public Services Act, 2012 as on 31.12.2020 given in Table 7.2

Table 7.2: Notified Services under ORTPSA as on 31.12.2020

Sl. No.	Department	Total no. of services notified under ORTPSA (as on 31-12-2020)
1.	Commerce & Transport (Transport)	32
2.	Revenue & Disaster Management	34
3.	Finance	7
4.	Home	33
5.	Health & Family Welfare	9
6.	Social Security and Empowerment of Persons with Disabilities	1
7.	ST & SC Development, Minorities & Backward Classes Welfare	1
8.	Housing & Urban Development	26
9.	School & Mass Education	20
10.	Higher Education	13
11.	Fisheries & Animal Resources Development	6
12.	Industries	14
13.	Micro, Small & Medium Enterprises	24
14.	Labour and Employees State Insurance	38
15.	Panchayati Raj & Drinking Water	3
16.	Excise	14
17.	General Administration And Public Grievance	3
18.	Agriculture & Farmers' Empowerment	15
19.	Skill Development & Technical Education	30

20.	Co-operation	16
21.	Forest and Environment	25
22.	Food Supplies & Consumer Welfare	7
23.	Odia Language, Literature & Culture	2
24.	Energy	12
25.	Handlooms, Textiles & Handicrafts	2
26.	Works	8
27.	Commerce and Transport (Commerce)	2
28.	Science & Technology	2
29.	Sports & Youth Services	2
30.	Steel and Mines	9
31.	Electronics & Information Technology	1
	Total	411

7.2.2. The State has enabled monitoring of citizens' applications through a Central Monitoring System (CMS) as reflected in Figure-1. Out of 411 services notified, more than 132 services have been made online and others are being rolled out in swift mode. Citizens get online acknowledgement of their applications and can check the status of application, anytime and anywhere.

Figure 1: Website of Central Monitoring System, Odisha Right to Public Services Act

Odisha Right to Public Services Act
Government of Odisha

CENTRAL MONITORING SYSTEM

କେନ୍ଦ୍ରୀୟ ପରିଚାଳନା ପଦ୍ଧତି

Welcome to Central Monitoring System

Scope & Objectives

- It is a Web Application.
- The application will be available both online and offline
- Creating a database of all applications received under ORTPS Act.
- Auto generated Acknowledgement on receipt of application.
- Computerized register for DO, AA & RA.
- Different Types of MIS Reports generation.
- User Friendly Application for all Offices
- Tracking the status of the application by the citizen
- SMS Alert service

MIS Reports

Central Monitoring System will generate different types of MIS Reports.

- State MIS Report with Graphs
- District wise MIS Report with Graphs
- Department Wise MIS Report with Graphs

Office Wise Login

Please enter your User Name and Password, then hit "Login" button to enter into the Control Panel.

User Type:
Select Type

User Name:

Password:

Security Code:

Login

Quick Links

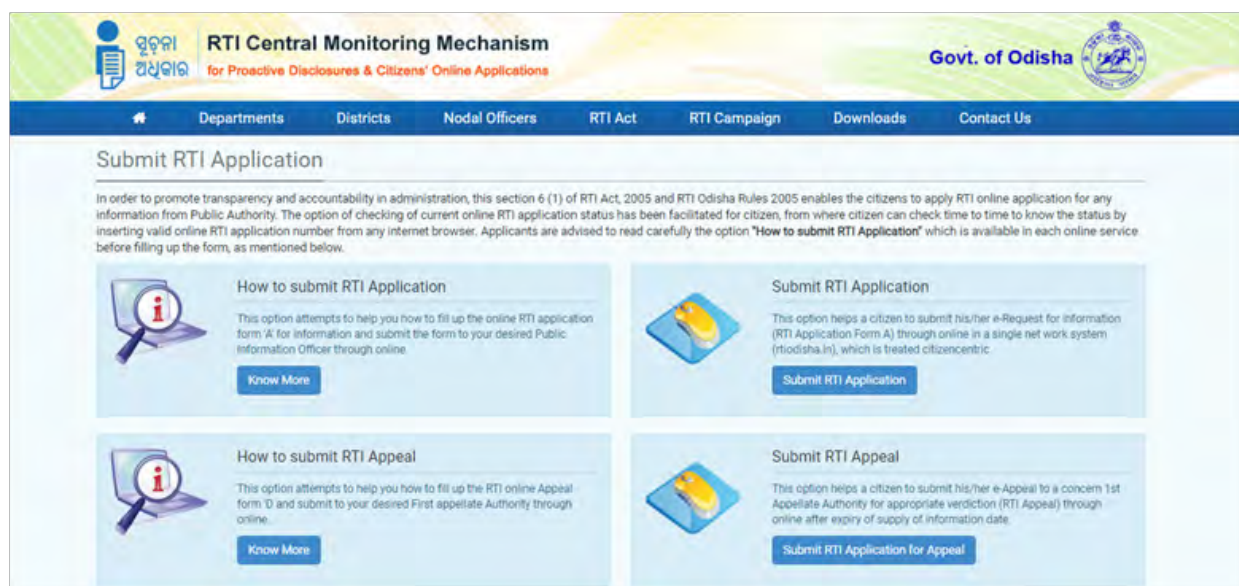
- List of Services integrated with CMS
- Departments
- Services Under ORTPSA
- Acknowledgement Number Details
- Check Application Status

Government of Odisha stands by its commitment for Transparency in Governance. CMS technology enabled solution towards materializing Government of Odisha's commitment for transparency in governance. The CMS provides monthly information on applications for service delivery, received by each district.

7.3 Right to Information

The Right to Information (RTI) Act enacted by the Parliament of India aims to provide for a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, the constitution of a Central Information Commission and State Information Commissions and for matters connected therewith or incidental thereto. Here also State Government has introduced a technology enabled online platform in the form of RTI Central Monitoring Mechanism as depicted in Figure 2. This act gives an important right to the citizen to seek information from the public authority, such as government organizations, department, local bodies etc.

Figure 2: RTI Central Monitoring Mechanism



7.4 Law and order

7.4.1 'Police' and 'Public Order' are State subjects under the Seventh Schedule to the Constitution of India and therefore, it is the primary duty of the State Governments to prevent, detect, register and investigate crime and prosecute the criminals. Government of Odisha is committed towards maintenance of the law and order in the State. The law and order and overall crime situation in the State has remained under control. Sporadic law and order situation and law and order during Covid-19 pandemic have been handled effectively with tact and forbearance. The Left Wing Extremism situation has also improved substantially over the years. Protection of women, children and weaker section is among the top-most priorities of the state. All sensitive and important cases are being treated as red flag cases for better monitoring of investigation.

7.4.2 To enable citizens to track the progress of cases filed with the police, Odisha Police has implemented Crime and Criminal Tracking Network and Systems (CCTNS). It aims at creating a comprehensive and integrated system for enhancing the efficiency and effectiveness of policing through adopting the principle of e-Governance and creation of a nationwide networking infrastructure.

CCTNS is intended to ensure that Police maintains all Crime and Criminals data through online system in order to provide Citizen's access to various Police Services in a hassle free manner.

7.4.3 Odisha is a frontrunner in implementation of CCTNS project and has been recognized by NCRB for its best practices and innovation. At present 18 services are being provided to citizens through CCTNS by Odisha Police. To provide better and quick services to citizen, Odisha Police has launched "Citizen Portal" under the CCTNS Project through internet, which enables citizens to register their complaints and seek services from the Police Department without visiting the police station/ higher offices. It also enables them to track the status of their complaints/service requests online.

7.4.4. Odisha Police has also developed Mobile App namely "SAHAYATA" for citizens and "ARAKHI" App to help the Investigating Officers for investigation on the spot. VAHAN & SARATHI Service of Transport Department has been integrated with Core Application Software of CCTNS. Accident Investigation Module has also been developed to capture data required for analysis and complying requirements of Ministry of Road Transport, Government of India. The Module will generate an analytical report which will help in policy formulation for reducing fatalities in road accidents and in making roads safer. For quicker delivery of services to accident victims, Roads Accident Case Document Module (a web-based application aimed at facilitating uploading of accident-related documents by Police and easy downloading by insurance companies as well as victims) has also been implemented.

7.4.5 Besides, for qualitative and quicker delivery of services under Criminal Justice System, Medico-Legal Opinion System (a web based Application aimed to avoid delay in getting legal opinion in all important and sensitive cases) has also been integrated with CCTNS Core Application Software database. It enables Investigating Officers of Odisha Police to directly send requisition to Medical Officers who can upload examination reports against requisition. Virtual Police Station, an online mechanism has also been established to facilitate online registration of FIR (e-FIR) in unknown motor vehicle theft cases. If a case remains undetected for 21 days, final form shall be auto generated at CCTNS.

7.4.6 State Government has also introduced 'Emergency Response Support System'(ERSS), in the State. Under this system, all emergency services like Police, Fire, Ambulance, Women helpline etc. such as 100, 101, 102, 104, 108, 181, 1098 will be integrated in to single Dial number "112" to respond to people in distress including women and children in an efficient and coordinated manner in the shortest possible time.

7.5 Tackling Corruption

7.5.1 VIGILANCE

Registration of cases:

During the year 2020 till 31.10.2020, State Vigilance has registered 150 criminal cases against 234 persons including 44 Class-I officers, 24 Class-II officers, 117 Class-III employees, 4 Class-IV employees, 10 Other Public Servants and 35 private persons. Out of 150 cases registered, 42 cases were instituted for acquisition of disproportionate assets against 42 public servants and 24 private persons. The total disproportionate assets in all the 42 cases have been calculated as INR 57.59 Crore. Similarly, 83 trap cases were instituted during the period against 92 public servants and 4 private persons for demand and acceptance of bribe amounting to INR 14.40 Lakh.

Misappropriation cases:

During this period, 25 misappropriation cases relating to misappropriation of public money against 72 persons, including 65 public servants and 7 private persons, involving misappropriation of public funds amounting to about INR 6.99 Crore have been registered. Misappropriation cases have been registered against 18 Class-I officers, two Class-II officers, 37 Class-III employees, one Class-IV employee, seven other public servants and seven private persons.

Enquiries:

During this period, 159 enquiries have been initiated against 31 Class-I officers, 29 Class-II officers, 101 Class-III employees, 4 Class-IV employees, 9 Other Public Servants and 2 Private persons on their alleged involvement in various acts of corruption / malpractice. 126 enquiries have been disposed of, out of which 33 enquiries were referred to respective departments for initiation of departmental action and 47 enquiries were converted to criminal cases.

Submission of Charge Sheet:

During this period, 83 cases were disposed of after investigation, out of which, charge sheets were placed in 77 cases against 115 persons including 18 Class-I officers, 17 Class-II officers, 57 Class-III employees, 3 Class-IV employees and 20 Private persons. The percentage of Charge Sheet comes to 93%.

Arrest:

During this period, 133 persons were arrested, which included 26 Class-I officers, 18 Class-II officers, 77 Class-III employees, three Class-IV employees, four Other Public Servants and five private persons.

Conviction in Court:

During this period, 14 cases ended in conviction against 1 Class-I Officer, 13 Class-III employees and 1 private person. Thus, altogether, 15 accused persons were convicted during the period. The percentage of conviction in respect of the cases disposed of after trial by the Courts comes to 48 percent.

Dismissal from service:

During this period, 12 Public Servants were dismissed from Govt. service following their conviction in Vigilance cases, which included one Class-I Officer, three Class-II Officers and eight Class-III employees.

Stoppage of pension:

During this period, the pension of 16 retired public servants have been stopped, consequent upon their conviction in Vigilance cases, which included four Class-I Officers, three Class-II Officers and nine Class-III employees.

Forest Wing:

During this period, the Forest Wing of Vigilance conducted 79 joint raids with the help of local forest officials and seized timber, machineries and vehicles worth INR 2.87 Crore (approx). In this connection, forest offence cases were initiated against 13 persons.

Lokayukta:

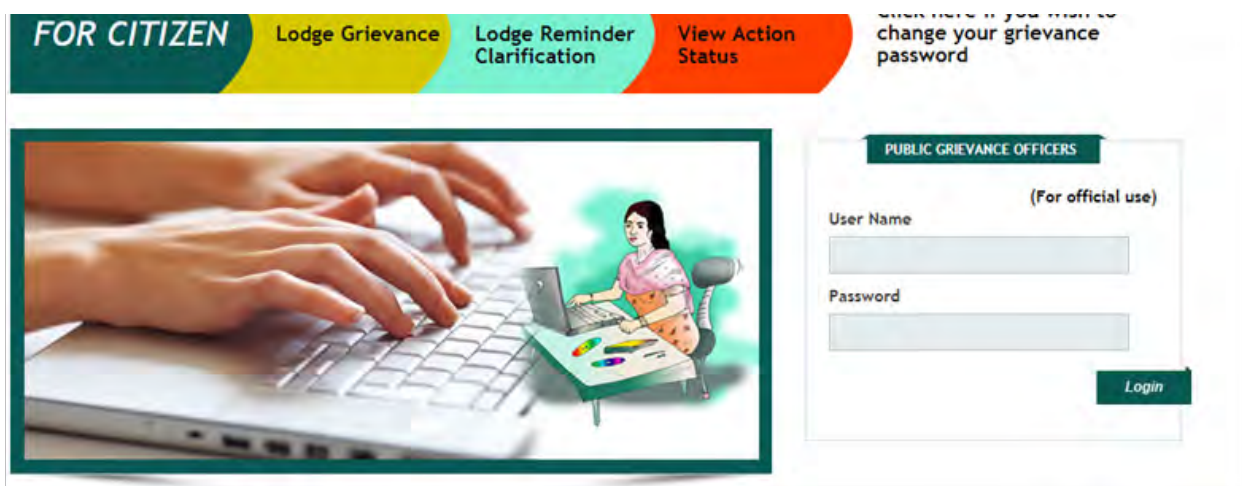
The Odisha Lokayukta Act, 2014 (Odisha Act 12 of 2018) has been enacted to provide for establishment of Lokayukta for the State of Odisha to inquire into allegations of corruption against certain public functionaries and for matters connected therewith or incidental thereto vide Law Department Notification No. 6523/L, dated 23.6.2018. The said Act has been brought into force w.e.f. 07.7.2018. After commencement of the Act, the Government, by notification, have established a body called the Lokayukta as required u/s 3(1) of the Act w.e.f. 28.2.2019. The office of the Lokayukta in the State has started functioning with the assumption of charge of Hon'ble Chairperson of the Lokayukta w.e.f. 20.3.2019. Hon'ble Lokayukta, Odisha has entrusted 33 enquiries to State Vigilance till end of October, 2020 for enquiry. Out of 33 enquiries, nine enquiries converted to 12 criminal cases and are in different stages.

7.6 Transparency

7.6.1 Good governance is based on the principle of transparency. Transparency in government is obligation to share information with citizens that is needed to make informed decisions and hold officials accountable for the conduct of the people's business. Odisha has been one of the committed States for ensuring transparency in governance. Multiple initiatives, viz., citizen grievance redressal, litigation management system, outcome budget, audit reports of municipal bodies, HRMS, e-abhijoga etc. are being introduced by the State government for a transparent and accountable governance. .

7.6.2 E-abhijoga: This is the official grievance redressal portal of the Government of Odisha. The website form of the portal was launched in 2010. It is an integrated application system, based on web technology which primarily aims at submission of grievances by the aggrieved citizens on an anytime (24x7) and anywhere basis for speedy redressal of their grievances. The citizen can address his/her grievance to the Offices viz. Chief Minister, Chief Secretary, Departments, DGP, RDCs, Collectors by choosing the appropriate authority. After lodging the grievance, the same can be tracked by the petitioner to know its status.

Figure-3

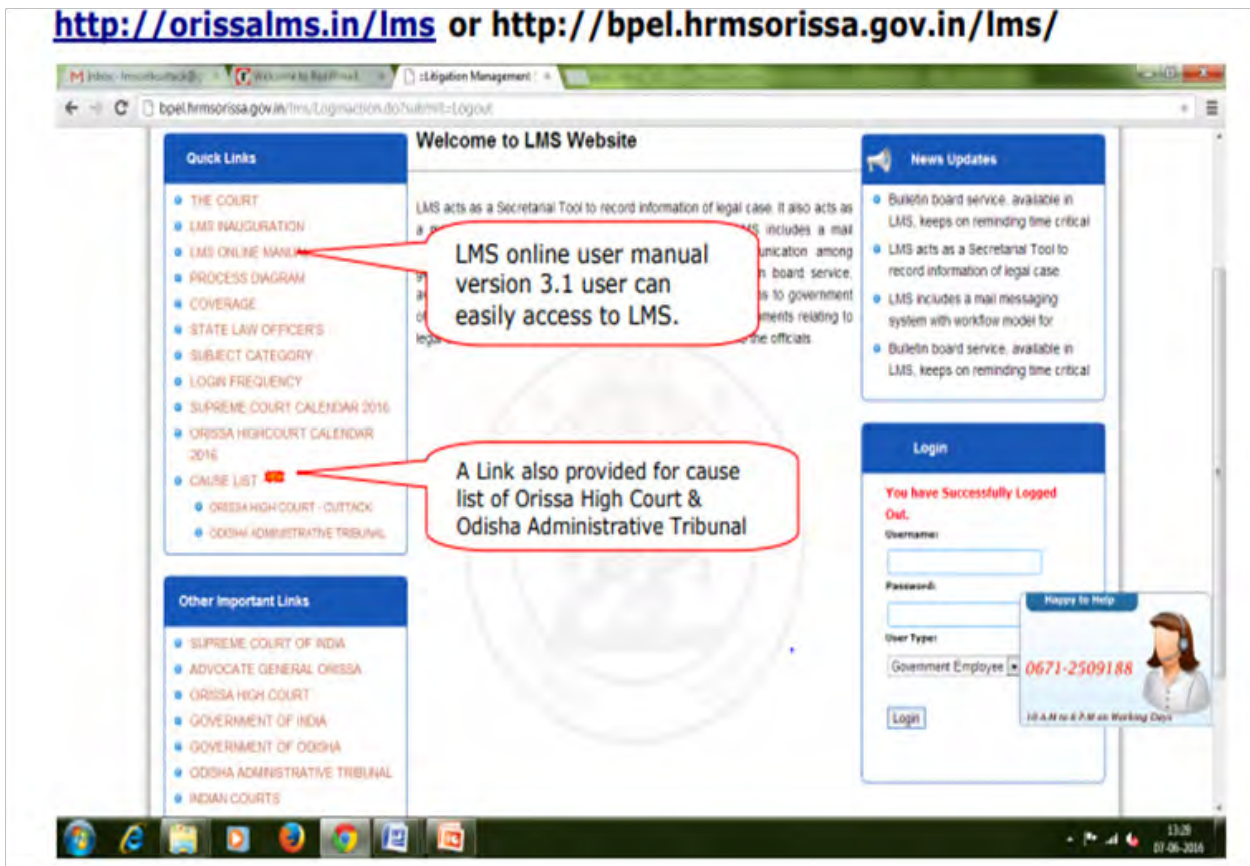


7.6.3 IRMS: Integrated Recruitment Management System (IRMS) is a software application for end to end automation of the recruitment process i.e. from requisitioning authorities by the Commission till sponsoring of candidates. This application has already been implemented in the Odisha Public Service Commission and Odisha Sub-ordinate Staff Selection Commission in order to ensure transparency and time bound completion of recruitment.

7.6.4 HRMS (Human Resources Management System) has already been implemented in order to automate E-Pay Roll and online submission of Pay Bill to the Treasury. All Group-A & Group-B Officers are now able to submit their E-PAR through HRMS. All Government Servants are now able to submit Property Statement online through HRMS. This year, all Drawing and Disbursing officers have submitted Annual Establishment Review Report online in HRMS. It's a centralized database of both regular and contractual employees of the State. This year, Government has decided to implement online Pension papers through IFMS along with Service Book through HRMS.

7.6.5 Litigation Management System (LMS) is implemented to ensure better management of Court cases of Odisha High Court. Now the interim orders, final orders, contempt cases etc. from Hon'ble High Court is received digitally through LMS to improve the efficiency of the system in timely compliance to the orders of Hon'ble High Court. New User Interface, Single Page Case Diary Report and SMS alert have been developed.

Figure 4: Litigation Management system



7.7 e-Governance

Introduction

7.7.1 Information & Communication Technology (ICT) interventions in e-governance are setting a new paradigm in the way governments enable citizens to avail essential services. In today's context, ICT is the backbone on which the framework of effective governance rests. Odisha has always striven to be a model state in leveraging IT to deliver seamless Government to Government (G2G) Government to Citizen (G2C) and Government to Business (G2B) services.

State IT Infrastructure

State Data Centre (SDC)

- The SDC is envisioned as the shared, reliable and secure infrastructure services center for hosting and managing the e-governance applications of state and its constituent departments. SDC is envisaged to establish a robust infrastructure to enable the government to deliver the services quickly and effectively to its stakeholders. OCAC has setup a state of the art State Data Center at Bhubaneswar with 24x7 support, to meet the growing needs of Digital Odisha initiatives. The Data Centre connected to the State Wide Area Network (SWAN), provides the access to the e-Governance applications & services to the government employees through intranet and to the citizens through public internet.
- SDC has configured Government of Odisha Cloud stack coined as “GoO Cloud”. At present 185 e-Governance applications from 38 departments of Government of Odisha and related agencies are live from SDC. OCAC has floated extension of SDC RFP to cater the ever-increasing demand for secure & reliable hosting infrastructure.

State Wide Area Network (SWAN)

- In 2005, Odisha took the leap in advanced telecom infrastructure with the State Wide Area Network (SWAN) scheme. Implemented under the aegis of the National e-Governance Plan (NeGP) the Odisha State Wide Network (OSWAN) serves as the backbone network for data, video and voice communications across the state. Another core infrastructure -project- the State Data Centre (SDC) has been created for on-premise hosting of a horde of government applications. Besides this, the Odishagovernment has rolled out Common Service Centers (CSCs) across the state for offering cost efficient and quality citizen centric services at the Gram Panchayat level simultaneously promoting rural entrepreneurship and community participation.
- Through SWAN Project, seamless connectivity has been provided from the State Head Quarter (SHQ) at Bhubaneswar to 30 District Head Quarters (DHQs) and 284 Block Head Quarters (BHQs). Similarly SWAN connectivity has been provisioned in 1213 critical offices (including 30 sadar BHQs) as Horizontal Offices. MPLS Bandwidth of 1 Gbps, 8 Mbps and 4 Mbps have been provided at SHQ, DHQs and BHQs respectively. 2 Mbps bandwidth have been provisioned in Horizontal Offices. As part of SWAN, Studio based Video Conferencing facilities have been established in the SHQ and all DHQs. Small Group based VC facility have been provided in all 314 Blocks of the State. Up-gradation of SWAN infrastructure is being taken up to accommodate SDWAN, alternate bandwidth at SHQ, DHQs & BHQs and MPLS bandwidth at all Horizontal Offices.

- OSWAS: Initiated in 2009-10, the Odisha Secretariat Workflow Automation System (OSWAS) envisaged digital processing of file and correspondence in the State Secretariat for quick disposal of files and effective decision making. The application using an open source technology stack has been successfully implemented across all departments, leading to significant reduction in the lifecycle of file. OSWAS has now been extended to all the Directorates as well.

7.8 ICT interventions by Departments:

Science & Technology Department

- Odisha 4K Geo portal has been developed by Science and Technology Department to provide availability of data sharing framework; Standardized, Structured & Updated Geo-spatial Data. Infrastructure for seamless integration of data of multiple - sources; Standard mechanism for ensuring Data integrity. Technology for dynamically updating of real-time data and live feeds and finally Geo-coordinated location-based data and GIS-based Maps for effective Decision Support.



- “OdishaSampad” Portal is the repository of State’s Geo spatial Datasets consisting of administrative information, natural resources data layers, geo coordinate / geo referenced infrastructure details and other socio-economic parameters. The portal aims to cater to the need of geo-spatial data need of State Administrators, Decision Makers, Resource Managers and Planners.



- ODISHA IRRIGATION INFORMATION SYSTEM (ODIIS) is a Geographical database of the irrigation network data relating to cultivated area and area irrigated. At present data of Dept. of Water Resource (Major, Medium, Minor, Creek; Watershed mission, OLIC and Mega Lift projects), Dept. of Agriculture (Jalandhar - I, OAIC- Jalandhar-II and Horticulture projects), Dept. of SC/ST (ITDA projects) and Dept. of Panchayat raj (DRDA /BLOCK projects) are collected in from of map and attribute are processed and converted into GIS database.



PR & DW Department:

- The state's brush with game changing ICT interventions began at the grassroots with block level computerization in 2003-04. Computer along with a printer was provided to each block in Gramsat pilot project. Since 2009-10, all District Rural Development Agencies (DRDAs) and blocks have been provided with alternate internet connectivity. Later, the Panchayati Raj Department put in place Project Accounting & Monitoring Information System (PAMIS) to capture daily financial transactions and generate computerized cash book of the DRDA and Block. Pursuant to this, many IT applications have been developed like PRIASoft and RuralSoft for facilitating Panchayat wise flow of funds; BETAN, the payroll software developed by Odisha Computer Application Centre (OCAC) and National Panchayat Portal (NPP) for uploading information on websites of Gram Panchayat or Block & District Panchayat.
- Electronic Benefit Transfer: The moment of reckoning came with the deployment of Proof of Concept (PoC) for Electronic Benefit Transfer (EBT) at four Gram Panchayats of the state. This was designed to ensure electronic disbursement of all social sector benefits including the Central flagship scheme- Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). Pursuant to EBT, other applications e-Dak & e-Dispatch for ensuring transparency in all government communications and the Sanjog helpline, the Integrated Grievance Redressal System cemented the State Government's efforts in digital citizen interface.

- **Program Management of Information System**

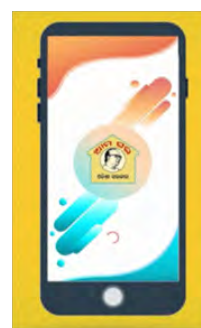
A dedicated web portal (<https://rhodisha.gov.in/>) has been developed for managing information about the rural housing programme digitally on daily basis. The key steps of programme implementation such as sanction of houses transfer of installments and incentives to beneficiaries are being executed through this portal. This rural housing portal is designed for all stakeholders of the scheme including the beneficiary. All the reports required for planning and implementation including financial information is accessed at Gram Panchayat, Block, District, and State level from the portal. The portal also provides information about beneficiaries covered for public viewing.



- **AmaGhar App for reporting progress in house construction**

An android application system called “Ama Ghar” has been developed and rolled out, which can be directly used by the beneficiary or his/her representative, tag officers and block office officials to report the physical progress of house construction.

By using the Ama Ghar App, the beneficiary can initiate his/her installment process by capturing the good quality photograph of house with time-stamp and Geo-tagging the houses at each construction stage and the next installment of financial assistance can be provided to beneficiary without any delay. The tag officers also use this App to track the houses constructed under rural housing schemes.



- **Online Case Record**

A feature called ‘Mo Case Record’ is incorporated in the Rural Housing Odisha portal <https://rhodisha.gov.in/> to empower beneficiaries digitally to view their respective profile that includes his/her name, address, pucca house sanction case record by entering registration number in the beneficiary log in provided in the portal.



Agriculture & Farmer’s Empowerment Department

- **Paddy Procurement Automation System (P-PAS):** It is an automated ICT platform that uses technology to identify genuine farmers through Iris authentication. The system electronically credits MSP payments to farmers’ accounts within 24-72 hours of sale. The platform has helped Odisha transform from a paddy deficit to paddy surplus state.
- **Farmers’ Registration:** It is a consolidated database of farmers cultivating paddy and selling surplus produce to the state agencies through Primary Agricultural Cooperative Societies (PACS).
- **E-Licensing:** This is a single window project based service delivery system for Agri-Input managing the supply chain for seed, fertilizers and insecticides. While this end to end system is made online and visit free from any offices, it takes the Government to reach upto business units proactively to render the time bound services under Odisha Right to Service Act. Fresh application, renewal and amendment for different types licenses as well as permission can be obtained through this system.

Finance Department

- **Integrated Financial Management System (IFMS):** This unified portal enables Finance Department to monitor all receipts and expenditure of the state. It provides a host of services such as e-payment, reprint challan, accounts collection, payments status etc.
- **Commercial tax e-services:** The commercial tax division has taken up several measures to facilitate trade and business, improve regulatory oversight and encourage voluntary compliance resulting in transformation of interaction between the authorities and dealers.
- **Automation of Local Fund Audit (ALFA):** Systematization of Audit workflow under Directorate of Local Fund Audit. 13,585 numbers of institutions like (ULBs, PanchayatSamities, etc.) covered under annual audit purview.
- **Budget Execution Technique Automation (BETA):** Submission of online budget proposals by Administrative Departments for generation of budget documents in the form of reports (bilingual).
- **College Accounting Procedure Automation (CAPA):** Role based Web-application for accounting of Aided Colleges Implemented in all the Aided Colleges under Higher Education Department.
- **Automation of Small Savings Activities (ASSA):** Automation of online lucky coupons generation under Small Savings Schemes. Implemented in all districts under Directorate of Small Savings.
- **Odisha Central Audit Management Portal (OCAMP):** Online audit compliance of audit trail reported by AG, Odisha. Implemented in 40 Administrative Departments, 182 Directorates, 6779 Drawing and Disbursing Offices (DDO).
- **Controller of Accounts, Odisha:** Preparation of Pension Authorities and other post-retirement benefits for all employees under State Government Aided Educational Institutions.

Works Department

- **Contractor Database Management System:** This system strengthens the government's 'Oversight Mechanism' by registering all existing and new contractors and keeping tabs on the status of contracts, thus plugging leakages and avoiding delays.
- **E-Muster Roll:** This end-to-end integrated platform has access to the workers' cycle- from registration to labour tagging, attendance, payments and compliance with EPF and ESI. The system fetches labour details from the labour database and ensures timely payment of Minimum Wages.

H & UD Department

- **E-Municipality:** This is a state flagship project implemented across all urban local bodies, offering G2C services like water bill payments, birth & death certificates, payment of property tax, marriage certificate, trade license etc.
- **Bhubaneswar Smart City (Grievance Redressal):** Bhubaneswar. Me, a unified portal acts as a service aggregator, making available a string of services for Smart City citizens such as electric bill payment, water bill payment, passport seva, employee verification, transfer of vehicle ownership etc. Equipped with an interactive Artificial Intelligence (AI) based chatbot, the portal also brands Bhubaneswar as a visitor's destination.

Home Department

- **Crime and Criminal Tracking Network and Systems (CCTNS):** It is a Mission Mode Project implemented by the Odisha Police. The Odisha Police has launched the Citizen Portal, enabling citizens to access information, request for different police services and get copy of FIR.
- **e-Bhawan (Odisha Bhawan Management System):** Enables Citizens and Government Officials to apply online for room reservation and booking of conveyance facility at Odisha Bhawan / Niwas / Sadan situated across the country. It also facilitates processing and allotment by Home department, check in and check out, integrated billing and digital payment at Bhawan desks.
- **Agni-Shama Seva** online portal issue fire safety recommendations and certificates to different categories of buildings. The entire process is automated end to end. All certificates are issued with digital signature.

S & ME and Higher Education Department

- **Project e-Shishu:** Project e-Shishu was a ground-breaking ICT initiative to map the performance in school education and was designed to achieve the three salient goals of SarvaShikshaAbhiyaan (now SamagraShikshaAbhiyaan) - it tracked the school drop-outs, tracking the in-school children and monitoring the achievement level of children & taking corrective measures for enhancement. The project tapped technology enabled tools such as Child Tracking System to track every child in the age group of 6-14 years and GIS school mapping project to take stock of infrastructure available in each school.
- **Student Academic Management System (SAMS):** The integrated platform for online application by students through a common application form (CAF) for admission to different courses in different institutions with centralized selection (e- Admission) and to provide various e-services to the students after admission.
- **State Scholarship Portal:** This unified portal offers all scholarships offered by multiple departments. By generating a unique id for each student, the system checks duplication and ensures that only the meritorious and deserving are awarded the scholarships.

Steel and Mines Department

- **Integrated Mines and Minerals Management System (i3MS):** i3MS is a critical G2B initiatives rolled out by Odisha for ushering in transparency and efficiency in mineral administration since 2010 and tracks the entire life cycle of ore from extraction to transportation. By onboarding lessees, licensees, government officials and truckers, i3MS has created a seamless ecosystem for stakeholders in mining. The system checkmates ore pilferage by issuing e-transit permits and auto calculates royalty for the government.

Industries Department

- **Single Window System: Go-SWIFT (Government of Odisha Single Window Investor Facilitation and Tracking),** a one stop portal is one of the monumental reforms undertaken to transform the G2B ecosystem. This seamless, single window platform has integrated all applications of the industries department like GO PLUS, GO SMILE, GO CARE, Automated Post Allotment Application (APPA) and State Project Monitoring Group (PMG). GO SWIFT facilitates online approval of 34 services from 15 state departments. Since launch in 2015, this portal has received 1889 applications and approved 1305 of them with proposals valued at Rs 4.92 lakh crore.

- **GoiPASS:** This application provides hassle free post allotment services to industrial units with timely approval and transparency. The services covered are payment of annual and monthly dues, change in name and style, change of activity, change of constitution, reconstitution of directors or partners, mortgage permission, transfer of leasehold interest, revocation of cancellation, surrender of plot and sub-letting.

Co-operation Department

- **e-MARKFED:** Automation of Fertilizer Business Process of Markfed: Real-time tracking of stock, sale / distribution of Fertilizer from companies (IFFCO, PPL, NFCL etc.) to warehouse, from warehouse to PACs/LAMPs and Trade-off between PACs/LAMPs
- **Audit Monitoring System:** Audit details covering Statutory, Concurrent, Special, Test, Interim and Modification orders

Excise Department

- **Real Time Automation of Liquor Supply Chain Management System of Odisha State Beverages Corporation Limited:**
Supports faster turnaround of Indent to Permit, Online Indent Generation, Online Purchase order Generation, Online ED Payment, Online Road Permit Generation, Online Re-Validation Request, Provisioning of alerts according to the user role, SMS gateway integration, Quick Response (QR)-coded Permit passes, Home delivery of Liquor, etc., Online Purchase order by the Retailers, Online payment by retailers for purchase of Liquor.
- **Automation of Excise Directorate & District Excise Offices/Stations:** Supports Label Registration, Issue of Licenses to different stake holders, NOC for RAW materials, Collection of Excise duties, Excise adhesive Label accounting, Enforcement activities, Chemical Examination laboratories.

GA & PG Department

- **E-Quarters:** Allotment of G.A. Pool Quarters, covering Type-I to Type-VI categories, based on eligibility and choices exercised by the applicants.
- **HRMS:** Human Resources Management System (HRMS) envisages automating transaction relating to personnel matters. In HRMS, an employee may apply leave, loan, or put forward his/ her report, request, or grievance through Internet. In return she/he can receive the sanction or reply on-line through internet from authorities. An authority may issue notification or orders of transfer, promotion or deputation of the employees on-line. HRMS software automatically prepares all related accounts and registers like Service Book, Leave Account, Loan Account, Salary Account, Incumbency Chart etc, retrieving relevant data from transactions. Moreover it will also help retiring employees to prepare their own pension papers on click of buttons and help authorities to process pension papers easily and quickly.

Health & Family Welfare Department

- **Odisha Birth Death Registration System**
The “**Odisha Birth Death Registration System**” has been envisioned as a pioneering initiative, by the Department. As a part of this project, end to end delivery of Birth and Death certificates are being done online, without a single visit to Municipality office or health office or other designated health institutions.

- **Odisha Human Resources for Health:** Captures all information of Doctors and paramedical staff working at different hospitals in the State
- **E-Blood Bank Management:** Blood Collection, Blood Issue, Inventory, Camp etc. Management
- **Covid Management & Migrants' Portal:** Odisha leveraged ICT tools to monitor movement of Covid cases and contact tracing. Identification of containment zones was done through GIS. Besides this, dedicated call centers were established to address public queries. While the State Covid dashboard displayed real time information on Covid-19 data, a health facility portal was created for monitoring the performance of Covid hospitals.
- **Registration of Returnees during COVID-19 Pandemic:** The state government anticipating a huge influx of migrants during this unforeseen pandemic and adopted a multi-pronged approach like monitoring of migrants' movement, issue of online e-pass, contact tracing, provision of food and accommodation and compliance with the safety measures. An exclusive online portal was set up for more than five lakh homebound migrants. Any migrant worker willing to return to Odisha had to get his name and address registered in this portal: covid19.odisha.gov.in.
- **E-Counselling:** Admission to ANM, GNM and Basic B.Sc. students

Planning & Convergence Department

- **MLALADS (MLAs' Local Area Development Scheme):** Capture in & process automation of projects taken under MLALAD Scheme for monitoring physical & financial achievements of projects.
- **OTMS (Online Training Management System) for RIPAE & S:** Regional Institute of Planning, Applied Economics and Statistics imparts in-service training to statistical personnel and undertakes specific training programmes.
- **OKH (Odisha Knowledge Hub Lecture Series portal):** Captures information related to events of OKH comprising of Profile of the Guest, Video of talk, Photo Gallery etc.

Revenue & Disaster Management Department

e-Governance initiatives in Revenue Administration: Revenue and Disaster Management Department has implemented a host of e-Governance initiatives to improve the delivery of various public services in an efficient, transparent and time-bound manner. Some of them are listed below:

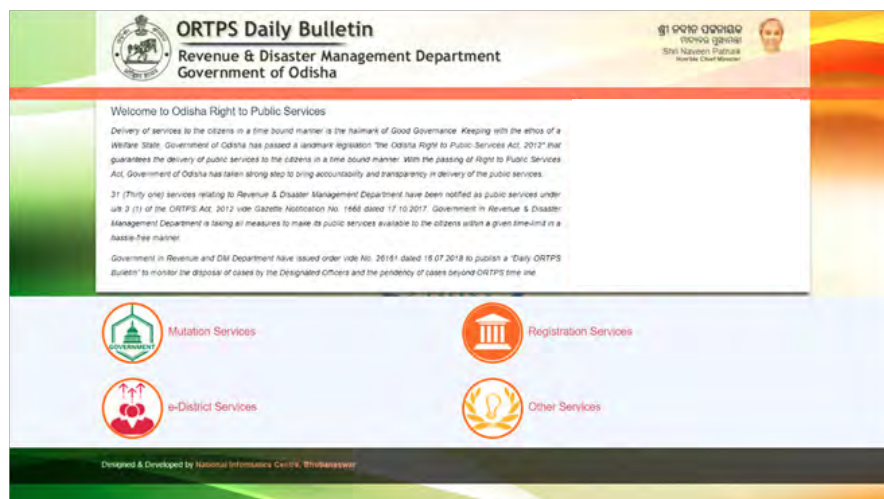
a) Computerization of Registration Process:

- **e-Registration:** The e-Registration project is in operation in all registration offices of the State since 4th January, 2010. More than 95% of documents are registered within the ORTPS timeline (three days) and more than 91% of documents are delivered within one day. Immediately after registration, an SMS with URL is sent to the mobile number of the claimant / purchaser to download the scanned copy of the registered deed from the IGR Portal. During the period from 01.04.2020 to 09.02.2021, 2.56 lakh documents were registered, 4.93 lakh encumbrance certificates and 0.58 lakh certified copies of previously registered documents were issued through the e-Registration system.
- **Consent Based Aadhaar Authentication:** Consent Based Aadhaar Authentication during property registration has been introduced in the State by amending the Odisha Registration Rules. For this purpose, the e-Registration application has been integrated with the Aadhaar database of UIDAI.

- **PAN verification:** To enable the quoting of PAN of registrant public during sale or purchase of immovable properties, the Odisha Registration Rules have been amended. For verification of PAN, the e-Registration application has been integrated with the PAN database of the Income Tax Department.
- **e-Stamping:** Collection of stamp duty through e-Stamping is in operation in the State since 27th June 2016. During the period from 01.04.2020 to 09.02.2021, 67,325 number of e-Stamp certificates have been issued through which stamp duty amounting to Rs 1287.86 Crore have been collected.

b) Maintenance and updation of land records:

- **Bhulekh (computerization of land records):** Digitization of land records of the raiyats of the State showing the ownership of the land has been done, which is available in the Bhulekh website(<http://bhulekh.ori.nic.in/RoRView.aspx>). Computerized RoRs are being issued and delivered through speed post to the citizens after online mutation through the LRMS software.
- **Bhunaksha (digitization of cadastral maps):** Approximately 1,13,000 number of cadastral maps have been digitised in respect of 51,637 revenue villages of the state and hosted in the Bhunaksha website (<http://bhunakshaodisha.nic.in/>) for public view.
- **Online mutation (LRMS):** The mutation process has been made mandatorily online in all 317 Tahasils of the State w.e.f March, 2018. After the registration of land, Sale Transaction Report (Form 3) is transmitted electronically to the concerned Tahasil office for initiation of mutation case and correction of RoR. The status of the mutation case is also available in the Tahasil website (<http://dwistodisha.nic.in/CaseStatus.aspx>). A total number of 4.93 lakh mutation cases have been disposed in the LRMS software in the State from 01.04.2020 to 09.02.2021.
- **Survey / Re-survey using modern technologies:** Hi-tech survey operations using aerial photography followed by ground truthing by DGPS / ETS are going on in the districts of Sundargarh, Deogarh, Sambalpur, Bolangir and Subarnapur. Four thousand eight hundred and fifty-one villages have been notified in these districts for carrying out hi-tech survey work
- **ORTPS Daily Bulletin:** ORTPS Daily Bulletin (<http://bhulekh.ori.nic.in/ortpsa/>) on registration and mutation services is being published w.e.f. 31 July 2018 by collecting data on real time basis from e-Registration, LRMS and RCCMS application software through web service to monitor the effective delivery of notified public services.



- **Revenue Minister's Helpline:** Revenue Minister's Helpline was started on 31st October 2018 for effective redressal of the grievances of citizens pertaining to services of the Revenue and DM Department. Citizens not getting various services related to Revenue Administration within the prescribed time limit can lodge their grievances by mentioning the name of the office, name of the district, case number and date of application through the toll-free number (1800-1218-242), SMS, e-mail ID, online portal and WhatsApp (9437704414).
- **Online payment of land revenue:** Revenue & DM Department introduced e-PAUTI Portal (<http://odishalandrevenue.nic.in>) on 15th August, 2019 to facilitate the online payment of land revenue by Citizens. The Tenant's Ledger has been digitized for the purpose. Details of 1.70 Crore Khatiyans, 5.70 Crore Plots and 3.57 Crore Tenants have been digitized. Considering the overwhelming response from Citizens to e-PAUTI Portal and penetration of smartphones, mobile app (PAUTI) was developed and launched on 28th December, 2019. This app is available on both Android and iOS based platform. This app has been integrated with BHIM App to offer more choices and flexibility to Citizens. This new system will create a win-win situation for both Revenue field functionaries and Citizens.



- **Online issue of Certificates:** To facilitate the submission of applications by citizens online from anywhere at any time for getting Miscellaneous and Caste certificates, Revenue & DM Department launched issue of e-Certificates through e-District Portal on 28.12.2019. The applicants can download the certificates from their mailbox, e-District Portal and also from DigiLocker.
- **Online delivery of Public Services:** Physical interface of public has been reduced by providing all the 34 public services online except statutory requirement of physical presence.
- All the certificate services can be applied, processed and availed online through <https://edistrict.odisha.gov.in>. An applicant can apply for all certificate services anytime anywhere without going to the native Tahasil. The communication between different Tahasils is also facilitated electronically through this application based on Service Plus platform. After disposal, the applicant can download the certificate from mailbox, Portal and DigiLocker.

- Land Record Services (Mutation, Conversion of Land, Partition of land on mutual agreement and Demarcation of land (for industries and corporate sectors only) can be availed online through <http://dwistodisha.nic.in/revonline/home.aspx>

- All registration services can be availed online except registration of documents for which Statute demands physical presence. However, registrant public can prepare and submit sale deed online through www.igrodisha.gov.in/Property.html
- Online facility through IGR Portal has been put in place for issue of Encumbrance Certificates w.e.f. 27-12-2017, issue of Certified Copy of previously registered documents w.e.f. 24-04-2020, registration of State Level Society w.e.f. 03-09-2018, registration of District Level Society w.e.f. 7-09-2020, registration of Partnership Firm w.e.f. 01-11-2017, issue of Certified copy of the document filed u/s 89 of Registration Act w.e.f. 19-08-2020 and Registration of Marriage under Special Marriage Act w.e.f. 22-12-2020.

Inspector General of Registration
Revenue & Disaster Management Department
Govt. of Odisha

Online Submission of Deed

An initiative by the Government of Odisha to facilitate the Citizen to prepare & Submission of Deeds online.

Existing User? Login

New User? Login

Property Benchmark Valuation Apply for Encumbrance Certificate View Bhulekh Data

Property Registration FAQs

1. What is Registration of Document?
2. What is online submission of Deed?
3. What is online preparation of Deed?
4. What are the advantages of online submission & preparation of deed?
5. What are the documents required for online submission & preparation of deed?
6. What are the Procedure for online sale immovable deed preparation, submission, registration and delivery?
7. What is the timeline For Deed Registration?
8. What are charges for Deed Registration?
9. What are the various modes for Stamp duty payment?

The Land Acquisition, Rehabilitation and Resettlement Management System (LARRMS): Revenue & Disaster Management Department, is the Nodal Department for Land Acquisition, Rehabilitation and Resettlement. The entire process has been automated and all stakeholders can access the web-based application (<http://larrmsodisha.nic.in>) through respective User ID & logins. Ten departments such as Works, Water Resources, Industries, Commerce & Transport, Health & Family Welfare, Steel & Mines, Housing & Urban Development, Co-operation, Rural Development and Panchayati Raj & Drinking Water can file requisition for land acquisition through LARRMS. It has been linked with Bhoomi Rashi Portal of Government of India for NHAI projects. Public can view different notifications and declarations published in LARRMS Portal and submit their grievances and feedback through this. Till 12th February, 2021, 110 Projects and 543 Proposals have been processed through this system.



Rural Development Department

- Works and Accounts Management Information System (WAMIS)

WAMIS is a generic public Infrastructure project Management and Monitoring framework which has been designed and developed with a view to aid the line departments involved in the creation and maintenance of public infrastructure assets towards enhancing their planning & operational efficiency leading to effective service delivery. The solutions encompass the entire lifecycle management of a typical construction project from its inception to its final completion in the form of various modules and tools. **WAMIS** also enables integration with other allied departments and nodal agencies such as the State Treasuries and AG's System for near real time reconciliation of Revenue & Expenditure thereby impacting the overall time & quality of fiscal consolidation. A Comprehensive Decision Support Tool **WAMIS Analytics** has also been developed to aid the officials at appropriate levels to monitor and track the physical & financial progress of various projects based on chart of accounts, schemes, category, cost, timelines & other delivery parameters to give a snapshot of ongoing project activities.

Tourism Department

- **Digital Experience Management-** Integrated Odisha Tourism Portal: The use of analytics and tools of AI in the revamped Odisha Tourism Portal has helped create a seamless online ecosystem for all players in the tourism value chain.

Common Applications

- **E-Despatch:** Odisha has been a pioneering state in introducing electronic transfer of letters used by all departments. This has led to transparency in official communication among different government offices.

- **Central RTI Portal:** It is a central monitoring mechanism by the Odisha government to ensure implementation of Right to Information Act, 2005 at all public authorities. It provides single point access of all RTI related information, spurring proactive disclosure.
- **E-District:** The portal involves integrated and seamless delivery of citizen services by the district administration through automation of workflow, back-end digitization and process redesigning across participating departments. The system generates a host of e-certificates like Resident Certificate, SC & ST certificates, OBC certificate, income & asset certificates, legal heir certificate etc.
- **Integrated Legal Monitoring System:** The ICT enabled monitoring system not just records a legal case but tracks different phases of a case. It includes a mail messaging system with workflow model for effective communication among government officials and with government advocates.
- **Automated PDS:** The end-to-end Public Distribution System (PDS) ensures that only the genuine beneficiaries get the entitlements. The automation of Fair Price Shops checks pilferages, transit loss of food commodities and optimizes demand-supply.
- **CM Social Media Grievance Cell:** The CM Grievance Cell is an application used for addressing public grievances in the state with the use of social media. Citizens air their grievances on social media platforms like Facebook and Twitter and get responses from the concerned officials within 24 hours
- **Odisha One Portal:** The One Stop Access to Public Services. The state electronics & IT department has developed this common frontend interface to make it convenient for citizens to access G2C services. It is an integrated service delivery framework for G2C services either through self-mode or Common Service Centers named Mo Seva Kendra. All G2C services like birth certificate, death certificate, caste certificate, residence certificate, payment of water and electricity bills etc numbering more than hundred will be delivered on line through the portal.

7.9 Improved Governance through 5T

The 5T (Transparency, Technology, Teamwork, Time and Transformation) vision is a new epoch in the era of people-centric and responsive administration. The 5T charter is based on optimal use of technology for reducing time taken in decision making and helping in better understanding of government schemes. It is underpinned by transparency in administration and time-bound goal tracking. Under the 5T framework,

the entire state machinery works as a team to transform the overall governance. Each department has a 5T cell with a nodal officer to track the Action Plans while the Department of Planning & Convergence is nominated as the nodal department for coordinating and documenting the 5T charter of all departments. As the nodal department Planning and Convergence Department has prepared a booklet on the status of Online Public Service Delivery under the ORTPS Act and 5T Charter incorporating Public Services ready for roll out with URL/Mobile App/Web link or any other online platform received from 31 Administrative Departments. About 236 online services have been rolled by 2nd October, 2020 under 5T Charter by the administrative departments.



The state government has so far rolled out eight technology driven solutions under the 5T initiative:-

- **Bhubaneswar Land Use Intelligent System (BLUIS):** It is a geo-tagged repository of all government lands in the city to detect changes in lands by leveraging high-resolution satellite imagery.
- **E-Pravesh or Visitor Pass Management System:** This is a web and mobile-based application to ease and authenticate entry of visitors to LokSevaBhawan, Rajeev Bhawan and KharavelaBhawan.
- **E-Bhawan- OdishaBhawan Management System:** It is an online system to provide easier access to government officials, public representatives and citizens to booking rooms and other facilities provided by Bhawans located in other states.
- **E-Atithi:** It offers comprehensive intranet solutions for management of the State Guest House to enhance the guest experience.
- **HRMS 2.0:** This mobile and web-based application serves as a single window for all personnel related transaction of State Government employees.
- **HRMS Mobile App:** This app has been developed with a leave application interface and provision for payslip generation.
- **LMS 2.0- Litigation Management System:** This is an online application to record information of legal cases and enable end-to-end communication between government officials and advocates during different stages of a case.
- **ORTPSA Online Module (www.central.ortpsa.in):** The Odisha Right to Public Services Act (ORTPSA) online module is a dynamic dashboard for monitoring delivery of notified public services including integration of online services with a central monitoring system.

Box- 2 Mo Sarkar:

Mo Sarkar or 'My Government' is a transformative initiative under the 5T governance framework. It strives to upgrade quality of public service and fix accountability on government officers by sourcing public feedback through ICT. Under this system, the phone numbers of people are randomly collected and their response is taken on behavior and professionalism of government officers with a view to improve the governance system. Within 24 hours of visit, a complainant gets an SMS, stating that the complaint has been received. The process flow under 'Mo Sarkar' initiative involves:



- Registration Process - starts with name, contact no and purpose of visit
- Database automatically reflected on Mo Sarkar Dashboard
- Implementing Department given User Id and Password to operate
- The department sets some predefined Q&A to talk with the citizen to take feedback
- If registration not done, person can call 14545 to register his/her complaint.
- The entire process is software driven and will be provided under the Mo Sarkar Initiative.
- The Department needs to set some questions for the feedback mechanism.

Initially introduced in police stations and hospitals, Mo Sarkar now covers 30 administrative departments.

7.10 Decentralisation: Empowering Panchayati Raj Institutions

7.10.1 The Panchayati Raj Institutions as constitutional bodies have evolved not only for the participation of the local people in planning, implementation and monitoring of various rural development schemes but also empowerment of vulnerable and marginalised sections of the society. The basic ideas behind introducing such a system are that first, it would decentralize the democratic set up by widening political representation of different social groups, especially women and second, it would enable the building of efficient local institutions that could plan, execute, and monitor their communities' development through a participatory approach. According to the 73rd amendment of the Constitution of India, Government of Odisha is committed to strengthen PRIs as institutions of Self Government and in 2003, twenty one subjects of eleven Departments were transferred to 3-tier Panchayati Raj Institutions.

7.10.2 The Government is committed to strengthen PRIs as institutions of Self-Government. A distinguishing feature of the Panchayati Raj system in Odisha is that either the Sarapanch or Naib-Sarapanch at GP Level, Chairperson or the Vice-Chairperson at PS Level similarly President or Vice-President at ZP Level must be women.

7.10.3 Devolution of Powers to the Panchayati Raj Institutions- Devolution of Power to the Panchayati Raj Institutions for empowering the Local Self-Government has been a priority of the State Government. The State Cabinet in their 11th meeting held on 2nd March, 2020 have approved the proposal on Devolution of Powers to the Panchayati Raj Institutions for empowering the Local Self-Government and transfer of assets of different Departments to Panchayati Raj Institutions for operation, maintenance and upkeep of those assets.

7.10.4 School & Mass Education:- All assets of Primary and Upper Primary, Aided Primary and Aided Upper Primary Schools of the Government will be transferred to Gram Panchayats. New construction and maintenance will be carried out by Panchayats. Assets of Government and Aided High Schools will be transferred to Panchayat Samitis, while Government Aided Higher Secondary Schools up to Class XII will be transferred to the Zilla Parishad which will be responsible for any new construction and maintenance.

7.10.5 Health & Family Welfare : Similarly, assets of the sub-centers under the Health and Family Welfare Department will be transferred to the Gram Panchayats too but new construction will be taken up and funded by Panchayat Samitis. Assets of primary health centers in rural areas will be transferred to Panchayat Samitis which will be responsible for maintenance and new construction. The community health centers will also be transferred to Panchayat Samitis but new construction will be taken up by the Public Works Department (PWD) and handed over to Panchayat Samitis for maintenance. In the sub-divisional headquarters and district headquarters hospitals, new construction work will be executed by the PWD/ Rural Development Department with funding from the Health and Family Welfare Department. The maintenance will be done by the PWD/RD with funding by Zilla Parishads.

7.10.6 Animal Husbandry:- Assets of the livestock aid centers will be transferred to the Gram Panchayats with responsibility of maintenance. New construction will be taken up by the Panchayat Samitis.

7.10.7 Women & Child Development: Assets of Anganwadi and Mini-Anganwadi Centers will be transferred to Panchayats with responsibility of maintenance. However, new construction will be taken up by the Panchayat Samitis.

7.10.8 The transfer assets of different Departments to PRIs for devolution of power is presented in the following Table:7.3.

Table 7.3

Assets	Asset transfer to PR Institution	Execution of Works
i) S & ME Department		
Govt. Primary (grades upto V) School	Gram Panchayat	New construction and maintenance by Gram Panchayat
Govt. Upper Primary (grades up to VIII) School	Gram Panchayat	New construction and maintenance by Gram Panchayat
Govt. High School (grades upto X) School	Panchayat Samiti	New construction and maintenance by PanchayatSamiti.
Govt. Higher Secondary (grade upto XII) School	To remain as it is	New construction and maintenance by ZillaParishad.
Govt. aided Primary (grade upto V) School	Gram Panchayat	New construction and maintenance by Gram Panchayat
Govt. Aided Upper Primary (grades up to VIII) School	Gram Panchayat	New construction and maintenance by Gram Panchayat
Govt. aided High School (grades upto X) School	Panchayat Samiti	New construction and maintenance by PanchayatSamiti
Govt. aided Higher Secondary (grades upto XII) School	Zilla Parishad	New construction and maintenance by ZillaParishad
ii) H & FW Department		
Sub Centers (Rural)	Gram Panchayat	Maintenance by Gram Panchayat. New construction will be taken up and funded by PanchayatSamiti
PHC (Rural)	Panchayat Samiti	New construction and maintenance by PanchayatSamiti
CHC (Rural)	Panchayat Samiti	New Construction will be taken up by PWD and handed over to PanchayatSamiti for maintenance
SDH	Remain in PWD/ RD books of Account	New construction work will be executed by PWD/ RDwith funding by H &FW Deptt. and maintenance by PWD/RD with funding by ZillaParishad.
DHH	Remain in PWD/ RD books of Account	New construction work will be executed by PWD/RD with funding by H &FW Deptt. and maintenance by PWD/RD with funding by ZillaParishad.
iii) F & ARD Department		
Livestock Aid Centre	Gram Panchayat	Maintenance by Gram Panchayat. New construction by PanchayatSamiti
Veterinary Dispensary	Panchayat Samiti	New construction and maintenance by PanchayatSamiti.
iv) W&CD and Mission Shakti		
AWC/ Mini AWC	Gram Panchayat	Maintenance will be taken up by Gram Panchayat. New Construction by PanchayatSamiti

7.10.9 Power to Sarpanch: In a historic move, Sarpanches use the Power of Collector to support fight against the novel Coronavirus disease (COVID-19) pandemic situation in Odisha. The State Government of Odisha delegates “powers of a collector” to decentralize the fight against Coronavirus” to Sarpanches of Gram Panchayats for their jurisdiction under Section 51 of Disaster Management Act, 2005, Epidemic Diseases Act 1897 read with Odisha COVID-19 Regulations, 2020. Every Gram Panchayat has a registration facility to facilitate the return of people and community-based monitoring on COVID situation. Odisha was the first Indian state to make such an announcement.

7.11 e-Gramswaraj

e-Gramswaraj is an application developed as part of Panchayat Enterprise Suite (PES) by Ministry of Panchayati Raj (MoPR) which provides a single platform for all planning and accounting needs of the Panchayats. It aims to bring in better transparency and strengthening the e-Governance in Panchayati Raj Institutions through decentralized planning, progress reporting and work-based accounting. e-GramSwaraj assists in enhancing the credibility of Panchayats which would induce greater Devolution of fund to PRIs. e-Gramswaraj also provides a platform for effective monitoring by higher authorities.

Features of e -Gram Swaraj Application

Panchayat Profile: Maintains Panchayat Profile with Election details, Elected Members, Committees etc.

Planning: Facilitates the Planning of activities and action plan creation for GP/PS/ZP(GPDP/BPDP/DPDP)

Progress Reporting: Records the physical and financial progress of approved activities.

Accounting: Facilitates the work-based accounting and monitoring of funds.

Asset Directory: Stores all the immovable and movable assets.

1. Uploading Status of GPDP

Financial Year	No. Of Districts	No. of Blocks	Total No of Gram Panchayat	No. of GPDP approved online	% of approved GPDP
2019-20	30	314	6798	6211	91.37
2020-21	30	314	6798	6744	99.21

2. Accounting Module Status

Financial Year	District	Zillapanchayat	Block Panchayat& Equivalent			Village Panchayat& Equivalen		
Block Panchayat& Equivalent		Year Book Closed	Total No of Block Panchayats	Total No of Blocks with Year Book Closed	% of Year Book closed	Total No of Village Panchayats	Total No of GPs with Year Book Closed	% of Year Book closed
2019-20	30	22	314	268	85.35	6798	6749	99.28

3.No. of GPs with Geo-Tagged activities

District Panchayat	Total No. of GPs	No. of GPs with geo- tagged activities
30	6798	1257

4. Panchayats registered on PFMS

Finance Commission	Total No. of District	Total Number of Village Panchayat & Equivalent	Number of Registered Village Panchayat & Equivalent ported from PFMS	Percentage of porting
15th Central Finance Commission	30	6798	6653	97.86
5th State Finance Commission	30	6798	5752	84.61

5. AUDIT ONLINE:

The screenshot displays the AuditOnline web application interface. At the top, a navigation bar includes links for Home, About Us, Features, Reports, FAQs, Supporting Documents, and Audit Dashboard. The main content area features a large heading "5 EASY STEPS TO CONFIGURE AUDITONLINE" followed by a horizontal flowchart with five steps: 1. Define configuration by specifying Auditor & Auditee and Type of Audit (Internal/External); 2. Define Process Flow by specifying all the tasks and its Mapping; 3. Define Category/Sub-Category and Dynamic form (Case Sheet/Fact Sheet); 4. Define the Report Template for generation of Audit Report; 5. Constitute Audit team and Assign team to Auditee. The process concludes with a "Ready to use AuditOnline" status indicated by a checkmark icon. Below the flowchart is an "ABOUT AUDIT ONLINE" section with the tagline "Facilitating Audit In Government" and a detailed paragraph describing the software's purpose and origin. The bottom of the page shows a Windows taskbar with various application icons and a system tray displaying the time as 3:28 PM on 12/7/2020.

ABOUT AUDIT ONLINE

<http://auditonline.gov.in>

Facilitating Audit In Government

Audit online is one of the generic and open source applications developed as a part of Panchayat Enterprise Suite (PES) under e-Panchayat Mission Mode Project (MMP) initiated by the Ministry of Panchayati Raj (MoPR). Audit online facilitates the financial audit of accounts at all the three levels of Panchayats viz District, Block and Village Panchayats, Urban Local Bodies (ULB) and Line Department by Auditors (State AG/LFA). Audit online facilitates recording details for both Internal and External Audit as per the defined process. The software not only facilitates the online and offline audit of accounts but also serves the purpose of maintaining the past audit records of the auditee with associated list of the auditors and audit team involved in the audit and acts as a good financial audit tool and improves transparency & accountability. Also the information is available in public domain and for usage by other PES applications

Status of Audit Online Implementation

SI No	FINANCIAL YEAR	TARGET FOR ONLINE AUDIT (20%)	ACHEIVEMENT (17.53%)
1	2019-20	1360	1192

Way Forward

Odisha is one of the major States who is continuously striving to achieve growth in many sectors. The implications of e-governance have made massive changes for the government to provide e-service on a citizen-friendly platform. The State Government is also working to create an ICT-enabled environment to enable citizen-centric service delivery as well as to boost productivity and efficiency. The technology and methods used in /e-governance projects will provide a roadmap for efficient delivery of government services to citizens, through internet at the doorstep.

Every department of Odisha Government is developing e-governance initiatives for bringing its services closer to citizens. The government is using various ICT interventions by leveraging new, emerging technologies in key sectors like education, healthcare, public services and infrastructure.

Chapter-8

State Finances

Financial Resources of the State Government contribute significantly to the growth process of the State's Economy. The Resources mobilised through the State's Own Taxes, Share in Central Taxes, Grants from the Centre, State's Own Non Tax Revenues and borrowings from various sources as well as miscellaneous capital receipts are applied for various services for the welfare of the people, creation of public assets and provision of public services. Sound fiscal position and prudent financial management are the preconditions for fostering economic development of the State in a sustainable manner. Over the years the State Government have not only put its finances on a stable path but also have managed its finances in a transparent and efficient manner which is evident from the healthy fiscal indicators.

Fiscal performance of Odisha continued to be satisfactory during 2019-20 and it is expected to continue on this trend in 2020-21. The State has consistently reported a revenue surplus and has maintained gross fiscal deficit within the threshold limit set by the FRBM Act.

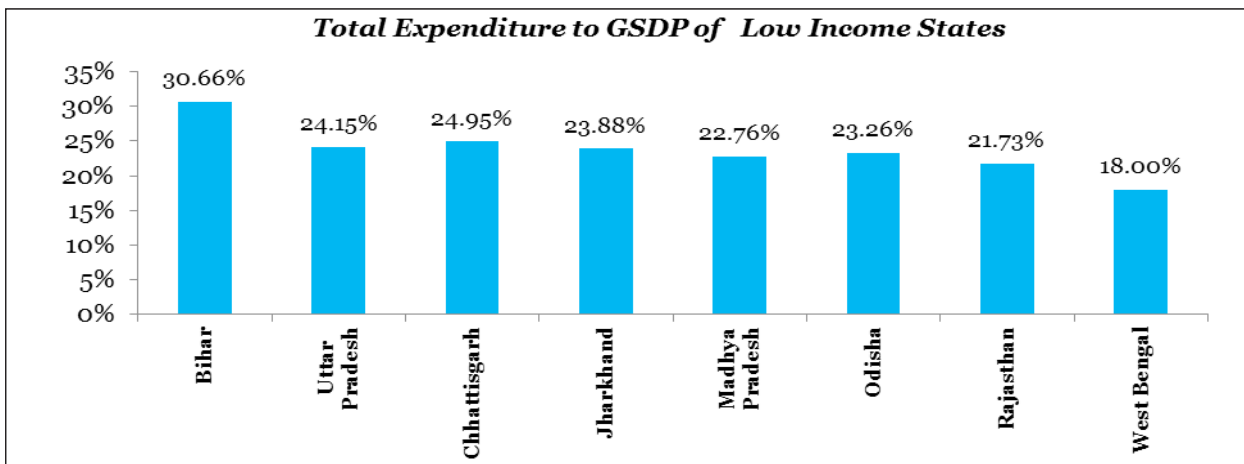
VAT and state excise are the largest contributors to the State's own tax revenue, while the industry sector drives the own non-tax revenues of the State. Post the introduction of GST, the revenue from SGST is also significant contributor to the State's own tax revenues. However, as the revenue from GST in Odisha has remained much below the protected revenue, the share of State's own revenue sources (tax and non-tax) has further declined and the dependence on central transfers (share in central taxes and grants) has grown. The State has great potential to increase its non-tax revenues from forestry and tourism. The cost recovery rates in Odisha are lower than the median for non-special category states. On the expenditure side, the State's expenditure has been witnessing double-digit growth during the last few years. Both, revenue expenditure and capital outlay have been focused on the developmental sector, with expenditure on committed expenditure much lower than other states. Education and rural development receive the largest share of revenue expenditure, while majority of capital outlay is focused on irrigation and transport. Focus on these sectors is in line with the State's developmental needs.

Debt stock to GSDP ratio in the State has been maintained below the 25% threshold consistently for 14 years. The current debt position of the State puts it at low risk of both, debt and interest repayment burden. Odisha is one of the only two low-income states, with low risk on both these parameters. The maturity profile of outstanding government securities is comfortable for the State when compared with other states.

8.1 Introduction

8.1.1 Government resources play an important role in the growth of an economy. Expenditure on physical and human capital formation is a prerequisite for sustained development. Historical and geographical disadvantages related to high poverty and frequent natural disasters have restricted the development of Odisha. Despite these, the State has been orienting its limited fiscal resources on developmental needs of the economy. On an average, during 2014-15 and 2019-20, Odisha's total expenditure to GSDP ratio stood at around 23.3%. Further, 74% of this expenditure or 17.2% of GSDP has been diverted towards developmental purposes, with focus on education, healthcare, rural development, irrigation, and transportation.

Figure 8.1: Total expenditure to GSDP (average for 2014-15 to 2019-20 RE)

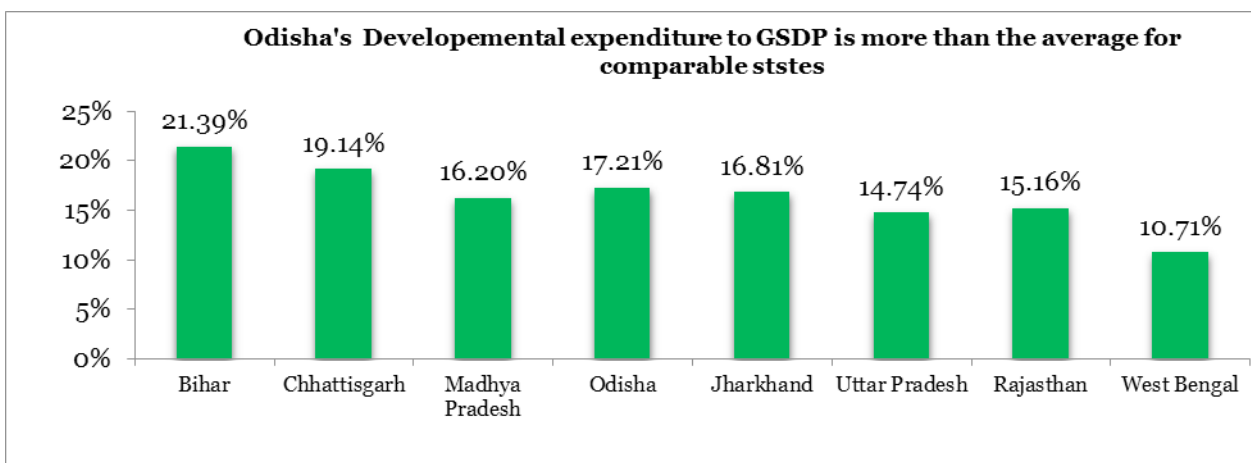


Source: State Finances: A Study of State Budgets, RBI

Figure 8.1 shows the Odisha's position on total expenditure (as a proportion of GSDP) for comparable states (low-income states, as classified by the World Bank).

The State has the third highest proportion of its total expenditure among comparable states allocated towards development as shown in Figure 8.1(A), indicative of its commitment towards developing the State, in spite of the historical challenges it has faced.

Figure 8.1(A): Development Expenditure to GSDP (average for 2014-15 to 2019-20 RE)



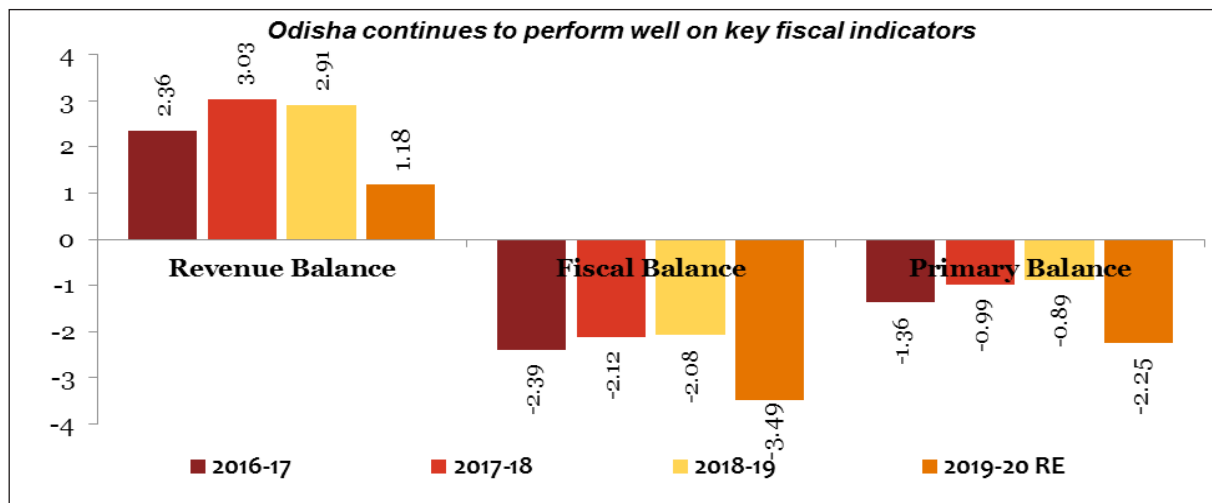
Source: State Finances: A Study of State Budgets, RBI

8.2 Major Fiscal Indicators

8.2.1 Odisha's performance on the fiscal front continued to be satisfactory in 2019-20 as has been the trend in the past. The State has been taking prudent measures to keep the fiscal indicators stable. Since 2005-06, stringent efforts have been put to ensure a revenue surplus and the State has been successful in maintaining it.

Odisha has maintained a revenue surplus since 2005-06

Figure 8.2: Key fiscal indicators for Odisha (as percentage of GSDP)

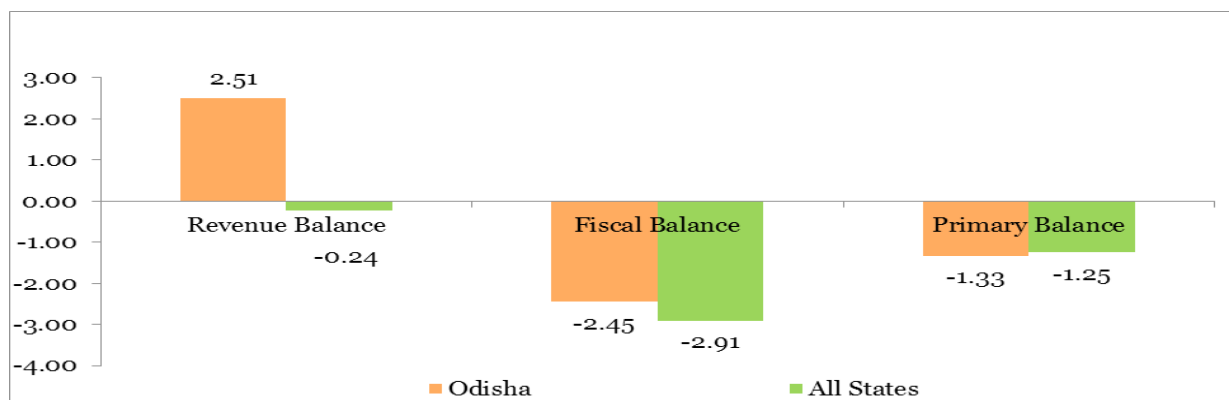


Source: Annual Budget documents, Odisha

8.2.2 Odisha has been successful in complying with the Odisha Fiscal Responsibility and Budget Management Act to maintain fiscal deficit under 3.5% of its GSDP, though a rising trend has been observed. The zero fiscal deficit position in 2012-13 has moved to 3.49% of GSDP as estimated for 2019-20 RE.

8.2.3 Odisha's performance in comparison to other states has been much stronger. The State has successfully managed to maintain an average revenue surplus (as a percentage of GSDP) during the last 5 years (2015-16 to 2019-20 RE), while the all states average shows a deficit. The State's average revenue surplus (2015-16 to 2019-20 RE) stood at 2.51% against the all states average of -0.24%, the fiscal deficit of the State, on an average is lower than the all-states average, as highlighted in Figure 8.3.

Figure 8.3: Key fiscal indicators as percentage of GSDP (Average for 2015-16 to 2019-20 RE)



Note: +ve values indicate surplus and -ve values indicate deficit

Source: State Finances: A Study of State Budgets, RBI

Box 1: Fiscal discipline success

Fiscal discipline is an important determinant to sustenance of the fiscal and macro-position of an economy. It improves the decision-making capacity of the governments by prioritising the developmental needs and cut down on operational expenses. State governments are accountable for a large number of functional responsibilities, which span over social and economic sectors. Thus, they are faced with the key question of prioritising the fiscal resources across the various developmental needs. Lack of fiscal stability may endanger the choices in terms of policy objectives and resource availability.

Fiscal Responsibility and Budget Management Act was implemented across the states between 2005 and 2006. The Act aimed to create fiscal discipline and improve the management of public funds. The intended outcome was to reduce deficit and stabilise debt burden, control the growth of expenditure, and improve tax performance. Odisha is amongst the few states that have successfully complied with the targets set by the Act, year-on-year.

The concerning factor is that, this success has been achieved by containing the public spending. The relatively lower per-capita income of the state, historically high poverty ratio, high concentration of backward classes are some of the factors that have constrained the revenue generating capacity of the State. Thus, the State has resorted to expenditure tightening to achieve the targets of the FRBM Act. However, the developmental needs of the State continue to be large, for the same reasons as mentioned above. Committing to the Act may have limited the resources for the state's developmental needs.

Nonetheless, the State has started to expand its expenditures in the recent years. The developmental revenue expenditure of the State has grown more than 2 times in a span of 6 years.

8.3 State's Receipts

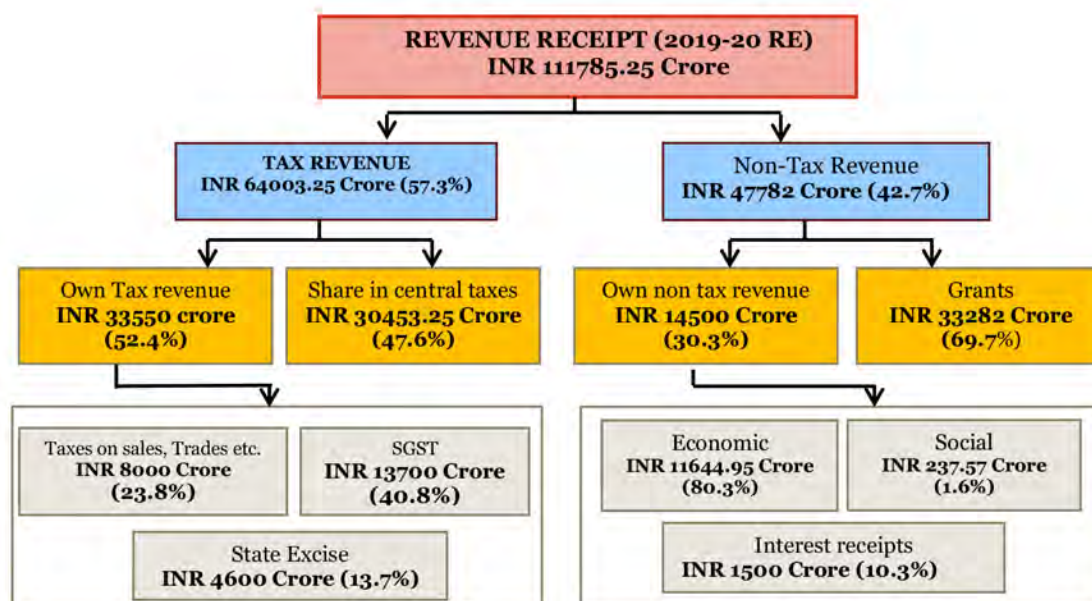
8.3.1 Revenue Receipts : Revenue receipts of Odisha have been maintained at over 16% of the GSDP since 2011-12, and it was 21.44% in 2019-20RE. Revenue receipts for 2019-20 are more than 2.5 times from the level in 2011-12, growing at an average rate of 13.7% annually. Growth of revenue receipts had witnessed a marginal slow down during 2016-17, but the State revived in 2017-18 onwards. Revenue receipts were estimated at INR. 1,11,785.25 crores in 2019-20RE. Outlook for revenue receipts indicate towards continuation of this upward growth with revenue crossing 24% of GSDP in 2020-21.

*Revenue receipts
have more than
doubled in 7 years*

Composition of Revenue Receipts

8.3.2 Tax revenues account for majority of the State's revenue receipts. Additionally, their share has been growing over the years, owing to the growth in own tax and transfers from the Central Government. Tax Revenues for 2019-20 RE were INR. 64,003.25 crores. This contributed to a share of 57.3% of total revenue receipts. The share of tax revenues in revenue receipts is estimated to be 60.1% in 2020-21. Tax revenues constitute the State's own tax revenue and transfers from the divisible pool of taxes at the national level. Over the years, the composition of tax revenues has undergone a transition. After increase of vertical transfer from 32% to 42% from 2015-16, the contribution of share of central taxes in the total revenue of the State has risen and these revenues have become the major source of tax revenues for the State. However, from 2020-21, the contribution of share in central taxes has declined due to decrease in vertical transfer from 42% to 41% and decline in relative horizontal share of Odisha.

Figure 8.4 Composition of Revenue Receipts



Source: Annual Budget documents, Odisha

8.3.3 Non-tax revenues that constitute revenues from the various social, economic, and general services provided by the State and grants, contribute around 42.7% of the State's revenue receipts. With an average 16.7% annual growth since 2011-12, non-tax revenues have grown to INR.47,782 crores in 2019-20 (RE). The composition of non-tax revenues has undergone a transition during the last 8 years, with growth in state's own non-tax revenues witnessing a fluctuating trend. The growth has fallen to 4.4% in 2017-18 from 25.4% in 2012-13 and it increased by 70% in 2018-19 over 2017-18. Again it was fallen to 1.6% in 2019-20 RE over 2018-19.

State's own revenue

8.3.4 State's own revenue (SOR) as a proportion of GSDP shows a fluctuating trend contributed by variation in both, tax and non-tax revenues. SOR marginally increased from 8.6% of GSDP in 2011-12 to 9.2% in 2019-20 (RE). Further, it shows a fluctuating trend in between 7.9% and 9.5% of GSDP during the period 2012-13 to 2019-20 (RE). SOR as a proportion of GSDP is likely to attain the level of 11% in the estimates for 2020-21.

State's own tax revenue

8.3.5 The share of state's own tax revenue in tax revenues has marginally declined in the recent years primarily due to lower GST revenue realization compared to protected revenue. From a share of 52.4% in 2011-12, the share is estimated to decline to 51.4% in 2020-21 (BE). Own tax revenues for 2019-20 (RE) were Rs.33,550 crore or 6.4% of the GSDP. However, the outlook for own tax revenues indicates that the share is expected to increase to 7.5% in 2020-21 (BE). Growth in own tax revenues has been fluctuating with an average growth rate of 12.3% annually. Post a slowdown in growth to 1.4% in 2016-17, own tax revenues grew at 22.1% in 2017-18, the highest in last eight years. Estimates for 2020-21 indicate a possible increase in their growth.

8.3.6 SGST, Sales tax and state excise are the major contributors to the State's own tax revenues with a combined share of over 78% and a strong growth each year. Post the introduction of GST, the share and growth of sales tax has witnessed a decline, with majority taxes being subsumed under GST. The contribution of SGST to own tax revenues was 40.8% in 2019-20 (RE). On the other hand, with 16.4% annual average growth between 2012-13 and 2019-20 (RE), the share of revenues from the state excise under own tax revenue has witnessed a growing trend. Revenues from electricity duty are also witnessing a growing trend. Estimates for 2020-21 indicate that SGST, VAT, and state excise will continue to be the lead contributor. The State's own taxes as a proportion of GSDP are presented in Table 8.1.

Table 8.1: State's own tax revenues as a proportion of GSDP in Odisha

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (RE)
State's Own Tax	5.8%	5.7%	5.7%	6.3%	6.9%	5.8%	6.3%	6.2%	6.4%
SGST	NA	NA	NA	NA	NA	NA	1.5% (23.7%)	2.4% (39.4%)	2.6% (40.8%)
Sales Tax (VAT)	3.5% (61.0%)	3.7% (64.4%)	3.6% (63.5%)	3.8% (59.6%)	4.0% (58.1%)	3.4% (58.6%)	2.6% (41.3%)	1.5% (24.1%)	1.5% (23.8%)
State Excise	0.6% (10.3%)	0.6% (10.0%)	0.6% (10.5%)	0.6% (10.3%)	0.8% (11.3%)	0.7% (12.2%)	0.7% (11.5%)	0.8% (12.9%)	0.9% (13.7%)
Stamp duty registration fees	0.2% (3.7%)	0.2% (3.6%)	0.2% (3.6%)	0.3% (4.0%)	0.7% (9.6%)	0.3% (6.0%)	0.2% (3.7%)	0.3% (4.1%)	0.3% (5.4%)
Motor Vehicle Tax	0.3% (5.9%)	0.3% (5.0%)	0.3% (5.1%)	0.3% (4.6%)	0.3% (4.6%)	0.3% (5.3%)	0.3% (5.5%)	0.4% (5.8%)	0.4% (5.5%)
Electricity duty	0.2% (4.1%)	0.2% (3.9%)	0.2% (4.0%)	0.5% (8.7%)	0.4% (5.4%)	0.4% (7.2%)	0.4% (7.1%)	0.7% (10.7%)	0.6% (8.6%)
Land Revenue	0.2% (3.9%)	0.2% (2.8%)	0.1% (2.6%)	0.2% (3.3%)	0.2% (2.6%)	0.1% (2.0%)	0.1% (1.9%)	0.1% (1.7%)	0.1% (1.3%)

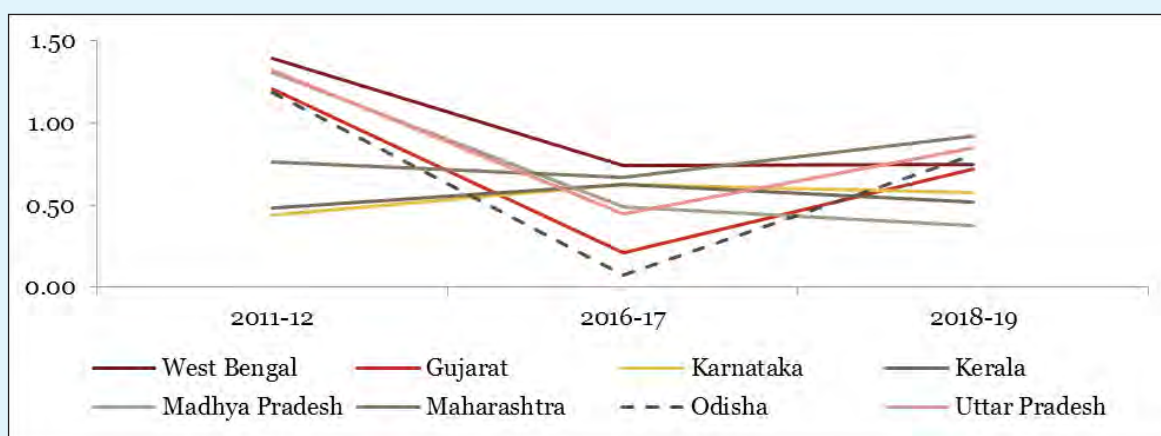
Note: Figures in parenthesis indicate share in State's own tax revenue
Source: Annual Budget documents, Odisha

Box 2: Odisha's improvement on tax mobilisation

Tax buoyancy is a measure of an economy's ability to mobilise tax revenue efficiently and the responsiveness of tax collection to growing gross domestic product of the economy. A value of more than one of tax buoyancy indicates that the government is effectively collecting more taxes as the economy grows and tax base expands. Odisha's tax buoyancy has grown from 1.19 in 2011-12 to reach a maximum of 2.99 in 2015-16. In 2016-17 it declined to a minimum of 0.07. From 2017-18 onwards it revived and has grown to 0.81 in 2018-19 even though the State witnessed various natural disasters that impacted the growth of the economy.

The State today has one of the highest tax buoyancy out of all States. The figure below presents the tax buoyancy of selected states (a mixture of high and low income) during the last few years. It can be observed that Odisha has shown the improvement, unlike the deteriorating tax buoyancy of various high-income states.

Figure 8.5 Odisha has shown significant improvement in Tax Buoyancy



State's own non-tax revenue

8.3.7 Industries, with a share of over 72% are the driver of the State's revenue from non-tax sources. The high volatility in prices for minerals, which are the major industries in Odisha, has led to fluctuations in revenues earned from non-tax sources. Further, income from interest and dividends, which are significant contributors to the non-tax revenues, has been fluctuating adding to the volatility in the State's own non-tax revenues.

8.3.8 State's revenue from own non-tax sources stood at INR. 14,500 crores in 2019-20(RE), equivalent to 2.8% of GSDP. Post a contraction of 7.7% in 2016-17, revenues from this source have grown by 70% in 2018-19 over 2017-18. There is marginal growth of 1.6% in 2019-20 (RE) over 2018-19. The estimates for 2020-21 indicate that the state's own non-tax resources will grow at about 21.7%, contributed by growth mostly in interest and industries.

Box 3: Growing non-tax revenue base

Odisha's own non-tax revenues have been witnessing a fluctuating trend in the recent years. The industries sector is the major contributor to the non-tax revenues for the State. However, the sector's revenues are highly susceptible to fluctuations in prices of minerals, which are passed onto the non-tax revenues of the State. Odisha can diversify to other revenue sources to increase revenues from these sources.

Recovery rates, defined as the ratio of revenue receipts to revenue expenditure for various sectors, were analysed for non-special category states for the period 2018-19 to 2020-21 (BE). Odisha's recovery rates for various sectors are presented below, along with the median recovery rate. Odisha, being the mineral hub, of the country has the highest recovery rate, out of all the Non-Special Category (NSC) states for industries. However, Odisha has great scope to increase its revenues from forests and tourism. The recovery rates in these sectors are lower than the median value and thus, user charge in these sectors can be increased. Further, with the fourth largest share of national forest area and various tourism opportunities, revenues from these sectors can be enhanced.

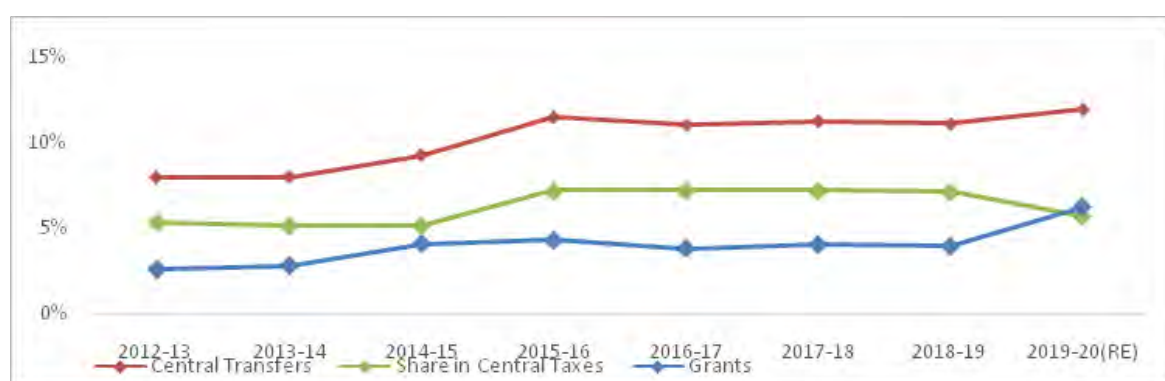
Table 8.2: Sectorwise recovery rates (From 2018-19 to 2020-21)

Sectors	Odisha	Best Performing State	Median Value	From Foreign Tourists
Education	0.15%	Madhya Pradesh	6.36%	0.86%
Healthcare	0.96%	Tamilnadu	12.11%	3.42%
Housing	6.64%	Jharkhand	184.70%	5.71%
Water Supply and sanitation	2.82%	Goa	36.98%	0.57%
Crop Husbandry	0.53%	Gujarat	10.69%	0.58%
Forests & wildlife	4.89%	Andhra Pradesh	107.90%	16.28%
Major & medium irrigation	110.62%	Gujarat	254.31%	15.17%
Minor irrigation	0.90%	Chattisgarh	385.07%	3.44%
Industries	4131.02%	Odisha	4131.02%	302.39%
Tourism	2.00%	Gujarat	157.65%	2.76%

Central transfers

8.3.9 With routing of funds for central schemes through state budgets and increased devolution in the 14th FC period, the share of central transfers has witnessed a growth. The contribution of these transfers has grown from 50.6% of revenue receipts (8.8% of GSDP) in 2011-12 to 57% (12.2% of GSDP) in 2019-20 (RE). But decline in vertical share and horizontal share for Odisha in 15th Finance Commission recommendation, the estimates for 2020-21 indicate share of central transfer will decline to 55%. Central transfers include both share of central taxes and grants from the Centre. Figure 8.5 presents the proportion of each of these transfers as a proportion of the GSDP.

Figure 8.6 Central transfers as a proportion of GSDP (In %)



Source: State Finances: A Study of State Budgets, RBI and Annual Budget documents, Odisha

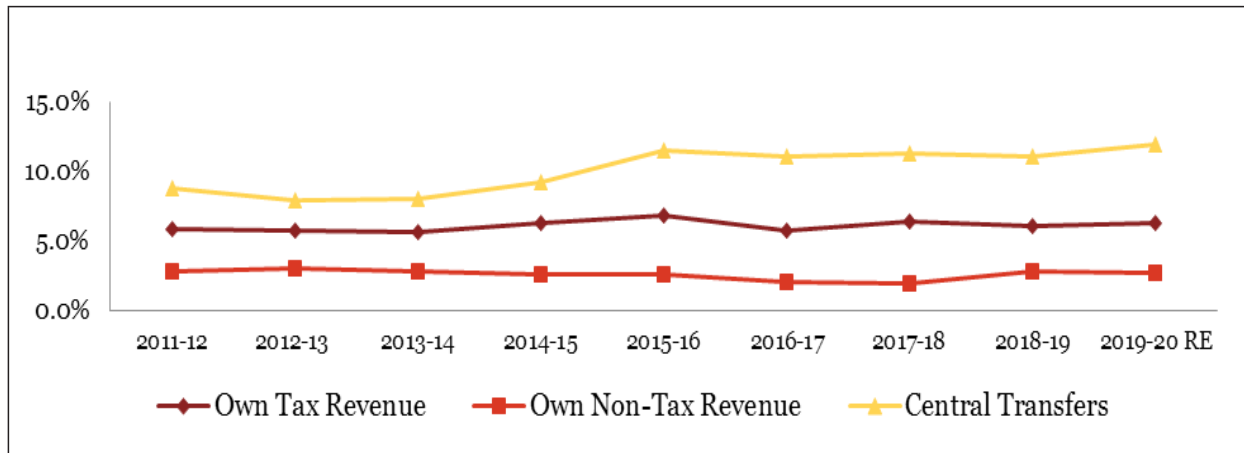
8.3.10 Direct taxes, i.e., corporation and income taxes are the major contributors to the share in central taxes received by the state. Together, these contribute over 28% of the share in central transfers. With consistent double-digit growth in income tax and high growth in corporation tax, the share in central taxes stood at Rs.18,119.27 crores in 2019-20 RE, and it is estimated to grow further. Grants, on the other hand, stood at Rs.33,282 crores. Centrally sponsored schemes (CSSs) and statutory grants are the major contributors to this component.

8.4 Key revenue indicators

8.4.1 Key revenue indicators are a measure of a State's tax base, the efficiency of its tax collection, and its scope to increase tax collections. They present a picture of the State's dependence on the Centre to fund its expenditure needs.

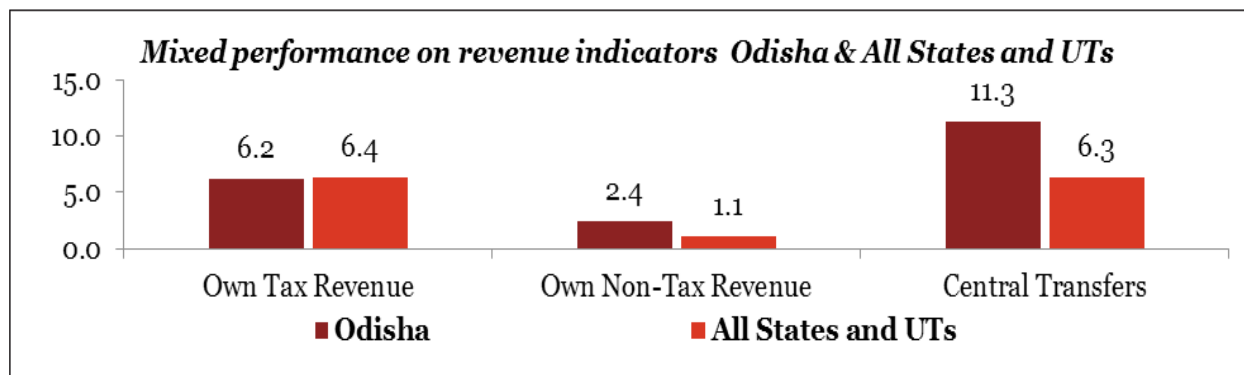
Revenue sources as a proportion of GSDP

8.4.2 The State's dependence on own sources to mobilise revenues has been stable. On the other hand, dependence on central transfers has grown, driving the growth in revenue receipts of the State. Own tax revenues as proportion of GSDP have grown from 5.8% in 2011-12 to 6.4% in 2019-20 RE, after witnessing a peak of 6.9% in 2015-16. However, own non-tax revenues have been witnessing a decline consistently since 2012-13, reaching its lowest of 1.9% of GSDP in 2017-18. However, revenue from this source was risen to 2.8% in 2019-20 RE. Central transfers, which form the largest share of revenue receipts, have been growing. A sharp jump in their proportion to GSDP has been witnessed from 2015-16 as reflected in Figure 8.6.

Figure 8.7: Revenue from different sources as a proportion of GDP (in %)

Source: State Finances: A Study of State Budgets, RBI and Annual Budget documents, Odisha

8.4.3 Odisha's performance on revenue indicators in comparison to other states shows mixed trends. The State's own tax revenue as a proportion of GDP during the four-year period (2016-17 to 2019-20 RE) has been at par with the average for all states. The average for own non-tax revenues as a proportion of GDP for Odisha during 2016-17 to 2019-20 RE is more than double the average for all states in the same period. However, the State's share of central transfers to GDP is 11.3% against the all States & UTs average of 6.3%.

Figure 8.8: Revenue from different sources as a proportion of GDP vis-a-vis other states (2016-17 to 2019-20 (RE))

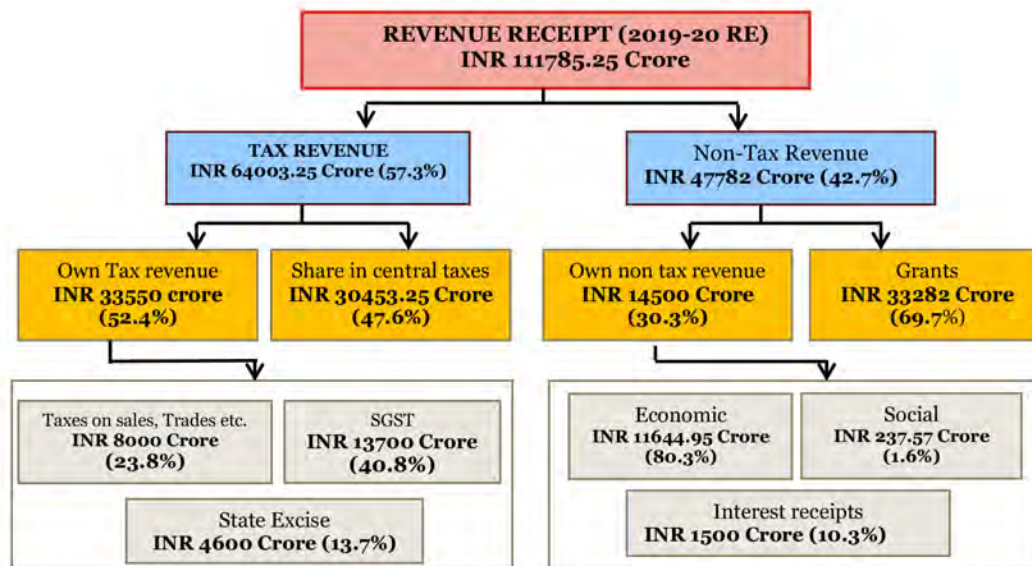
Source: State Finances: A Study of State Budgets, RBI

8.5 State's Expenditure

8.5.1 Odisha's expenditure has been witnessing consistent double-digit growth over the years (2011-12 to 2019-20 RE). Growing at an average rate of 14.9% annually since 2011-12, the total expenditure stood at Rs.1,35,000 crores in 2019-20 (RE). The growth of total expenditure in 2020-21 (BE) slightly declined and the estimated growth rate is 11.1% over 2019-20 (RE).

Composition of state expenditure

Figure 8.9: Composition of state expenditure



Source: Annual Budget documents, Odisha

8.5.2 Revenue expenditures are the largest contributor to the total expenditure by the State and continue to be so in 2019-20RE with a share of 78.2%. Revenue expenditures stood at Rs.1,05,610.73 crores in 2019-20RE, growing 23.73% over 2018-19 which is the highest in last nine years. The share of revenue expenditure has witnessed a decline over the years, from 82.3% in 2011-12 to 74.9% in 2018-19. But the share has increased to 78.2% in 2019-20 (RE). However, the share is estimated to decline to 76.5% in 2020-21 (BE). With the focus of the government on building infrastructure to ensure sustainable growth, the share of capital outlay has more than 4 times in 8 years. Capital outlay stood at Rs.23,655.19 crores in 2019-20 (RE) and continue to grow at an estimated growth rate of 12% in 2020-21(BE) over 2019-20 (RE)

Revenue Expenditures

8.5.3 Revenue expenditure can be classified under three heads: Developmental (which includes social sector and economic sectors), non-developmental, and grants assigned to local bodies and program-related investments (PRIs). With a focus on development and growth of the economy, developmental expenditure has the highest share of revenue expenditures. Developmental expenditure stood at Rs.75,031.24 crores in 2019-20 RE, contributing 71% of revenue expenditure. Non-developmental expenditure accounted for 29%. Sector wise, education (17%), rural development (10%) and medical & public health (5%) receive the highest allocation out of total revenue expenditures. Given the literacy levels of the State and concentration of population in rural areas, focus of expenditure on these sectors is in harmony with the developmental needs of the State.

8.5.4 Social sector accounts for the majority share of developmental expenditure and contributes 61% of the expenditure in 2019-20RE. Within the social sector, education, health, and water supply and sanitation are the sectors with highest allocations. Given the high concentration of tribal population in the State, expenditure on welfare of these social groups also forms an important component of social

expenditure. Outlook for expenditure in social sector indicates that the share of these sectors continue to be stable around these figures in 2020-21 (BE).

8.5.5 On the other hand, rural development, agriculture, irrigation, and roads and bridges are the lead contributors to the economic sector expenditure, underlying the State's commitment to developing the infrastructure and rural sector of the economy. The committed expenditure on interest payments and pension form the majority of non-developmental expenditure. The fiscal prudence of the State has kept the share of these components constrained around 19% in 2019-20RE (Table 8.2).

Table 8.3: Composition of revenue expenditure

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20RE
Developmental	66.6%	65.8%	68.0%	70.0%	72.8%	72.7%	70.0%	70.2%	71.0%
Social services	41.4%	39.2%	41.0%	41.0%	41.9%	42.4%	41.1%	42.7%	43.6%
Education	19.6%	19.0%	18.2%	19.2%	18.8%	18.2%	19.2%	19.0%	17.3%
Medical	3.3%	3.8%	3.6%	4.9%	5.1%	5.7%	5.3%	5.5%	5.3%
Water supply and sanitation	1.6%	1.6%	1.6%	2.1%	3.4%	3.6%	2.4%	3.5%	3.8%
Economic services	25.2%	26.7%	27.0%	29.0%	30.9%	30.3%	28.9%	27.5%	27.4%
Agriculture and allied services	9.1%	10.7%	10.3%	11.0%	9.9%	10.0%	8.1%	9.2%	11.5%
Rural development	5.3%	5.7%	6.5%	8.7%	12.6%	12.3%	12.6%	11.6%	10.2%
Irrigation and flood control	2.5%	2.7%	3.1%	2.7%	3.1%	2.9%	2.7%	2.0%	1.8%
Roads and bridges	3.4%	4.0%	3.7%	3.7%	3.1%	3.0%	3.1%	2.2%	2.1%
Non-developmental	31.5%	32.5%	30.0%	28.4%	25.6%	25.7%	28.2%	28.2%	27.6%
Interest payments	7.4%	7.3%	6.3%	5.5%	5.7%	6.2%	6.9%	6.8%	6.1%
Pensions	13.7%	14.1%	13.0%	12.5%	10.8%	10.5%	12.1%	12.3%	13.3%
Grants to ULBs and PRIs	1.9%	1.7%	2.0%	1.6%	1.6%	1.6%	1.8%	1.6%	1.4%

Source: State Finance: Study of State budget, RBI & Annual Budget Document, Odisha

8.5.6 Revenue expenditure has witnessed consistent double-digit growth during the last 9 years growing at an annual average rate of 15.4%. This high growth is expected to continue in the coming years as well. Revenue expenditure is estimated to grow at 8.7% in 2020-21 (BE) over 2019-20 RE. The developmental sector, with its high share and annual average growth rate of 16.7% is the driver of growth in the revenue expenditures. However, growth in various components of revenue expenditure has been volatile.

Capital Expenditure

8.5.7 Capital Outlay, Disbursement of Loans & Advances and Repayment of loan constitute Capital Expenditure.

Capital outlay

8.5.8 Capital outlay of the State has been witnessing high growth, in harmony with the State's focus on improving the social and economic infrastructure of the state. The capital outlay in 2019-20 RE was INR. 23,655.19 crores, almost 5.26 times of its value in 2011-12. Year-on-year, capital outlay has witnessed high double-digit growth (except for 2016-17). The high growth trend was 11.2% in capital outlay for 2018-19 which is likely to increase to 12% as per the estimate of 2020-21. The majority share

of these expenditures is allocated to economic activities. In 2019-20 RE, 69.7% of capital outlay was diverted towards economic services, while social services were allocated 26.5% of the total capital outlay. The remaining was for non-developmental purposes (Table 8.3). Economic services drive the growth in capital outlay. On an average, economic services have grown at 26.2% annually between 2012-13 and 2019-20 (RE), while social services grew at 32.6%.

8.5.9 Capital outlay has been in tandem with the developmental needs of the State. Consistently during the last 9 years, on an average of 64% of total outlay has been allocated for major and medium irrigation, flood control, and transport infrastructure. Odisha continues to be highly dependent on agriculture for livelihood purposes. With high susceptibility to droughts, the earning capacity of almost half the population is volatile to weather conditions. Thus, the State has been focusing on providing a sustainable irrigation network. On an average, 29% of capital outlay has been diverted towards major and medium irrigation and flood control in the last 9 years. In 2019-20 (RE), INR. 5,352.11 crore was spent on such projects, which accounted for 22.6% of the capital outlay. Another focus centre of the government is to build the transport system. The State still has one of the lowest rail connectivity amongst all States. In 2019-20 (RE), 32.9% of capital outlay was allocated for transport purposes.

8.5.10 In terms of social services, the majority share is diverted towards the welfare of SC/STs. Close to 40% of Odisha's population belongs to these marginalised groups and thus, their welfare has been a priority for the State. Education, medical welfare, and housing also receive significant share of social services' capital outlay.

Table 8.4: Composition of capital outlay

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (RE)
General Services	5.7%	6.2%	6.1%	3.5%	2.5%	2.0%	2.2%	3.1%	3.8%
Social services	14.6%	21.5%	22.2%	20.7%	17.1%	16.2%	19.9%	19.4%	26.5%
Education	2.2%	0.7%	2.0%	3.3%	2.9%	1.9%	3.5%	3.5%	3.6%
Medical & public Health	0.8%	1.5%	1.9%	3.7%	3.1%	3.6%	3.7%	2.6%	2.7%
Housing	2.6%	3.1%	2.0%	2.0%	1.8%	1.7%	1.4%	1.5%	1.8%
Water supply and Sanitation	1.9%	3.2%	7.3%	4.8%	4.0%	4.9%	7.5%	9.1%	15.4%
Welfare of SC/ST	6.4%	8.4%	5.4%	3.9%	3.3%	2.5%	2.5%	1.6%	1.8%
Economic services	79.6%	72.3%	71.7%	75.8%	80.4%	81.7%	77.9%	77.5%	69.7%
Major & Medium Irrigation and flood control	39.0%	35.7%	28.5%	25.7%	24.4%	31.4%	32.4%	24.3%	22.6%
Transport	27.8%	27.5%	28.4%	41.2%	44.2%	36.6%	33.9%	38.2%	32.9%

Source: State Finance: Study of State budget, RBI & Annual Budget Document, Odisha

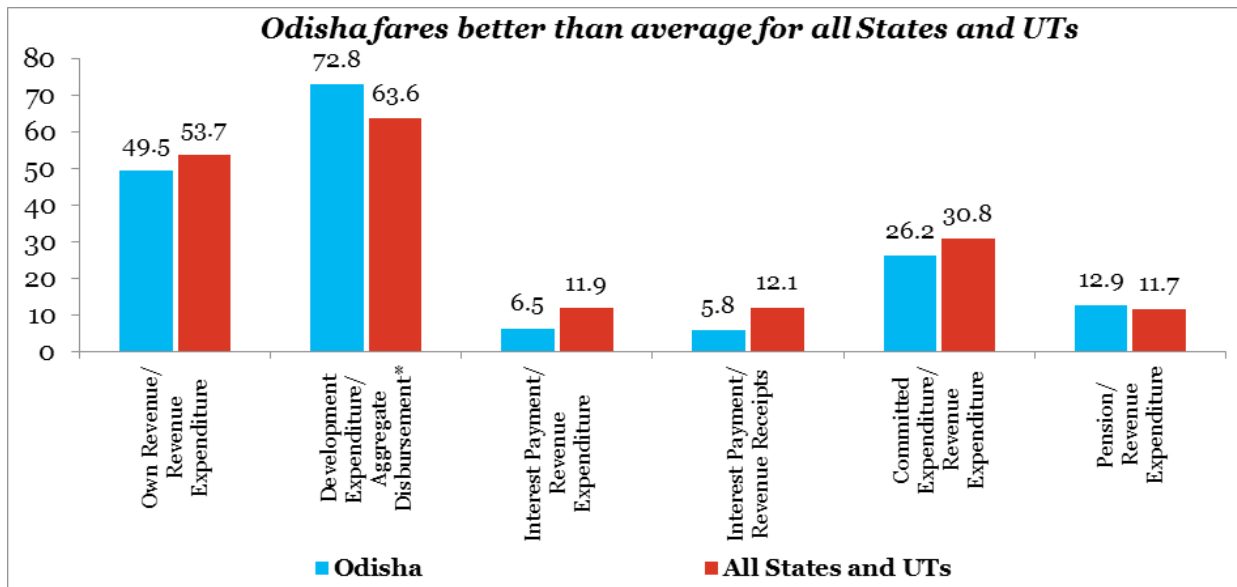
8.6 Quality of Expenditure

Key indicators

8.6.1 Odisha's performance on various indicators of quality of expenditure has fared well in comparison to all states. Figure 8.9 compares the performance of Odisha vis-à-vis all states, on average during 2017-18 to 2020-21 (BE). It is evident that Odisha has allocated expenditure more efficiently in comparison to other states. Odisha has the second highest allocation of aggregate disbursement towards developmental purposes, which is much higher than the average for other states. Further, allocation

of expenses towards committed expenditure like interest payments, pensions, salaries, and wages has been comparably lower than the average for other states. Pension expenditure as a proportion of total revenue expenditure, however, is marginally higher

Figure 8.10: Quality of expenditure (2017-18 to 2020-21)(BE)



Source: State Finances: A Study of State Budgets, RBI

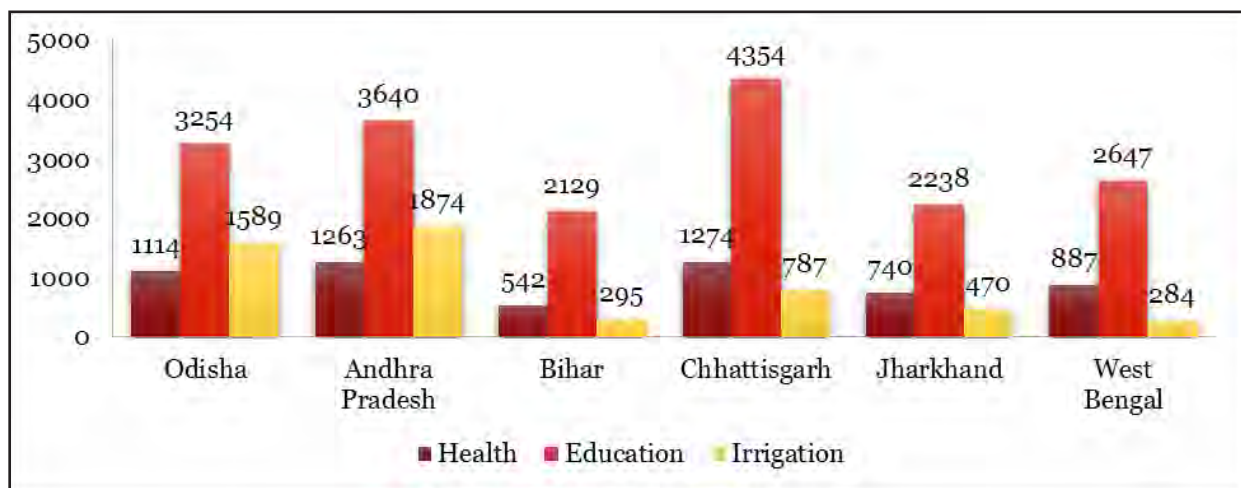
Per capita expenditure

Odisha's expenditure has been focused on developmental purposes, as highlighted in the previous section. The State has one of the highest developmental expenditure to aggregate the disbursement ratio. On an average, the Government of Odisha has spent INR. 16273 annually per capita for developmental purposes between 2014-15 and 2019-20 (RE).

The average per capita spending during the period from 2014-15 to 2019-20(RE) on health, education and irrigation of Odisha and neighbouring/ nearby States i.e. Andhra Pradesh, Bihar, Chhattisgarh, Jharkhand and West Bengal has been derived taking into consideration the data published by RBI in the "State Finances - A Study of Budgets" in 2016-17, 2017-18, 2018-19, 2019-20 and 2020-21 issue and projected population for States (2014-15 to 2019-20) published by MOSPI, Government of India on per capita GSDP.

The Figure 8.10 reflects the average per capita spending on health, education and irrigation of Odisha, Andhra Pradesh, Bihar, Chhattisgarh, Jharkhand and West Bengal. On comparison, it is revealed that the average per capita spending in Odisha on Irrigation is second highest i.e. Rs 1589 and third highest in respect of per capita spending on Health & Education amounting to Rs 1114 and Rs 3254 among the six States included for comparison. The State has been successful in providing for the developmental needs across most sectors along with maintaining fiscal discipline.

Figure 8.11: Average Per Capita Expenditure on Health, Education and Irrigation

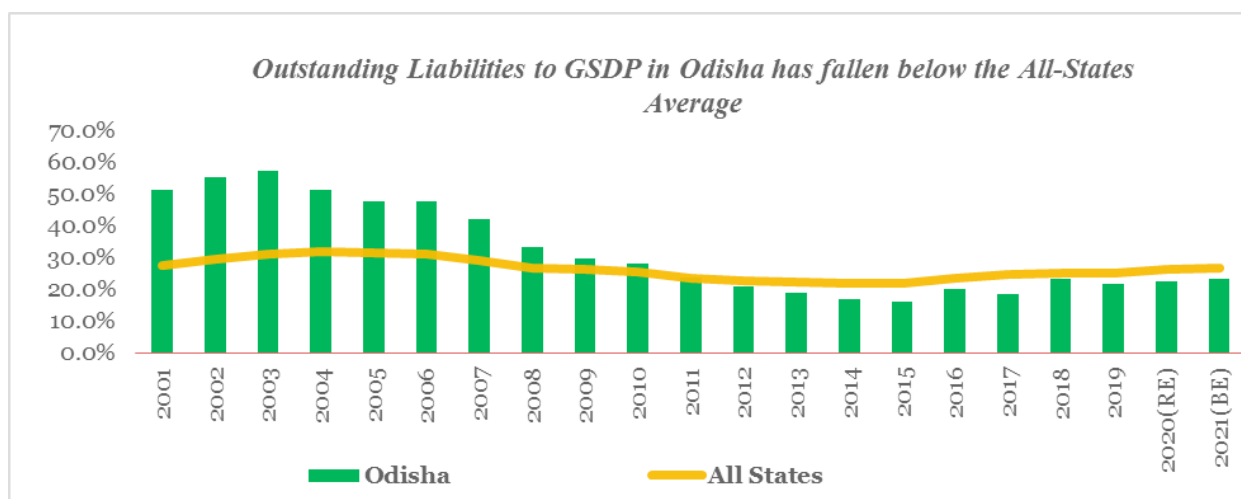


8.7 State's liabilities

Outstanding liabilities

8.7.1 Outstanding liabilities of Odisha have witnessed a sharp decline, with prudent measures undertaken to stabilise the fiscal position of the State. Odisha had the 4th highest total outstanding liabilities-to-GSDP ratio at 57% on 31st March 2003, against the all-states' average of 31%. The consistent efforts of the State Government have decreased this proportion to 23% as per the budget estimates for 31 March 2021 which is lower than the all-states' average (Figure 8.11). The total outstanding liabilities of the State stood at Rs. 1,37,544 crore as per the budget estimate of 2020-21.

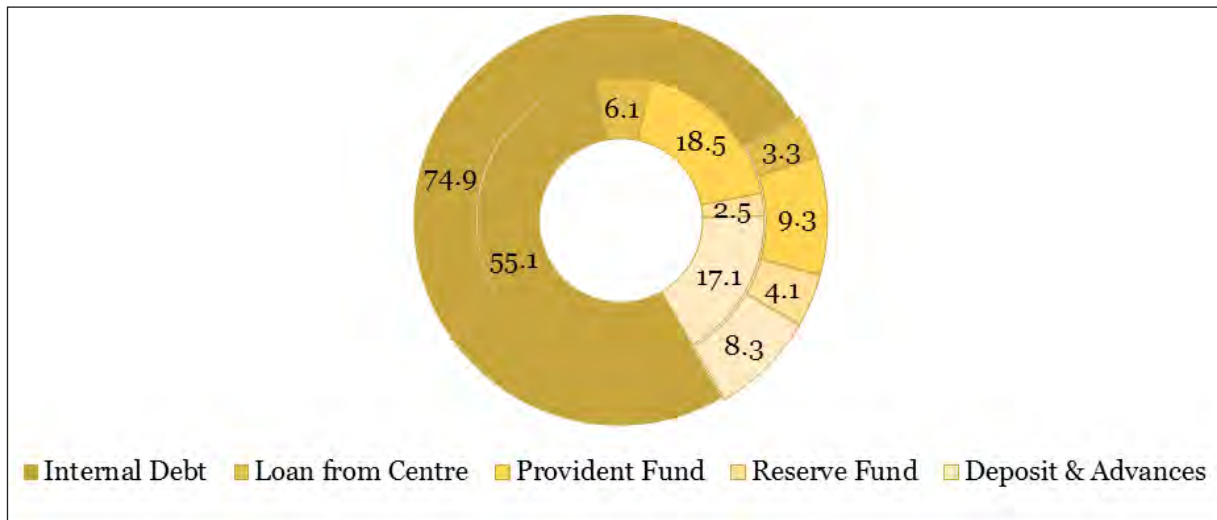
Figure 8.12: Ratio of outstanding liabilities to GSDP (as at end March)



Source: State Finances: A Study of State Budgets, RBI

8.7.2 Internal debts form the largest share (55.1%) of outstanding liabilities for Odisha as against the all states & UTs average of 74.9% (Figure 8.12).

Figure 8.13: Composition of total outstanding liabilities (In %) Odisha vis-à-vis India (as at end March, 2021)

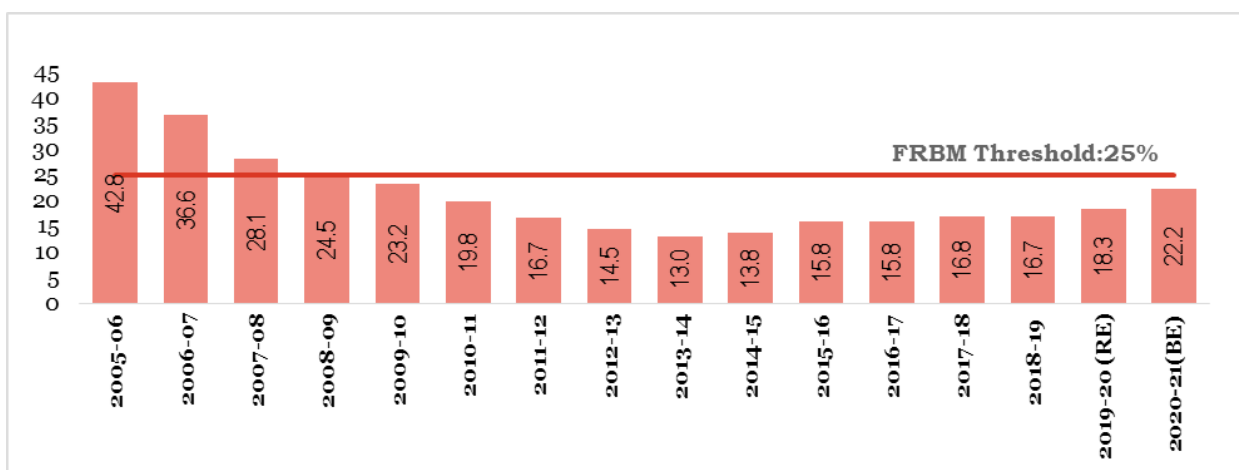


Source: State Finances: A Study of State Budgets, RBI

8.8 Debt Stock

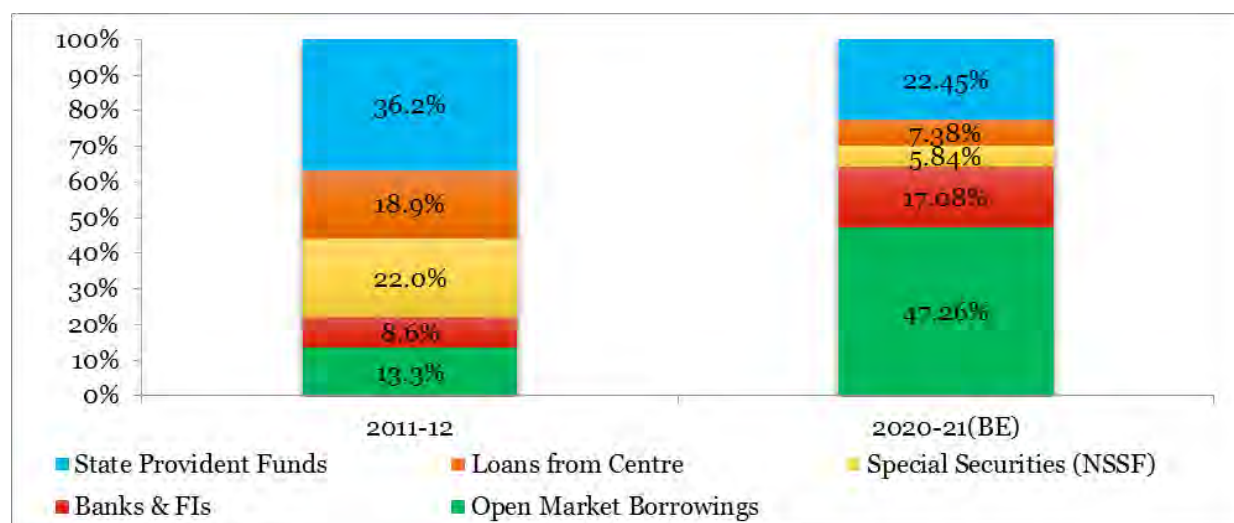
8.8.1 Debt stocks that form the largest component of outstanding liabilities have also witnessed a decline over the years. Debt Stocks as a proportion of GSDP stood at 42.8% in 2005-06, much higher than the limit of 25% set under the Fiscal Responsibility and Budget Management Act, 2005. The State had resolved to commit to the thresholds prescribed by the Act and it took strict measures in this context. The State has successfully been able to contain debt-GSDP below the threshold limit since 2008-09, as presented in Figure 8.13. However, with rising developmental needs, the debt to GSDP has been witnessing a rising trend since 2014-15. The total debt to GSDP is estimated to be at 22.2% in 2020-21BE, after declining to 13% in 2013-14.

Figure 8.14: Debt stock to GSDP



Source: Annual Budget documents, Odisha

Figure 8.15: Composition of debt stock



Source: Annual Budget documents, Odisha

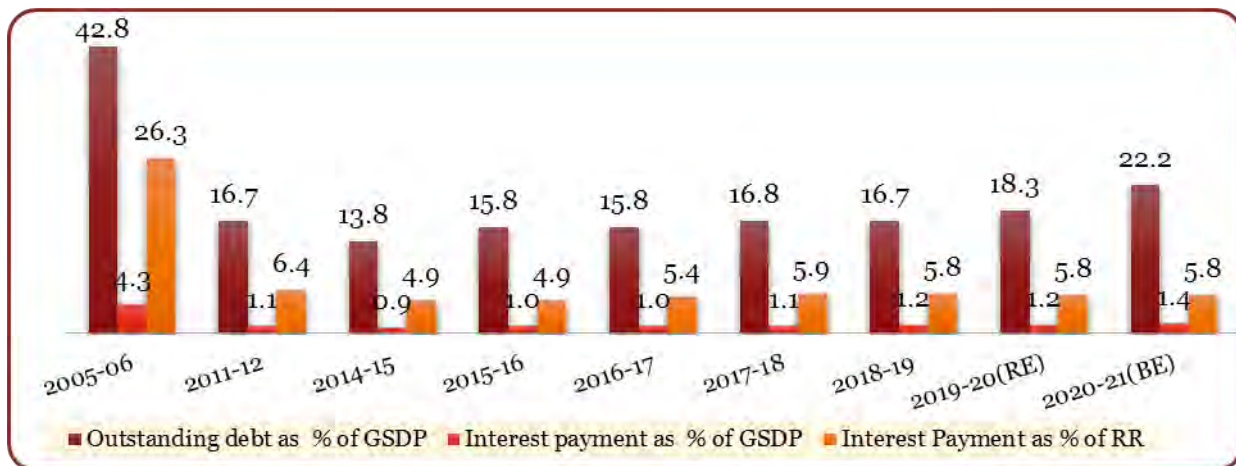
8.8.2 Composition of debt stock in the State has also witnessed a transition as the State has moved towards open market borrowings and borrowings from banks and other financial institutions (Figure 8.14). State provident funds and special securities (NSSF) were the largest contributors to the debt stock in 2011-12, contributing 36% and 22% respectively. With reducing dependence on state provident fund, open market borrowings and bank/FI loans have grown to 64%.

8.8.3 Higher growth rate in GSDP compared to growth in debt stock, coupled with low cost of borrowing, has made the fiscal policy of the State more sustainable. FRBM legislation as a fiscal policy rule has helped to achieve stability in state finances and efficiency in expenditure allocation. With a more stable fiscal position, the focus of the State is on improving the quality of expenditure, regular expenditure review, expanding the coverage of public services, and investing in social and physical infrastructure. These are critical to achieve higher inclusive growth rate on a sustainable basis. In order to fulfil this objective, the State has the fiscal space to opt for higher capital receipts to fund capital outlay in developmental sectors

Debt sustainability

8.8.4 The efforts of the State have allowed the debt position of the State to be relatively stable. The debt ceilings in the original FRBM Acts were linked to three indicators, viz., GSDP, revenue receipts and receipts in the consolidated fund of the State. The debt-GSDP ratio of a state represents the final outcome of all the budgetary transactions and is an important indicator of fiscal correction initiatives undertaken during the year. Consistent with the lower debt-GSDP ratio, an improvement has been noted in the debt sustainability. The consolidated outstanding debt of the State Government as a proportion of GSDP declined steadily from 2005-06 (42.8%) to 2020-21 BE (22.2%), reflecting the impact of the debt relief mechanism that incentivised the States' adherence to a rule-based fiscal regime.

Figure: 8.16: Debt Sustainability

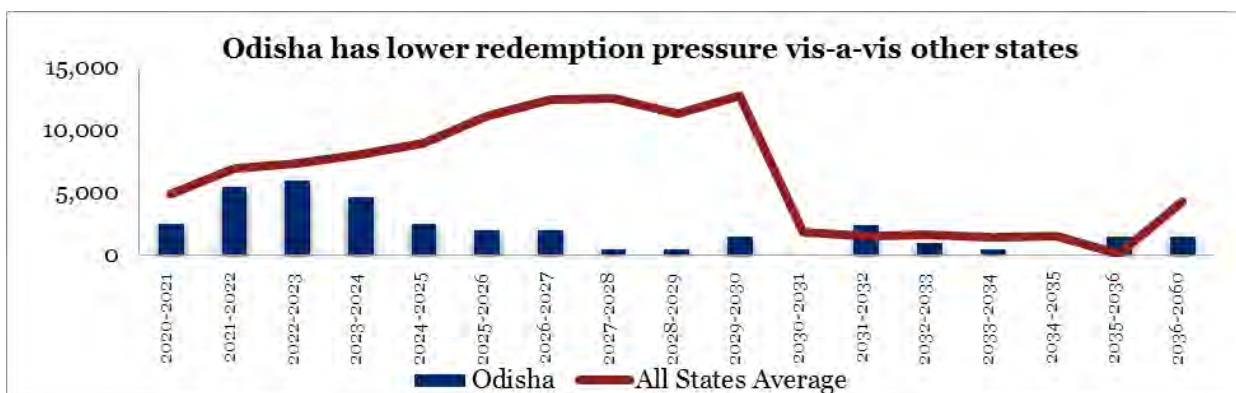


8.8.5 The State Government is able to contain its interest payments to revenue receipts ratio (IP-RR), which decreased from 26.3% in 2005-06 to 5.8% in 2019-20 (RE) (within 15 per cent). The consolidated debt-GSDP ratio of the State Government declined from 42.84% in 2005-06 to 22.2% in 2020-21 (BE), which is much lower than the target of 25% stipulated by the 14th FC.

Maturity profile of outstanding state government securities' liabilities

8.8.6 The maturity profile of Odisha highlights near term redemption, reaching INR. 6000 crore in 2022-23. About 50% of total amount outstanding is expected to be repaid/refinanced in the next five years (as per the status on end March 2020). In comparison to other states, the maturity profile of Odisha is much less worrying (Figure 8.16). With low borrowing, the State has much lesser debt obligations.

Figure 8.17: Maturity profile of Odisha vis-a-vis other states



Source: State Finances: A Study of State Budgets, RBI

8.9 Impact of Goods and Services Tax

8.9.1 GST was introduced with effect from 1st July, 2017 across the country. 17 taxes/ surcharges levied by Centre and States have been subsumed in GST. As per the provisions made in the Constitution (One Hundred and First Amendment) Act, 2016, the states will be compensated for any loss on account of introduction of GST for five years. For the purpose of compensation, collection of the taxes subsumed in GST in the year 2015-16 has been taken as the base year collection and 14% has been taken as the

annual growth rate. Growth rate of 14% is applied annually to the base year's collection to determine the projected collection in a year.

8.9.2 GST collection and compensation

Goods and Services Tax collection in Odisha has remained below the protected revenue every year since implementation mainly because of structural issues. The revenue loss sustained on account of lower and zero rated GST items like food items, minerals could not be made good from the items earlier covered under service tax. The compensation on account of the loss is being received from the compensation pool though with a time lag. The compensation claim position since inception of GST is presented in Table 8.5.

Table 8.5: Claim of Compensation Position 2017-18, 2018-19 & 2019-20
Base Year Revenue (2015-16): 11049.34

(INR in Crore)

Sl.No	Description	2017-18 (From July- March)	2018-19	2019-20
1	Protected Revenue	10769.79	16370.08	18661.89
2	Actual Revenue collected as per Section 7 of GST Compensation Act	8421.71	12129.00	13329.96
3	Compensation claimed	2348.08	4241.08	5331.92
4	Compensation received	2348.08	4241.08	5122.00
	Balance to be received	0.00	0.00	209.92

8.10 COVID and its impact on State finances

8.10.1 In the current FY-2020-21, COVID-19 affected all sectors of the economy. There is major shortfall of revenue from all sources. Central transfer was also affected. On the other side, the State had to incur additional expenditure for COVID management as well as providing livelihoods. However, the capital works could not be taken up in large scale due to lockdown imposed to save lives. On the other hand more IT enabled services emerged.

8.10.2 Responses of the State Government to Covid-19 Pandemic: The State Government has taken a number of steps to manage finances of the State during the Covid-19 pandemic. Table 8.5 highlights the steps undertaken by the State Government.

Table 8.6 - Responses of Odisha to Covid-19 to manage State Finances

Sl No	Initiative	Description	Supporting Circular/Notification
1	Existing budget provision of Health & Family Welfare substantially hiked	In the Annual Budget, 2020-21 of Health & FW Department was originally enhanced from actual expenditure of INR.6155 crore in 2019-20 to INR.7,300 crore in Annual Budget, 2020-21 (19% increase) besides providing another INR.1769 crore in Supplementary Budget. Adequate provision in Health Budget could help in smooth COVID response.	Budget documents
2	Enhancement of the Corpus of the Odisha Contingency Fund	The corpus of the Contingency Fund has been enhanced from INR. 400 (Rupees Four Hundred) crore to INR. 2,000 (Rupees Two Thousand) crore temporarily. This provided the required fiscal space for aggressive COVID response.	Odisha Gazette Notification No-3726-I-Legis-16/2020/L
3	Open Market Borrowing with shorter tenure bonds	Availing State Development Loans of shorter tenure from the Open Market. Such bonds of shorter tenure (usually less than 5 years) are cheaper than the longer tenure (usually 10 years or more) bonds. This would be useful in meeting the immediate requirement of fund in combating the pandemic COVID-19.	The State availed INR.1000 crore on 7 th April and INR. 2000 crore on 13 th April, 2020 with maturity less than 5 years.
4	Borrowing from dedicated funds - CAMPA and OMBADC	Innovative way to avail cheaper sources of financing from dedicated funds to maintain required liquidity during the crisis period. The cost of such borrowing is about 150-200 basis points lower than Open Market Borrowing.	Forest & Environment Department No-10 F (cons)-09/2020-6737/ F&E dated 31/3/2020
5	Using Consolidated Sinking Fund (CSF) Corpus for OMB repayment.	The repayment cost of Open Market Borrowing (OMB) for INR.2,500 crore was met out of the corpus of CSF, which provided the State this much liquidity in the crisis year.	FD Letter No-16413 Dt.30.05.2020
6	Payment of pending dues of MSMEs, Industries, Municipalities and Utilities	In view of the sharp drop in revenue earning of MSMEs, Industries, Municipalities and Utilities which supply goods and services to the State Government, directives were issued for clearance of pending dues to these organizations early.	FD No- 15352/F dtd. 16/5/2020
7	Revenue Augmentation Measures	<ul style="list-style-type: none"> ● Mopping up of government money parked in bank accounts through continuous monitoring. So far the State Government has collected about INR.2,700 crore from the source. ● Windfall collection of Mining revenue (About INR.2000 crore) and Stamp duty (About INR.1600 crore) for renewal of mining leases. ● Introduction of One Time Settlement (OTS) schemes for realization of arrear revenue. 	FD No -15343/F dtd. 16/5/2020

8.11: Reform in Budget making process

8.11.1 The State Government has been laying emphasis in bringing reforms in budget making process in the area of accessibility, understanding and participation by general public in budget making process and improving budget credibility. Recognizing the outcomes of the reform efforts, Odisha has been ranked third among all States in India in a recently published second report of the Transparency International on “Transparency in Budget process”. With objective to further improve our budget credibility, the State Government has introduced “Strategic Budget making process” for preparation for the budget for the ensuing year.

8.11.2 A Medium-Term Fiscal Framework (MTFF) has been introduced to provide a three-year outlook for the fiscal deficit, revenue, and a spending ceiling consistent with the deficit. This framework will significantly enhance the credibility of fiscal policy, allow for improved planning, and give a better signal to stakeholders on what to expect from future budgets.

8.11.3 Consistent with global best practices, the budget process for FY 2021-22 started with advance communication of a realistic budget ceiling aligned with the fiscal deficit objective. This ceiling was communicated to departments early in the budget process, allowing them to plan their budgets based on realistic resource allocations and deadlines. This approach also introduces a budget discussion focused on how available funds will be spent, rather than one based on unrealistic wishes.

8.11.4 Fiscal Risk Management and reporting exercise has been taken up by Odisha based upon international best practices with Technical Assistance from IMF. A fiscal risk register has been developed comprising of all kinds of risk including calamities, debt, guarantees, PSU risk, PPPs etc and is updated on continuous basis. A comprehensive Fiscal Risk Statement is proposed to be brought out along-with Annual Budget, 2021-22. Reserve Bank of India has highlighted “Fiscal Risk Management practice in Odisha” as a best practice in their publication “State Finances: A Study of Budget, 2020-21” at p-34-35 as a box item.

COVID-19: Impact, Response, and Challenges

For over a year the whole world is fighting against the new disease of Covid-19, caused by coronavirus SARS-CoV 2. It has affected more than 200 countries and millions of people, with frightening morbidity and mortality figures. The World Health Organisation (WHO) has declared the coronavirus disease a pandemic. The first case of Covid-19 in India was reported on 30 January 2020. A Bhubaneswar student studying in Italy was diagnosed as the first Covid-19 positive case of the state on March 16, 2020. The state recorded its first death from the novel coronavirus disease on 7 April, 2020. It took 113 days i.e., from 16 March to 7 July 2020, for Odisha to register its first 10,000 cases. The next 10,000 cases came in just 15 days, indicating high speed spread of the infection. As at 11:16 hours on 31 January 2021, India had 10,720,971 coronavirus cases, 103,93,162 recovered/discharged cases, 1,69,284 active cases and 1,54,047 deaths while Odisha had 3,35,072 coronavirus cases, 3,32,103 recovered/discharged cases, 1,010 active cases and 1,906 deaths accounting for 3.13 per cent, 3.2 per cent, 0.6 per cent and 1.24 per cent of cases in India respectively.

Covid-19 has caused massive damage to the economy of Odisha. All the major economic activities in the state remained paralysed for more than two months. But with active government intervention and advance action, the spread of the virus could be controlled and the economy is gradually returning to its track. Prioritising equity, strengthening the public healthcare system, and advance preparedness need to be taken more seriously.

9.1. Introduction

Both globally and locally, 2020-21 has been a year of great disaster. Started as a health pandemic, it spread into all sectors and affected all sections of the population. The most worrying casualty is the economy. In fact, the economic harms due to the Covid-19 outbreak have been aggressively greater than its health risks. Strengthening, or at least, reviving the economy's fundamentals has been enormously daunting. As part of the process of evolving through the Covid-19 crisis, assessment of the response of the government to minimize the devastating effects and of the impact of the disaster on the economy is being undertaken both at macro and micro levels. This chapter is, therefore, devoted to assessing the spread, response, impact and policy implications of Covid-19 in the context of Odisha.

9.2. Status of COVID-19 in Odisha

The first confirmed case of Covid-19 in Odisha was detected on 16 March 2020. Since then the number of positive cases increased till September where after it has shown a decreasing trend. The month-wise trend is given in Table-9.1, and the cumulative figures are shown in Table 9.2. The district-wise number of Covid-19 confirmed, recovered and deceased cases in the state in absolute series have been presented in Annexure 9.1, 9.2 and 9.3 respectively.

As can be seen in Table 9.1, the month-wise number of tests conducted, negative, positive and recovered cases at the state level have shown an upward trend from March to September 2020 but a decreasing trend has been noted there after. The number deceased rose till October and it lowered in November and December. The cumulative figures in Table 9.2 show the total numbers of tests, negative, positive, recovered and deceased cases at 5642407, 5327136, 315271, 306727 and 1671 respectively as on 20 November 2020. As many as 306727 persons out of 315271 positive cases or 97.29 per cent have recovered while 2.18 per cent have remained active and only 0.53 per cent succumbed to Covid-19. The very low and insignificant death rate at once points to the astounding success of the government in keeping the fatality rate at a lower level in spite of a very high positive case load.

Table-9.1: Monthly Trends of COVID-19 in Odisha in Absolute Series

Month	Total Testing	Total -ve Cases	Total +ve Cases	Recovered	Deceased
Mar-20	610	606	4	0	0
Apr-20	33523	33384	139	41	1
May-20	121557	119596	1961	1085	6
Jun-20	114988	109776	5212	4063	18
Jul-20	258030	231867	26163	15329	162
Aug-20	1311146	1238064	73082	56769	316
Sep-20	1460790	1344617	116173	108414	356
Oct-20	1301216	1232125	69091	90049	472
Nov-20	1040547	1017101	23446	30977	340

Source: Authors' Compilation from state dashboard.odisha.gov.in

9.3. COVID-19 in Odisha: A Comparative Perspective

Odisha has performed remarkably better both in terms of recovery rate and mortality rate when seen in a global and national perspective.

As on 9 December, 2020 62.1 lakh tests were conducted in Odisha among whom 321913 tested positive. From among those who confirmed Covid positive, 316970 recovered, 1837 succumbed to the virus and

3106 remained active on that date. Analysis of Covid-19 cases in Odisha in a comparative framework reveals that the number of confirmed cases per million populations and the recovery rate are significantly higher and the fatality rate is commendably lower in the state as compared to the situation at the all-India level and in many states and union territories of the country. The probability of positivity, that defines the value of chances a person tested will confirm positivity, is only 0.05 in the state. The government deserves kudos for its proactive approach, timely action, well heeling exercises and effective policy implementation. It is revealed from the table that the number of confirmed cases per million population at 7341 and the recovery rate at 99.42% are higher while the death rate at 0.58 per cent is lower when seen vis-à-vis the respective figures for India at 7228, 98.49 per cent and 1.51 per cent. Odisha’s performance in terms of recovery and death rates are far better than many major states in the country and that too with a relatively large number of confirmed positive cases.

Annexure 9.6 portrays the Covid situation in Odisha in comparison to India and the world as a whole as on 14 November 2020. The recovery rate in Odisha was estimated at 96.43 per cent which was much higher when seen in the global context (66.44 per cent) and in the context of India (93.07). The mortality rate in Odisha at 0.49 per cent compares very favourably with those for India (1.47) and the world (2.43).

Table-9.2: Monthly Trends of COVID-19 in Odisha in Cumulative Series

Month	Total Testing	Total - ve Cases	Total + ve Cases	Recovered	Deceased
Mar-20	610	606	4	0	0
Apr-20	34133	33990	143	41	1
May-20	155690	153586	2104	1126	7
Jun-20	270678	263362	7316	5189	25
Jul-20	528708	495229	33479	20518	187
Aug-20	1839854	1733293	106561	77287	503
Sep-20	3300644	3077910	222734	185701	859
Oct-20	4601860	4310035	291825	275750	1331
Nov-20	5642407	5327136	315271	306727	1671

Source: Authors’ Compilation from statedashboard.odisha.gov.in

9.4. State’s Response

Ever since the detection of the first confirmed case of corona virus on 16 March 2020 in a 33-year-old Italy returnee Bhubaneswar researcher who landed in New Delhi on 6 March and travelled to the state capital by train on 12 March, government of Odisha has been a pioneer in the fight against Covid-19 and has taken a series of measures - both conventional and innovative - to contain the spread of the pandemic. Early in the pandemic, Odisha saw the crucial importance of a rapid and decisive response. The following steps have been taken.

9.4.1. Odisha the Leader

9.4.1.1 Odisha established the state’s first Covid-19 testing facility at the Regional Medical Research Centre (RMRC), Bhubaneswar on 9 March 2020, a week before the first confirmed case of corona virus was reported in Bhubaneswar on 16 March.

9.4.1.2 The Chief Minister took an emergency meeting of the Natural Calamity Committee on 13 March 2020 in which Covid-19 was declared as a state disaster under the aegis of ‘Disaster Management Act,

2005', one day before Government of India's declaration of Covid-19 as a national disaster.

9.4.1.3 The Odisha government was the first to announce, in the evening of the Prime Ministerial Janata Curfew on 21 March, a week-long lockdown from 22 March till 9 PM of 29 March in the first phase urging people to stay home and move out only for strictly basic services in a bid to contain the spread of coronavirus; Government of India announced a country-wide lockdown from 24 March for 3 weeks. The state was also the first to extend it before the expiry of the first phase lockdown.

9.4.2. Publicity and Digitalization

9.4.2.1 The government made continuous publishing of safety measures on Covid-19, enlightening the public of the dangers of the pandemic and the urgency of practicing precautionary as well as preventive measures through authorized spokespersons and experts in electronic, print and social media, regular special press briefings, and putting posters in public places.

9.4.2.2 The following phone numbers were created and still remain functional in the state: State Covid Helpline Number: 104, Smooth Movement of Goods: 0674-2620200 (Police), Odia Workers Stranded in other States: +0674-2392115 (Home Department), People of other States stranded in Odisha: +1800 34567 03 (Office of Labour Commissioner), SANJOG Helpline: 155335 (For grievances by Traders / Shopkeepers / Wholesalers), and Grievances regarding essential Health Services: 9439996555.

9.4.2.3 The state had the 'foresight to use data and analytics' to closely monitor suspected Covid-19 cases, enforce social distancing, and increase the capacity of testing and medical treatment to deal with the crisis. Accordingly, in dealing with the Covid-19 pandemic, Government of Odisha have built, shared and closely monitored data-driven Odisha State Covid-19 dashboard in collaboration with SAS and CSM Technologies. This has enabled the state to have a unified data portal that is used for:

Registering and tracking known Covid cases.

Monitoring adherence to quarantine requirements.

Sampling, testing and notification.

Managing patients.

Mapping infrastructure and optimizing medical resources.

Issuing travel passes for stranded visitors.

Monitoring incoming worker registration and border protection.

Managing medical outposts.

Determining benefits eligibility.

The Dashboard is used to communicate crucial information to citizens and administrators alike on Covid, for using data to make proactive decisions and for taking action to contain the spread of the virus and save lives.

9.4.3. Restrictions

The government was innovatively prompt in imposing and enforcing restrictions on congregations of people, closure of all educational institutions, cinema halls, gyms etc. as also government offices other than those directly providing essential public services, cancellation of conferences etc., regulation of socio-religious gatherings including funerals, and appealing all to follow social distancing, practice

frequent handwashing and ensure proper sanitisation. All districts of the state were divided into three zones viz. Red, Yellow and Green in descending order of gravity of Covid-19 situation for imposition/relaxation/non-imposition of stringent restrictions to fight virus spread.

9.4.4. The COVID Warriors

In order to instill security and confidence and to boost the morale of public officials engaged in Covid-19 duty, the government of Odisha announced four months advance salary for doctors-nurses-paramedics. Provision of financial assistance of Rs.50 Lakh from the CMRF to spouse/ next of kin of government officials who succumb to Covid-19 while in active line of duty in the fight against corona virus (the Covid warriors) and are not given assistance by the central government was also announced.

9.4.5. Migrant Management

During April-September 2020, 853777 migrants returned to Odisha (the maximum from three states i.e. Gujarat, Tamil Nadu and Kerala), and the state government paid Rs 9 crore to the East Coast Railway (ECoR) towards the transport cost of the migrants in 277 Shramik special trains. The government also arranged for their segregated accommodation with free food and other amenities in designated panchayat and block level Covid-19 camps to see that the virus does not spread to the non-migrant locals. A toll-free number and web portal were launched for registration of the returnees from outside the State, and a dedicated online 'Grievance Redressal Portal' was set up for them. The state adopted a 'decentralized approach' to management of Covid-19 through giving Sarpanches in Gram Panchayats the powers of District Collectors in their respective jurisdictions and involving them to take care of the home migrants in local quarantine centres.

9.4.6. Governance Framework

Approval of the Odisha Covid-19 Regulations 2020 containing certain measures to support the personnel fighting Covid-19 in the State, permitting Directors of Public Health, Health Services, and Medical Education & Training state-wide jurisdiction; Collectors of districts, Commissioners of Municipal Bodies, District Medical Officers, Sub-Collectors, Tahasildars and Executive Officers of ULBs to act in their respective jurisdictions to have a close eye on the Covid-19 situation and to take mitigation measures are some of the administrative steps in the right direction. In line with its objective of providing 'effective governance' through a strong governance framework, the government constituted and operationalised an 'Empowered Group of Ministers' and the Chief Secretary led 'Committee of Secretaries' for expeditious decision making and fruitful implementation of the response measures. Control rooms were set up and functionalised to review progress, share best practices, issue further guidance, and take corrective actions, if needed.

9.4.7. Budgetary Allocation

The Odisha government, soon after declaring Covid-19 a state disaster, on 13 March approved a Rs.200 crore package to deal with the public health challenges by augmenting the Public Health Response Fund to combat the threat of the virus. A package of Rs.2200 crore was announced by the government on 27 March to deal with the impact of the Covid-19 on the economically weaker sections of the society. Advance distribution of food grains (Rice) for 3 months, payment of Rs.1,000 each to 94 lakh poor families and pension to 48 lakh persons, and financial assistance of Rs.1,500 each to 22 lakh construction workers have been parts of the financial package.

The Cabinet approved Rs.17000 crore Special Livelihood Intervention Plan on 30 May to generate employment and boost income opportunities in agriculture, fisheries, animal husbandry, forestry, handlooms and handicrafts sectors. It includes Rs.9,700 crore assistance to 68 lakh farmers in terms of loan, interest subvention and insurance; Rs. 200 crore support to 24.56 lakh farmers in terms of provision of quality seeds, support to betel vine farms, mushroom farming and flower cultivation. An amount of Rs. 111.47 crore has been provided to support 38,900 farmers in the fisheries sector that includes creation of 2000 hectares of new fish ponds, input assistance to 1500 WSHGs, livelihood support to marine fishermen, and setting up of 4,500 new broiler farms and 750-layer farms in cage system; another Rs. 6,640 crore to generate employment for 46.45 lakh persons through MGNREGS. A new textile park in Dhamara and medical park in Dhenkanal has been proposed and Rs. 140 crore would be spent on skill development of 40,000 migrant workers.

The provision of Rs.1484 crore towards disaster management funds in the supplementary budget presented in the state assembly on 21 November for providing healthy food, livelihood etc. in the fight against the virus is well understood. The packages in handloom, textiles and handicraft sector, MSME and Mission Shakti which are fully funded and will ease the Covid impact have also received applause from all quarters.

9.4.8. Health Infrastructure, Collaboration and Capacity Building

9.4.8.1. Odisha was the first in the country to establish two dedicated standalone model 'Covid-19 Care Hospitals' in the Bhubaneswar-Cuttack twin city with a bed strength of 1000 in just a week as early as April 2020- the OMC funded KIIT Covid Hospital in association with KIMS having 500 beds and the MCL financed SUM Covid Hospital with 500 beds. These facilities were created with CSR funds of the respective companies in partnership with the two private hospitals. Subsequently with increase in positivity caseload, dedicated district Covid hospitals (DCH) were set up in all districts and private hospitals were roped into ensure accommodation and treatment of all confirmed-positive patients. Besides, CCCs and TMCs were created for lodging and treating positive cases with mild systems and grassroots level surveillance workers were trained for an intensified door-to-door survey for contact tracing, identifying symptomatic cases and isolation and quarantine of Covid-19 suspects. The state's decision to provide free treatment to patients at dedicated Covid hospitals unmixed with general healthcare infrastructure was also welcomed at all levels.

9.4.8.2 Collaboration with the private hospitals in expanding the surveillance to **trace Influenza-like Illnesses (ILI) and Severe Acute Respiratory Illnesses (SARI) cases proved helpful** in identifying risk patients, groups and areas, and taking quick control measures.

9.4.8.3 The state has effected substantial increase in testing capacity, training of doctors, nurses, paramedics, AYUSH, sanitary workers, police, frontline health workers, and volunteers, provision of telemedicine services to patients, GIS mapping in health sector, and mentoring among public health experts involving medical colleges, WHO, UN agencies, Indian Council of Medical Research (ICMR), and Indian Institute of Public Health (IIPH) for providing support to health facilities at district level that helped in remarkably enhancing the quality of healthcare in Covid times. Training was also imparted to members of Self-Help Groups (SHGs) who played a vital role in leading awareness campaigns in the rural areas and in making and supplying the much-needed face masks.

9.4.9. COVID Memorial

9.4.9.1 On the eve of New Year 2021, the state government announced plans to build a Memorial

in Bhubaneswar for the Covid-19 warriors who laid their lives while on Covid duty with their names inscribed in the Memorial to keep their memory live because they did their best for the people for which the state could stand tall against the pandemic.

9.4.9.2 The Car Festival at Puri was observed without hype and the three chariots were pulled only by the Sevayats under a 41-hour shutdown in the district just to avoid large congregations and spread of the virus.

Early appreciation of the epidemic threat and planning, aggressive contact tracing, vigorous testing drive, efficient management of lakhs of migrant returnees, efficacious public engagement, fruitful use of social capital, personalized and innovative management approach, banking on past experiences in handling frequent disasters with a two-pronged strategy of evolving and utilizing physical and intellectual infrastructure, and above all strict enforcement of Covid-19 measures of lockdown, shutdown, face mask use, social distancing etc. have helped to keep the spread of disease under control.

'Remaining calm but not complacent' has been the mantra and the excellence of disaster preparedness experienced in fighting frequent natural calamities has been the main driving force behind the response of the state government in managing the deadliest ever Covid-19 pandemic. Odisha reaped the '*advantages early-birds have over night-owls*'. The World Health Organization, in an article published on its website have, rightly applauded the state's effective governance mechanism and community-based management strategies that have helped it in keeping the positive caseload low in Odisha (WHO, 2020). The state's response and its success in fighting Covid-19 have earned it the label '*Odisha model of Covid management*' all across the country.

However, state action, alike any best ever implemented plan anywhere, has not been without some pitfalls. In some places some of the quarantined people eloped from the quarantine centres challenging the authorities while in some others some evaded screening and in still some cases people submitted wrong identification, address and telephone numbers resulting in greater virus transmission and difficulties for contact tracing.

Complaints of smaller number of tests in the initial months and reliance on antigen tests that accounted for nearly 85 per cent of total tests, as against the Government of India specification of half of the tests to be RTPCR type, leading to increase in number of per day deaths from 7-9 to 11-15 were also raised. Of course, effective management has lowered the number of deaths to about zero by 6 January 2021. The state has one of the lowest Covid-19 mortality rates among the Indian states at 0.6 per cent against the national average of 1.51 per cent. This has brought a shy of relief and the government has stopped admission of patients to private Covid Hospitals except Sum Hospital and Aditya Aswini Hospital in Bhubaneswar.

9.5. Lives or Livelihoods vs. Lives and Livelihoods

The state faced multiple problems in managing the disaster. The biggest of these has been choosing between saving lives and providing for/protecting livelihoods. Saving lives demanded imposition of stringent restrictions and subsequently increasing and extending them across space and over time. These include mandatory wearing of face masks, use of handwashing sanitisers, social distancing, containments, quarantines, lockdowns, shutdowns etc. which led to closure of factory/manufacturing establishments and MSMEs, decline of informal sector activities, and the resultant massive reverse migration and increase in joblessness and loss of livelihoods. Providing for livelihoods warranted easing restrictions, unlocking and lifting shutdowns. The choice, by analogy, is one of opting between the

devil and the deep sea, indeed a highly intricate dilemma for the government that made policy making still more challenging. The gross uncertainties associated with the pandemic made prioritizing all the more difficult.

It is pertinent to note that initially, the government of Odisha decided to save the lives before saving the livelihoods and responded to the crisis with interventions accordingly. It may also be noted that if lives are not saved, then whose livelihoods would have to be ensured and equally, if the livelihoods are not provided, then people would not obey the movement regulations and other measures for saving lives ultimately causing loss of lives. Hence, although saving lives was the concern initially, subsequently the focus shifted to saving both lives and livelihoods.

With the express objective of restoring rural livelihoods, reviving rural enterprises and rehabilitating skilled and semi-skilled returnee migrant workers, the Odisha government, under the aegis of Panchayati Raj Department, designed a special, composite integrated Covid-19 assistance package (CAP). Comprising four elements, the CAP has been implemented in convergence of existing schemes in progress under the Odisha Livelihood Mission, Mission Shakti, District Mineral Foundation Fund, Odisha Mineral Bearing Area Development Corporation, and Particularly Vulnerable Tribal Groups (PVTGs) empowerment and livelihood improvement programme. The four components are:

9.5.1 Easy start up finances up to Rs.50,000 with a low interest rate for the rural enterprises, working capital support to nano and micro enterprises (small eateries, vegetable retail shops, tea shops, bakeries, tailoring, weilding, automobile mechanic shops etc.).

9.5.2 One-time financial assistance up to Rs.1.5 lakh to existing enterprise groups and producers' groups.

9.5.3. Individual assistance up to Rs.20,000 to enterprises and livelihoods run by vulnerable households and persons with disabilities, PVTGs, widows, destitutes, single woman, elderly and persons with chronic illness.

9.5.4 Funding support up to one lakh rupees as start up support to skilled and semi-skilled returnee migrants for taking up tailoring, jewellery, catering, carpentry, mobile sales and service etc.

9.5.5 Additionally, a Rs.17,000 crore package was provided for generating employment and income generating activities for the home migrants in agriculture, fisheries, animal resource development, MGNREGS, forest, handlooms and handicrafts etc. activities. The government also announced its aim of doubling man-days under the MGNREGS. The major concern here obviously is to contain the spread of Covid-19 and create employment opportunities for returnee migrants and vulnerable people in rural areas.

9.6 Impacts on the Economy

The corona virus outbreak and the government measures of intervention to contain its spread sent shock waves throughout the economy of Odisha as elsewhere across the world. They led to huge loss to the households, business, service providers and the economy at large. Abrupt imposition of complete lock-down for more than two months in the initial phase and the concomitant stoppage of all economic activities, except supply of essential goods and services, resulted in heavy loss to the producers, traders, investors, employers and workers.

9.6.1 Agriculture

Among the different sectors of the state economy, agriculture, which makes up of dazzlingly complex market linkages connecting lakhs of farmers and agricultural workers, directly or indirectly, to millions of domestic consumers has been badly affected this year. The pandemic has a serious negative impact on the agriculture sector at all levels from field operations to marketing. Initially, when the government announced lockdown with transportation restrictions in response to Covid-19, harvesting and marketing of *rabi* crops, pulses, oilseeds and vegetables in particular, that were round the corner, were most severely affected. As movement of agricultural labourers were constrained and transport facilities remained shut down until mid-May, harvest operations had to be done manually with local labour at higher wages and transportation at higher cost. Although the state government announced procurement of pulses and oilseeds through state marketing federations, cooperative societies, regulated producer organizations and village marketing committees at declared minimum support prices beginning on 7 May, it was capped at 3 quintals per acre per farmer and the benefits were limited only to registered farmers thus limiting the effectiveness of these mitigating measures. Majority of farmers including those who harvested little late (because their crop matured late) had to sell to local private traders at low prices and also suffer post-harvest losses (as they could not sell their harvest immediately upon harvest and had to store it). The government was responsive enough to announce procurement of *rabi* paddy in May but again, farmers who registered availed of the opportunity including those who had unsold stocks of *kharif* paddy.

The case of vegetable growers exhibited both incomplete harvest and local sales at throw away prices due to lack of demand. A large number of vegetables that are ripe and about to ripen could not be harvested fully and sold normally, and some even rotted in the fields. Cessation of hotels, catering and vegetable processing enterprises, the bulk consumers of vegetables led to a sharp decline in vegetable demand and severe product wastage. Most vegetable crops, marked by their highly seasonal nature, were greatly affected by Covid-19 because of stringent transportation restrictions, lack of adequate storage and distribution logistics. Farmers in general had to spend more on wages and transport and were forced to sell at cast-off prices causing widespread losses in crop income. Livestock trading and markets have been shuttered in many places since these were considered to be a potential carrier of Covid-19. The producers of perishables, such as milk, poultry, and flowers, took a hit. Farmers' income had fallen severely. Leisure agriculture that combines agricultural production and leisure recreation, however, did better.

Though the government lifted stipulations in agriculture sector in phases, the real normalcy could come towards December 2020. Reduced geographical mobility of labourers due to non-availability of/ limited transport facility and their reluctance to move long distances adversely affected agricultural operations. In spite of best efforts of the state government, agricultural inputs could not be made available to farmers in time. No doubt, the farmers' proven resilience enabled them to keep the date with the farm calendar when economic activity was grounded to a grinding halt amidst the nationwide stringency, but the presence of flood like situations in some places, long dry spells in the pre-panic stage in some other locations and pest attack in some of the districts of the state during the second half of the *kharif* season directly told upon the production and productivity of the *kharif* crops and hence agriculture sector contributing immensely to its negative growth.

Within agriculture, livestock exhibited the highest decline with a -32.97 per cent growth in 2020-21 over 2019-20 followed by -4.27 percent growth in the crops sub-sector resulting in a -6.54 per cent growth in the agriculture sector as a whole. A summary picture of growth in agriculture in the state during 2020-21

is given in Table 9.3.

Table 9.3: Growth Rates of Agriculture and Allied activities at constant (2011-12) Basic Prices

Year	Agriculture & Allied Activities	Crops	Livestock	Forestry and Logging	Fishing and Aquaculture
2019-20 (1st RE)	11.92	18.49	3.26	0.04	9.19
2020-21 (A)	-6.54	-4.27	-32.97	4.20	3.25

Source: Directorate of Economics & Statistics, Bhubaneswar, Odisha

9.6.2 Industry

The industry sector is the largest sector with a 42.47 per cent contribution to the GSVA in 2020-21(AE). This sector of the state is hit heavily under the impact of the pandemic, mining, manufacturing and construction operations were shut for a substantial part of the year due to the Covid mandated transport and other restrictions and difficulties in getting raw material supplies and man power. In the case of pharmaceuticals, many had to extend their production capabilities to produce masks, sanitizers, and other pharma cleaning and hygiene products to minimize the adverse impact. They have also to succumb to pressure to maintain a positive supply of medicinal products. The personal care and cosmetics manufacturing industry that makes products related to skin care, perfume, haircare, and other goods faced weak demand. As a result of these changes growth rate of GSVA in industry sector plummeted to -8.83 per cent in 2020-21 over 2019-20. Within the broad industry sector construction was worst affected with -10.79 per cent growth followed by manufacturing at -9.90 percent and mining and quarrying at -7.88 percent in that order. The details are given in Table 9.4. The government responded to the crisis by revising the definition of priority and negative lists and downstream industries in the IPR-2015 to remove ambiguity in determining the eligibility of business units for various incentives and to provide value-added tax (VAT) reimbursement to industries. The process of granting trade licences has also been eased to reduce the burden on the business units. The state's industrial policy and labour laws were amended to revive various sectors. Several manufacturing operations restarted after unlocking of the economy suggesting business conditions are gradually returning to normal.

Table 9.4: Growth Rates of Industry at constant (2011-12) Basic Prices

Year	Industry	Mining and Quarrying	Manufacturing	Electricity, Gas, Water Supply & Other Utility Services	Construction
2019-20 (1st RE)	3.61	3.38	5.20	0.36	0.83
2020-21 (A)	-8.83	-7.88	-9.90	-0.78	-10.79

Source: Directorate of Economics & Statistics, Bhubaneswar, Odisha

9.6.3 Services

The services sector, which accounted for 41.88 per cent of the GSVA in 2020-21 and nearly a third of the state's employment is a leading sector of the economy. Growth of this sector has been severely constrained due to mobility restrictions on its customers as well as workers. Lockdown measures weighed

heavily on the activities in tourism, travel, hotels and restaurants, transport and communications sub-sector within the service sector. The slump in the service sector is evident from its negative growth at -3.18 per cent. Services sector activity started easing in September after the government lifted some restrictions, but demand continued to remain very low.

For instance, *tourist arrival* in the state, which was zero during April-September 2020 against 5539672 during the same period in 2019 increased to 215058 in October this year in comparison to 1540552 in the same month last year. Similarly, the *road transport sector* suffered a revenue loss of Rs. 192.6 crore or about 21 per cent during April- November this fiscal in comparison to the revenue collected during the same period last year. This has been largely due to 41 per cent decline in the sale of new vehicles, 65 per cent reduction in collection on account of various traffic rule violations, and such other negative factors. The Covid restriction relaxations could help the service sector move towards a recovery with the rate of contraction improving only marginally in Q2 towards slight positive growth in Q3. Available information on the impact of Covid- 19 on the service sector is captured in Table 9.5.

Table 9.5: Growth Rates of Services at constant (2011-12) Basic Prices

Year	Services	Trade Repair, Hotels and Restaurants	Transport, Storage, Communication & Services related to Broadcasting	Financial Services	Real estate Ownership of Dwelling & Professional Services	Public Administration and Defence	Other Services
2019-20 (1st RE)	6.92	4.34	6.38	12.89	-1.62	16.09	11.21
2020-21 (A)	-3.18	-12.48	-16.18	9.49	-7.24	21.09	1.33

Source: Directorate of Economics & Statistics, Bhubaneswar, Odisha

9.6.4 Economic growth

Pre-Covid, Odisha’s growth story was consistently and perceptively positive. The Covid-19 surge took an unprecedented toll on the state’s economy by creating both supply and demand shocks. Contraction in economic activity and government measures to minimise the adverse impact stemming from the Covid-19 pandemic, with frequent lockdowns, weak demand conditions and the temporary suspension of company operations led to shutdown of business, industries and services. In recognition of the adverse economic effects of lock down, subsequent lockdowns saw little liberal regulations and partial unlocking allowing activities like agriculture, construction etc. and arrangements for bringing home the stranded migrants. But with unlocking when alarming numbers of positive cases are detected, lockdown/shut downs are re-imposed partially or fully depending on the seriousness of the situations. This ‘locking, unlocking, relocking down’ of the economy by the authority to control the disease spread has exacerbated uncertainty and created disincentive for the producers and investors.

Subsequent easing of restrictions and growth stimulating measures implemented by the government could revive the economy, but the positive impact from unlocking has not been as strong as the negative impact of the lockdown. Both Gross State Value Added and Gross State Domestic Product collapsed in 2020-21. Total GVA growth at constant (2011-12) basic prices for the year has been estimated at -6.20 per cent. The advance estimates indicate a growth rate of real GSDP at -4.92 per cent and of per capita GSDP at -5.31 per cent. *The GVA Shock Intensity due to impact of Covid-19, measured as share*

in GVA for different economic activities, have been estimated at 14.1 per cent for agriculture, 11.8 per cent for mining and quarrying, 22.3 per cent for manufacturing, 7.5 per cent for construction and 41.1 per cent for services.

Table 9.6: Compound Annual Average Growth Rates of Gross State Value Added by Economic Activity at Constant (2011-12) Basic Prices

Sectors & Subsectors	(2011-12) - (2019-20)	(2011-12) (2020-21)	(2018-19) - (2019-20)	(2019-20) (2020-21)
Agriculture & Allied	3.77	2.89	11.92	-6.54
Industry	6.78	5.55	3.61	-8.83
Services	7.09	6.66	6.92	-3.18
Gross State Value Added	6.41	5.56	6.10	-6.20
Gross State Domestic Product	6.99	6.31	5.21	-4.92
Per capita GSDP	6.47	5.75	4.77	-5.31

Source: Directorate of Economics & Statistics, Bhubaneswar, Odisha

9.6.5. The Common Man

Many people continue to face deep financial hardship, some dipped into savings or retirement accounts, sell assets like land and others had to borrow money for paying their bills including rents and to make ends meet. The financial hardship is much more pronounced among people who lost jobs and/or wages.

9.6.6. The Poor and the Informal Sector

While the impacts are felt by most households, these are deeper and longer-lasting among the poor. These people are more vulnerable because of their limited access to health services, meagre savings and lack of insurance, excessive dependence on low paid-agriculture and service sectors, micro and family enterprises and urban informal service sector - all of which cannot be performed remotely and do not offer paid sick days either.

Fishermen folk, minor forest produces collectors, were hit one of the hardest. Construction workers (who constitute the vast majority of informal workers including women labourers after those in the agricultural sector), auto-rickshaw drivers, street vendors (selling essential commodities e.g. vegetables and fruits, semi-essential commodities e.g. road side eateries vending street food, and non-essential commodities e.g. cloth and plastics), domestic workers and people engaged in microenterprises, contractual faculty and guest teachers in educational institutions, and the tutors in coaching centres who are at the bottom of the labour hierarchy and are relatively more exposed and vulnerable to economic shocks, suffered a bolt from the blue. Livelihoods of street vendors which depend on being in public places have been hit hard by the unprecedented lockdown. With police prohibiting them and the absence of people during the lockdown, they lost their source of income.

Due to stringent restrictions on mining and logging activities and all types of construction works, people engaged in these activities were rendered jobless and hence penniless. Although cottage industry workers were allowed to work at home, their lot was no better because they faced trouble in buying the raw-materials and selling their produce. All these groups were forced to adopt coping strategies having dire consequences, such as the sale of productive assets like land or diminished investments in human capital.

Restriction on trade and commerce disrupted the supply chain and the consequential influence on the prices and hence the income of the producers has led to severe economic stress on the business and the consumers.

Ban/ restriction on social and religious activities, closure of tourist destination points, restrictions on event management and micro entertainment unit shave led to loss of livelihood for lakhs of workers.

9.6.7. Employment

The problem of job loss became widespread and has still been more acute among vulnerable groups. Very few have returned to their old job, some feel somehow relieved in a different job though with lesser income than before and those who didn't lose a job might have to work less hours to be content with lower wages/pay or take a pay cut. Women including those running sole proprietary home parlour work suffered severely in Covid times. Even maids, who are considered indispensable in normal times, lost jobs overnight because their employers and resident associations/ societies feared them as carriers of COVID and saw them as an imminent health risk.

9.6.8. The IT Sector

No doubt IT related companies/service providing agencies permitted (and have still been doing so) some of their workers to work from home often at reduced pay (and disengaged many), but this abrupt swap would obviously generate less output as many of the IT workers did not have adequate arrangements at home and the environment was not in readiness to facilitate the switching. For family holders this has been a critical encroachment on family time. Electronic work dispositions including economic transactions, seeking telephonic medical service, online teaching and learning, delivering e-lectures, conducting seminars -conferences-workshops-meetings through virtual mode are at best imperfect substitutes for conventional arrangements especially in a developing society like ours.

9.6.9. Education

The pandemic is hailed for causing a kind of academic crisis. In addition to curtailing the earning of the off-line private tutors, digital forms of teaching and learning are beset with difficulties of inaccessibility in remote areas and **problems in adapting to technology**, need of focusing on the screen for long periods of time with the possibility of the student getting distracted by social media or other sites, loss due to isolation and lack of interaction with peers and teachers, unsuitability of teaching-learning practical and clinical aspects etc. Besides, it can prove prohibitive for an economically deprived student who cannot afford to buy a smart phone. Above all, on-line assessments are laden with inherent problems of judging knowledge and skill.

9.6.10. Government Revenue

The annual budget for 2020-21 was presented in the state legislature on 18 February 2020, before the corona virus outbreak.

It may be seen in the table that only 49.06 per cent of the estimated receipts could be achieved indicating a shortfall of 50.94 per cent and the state government has fallen 42.91 per cent short in GST collection as at the end of December 2020. It may be very difficult to make up the shortfall within three months. It is pertinent to note that GST, sales tax/VAT, and state excise are levied on consumption of goods and services, GST being the largest component of own tax revenue of the state. Since lockdown has affected the business transactions, it is but natural that lower tax revenue could come to the exchequer. The lower GST revenue during the lockdown could not be made up by raising the rate in

the remaining period of the year for obvious reasons. Again, lower tax receipts of the centre because of the same reason also exerted a depressant pull on the state's share of union taxes and GIA component of the devolution. Furthermore, the shortfall in GST revenue could have been neutralised by the GST compensation by the central government. But here again, the requirement is a 14 per cent growth in state GST revenue which is next to impossible this fiscal and the union government may not have funds enough to award compensation.

However, the state could manage to have a revenue surplus of INR 7086.40. crore and a lower fiscal deficit of - INR 1770.71 crore as at the end of December 2020.

9.7 Social Impact

Covid- 19 has been observed to have large negative societal and psychological effects far beyond the narrow economic impacts disrupting economic activities, jobs, income, education, and investment. Scenes of everybody obtrusively instructing the other to keep distance or to put the face mask covering fully the lower chin up to the lower eyelid implying he/she could be a carrier of the virus and hence the bearer of the infection- something that brings a sense of threat has serious implications for human behaviour during a landscape-scale pandemic like Covid- 19. As words have incredible energy and power to impact morale and motivation, more so when people's minds are pre-occupied with anxiety for their own survival, the use of negative meaning words like 'Covid- 19 suspect', 'positive', 'super spreader' etc. could stigmatise, strengthen false associations between the disease and the persona suffering illness, dehumanise those who have the disease, drive people to hide disease to avoid discrimination or dissuade them from getting screened, tested and quarantined seeking health care immediately. In fact, *never before has the word 'positive' held such a strong negative connotation* as it did during the recent crisis.

The Covid- 19 experience ostensibly paints a grim picture. It brought to fore a kind of '*Existential crisis*'. *People reported living in fear of getting infected by the virus or to die of the infection or were worried that they would be stopped by the police on their way to a hospital. They were in a state of acute stress. It forced many to miss out on some of life's most important moments—weddings, and even funerals on which people could not come together to mourn. Its effects have been disproportionate on people. People with less were found faring worse than those with more. The casual labourers and the self-employed in both agriculture and non-agriculture activities appear to be the hardest hit, while the salaried were relatively less affected. Students without smart phone and internet access are falling behind students who have in learning. The little success women's decades long struggles for their lives brought them are shattered in some months because the pandemic and resulting recession are affecting women differently. such as these. Pandemic preparedness must be taken as seriously as we take the threat of war. Their leadership will get us through this pandemic, and we owe it to them to recover in a way that leaves us stronger and more prepared for the next challenge.*

One good thing is that in Odisha, the Covid- 19 experience has increased the peoples' level of confidence in the government's ability to tackle a health crisis and for that matter, any emergency. But at the same time, it has also established the need for '*prioritizing equity*'.

9.8 Challenges

9.8.1 With the appearance and spread of the deadly virus, and as reports of death due to Covid started to pour in, some major public hospitals and some private hospitals running big health facilities in the state were made Covid hospitals and the health system got over-engaged in Covid-19 cases. This led

to cancellation and/or neglect of routine and most of the emergency healthcare provisioning for some months. Most private clinics, small nursing homes and patho-labs have put their shutters down as the care givers and, in some cases the patients, feared getting infected and death. Such forced severe curtailment of regular health services caused avoidable long delays in treatment and missed routine check-ups resulted in many non-Covid-19 deaths.

9.8.2 The returnee migrants who are staying put are not getting gainful employment because the Covid-19 pandemic furthered the decline in the MSME and informal sectors - the largest non-farm employer. Those who move back are being paid less. This has caused headache for the government.

9.9 Lessons Learnt

Covid- 19 pandemic is a transnational crisis of multiple dimensions affecting health and hygiene, polity and governance, society and economy and what not. Odisha's experience with the disaster brings forth important lessons such as 'health is more important than wealth', 'prevention is better than cure', 'to protect the ill we need to protect everyone', 'advance preparedness and proactive action pay good dividends', 'the health system needs both resources and skilled personnel' and the list goes on. These hard-won lessons from the ongoing crisis have important policy implications for the state.

Amidst Covid- 19 restrictions planning, monitoring and evaluation were done successfully on virtual platform as also conducting meetings, seminars, workshops, discussions and symposia. The techniques of performing official work as well as other activities from home were also learnt. This has opened new vistas and has instilled confidence in conducting different activities on virtual platform which will go a long way in optimising resource use. We should capitalise on this score.

Stringent restrictions on all the three modes of transport taught humanity the necessity and practicability of a new way of life with minimum wants and merits of self-sufficiency in all possible spheres for survival. We should make all out efforts to maintain this habit.

The Covid experience also taught mankind the imperatives of saving for the future. This lesson is expected to boost the habit of thrift among the people to make a remarkable impact on capital formation that is an obvious pre-requisite of economic development.

9.10 Implications and the way forward

9.10.1 It is time to take a hard look at, and a paradigm shift in, the healthcare system. Establishing and operationalizing a health disaster management system to create an army of health professionals to provide curative care and a pool of grassroots level health workers to give preventive guidance and generate awareness to deal with COVID-19 like unprecedented devastating health emergencies will be a viable policy. The private superstar corporate hospitals offering tertiary care must not be given primacy because they overcharge massively and the market never operates in public interest. Despite they playing a role in providing emergency care in crucial times because public healthcare system is inadequate and is overused; they can at best be taken as supplementing the public health facilities. These hospitals should be brought under comprehensive government regulation to serve public purpose.

9.10.2 Emergency healthcare provisioning in times of unprecedented health crisis necessitates dedicated public engagement, multi-sectoral partnerships, coordinated and integrated action involving the state, people and people's representatives, and a kind of social movement. Both state and public should ensure it.

9.10.3 The state is back once again. We must accept the centrality and stewardship of the public funded health system as the lifeline of the state and its people despite inadequacy of competent healthcare professionals and infrastructure. The system needs to be more responsive and targeted. The state must act to upgrade them in war footing by investing more in public health and effecting a system upgradation in terms of both human resource and basic structures with equipment.

9.10.4 Identification and care centric management strategies that focus on extensive and intensive testing, detection, isolation and quarantines, therapeutics, contact tracing, and delimited-demarcated movement restrictions are likely to be more effective in containing disease spread involving infliction of comparatively lower socio-cultural and economic costs than imposing, and garnering political support for, generalized widespread lockdowns and shutdowns.

9.10.5 The Covid-19 experience establishes, among other things, the pre-eminence of primary care providers like ASHA, ANM, nurses, doctors and even dedicated SHG members, panchayat representatives, and village level front men who worked very hard under high infection risk threats-many without PPE, job security and jobs and some succumbing to the virus while on duty to brave us through the health disaster. It is high time to make adequate warranted provisions for them and their security.

9.10.6 Alike the DMFF, NDRF and SDRF, all PRIs and ULBs should have a disaster relief fund for swiftly responding to any disaster.

9.10.7 Sometimes, the returnees from abroad testing positive give vague addresses and phone numbers which make tracing difficult. Their Aadhaar, email, phone number etc. need thorough scrutiny on their arrival at airport and other points.

We have survived the pandemic and will let it go, we are reviving too and the Odisha economy needs to thrive for high growth at remarkable pace so that it can make greater investment in public healthcare facilities to provide for better healthcare for all and a cut above preparedness to fight any emergency in future.

For 'the expected never happens, it is the unexpected always'.

Looking Forward: Development Approach for Odisha

The State of Odisha with pristine beauty and glorious culture has emerged as a leading State of the country with a promising growth trajectory over the last two decades with few exceptions. This has been possible because of a sound Government Policies. The Government is accountable, transparent, transformative, technology driven, responsive, equitable and inclusive and follows the rule of law. The State is, by and large, peaceful and the people have become aspirant.

The Covid-19 pandemic exerted heavy pressure on the economy of the state. The quick response of the State Government could effectively tackle the pandemic and set an example for the rest of the country. Contraction of the economy of the state (-4.9%) is reflected to be much lower than the all India average contraction of 7.7 per cent.

The 5T and the 'Mo Sarkar' initiatives of the state has ushered in a new era of people friendly governance and development.

Blessed with rich natural resources: minerals, flora, fauna and forests, 480-long shore line, great scope for development of manufacturing hubs, tourist destinations, crop diversification and opportunities for animal husbandry practices the State has all potential to bring out around development of it's economy. The Government drives to make available the benefits of development to the last man in the queue is well recognised. The development strategy should lay emphasis on good health and well being, quality education and skill development, development of agriculture and animal husbandry, clean water and sanitation, affordable and clean energy, gainful employment, rapid industrialization, development of infrastructure along with protection to environment.

10.1 Development Approach

Odisha has made significant achievements in economic growth, poverty reduction and other socio economic indicators in the last two decades. State Government's initiatives on long term development strategies are outlined below.

- a) The state needs to make a long stride in economic growth with much faster pace than the national average over a long period of time to join the league of developed states in the country.
- b) Health is wealth. The life expectancy needs to be improved and burden of diseases need to be reduced. The Government is making all-out efforts to have a better health system. The focus is on improving primary, secondary and tertiary healthcare infrastructure with larger investment. This needs to be strengthened with focus on creating large pool of health professionals and paramedical workers. The skill up-gradation of health professionals and paramedical workers for effective delivery of health services down to the village level is most important. There is need for substantial increase in financial allocation in the health sector through public and private investment.
- c) Strengthened social security system is a prerequisite to reduce IMR and MMR, ensure food security and increase women empowerment.
- d) Clean water and sanitation is a basic necessity for a happy and healthy living. The focus should be on access to toilets, drainage system and tap water to all households.

- e) Agriculture and allied sector is the main stay of the economy with about 1/5th share in GSDP and about 50 per cent share in employment. The focus should be to make it a vibrant sector by exploiting the great potential for crop diversification and integrated farming with thrust on small animal farming and poultry. There is a need for technology intensive agriculture. Greater investment is necessary for both forward and backward linkage in the agriculture sector.
- f) Education and skill development are the key to economic prosperity. Hence thrust should be on providing quality education to all. Sustainable employment generation is a priority concern. The education system needs to be oriented for employment generation with focus on vocational aspects. Greater numbers of Industrial Training Institutes as centers of excellence is the call of the day.
- g) Reliable, sustainable and resilient infrastructure is required to support the growth of the economy and well-being of the people. This should be available in the villages, towns and cities. There is need to promote inclusive and sustainable industrialization with focus on MSME and on farm sectors. In the process of industrialization clean and environment friendly technology need to get priority.
- h) ICT infrastructure and information technology policy needs to be oriented for industrialization, mass awareness, education and overall development.
- i) Electricity has reached all villages. It should reach all households. Thrust has been given to popularize solar energy. There is need for higher resources and development in the solar energy sector to make it user friendly, affordable and sustainable.
- j) Natural disaster mitigation measures and mechanism need further strengthening to minimise adverse impacts of recurring natural shocks on the State.
- k) KBK areas and marginalised classes including SC, ST and women need special attention in order to substantially reduce regional, social and gender disparities and to promote human development.
- l) There is a need for enhancing and promoting convergence among line departments and at the district level for effective implementation of large number of development programs through strengthening Integrated District Planning.
- m) Focussed attention on strengthening the activities of Mission Shakti which has already gained appreciable momentum is required to ensure women empowerment in the state. Mission Shakti activities need up-scaling to go beyond the traditional boundaries to build up numerous examples of best practices and women's empowerment.
- n) In view of large avenues for development of tourism sector in the state, special attention needs to be given for the sector with special focus on eco-tourism.
- o) Bhubaneswar has earned the reputation of hosting many national and international sports event successfully. Efforts need to be continued to make it an area of excellence. Sports should be promoted across the districts both in rural and urban areas and among all sections to ensure a healthy, happy and fit Odisha.
- p) A sound statistical system is prerequisite for evidence based planning, which is necessary to foster sustainable development. The focus will be on developing a modern statistical system that can make available the data and information on real time basis.

Annexure 11.1: Value of Consumption of Food and Non-Food Items of a Person for a Period of 30 Days in Rural & Urban Areas

Values in Rs.

NSS Rounds and Period	Odisha						India						Per capita expenditure for Odisha as percentage to all India average	
	Rural			Urban			Rural			Urban			Rural	Urban
	Food	Non- Food	Total	Food	Non- Food	Total	Food	Non- Food	Total	Food	Non- Food	Total		
	2	3	4	5	6	7	8	9	10	11	12	13	14	15
55th Round (July, 1999-June, 2000)	239.25 (64.11)	133.92 (35.89)	373.17 (100)	352.24 (56.95)	266.25 (43.05)	618.49 (100)	"288.8 (59.04)"	197.36 (40.06)	486.16 (100)	410.84 (48.06)	444.08 (51.94)	854.92 (100)	76.76	72.34
56th Round (July, 2000-June, 2001)	246.66 (62.85)	145.82 (37.15)	392.48 (100)	372.67 (48.23)	"400 (51.77)"	772.67 (100)	"278.6 (56.29)"	216.33 (43.71)	494.9 (100)	400.57 (43.8)	514 (56.2)	914.57 (100)	79.3	84.48
57th Round (July, 2001-June, 2002)	193.95 (63.04)	113.71 (36.96)	307.69 (36.96)	359.47 (48.83)	376.64 (51.17)	736.11 (100)	"276.4 (55.46)"	221.92 (44.54)	498.27 (100)	402.31 (43.13)	530.48 (56.87)	932.79 (100)	61.75	78.91
58th Round (July, 2002-Dec, 2002)	229.27 (58.71)	161.21 (41.29)	390.48 (100)	385.47 (44.37)	483.21 (55.63)	868.68 (100)	"292.3 (54.99)"	239.2 (45.01)	531.49 (100)	429.79 (42.47)	582.18 (57.53)	1012 (100)	73.47	85.84
59th Round (Jan-Dec, 2003)	230.93 (58.04)	166.26 (41.96)	397.89 (100)	392.24 (47.16)	"439.4 (52.84)"	831.64 (100)	298.64 (53.88)	255.59 (46.12)	554.15 (100)	429.01 (41.98)	592.88 (58.02)	1021.9 (100)	71.8	81.38
60th Round (Jan, 2004-June, 2004)	241.98 (58.44)	172.11 (41.56)	414.08 (100)	415.53 (47.65)	456.56 (52.35)	872.09 (100)	"304.6 (53.94)"	260.1 (46.06)	564.7 (100)	441.48 (41.64)	618.68 (58.36)	1060.2 (100)	73.32	82.26
61st Round (July-June, 2005)	245.56 (61.57)	153.33 (38.43)	398.89 (100)	378.13 (49.93)	379.18 (50.07)	757.31 (100)	307.59 (55.05)	251.19 (44.95)	558.78 (100)	447.42 (42.52)	604.94 (57.48)	1052.36 (100)	71.39	71.96
62nd Round (July, 2005-June, 2006)	260.45 (56.58)	199.87 (43.42)	460.32 (100)	402.57 (44.72)	497.63 (55.28)	900.2 (100)	333.15 (53.34)	291.38 (46.66)	624.53 (100)	467.82 (39.96)	702.78 (60.04)	1170.6 (100)	73.71	76.9
63rd Round (July, 2006-June, 2007)	265.3 (57.85)	193.27 (42.15)	458.56 (100)	451.85 (42.15)	620.29 (57.85)	1072.13 (100)	363.42 (52.28)	331.75 (47.72)	695.16 (100)	517.25 (39.41)	795.25 (60.59)	1312.5 (100)	65.96	81.69
64th Round (July, 2007-June, 2008)	325.42 (58.22)	233.53 (41.78)	558.95 (100)	607.99 (42.27)	830.36 (57.73)	1438.35 (100)	404.33 (52.35)	368.03 (47.65)	772.36 (100)	582.43 (39.58)	889.11 (60.42)	1471.54 (100)	72.37	97.74
66th Round (July, 2009-June, 2010)	404.22 (56.49)	311.37 (43.51)	715.59 (100)	607.96 (41.39)	860.88 (58.61)	1468.84 (100)	497.07 (52.16)	455.96 (46.84)	953.05 (100)	727.49 (39.20)	1128.5 (60.80)	1856.01 (100)	75.08	79.14
68th Round (July, 2011-June, 2012)	470.3 (51.98)	434.49 (48.02)	904.78 (100)	718.65 (39.26)	"1111.70 (60.74)"	1830.33 (100)	621.96 (48.32)	665.21 (51.68)	1287.17 (100)	922.91 (37.26)	1554.12 (62.74)	2477.02 (100)	70.29	73.89

Note: Figures in parentheses are percentages.

Source: Reports of NSSO, Relevant Rounds, MOSPI, Govt. of India

Annexure 11.2: Key aggregates of state domestic product at current prices

Sl. No.	Item	(Rs. in Lakh)												Growth over previous year (in %)									
		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18 (3rd RE)	"2018-19 (2nd RE)"	2019-20 (1st RE)	2020-21 (A)	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18 (3rd RE)	"2018-19 (2nd RE)"	2019-20 (1st RE)	2020-21 (A)			
1	Gross State Value Added at basic prices	22023169	24916295	28044263	29520164	30450599	35497589	39128552	43410732	46697409	44586033	13.14	12.55	5.26	3.15	16.57	10.23	10.94	7.57	-4.52			
2.	Taxes on Products	2031089	2340292	2715614	3082180	3529971	4920611	6131800	6920700	7110440	8083975	15.22	16.04	13.50	14.53	39.40	24.61	12.87	2.74	13.69			
3.	Less Subsidies on Products	955550	1086627	1112340	1177349	1125620	1137833	1172436	1550885	1680384	1712579	13.72	2.37	5.84	-4.39	1.09	3.04	32.28	8.35	1.92			
4.	Gross State Domestic Product (1+2-3)	23098708	26169960	29647538	31424995	32854950	39280367	44087916	48780548	52127465	50957429	13.30	13.29	6.00	4.55	19.56	12.24	10.64	6.86	-2.24			
5.	Consumption of Fixed Capital	2676113	2838712	3549800	3932653	4457048	5047197	5287839	5977456	6351807	6051827	6.08	25.05	10.79	13.33	13.24	4.77	13.04	6.26	-4.72			
6.	Net State Value Added at basic prices (1-5)	19347056	22077583	24494463	25587511	25993551	30450392	33840713	37433276	40345602	38534206	14.11	10.95	4.46	1.59	17.15	11.13	10.62	7.78	-4.49			
7.	Net State Domestic Product (4-5)	20422595	23331248	26097737	27492342	28397902	34233170	38800076	42803091	45775658	44905602	14.24	11.86	5.34	3.29	20.55	13.34	10.32	6.94	-1.90			
8.	Population (Lakh)	421.09	423.40	425.70	428.01	430.32	432.34	434.15	435.96	437.77	439.58	0.55	0.54	0.54	0.54	0.47	0.42	0.42	0.42	0.41			
9.	Per Capita Gross State Domestic Product (Rupees)	54855	61809	69644	73421	76350	90855	101550	111892	119075	115923	12.68	12.68	5.42	3.99	19.00	11.77	10.18	6.42	-2.65			
10.	Per Capita Net State Domestic Product (Rupees)	48499	55105	61305	64233	65993	79181	89370	98181	104566	102156	13.62	11.25	4.78	2.74	19.99	12.87	9.86	6.50	-2.30			

Source : D & S , Odisha , Bhubaneswar

Annexure 11.3: Key aggregates of state domestic product at constant (2011-12) prices

Sl. No.	Item	(Rs. in Lakh)											Growth over previous year (in %)									
		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18 (3rd RE)	"2018-19 (2nd RE)"	2019-20 (1st RE)	2020-21 (A)	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18 (3rd RE)	"2018-19 (2nd RE)"	2019-20 (1st RE)	2020-21 (A)		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21		
1.	Gross State Value Added at basic prices	22023169	23191892	25256176	25584002	27464169	31097941	32775292	34117822	36197694	33952787	5.31	8.90	1.30	7.35	13.23	5.39	4.10	6.10	-6.20		
2.	Taxes on Products	2031089	2136425	2257786	2398864	2582087	3430016	4180962	4600967	4520582	4754234	5.19	5.68	6.25	7.64	32.84	21.89	10.05	-1.75	5.17		
3.	Less Subsidies on Products	955550	991969	924810	916332	823363	793151	799425	1031048	1068332	1007178	3.81	-6.77	-0.92	-10.15	-3.67	0.79	28.97	3.62	-5.72		
4.	Gross State Domestic Product (1+2-3)	23098708	24336348	26589153	27066534	29222893	33734806	36156830	37687742	39649943	37699843	5.36	9.26	1.80	7.97	15.44	7.18	4.23	5.21	-4.92		
5.	Consumption of Fixed Capital	2676113	2706241	3276966	3473460	3903726	4399981	4492479	4907258	5206278	4876712	1.13	21.09	6.00	12.39	12.71	2.10	9.23	6.09	-6.33		
6.	Net State Value Added at basic prices (1-5)	19347056	20485651	21979211	22110541	23560444	26697959	28282813	29210565	30991416	29076074	5.89	7.29	0.60	6.56	13.32	5.94	3.28	6.10	-6.18		
7.	Net State Domestic Product (4-5)	20422595	21630107	23312187	23593074	25319167	29334825	31664351	32780484	34443665	32823130	5.91	7.78	1.20	7.32	15.86	7.94	3.52	5.07	-4.70		
8.	Population (Lakh)	421.09	423.4	425.7	428.01	430.32	432.34	434.15	435.96	437.77	439.58	0.55	0.54	0.54	0.47	0.42	0.42	0.42	0.42	0.41		
9.	Per Capita Gross State Domestic Product (Rupees)	54855	57478	62460	63238	67910	78028	83282	86448	90573	85763	4.78	8.67	1.25	7.39	14.90	6.73	3.80	4.77	-5.31		
10.	Per Capita Net State Domestic Product (Rupees)	48499	51087	54762	55123	58838	67851	72934	75191	78680	74669	5.33	7.19	0.66	6.74	15.32	7.49	3.10	4.64	-5.10		

Source : D & S , Odisha, Bhubaneswar

Annexure 11.4: Gross State Value Added by economic activity at current basic prices

Rs. in Lakh

Sl. No.	Economic Activity	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18 (3rd RE)	"2018-19 (2nd RE)"	2019-20 (1st RE)	2020-21 (A)
1	2	3	4	5	6	7	8	9	10	11	12
1.	Agriculture, Forestry and Fishing	3934537	5342867	5674967	6556959	6163541	7425208	7494152	8586289	9983740	9484561
1.1	Crops	2555039	3750538	3802014	4436266	3765010	4707586	4427627	5099982	6361568	6084836
1.2	Livestock	538911	637320	729849	803496	880542	909690	1188323	1434752	1395832	1111523
1.3	Forestry and Logging	572223	619884	784937	864086	957598	1108049	1022004	1102513	1138884	1206627
1.4	Fishing and Aquaculture	268365	335124	358168	453110	560391	699883	856198	949042	1087455	1081575
2.	Mining and Quarrying	2648738	2666989	2868392	2703161	2862080	3292604	3467115	4126450	4209939	4002881
3.	Primary	6583276	8009855	8543359	9260120	9025621	10717812	10961268	12712739	14193679	13487442
4.	Manufacturing	4116404	4212453	5168498	4724215	4654610	6741508	8000596	8601940	8703040	7825778
4.	Electricity, Gas, Water Supply & Other Utility Services	775701	937278	1044477	1008706	1218871	1318939	1313855	1422728	1467845	1369792
5.	Construction	2059629	2074164	2314669	2393041	2370792	2609537	2973274	3298939	3326640	2969443
6.	Secondary	6951734	7223895	8527644	8125962	8244272	10669984	12287726	13323606	13497525	12165013
6.1	Trade, Repair, Hotels and Restaurants	2035854	2436044	2769620	3030218	3352591	3538166	3995610	4473824	4748899	4168322
6.2	Trade & Repair Services	1838866	2218946	2533465	2782577	3082291	3240394	3665665	4106654	4386805	4004275
6.2	Hotels & Restaurants	196989	217098	236155	247641	270300	297771	329945	367171	362094	164047
7.	Transport, Storage, Communication & Services related to Broadcasting	1347538	1560857	1771254	2048455	2257036	2502715	2743658	2690469	2875835	2716890
7.1	Railways	179466	233719	266785	343229	395310	371338	407686	430401	466010	380730
7.2	Transport by means other than Railways	819369	940402	1039368	1149260	1223740	1469071	1687454	1548922	1677892	1546121
7.2.1	Road transport	693450	802859	892415	972267	1036673	1239514	1387446	1254442	1362234	1257972
7.2.2	Water transport	41962	42597	42862	47988	44899	72289	86993	97142	103691	106684
7.2.3	Air transport	3421	7232	5311	8947	17220	19573	23801	20559	20626	4808
7.2.4	Services incidental to Transport	80536	87715	98780	120058	124947	137695	189214	176779	191341	176657
7.3	Storage	13967	15384	18233	18781	20245	22462	23279	26345	27563	26075
7.4	Communication & Services related to Broadcasting	334737	371354	446868	537185	617741	639843	625238	684800	704370	763963
8.	Financial Services	796303	910354	962328	1065147	1184299	1148781	1395989	1526302	1723076	1886592
9.	Real estate, Ownership of Dwelling & Professional Services	1707147	1901721	2146627	2321999	2439614	2671043	2816271	3080535	3081556	2813722
10.	Public Administration and Defence	863077	980808	1390657	1517496	1573618	1609037	1751531	1993959	2348486	2854941
11.	Other Services	1738239	1892760	1932774	2150766	2373548	2640051	3176499	3609298	4228354	4493111
	Tertiary	8488159	9682545	10973261	12134082	13180706	14109793	15879559	17374387	19006206	18933578
12	TOTAL GVA at Basic Prices	22023169	24916295	28044263	29520164	30450599	35497589	39128552	43410732	46697409	44586033
13	Gross State Domestic Product	23098707.52	26169960.19	29647537.52	31424995.06	32854950.3	39280367.48	44087915.53	48780547.62	52127465.4	50957429.27
14	Per capita GSDP (Rupees)	54855	61809	69644	73421	76350	90855	101550	111892	119075	115923

Annexure 11.5: Percentage Share of Gross State Value Added by economic activity at current basic prices

Sl. No.	Economic Activity	Percentage Share									
		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18 (3rd RE)	"2018-19 (2nd RE)"	2019-20 (1st RE)	2020-21 (A)
1	2	3	4	5	6	7	8	9	10	11	12
1.	Agriculture, Forestry and Fishing	17.87	21.44	20.24	22.21	20.24	20.92	19.15	19.78	21.38	21.27
1.1	Crops	11.60	15.05	13.56	15.03	12.36	13.26	11.32	11.75	13.62	13.65
1.2	Livestock	2.45	2.56	2.60	2.72	2.89	2.56	3.04	3.31	2.99	2.49
1.3	Forestry and Logging	2.60	2.49	2.80	2.93	3.14	3.12	2.61	2.54	2.44	2.71
1.4	Fishing and Aquaculture	1.22	1.34	1.28	1.53	1.84	1.97	2.19	2.19	2.33	2.43
2.	Mining and Quarrying	12.03	10.70	10.23	9.16	9.40	9.28	8.86	9.51	9.02	8.98
	Primary	29.89	32.15	30.46	31.37	29.64	30.19	28.01	29.28	30.40	30.25
3.	Manufacturing	18.69	16.91	18.43	16.00	15.29	18.99	20.45	19.82	18.64	17.55
4.	Electricity, Gas, Water Supply & Other Utility Services	3.52	3.76	3.72	3.42	4.00	3.72	3.36	3.28	3.14	3.07
5.	Construction	9.35	8.32	8.25	8.11	7.79	7.35	7.60	7.60	7.12	6.66
	Secondary	31.57	28.99	30.41	27.53	27.07	30.06	31.40	30.69	28.90	27.28
6.	Trade, Repair, Hotels and Restaurants	9.24	9.78	9.88	10.26	11.01	9.97	10.21	10.31	10.17	9.35
6.1	Trade & Repair Services	8.35	8.91	9.03	9.43	10.12	9.13	9.37	9.46	9.39	8.98
6.2	Hotels & Restaurants	0.89	0.87	0.84	0.84	0.89	0.84	0.84	0.85	0.78	0.37
7.	Transport, Storage, Communication & Services related to Broadcasting	6.12	6.26	6.32	6.94	7.41	7.05	7.01	6.20	6.16	6.09
7.1	Railways	0.81	0.94	0.95	1.16	1.30	1.05	1.04	0.99	1.00	0.85
7.2	Transport by means other than Railways	3.72	3.77	3.71	3.89	4.02	4.14	4.31	3.57	3.59	3.47
7.2.1	Road transport	3.15	3.22	3.18	3.29	3.40	3.49	3.55	2.89	2.92	2.82
7.2.2	Water transport	0.19	0.17	0.15	0.16	0.15	0.20	0.22	0.22	0.22	0.24
7.2.3	Air transport	0.02	0.03	0.02	0.03	0.06	0.06	0.06	0.05	0.04	0.01
7.2.4	Services Incidental to Transport	0.37	0.35	0.35	0.41	0.41	0.39	0.48	0.41	0.41	0.40
7.3	Storage	0.06	0.06	0.07	0.06	0.07	0.06	0.06	0.06	0.06	0.06
7.4	Communication & Services related to Broadcasting	1.52	1.49	1.59	1.82	2.03	1.80	1.60	1.58	1.51	1.71
8.	Financial Services	3.62	3.65	3.43	3.61	3.89	3.24	3.57	3.52	3.69	4.23
9.	Real estate, Ownership of Dwelling & Professional Services	7.75	7.63	7.65	7.87	8.01	7.52	7.20	7.10	6.60	6.31
10.	Public Administration and Defence	3.92	3.94	4.96	5.14	5.17	4.53	4.48	4.59	5.03	6.40
11.	Other Services	7.89	7.60	6.89	7.29	7.79	7.44	8.12	8.31	9.05	10.08
	Tertiary	38.54	38.86	39.13	41.10	43.29	39.75	40.58	40.02	40.70	42.47
12	TOTAL GSVA at Basic Prices	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source : D.E & S, Odisha, Bhubaneswar

Annexure 11.6: Growth rate of Gross State Value Added by economic activity at current basic prices

(In percentage)

Sl. No.	Economic Activity	Percentage Share								
		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18 (3rd RE)	"2018-19 (2nd RE)"	2019-20 (1st RE)
1	2	3	4	5	6	7	8	9	10	11
1.	Agriculture, Forestry and Fishing	35.79	6.22	15.54	-6.00	20.47	0.93	14.57	16.28	-5.00
1.1	Crops	46.79	1.37	16.68	-15.13	25.04	-5.95	15.19	24.74	-4.35
1.2	Livestock	18.26	14.52	10.09	9.59	3.31	30.63	20.74	-2.71	-20.37
1.3	Forestry and Logging	8.33	26.63	10.08	10.82	15.71	-7.77	7.88	3.30	5.95
1.4	Fishing and Aquaculture	24.88	6.88	26.51	23.68	24.89	22.33	10.84	14.58	-0.54
2.	Mining and Quarrying	0.69	7.55	-5.76	5.88	15.04	5.30	19.02	2.02	-4.92
	Primary	21.67	6.66	8.39	-2.53	18.75	2.27	15.98	11.65	-4.98
3.	Manufacturing	2.33	22.70	-8.60	-1.47	44.84	18.68	7.52	1.18	-10.08
4.	Electricity, Gas, Water Supply & Other Utility Services	20.83	11.44	-3.42	20.84	8.21	-0.39	8.29	3.17	-6.68
5.	Construction	0.71	11.60	3.39	-0.93	10.07	13.94	10.95	0.84	-10.74
	Secondary	3.92	18.05	-4.71	1.46	29.42	15.16	8.43	1.31	-9.87
6.	Trade, Repair, Hotels and Restaurants	19.66	13.69	9.41	10.64	5.54	12.93	11.97	6.15	-12.23
6.1	Trade & Repair Services	20.67	14.17	9.83	10.77	5.13	13.12	12.03	6.82	-8.72
6.2	Hotels & Restaurants	10.21	8.78	4.86	9.15	10.16	10.80	11.28	-1.38	-54.69
7.	Transport, Storage, Communication & Services related to Broadcasting	15.83	13.48	15.65	10.18	10.89	9.63	-1.94	6.89	-5.53
7.1	Railways	30.23	14.15	28.65	15.17	-6.06	9.79	5.57	8.27	-18.30
7.2	Transport by means other than Railways	14.77	10.52	10.57	6.48	20.05	14.87	-8.21	8.33	-7.85
7.2.1	Road transport	15.78	11.15	8.95	6.62	19.57	11.93	-9.59	8.59	-7.65
7.2.2	Water transport	1.51	0.62	11.96	-6.44	61.00	20.34	11.67	6.74	2.89
7.2.3	Air transport	111.39	-26.56	68.48	92.45	13.67	21.60	-13.62	0.33	-76.69
7.2.4	Services Incidental to Transport	8.91	12.62	21.54	4.07	10.20	37.42	-6.57	8.24	-7.67
7.3	Storage	10.14	18.52	3.01	7.80	10.95	3.64	13.17	4.62	-5.40
7.4	Communication & Services related to Broadcasting	10.94	20.34	20.21	15.00	3.58	-2.28	9.53	2.86	8.46
8.	Financial Services	14.32	5.71	10.68	11.19	-3.00	21.52	9.33	12.89	9.49
9.	Real estate, Ownership of Dwelling & Professional Services	11.40	12.88	8.17	5.07	9.49	5.44	9.38	0.03	-8.69
10.	Public Administration and Defence	13.64	41.79	9.12	3.70	2.25	8.86	13.84	17.78	21.57
11.	Other Services	8.89	2.11	11.28	10.36	11.23	20.32	13.63	17.15	6.26
	Tertiary	14.07	13.33	10.58	8.63	7.05	12.54	9.41	9.39	-0.38
12	TOTAL GSWA at Basic Prices	13.14	12.55	5.26	3.15	16.57	10.23	10.94	7.57	-4.52
13	Gross State Domestic Product	13.30	13.29	6.00	4.55	19.56	12.24	10.64	6.86	-2.24
14	Per capita GSDP	12.68	12.68	5.42	3.99	19.00	11.77	10.18	6.42	-2.65

Source : D.E &S ,Odisha,Bhubaneswar

Annexure 11.7: Gross State Value Added by economic activity at constant (2011-12) basic prices

Sl. No.	Economic Activity										
		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18 (3rd RE)	"2018-19 (2nd RE)"	2019-20 (1st RE)	2020-21 (A)
1.	Agriculture, Forestry and Fishing	3934537	4558109	4368529	4711024	4111533	4930742	4388874	4725432	5288556	4942823
1.1	Crops	2555039	3153542	2864360	3154054	2454137	3025226	2416515	2619986	3104356	2971648
1.2	Livestock	538911	550337	603389	581686	609794	628974	681782	778511	803896	538879
1.3	Forestry and Logging	572223	552477	604105	638507	675204	822447	758932	748953	749230	780724
1.4	Fishing and Aquaculture	268365	301753	296675	336777	372398	454096	531646	577982	631074	651572
2.	Mining and Quarrying	2648738	2596740	3097752	2851914	3674187	4179914	3805245	4164088	4304948	3965888
	Primary	6583276	7154850	7466281	7562938	7785720	9110657	8194119	8889519	9593504	8908711
3.	Manufacturing	4116404	3985120	4830204	4374503	4840719	6449059	7772888	7671358	8070075	7271090
4.	Electricity, Gas, Water Supply & Other Utility Services	775701	924884	987637	919544	1105926	1189992	1172118	1201395	1205762	1196342
5.	Construction	2059629	2009633	2144855	2138636	2146416	2300759	2490911	2620769	2642627	2357613
	Secondary	6951734	6919638	7962695	7432683	8093061	9939810	11435917	11493521	11918464	10825045
6.	Trade, Repair, Hotels and Restaurants	2035854	2274231	2454254	2652360	3052006	3165618	3475108	3737280	3899581	3412963
6.1	Trade & Repair Services	1838866	2071553	2245248	2435870	2806083	2899397	3188233	3430115	3602223	3277797
6.2	Hotels & Restaurants	196989	202677	209006	216490	245923	266221	286875	307165	297358	135167
7.	Transport, Storage, Communication & Services related to Broadcasting	1347538	1509441	1639446	1841387	2037154	2168882	2319498	2160584	2298470	1926499
7.1	Railways	179466	222896	247615	297269	336282	285709	308211	319542	372268	269080
7.2	Transport by means other than Railways	819369	914347	966706	1045914	1123670	1302119	1456927	1265370	1339873	1092033
7.2.1	Road transport	693450	780615	830026	884837	951901	1098650	1197904	1023945	1087806	886756
7.2.2	Water transport	41962	41416	39866	43673	41228	64074	75109	80347	82802	77360
7.2.3	Air transport	3421	7031	4939	8143	15811	17349	20549	16781	16471	3389
7.2.4	Services Incidental to Transport	80536	85284	91875	109262	114730	122047	163365	144297	152795	124527
7.3	Storage	13967	14039	14304	13838	15730	19924	20259	21992	23648	23031
7.4	Communication & Services related to Broadcasting	334737	358160	410822	484366	561472	561130	534101	553681	562680	542356
8.	Financial Services	796303	898381	929172	1018384	1097064	1065757	1206326	1223816	1381593	1512703
9.	Real estate, Ownership of Dwelling & Professional Services	1707147	1770647	1889542	2002383	2154941	2310192	2450872	2571629	2530070	2346835
10.	Public Administration and Defence	863077	923056	1249332	1340689	1434156	1445570	1528161	1670093	1938849	2347834
11.	Other Services	1738239	1741648	1665455	1733178	1810066	1891454	2165291	2371379	2637161	2672197
	Tertiary	8488159	9117405	9827201	10588381	11585388	12047474	13145256	13734782	14685725	14219031
12	TOTAL GSVA at Basic Prices	22023169	23191892	25256176	25584002	27464169	31097941	32775292	34117822	36197694	33952787
13	Gross State Domestic Product	23098708	24336348	26589153	27066534	29222893	33734806	36156830	37687742	39649943	37699843
14	Per capita GSDP (Rupees)	54855	57478	62460	63238	67910	78028	83282	86448	90573	85763

Source : D.E & S ,Odisha, Bhubaneswar

Annexure 11.8: Percentage Share of Gross State Value Added by economic activity at constant (2011-12) basic prices

Sl. No.	Economic Activity	Percentage Share									
		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18 (3rd RE)	"2018-19 (2nd RE)"	2019-20 (1st RE)	"2020-21 (A)"
1	2	3	4	5	6	7	8	9	10	11	12
1.	Agriculture, Forestry and Fishing	17.87	19.65	17.30	18.41	14.97	15.86	13.39	13.85	14.61	14.56
1.1	Crops	11.60	13.60	11.34	12.33	8.94	9.73	7.37	7.68	8.58	8.75
1.2	Livestock	2.45	2.37	2.39	2.27	2.22	2.02	2.08	2.28	2.22	1.59
1.3	Forestry and Logging	2.60	2.38	2.39	2.50	2.46	2.64	2.32	2.20	2.07	2.30
1.4	Fishing and Aquaculture	1.22	1.30	1.17	1.32	1.36	1.46	1.62	1.69	1.74	1.92
2.	Mining and Quarrying	12.03	11.20	12.27	11.15	13.38	13.44	11.61	12.21	11.89	11.68
	Primary	29.89	30.85	29.56	29.56	28.35	29.30	25.00	26.06	26.50	26.24
3.	Manufacturing	18.69	17.18	19.12	17.10	17.63	20.74	23.72	22.48	22.29	21.42
4.	Electricity, Gas, Water Supply & Other Utility Services	3.52	3.99	3.91	3.59	4.03	3.83	3.58	3.52	3.33	3.52
5.	Construction	9.35	8.67	8.49	8.36	7.82	7.40	7.60	7.68	7.30	6.94
	Secondary	31.57	29.84	31.53	29.05	29.47	31.96	34.89	33.69	32.93	31.88
6.	Trade, Repair, Hotels and Restaurants	9.24	9.81	9.72	10.37	11.11	10.18	10.60	10.95	10.77	10.05
6.1	Trade & Repair Services	8.35	8.93	8.89	9.52	10.22	9.32	9.73	10.05	9.95	9.65
6.2	Hotels & Restaurants	0.89	0.87	0.83	0.85	0.90	0.86	0.88	0.90	0.82	0.40
7.	Transport, Storage, Communication & Services related to Broadcasting	6.12	6.51	6.49	7.20	7.42	6.97	7.08	6.33	6.35	5.67
7.1	Railways	0.81	0.96	0.98	1.16	1.22	0.92	0.94	0.94	1.03	0.79
7.2	Transport by means other than Railways	3.72	3.94	3.83	4.09	4.09	4.19	4.45	3.71	3.70	3.22
7.2.1	Road transport	3.15	3.37	3.29	3.46	3.47	3.53	3.65	3.00	3.01	2.61
7.2.2	Water transport	0.19	0.18	0.16	0.17	0.15	0.21	0.23	0.24	0.23	0.23
7.2.3	Air transport	0.02	0.03	0.02	0.03	0.06	0.06	0.06	0.05	0.05	0.01
7.2.4	Services Incidental to Transport	0.37	0.37	0.36	0.43	0.42	0.39	0.50	0.42	0.42	0.37
7.3	Storage	0.06	0.06	0.06	0.05	0.06	0.06	0.06	0.06	0.07	0.07
7.4	Communication & Services related to Broadcasting	1.52	1.54	1.63	1.89	2.04	1.80	1.63	1.62	1.55	1.60
8.	Financial Services	3.62	3.87	3.68	3.98	3.99	3.43	3.68	3.59	3.82	4.46
9.	Real estate, Ownership of Dwelling & Professional Services	7.75	7.63	7.48	7.83	7.85	7.43	7.48	7.54	6.99	6.91
10.	Public Administration and Defence	3.92	3.98	4.95	5.24	5.22	4.65	4.66	4.90	5.36	6.91
11.	Other Services	7.89	7.51	6.59	6.77	6.59	6.08	6.61	6.95	7.29	7.87
	Tertiary	38.54	39.31	38.91	41.39	42.18	38.74	40.11	40.26	40.57	41.88
12	TOTAL GSWA at Basic Prices	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source : D.E & S ,Odisha, Bhubaneswar

Annexure 11.9: Growth rate of Gross State Value Added by economic activity at constant (2011-12) basic prices

Sl. No.	Economic Activity	Growth over previous year								
		2012-13	2013-14	2014-15	2015-16	2016-17	2017-18 (3rd RE)	"2018-19 (2nd RE)"	2019-20 (1st RE)	2020-21 (A)
1	2	3	4	5	6	7	8	9	10	11
1.	Agriculture, Forestry and Fishing	15.85	-4.16	7.84	-12.73	19.92	-10.99	7.67	11.92	-6.54
1.1	Crops	23.42	-9.17	10.11	-22.19	23.27	-20.12	8.42	18.49	-4.27
1.2	Livestock	2.12	9.64	-3.60	4.83	3.15	8.40	14.19	3.26	-32.97
1.3	Forestry and Logging	-3.45	9.34	5.69	5.75	21.81	-7.72	-1.31	0.04	4.20
1.4	Fishing and Aquaculture	12.44	-1.68	13.52	10.58	21.94	17.08	8.72	9.19	3.25
2.	Mining and Quarrying	-1.96	19.29	-7.94	28.83	13.76	-8.96	9.43	3.38	-7.88
	Primary	8.68	4.35	1.29	2.95	17.02	-10.06	8.49	7.92	-7.14
3.	Manufacturing	-3.19	21.21	-9.43	10.66	33.23	20.53	-1.31	5.20	-9.90
4.	Electricity, Gas, Water Supply & Other Utility Services	19.23	6.78	-6.89	20.27	7.60	-1.50	2.50	0.36	-0.78
5.	Construction	-2.43	6.73	-0.29	0.36	7.19	8.26	5.21	0.83	-10.79
	Secondary	-0.46	15.07	-6.66	8.88	22.82	15.05	0.50	3.70	-9.17
6.	Trade, Repair, Hotels and Restaurants	11.71	7.92	8.07	15.07	3.72	9.78	7.54	4.34	-12.48
6.1	Trade & Repair Services	12.65	8.38	8.49	15.20	3.33	9.96	7.59	5.02	-9.01
6.2	Hotels & Restaurants	2.89	3.12	3.58	13.60	8.25	7.76	7.07	-3.19	-54.54
7.	Transport, Storage, Communication & Services related to Broadcasting	12.01	8.61	12.32	10.63	6.47	6.94	-6.85	6.38	-16.18
7.1	Railways	24.20	11.09	20.05	13.12	-15.04	7.88	3.68	16.50	-27.72
7.2	Transport by means other than Railways	11.59	5.73	8.19	7.43	15.88	11.89	-13.15	5.89	-18.50
7.2.1	Road transport	12.57	6.33	6.60	7.58	15.42	9.03	-14.52	6.24	-18.48
7.2.2	Water transport	-1.30	-3.74	9.55	-5.60	55.41	17.22	6.97	3.06	-6.57
7.2.3	Air transport	105.53	-29.75	64.86	94.18	9.72	18.45	-18.34	-1.85	-79.42
7.2.4	Services incidental to Transport	5.90	7.73	18.92	5.00	6.38	33.85	-11.67	5.89	-18.50
7.3	Storage	0.51	1.89	-3.25	13.67	26.66	1.68	8.55	7.53	-2.61
7.4	Communication & Services related to Broadcasting	7.00	14.70	17.90	15.92	-0.06	-4.82	3.67	1.63	-3.61
8.	Financial Services	12.82	3.43	9.60	7.73	-2.85	13.19	1.45	12.89	9.49
9.	Real estate, Ownership of Dwelling & Professional Services	3.72	6.71	5.97	7.62	7.20	6.09	4.93	-1.62	-7.24
10.	Public Administration and Defence	6.95	35.35	7.31	6.97	0.80	5.71	9.29	16.09	21.09
11.	Other Services	0.20	-4.37	4.07	4.44	4.50	14.48	9.52	11.21	1.33
	Tertiary	7.41	7.79	7.75	9.42	3.99	9.11	4.48	6.92	-3.18
12	TOTAL GSVA at Basic Prices	5.31	8.90	1.30	7.35	13.23	5.39	4.10	6.10	-6.20
13	Gross State Domestic Product	5.36	9.26	1.80	7.97	15.44	7.18	4.23	5.21	-4.92
14	Per capita GSDP	4.78	8.67	1.25	7.39	14.90	6.73	3.80	4.77	-5.31

Source : D.E & S, Odisha, Bhubaneswar

Annexure 11.10: Growth rate of Net State Value Added by economic activity at current basic prices

Sl. No.	Economic Activity	Growth over previous year								
		2012-13	2013-14	2014-15	2015-16	2016-17	2017-18 (3rd RE)	"2018-19 (2nd RE)"	2019-20 (1st RE)	2020-21 (A)
1	2	3	4	5	6	7	8	9	10	11
1.	Agriculture, Forestry and Fishing	37.36	5.63	15.78	-7.07	21.24	0.28	15.00	15.81	-5.07
1.1	Crops	49.98	0.18	17.02	-17.25	26.61	-7.50	15.93	24.74	-4.35
1.2	Livestock	18.25	14.50	10.22	9.88	3.37	30.87	20.79	-2.71	-20.37
1.3	Forestry and Logging	8.30	26.77	10.12	10.91	15.85	-7.91	7.73	3.30	5.95
1.4	Fishing and Aquaculture	25.69	7.34	28.34	24.18	26.00	23.46	11.05	14.58	-0.54
2.	Mining and Quarrying	-0.91	9.97	-6.11	3.88	15.44	5.77	19.57	2.02	-4.92
	Primary	22.76	6.97	8.85	-4.08	19.52	1.85	16.36	11.61	-5.03
3.	Manufacturing	5.67	17.59	-14.56	-9.97	58.74	26.21	7.10	1.18	-10.08
4.	Electricity, Gas, Water Supply & Other Utility Services	21.00	8.33	-14.62	26.86	6.55	3.75	6.81	3.17	-6.68
5.	Construction	0.13	10.58	3.59	-0.98	9.84	13.81	10.68	0.84	-10.74
	Secondary	5.33	14.28	-8.93	-3.04	34.14	20.17	8.07	1.26	-9.95
6.	Trade, Repair, Hotels and Restaurants	19.56	13.48	9.30	9.12	5.25	14.07	11.74	6.16	-12.19
6.1	Trade & Repair Services	20.53	13.93	9.71	9.41	4.82	14.08	11.79	6.82	-8.72
6.2	Hotels & Restaurants	10.33	8.78	4.74	5.79	10.29	13.97	11.22	-1.38	-54.69
7.	Transport, Storage, Communication & Services related to Broadcasting	17.00	8.85	18.08	10.93	9.00	6.23	-8.47	6.94	-5.75
7.1	Railways	35.37	11.96	30.46	15.59	-9.69	4.61	1.97	8.27	-18.30
7.2	Transport by means other than Railways	15.22	7.26	13.12	7.11	19.36	13.18	-15.87	8.31	-7.91
7.2.1	Road transport	16.30	8.23	10.70	7.27	18.93	9.47	-18.66	8.59	-7.65
7.2.2	Water transport	-7.42	-8.60	27.97	-10.50	83.69	23.18	15.82	6.74	2.89
7.2.3	Air transport	347.14	-36.25	130.35	137.46	16.21	21.21	-20.31	0.33	-76.69
7.2.4	Services incidental to Transport	11.53	6.80	25.24	3.72	7.01	38.71	-8.90	8.24	-7.67
7.3	Storage	10.72	16.60	2.45	7.81	11.00	3.74	12.19	4.62	-5.40
7.4	Communication & Services related to Broadcasting	12.10	10.53	22.88	16.34	0.29	-9.50	5.73	2.86	8.46
8.	Financial Services	14.10	5.82	10.49	10.95	-3.23	21.67	9.24	12.89	9.49
9.	Real estate, Ownership of Dwelling & Professional Services	10.13	11.87	6.59	4.65	8.82	4.16	8.23	0.03	-8.69
10.	Public Administration and Defence	14.52	42.81	10.22	5.11	3.29	10.33	13.20	17.78	21.57
11.	Other Services	9.02	1.61	11.36	11.77	11.19	19.22	13.31	17.15	6.26
	Tertiary	14.11	11.92	10.60	8.78	6.52	12.33	8.38	9.51	-0.49
12	TOTAL NSVA at Basic Prices	14.11	10.95	4.46	1.59	17.15	11.13	10.62	7.78	-4.49
13	Net State Domestic Product	14.24	11.86	5.34	3.29	20.55	13.34	10.32	6.94	-1.90
14	Per capita NSDP	13.62	11.25	4.78	2.74	19.99	12.87	9.86	6.50	-2.30

Source : D.E & S, Odisha, Bhubaneswar

Annexure 11.11: Growth rate of Net State Value Added by economic activity at constant (2011-12) basic prices

Sl. No.	Economic Activity	Growth over previous year								
		2012-13	2013-14	2014-15	2015-16	2016-17	2017-18 (3rd RE)	"2018-19 (2nd RE)"	2019-20 (1st RE)	2020-21 (A)
1	2	3	4	5	6	7	8	9	10	11
1.	Agriculture, Forestry and Fishing	16.53	-4.91	7.87	-14.17	21.12	-12.54	7.84	11.46	-6.81
1.1	Crops	25.15	-10.61	10.40	-24.85	25.52	-23.28	8.87	18.49	-4.27
1.2	Livestock	1.97	9.63	-3.68	5.00	3.26	8.42	14.28	3.26	-32.97
1.3	Forestry and Logging	-3.52	9.35	5.72	5.75	22.08	-7.83	-1.50	0.04	4.20
1.4	Fishing and Aquaculture	12.51	-1.37	13.72	9.72	22.76	17.99	9.07	9.19	3.25
2.	Mining and Quarrying	-3.10	24.54	-7.73	30.82	14.07	-10.02	9.05	3.38	-7.88
	Primary	9.04	5.07	1.60	2.25	17.83	-11.40	8.40	7.73	-7.28
3.	Manufacturing	-0.42	16.52	-14.40	6.94	39.76	28.67	-2.94	5.20	-9.90
4.	Electricity, Gas, Water Supply & Other Utility Services	20.33	3.32	-17.06	25.69	5.68	3.13	0.11	0.36	-0.78
5.	Construction	-2.91	5.56	-0.23	0.36	6.60	7.77	4.72	0.83	-10.79
	Secondary	0.81	11.38	-10.33	6.60	24.95	20.31	-0.79	3.64	-9.35
6.	Trade, Repair, Hotels and Restaurants	11.59	7.66	8.04	13.59	3.41	10.93	7.36	4.35	-12.45
6.1	Trade & Repair Services	12.50	8.10	8.44	13.88	2.99	10.94	7.38	5.02	-9.01
6.2	Hotels & Restaurants	2.93	3.02	3.61	10.29	8.32	10.89	7.08	-3.19	-54.54
7.	Transport, Storage, Communication & Services related to Broadcasting	13.38	3.55	15.03	11.73	3.71	3.43	-14.27	6.41	-16.29
7.1	Railways	29.61	9.01	21.09	13.02	-20.61	2.64	0.72	16.50	-27.72
7.2	Transport by means other than Railways	12.46	2.32	9.98	8.31	14.64	10.12	-21.95	5.86	-18.54
7.2.1	Road transport	13.52	3.28	7.49	8.45	14.22	6.46	-24.92	6.24	-18.48
7.2.2	Water transport	-9.26	-13.20	23.38	-9.42	76.39	20.10	10.20	3.06	-6.57
7.2.3	Air transport	338.87	-39.53	122.25	142.39	11.79	18.06	-25.63	-1.85	-79.42
7.2.4	Services incidental to Transport	8.59	1.81	23.27	4.86	2.98	35.07	-14.15	5.89	-18.50
7.3	Storage	0.49	-2.15	-4.37	14.59	30.39	2.42	8.02	7.53	-2.61
7.4	Communication & Services related to Broadcasting	7.82	3.48	24.33	18.30	-4.25	-12.20	-0.98	1.63	-3.61
8.	Financial Services	12.63	3.53	9.53	7.49	-3.08	13.21	1.28	12.89	9.49
9.	Real estate, Ownership of Dwelling & Professional Services	2.45	5.36	5.08	7.77	6.34	5.70	4.04	-1.62	-7.24
10.	Public Administration and Defence	7.13	35.70	8.87	9.13	1.53	7.16	8.57	16.09	21.09
11.	Other Services	-0.02	-5.23	3.99	5.32	3.85	12.99	9.26	11.21	1.33
	Tertiary	7.31	6.10	8.04	9.69	3.17	8.91	3.33	6.93	-3.04
12	TOTAL NSVA at Basic Prices	5.89	7.29	0.60	6.56	13.32	5.94	3.28	6.10	-6.18
13	Net State Domestic Product	5.91	7.78	1.20	7.32	15.86	7.94	3.52	5.07	-4.70
14	Per capita NSDP	5.33	7.19	0.66	6.74	15.32	7.49	3.10	4.64	-5.10

Source : D.E & S ,Odisha, Bhubaneswar

Annexure-11.12: Land Utilization Pattern in Odisha (In Thousand Hectare)

Year	Geographical Area	Forest Area	Misc. Tree	Permanent pastures	Culturable waste	Land put to non-agril. Use	Barren & unculturable land	Current fallow	Other fallow	Net area sown
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2007-08	15571	5813	342	494	375	1298	840	556	229	5624
2008-09	15571	5813	342	494	375	1298	840	576	229	5604
2009-10	15571	5813	342	494	375	1298	840	606	229	5574
2010-11	15571	5813	342	494	375	1298	840	773	229	5407
2011-12	15571	5813	342	494	375	1298	840	888	229	5292
2012-13	15571	5813	342	494	375	1298	840	849	229	5331
2013-14	15571	5813	342	494	375	1298	840	756	229	5424
2014-15	15571	5813	342	494	375	1298	840	684	229	5496
2015-16	15571	5813	342	494	375	1298	840	572	229	5608
2016-17	15571	5813	342	494	375	1298	840	528	229	5652
2017-18	15571	5813	342	494	375	1298	840	824	229	5356
2018-19	15571	5813	342	494	375	1298	840	818	229	5362
2019-20(P)	15571	5813	342	494	375	1298	840	850	229	5330

Source: Directorate of Agriculture and Food Production, Odisha

Annuxre-11.13: Cropping Pattern in Odisha

(Area in '000 hect.)

Crops	2014-15		2015-16		2016-17		2017-18		2018-19		2019-20	
	Area	percent to Total	Area	percent to Total	Area	percent to Total	Area	percent to Total	Area	percent to Total	Area	percent to Total
(A) Cereals												
Rice	4166	73.92	3942	75.31	3963	60.55	3766.39	52.90	3706.95	53.15	3940.71	54.77
Wheat	1	0.02	0.3	0.01	0.06	0.00	2.90	0.04	2.20	0.03	2.40	0.03
Maize	92	1.63	55	1.05	72	1.10	247.61	3.48	251.43	3.61	254.14	3.53
Ragi	51	0.90	46	0.88	47	0.72	114.35	1.61	117.88	1.69	116.85	1.62
Others	30	0.53	34	0.65	35	0.53	36.56	0.51	42.13	0.60	40.55	0.56
Total (A) Cereals	4340	77.00	4077	77.90	4117	62.90	4167.81	58.54	4120.59	59.08	4354.65	60.52
(B) Pulses												
Gram	47	0.83	39	0.75	40	0.61	32.94	0.46	30.57	0.44	27.82	0.39
Arhar	138	2.45	138	2.64	136	2.08	137.89	1.94	144.06	2.07	128.63	1.79
Other pulses	641	11.37	598	11.42	1811	27.67	1876.52	26.36	1776.82	25.48	1765.79	25.36
Total (B) Pulses	826	14.66	775	14.81	1987	30.36	2047.35	28.76	1951.45	27.99	1922.24	27.54
Total Food grains (A+B)	5166	91.66	4852	92.70	6104	93.26	6215.16	87.30	6072.04	87.07	6276.89	88.06
(C) Oilseeds												
Groundnut	49	0.87	51	0.97	45	0.69	198.01	2.78	192.08	2.75	204.82	2.85
Sesamum	26	0.46	20	0.38	16	0.24	203.72	2.86	202.99	2.91	200.43	2.79
Nizer and mustard (Rape seed & Mustard)	10	0.18	7	0.13	25	0.38	109.57	1.54	106.30	1.52	109.98	1.53
Caster seeds	11	0.20	11	0.21	9	0.14	7.77	0.11	7.24	0.10	6.79	0.09
Others	116	2.06	48	0.92	98	1.50	84.30	1.18	81.48	1.17	80.07	1.11
Total (C) Oil seeds	212	3.76	137	2.62	193	2.95	603.37	8.47	590.09	8.45	602.09	8.37
(D) Fibres												
Cotton	127	2.25	125	2.39	136	2.07	144.57	2.03	157.88	2.26	169.56	2.36
Jute	1	0.02	1	0.02	1.00	0.01	4.37	0.06	3.99	0.06	3.66	0.05
Other fibres	17	0.30	14	0.27	11	0.17	11.23	0.16	11.85	0.17	9.57	0.13
Total (D) Fibres	145	2.57	140	2.67	147	2.25	160.17	2.25	173.72	2.49	182.79	2.54
(E) Other crops												
Sugarcane	10	0.18	9	0.17	5	0.08	27.00	0.38	24.80	0.36	18.76	0.26
Tobacco	2	0.04	1	0.02	1	0.02	0.31	0.01	0.19	0.00	0.13	0.00
Potato	8	0.14	6	0.11	6	0.09	25.09	0.35	25.03	0.36	24.71	0.34
Chillies	76	1.35	72	1.38	72	1.10	71.72	1.01	71.70	1.03	72.12	20.52
Ginger	17	0.30	17	0.32	17	0.26	16.58	0.23	16.58	0.24	17.53	0.24
Total (E) other crops	113	2.00	105	2.01	101	1.54	140.70	1.98	138.30	1.99	133.25	1.85
Grand Total (A+B+C+D+E)	5636	100	5234.3	100	6545	100	7119.40	100.00	6974.15	100.00	7195.02	100.00

Source: Directorate of A & F P, Odisha / Directorate of Horticulture, Odisha/ Directorate of E & S, Odisha.

Annexure-11.14 : District wise Irrigation Area (Potential Created) Up to 03/2020 (Provisional) (area in 000 Hectare)

Sl. No.	District	Major & Medium		Mega (Lift)		Minor (Flow)		Minor (Lift) LI Point		Deep Bore Well		"Other Sources including Jalandhi I&II"		Total			
		Kharif	Rabi	Kharif	Rabi	Kharif	Rabi	Kharif	Rabi	Kharif	Rabi	Kharif	Rabi	Kharif	Rabi	Kharif	Rabi
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
1	Angul	21.855	5.487	0.000	0.000	27.611	3.940	24.158	13.515	14.145	5.040	24.147	19.680	111.916	47.662		
2	Balasore	29.530	7.180	0.000	0.000	16.876	3.743	60.409	35.471	8.625	2.775	88.396	76.846	203.836	126.015		
3	Baragath	91.220	57.060	6.095	0.000	37.996	3.877	25.431	14.156	83.640	30.404	34.917	22.725	279.299	128.222		
4	Bhadrak	92.095	12.000	0.000	0.000	4.709	0.280	29.434	17.274	0.000	0.000	31.055	24.374	157.293	53.928		
5	Boudh	30.835	3.522	6.601	0.000	16.655	1.342	20.782	12.019	15.685	4.790	6.759	6.599	97.316	28.272		
6	Cuttack	89.475	54.955	12.751	0.000	30.372	4.409	35.096	20.228	3.360	0.998	34.406	30.977	205.460	111.567		
7	Deogarh	8.100	5.700	2.722	0.000	8.195	0.457	4.851	2.755	10.140	3.466	10.845	9.706	44.853	22.084		
8	Dhenkanal	70.394	43.603	0.000	0.000	35.637	6.123	22.812	13.224	6.510	2.352	21.225	18.780	156.578	84.082		
9	Gajapati	0.000	0.000	1.940	0.000	24.930	2.878	7.429	4.373	0.795	0.318	4.371	3.504	39.465	11.073		
10	Ganjam	132.697	13.930	13.658	0.000	121.537	8.561	36.000	21.183	8.860	3.021	38.763	29.597	351.515	76.292		
11	Jagatsinghpur	34.770	17.170	0.000	0.000	0.000	0.000	15.797	8.461	0.000	0.000	34.264	31.720	84.831	57.351		
12	Jajpur	61.530	32.920	3.288	0.000	10.613	1.731	49.194	28.186	7.465	2.519	29.863	21.950	161.953	87.306		
13	Jharsuguda	0.000	0.000	5.353	0.000	9.497	1.579	9.306	5.346	10.310	3.600	7.732	6.226	42.198	16.751		
14	Kandhamal	2.390	1.200	0.000	0.000	14.070	4.064	11.974	6.631	3.985	1.146	12.646	6.942	45.065	19.983		
15	Kendrapara	78.460	40.590	1.951	0.000	0.732	0.032	48.546	28.583	0.110	0.055	16.447	15.167	146.245	84.427		
16	Keonjhar	28.400	6.090	0.000	0.000	40.281	6.157	22.958	13.402	9.360	3.379	31.774	25.750	132.773	54.778		
17	Khordha	44.924	26.210	0.000	0.000	26.593	2.515	12.296	7.014	7.585	1.957	19.299	15.951	110.697	53.647		
18	Mayurbhanj	88.409	45.894	0.000	0.000	50.984	6.257	38.747	21.042	22.55	7.565	68.930	37.894	269.620	118.652		
19	Nayagarh	10.930	3.020	0.000	0.000	28.992	5.017	16.844	9.572	8.645	2.487	13.919	13.242	79.330	33.338		
20	Puri	116.166	74.160	0.000	0.000	0.864	0.091	31.520	18.167	1.0300	0.206	20.980	15.026	170.560	107.650		
21	Sambalpur	31.510	23.000	13.002	0.000	27.653	2.956	18.633	10.653	31.700	11.104	12.531	11.997	135.029	59.710		
22	Sundargarh	18.870	9.166	16.393	0.000	29.907	4.092	29.807	17.198	36.405	12.564	36.520	20.649	167.602	63.669		
23	Non-KBK	1082.260	482.857	83.753	0.000	564.704	70.101	572.024	328.452	290.905	99.746	599.788	465.302	3193.435	1446.458		
24	Kalahandi	132.491	77.991	9.112	0.000	44.600	6.027	32.857	19.278	23.350	6.864	26.086	21.212	268.496	131.372		
25	Koraput	53.349	32.462	1.719	0.000	11.500	2.004	31.621	16.415	8.685	3.046	41.305	40.252	148.178	94.179		
26	Malkangiri	70.030	34.650	1.754	0.000	5.011	0.443	10.336	5.860	10.385	3.188	3.173	2.313	100.688	46.454		
27	Nabarangpur	4.250	2.250	4.314	0.000	12.997	1.088	26.587	14.634	21.410	7.222	17.167	15.237	86.724	40.431		
28	Nuapada	30.302	8.444	0.000	0.000	18.771	2.250	12.353	7.111	20.705	7.034	18.975	11.938	101.106	36.777		
29	Subarnapur	58.590	25.760	3.901	0.000	9.855	0.751	33.028	17.824	17.910	5.612	7.110	6.577	130.393	56.524		
30	Rayagada	9.800	3.000	2.232	0.000	32.707	6.346	29.053	16.475	8.305	2.732	9.404	7.120	91.500	35.673		
31	Bolangir	24.278	5.436	17.928	0.000	30.447	3.341	28.654	15.469	44.500	15.618	41.010	22.879	186.817	62.744		
32	KBK	383.090	189.993	40.959	0.000	165.888	22.250	204.489	113.066	155.250	51.316	164.228	127.528	1113.904	504.153		
33	Odisha	1465.350	672.850	124.712	0.000	730.592	92.351	776.513	441.518	446.155	151.062	764.016	592.83	4307.338	1950.611		

Source: Directorate of Agriculture and Food Production, Odisha

Annexure-11.15: Production of Foodgrains across States (In 000 MT)

State/Union Territory	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Andhra Pradesh	10868.1	10429.8	10522.3	10494.1	10633.7	10365.4	12159.8	10838.8
Arunachal Pradesh	362.5	369.6	384.6	409.0	327.5	343.3	359.1	365.2
Assam	4663.3	5280.6	5096.8	5458.8	5358.6	4952.5	5525.9	5465.9
Bihar	14047.2	15939.6	12905.8	13208.6	14507.9	16530.8	17036.9	15600.1
Chhattisgarh	6870.5	7643.6	7598.0	7463.1	6654.3	9324.1	5958.7	7558.6
NCT of Delhi	112.0	90.3	122.1	118.1	111.7	111.2	106.9	106.3
Goa	130.2	131.8	135.5	128.6	115.3	119.1	107.8	105.2
Gujarat	8874.3	7056.2	9179.6	7109.3	6279.3	7422.0	7664.7	6803.6
Haryana	17958.7	16226.4	16974.1	15235.1	16358.7	17162.7	16191.8	18145.0
Himachal Pradesh	1510.3	1480.7	1528.4	1432.0	1615.0	1740.6	1488.3	1501.0
Jammu and Kashmir	1586.3	1831.9	1777.9	1220.3	1732.6	1618.9	1570.8	1892.5
Jharkhand	4175.3	4557.5	4285.7	4777.0	4092.1	5664.4	6001.3	4399.7
Karnataka	15133.1	10863.3	12208.9	12138.0	9924.0	9794.7	11791.2	10888.4
Kerala	572.1	511.8	512.4	563.8	553.8	439.0	523.8	581.2
Madhya Pradesh	20394.8	23690.4	22978.0	28687.0	30385.6	33224.4	33450.4	32208.7
Maharashtra	12544.0	10973.3	13846.2	11311.9	8754.4	15331.6	13246.7	10304.1
Manipur	669.1	336.7	492.6	429.3	435.7	525.1	706.5	495.0
Meghalaya	249.1	265.0	320.0	353.8	357.7	260.1	361.8	260.7
Mizoram	68.0	41.8	72.8	75.3	77.4	75.2	74.2	76.9
Nagaland	566.5	600.6	624.6	649.6	515.8	536.9	552.3	558.1
Odisha	6316.0	10210.0	8360.0	10527.0	6418.0	10970.0	8482.8	9251.54
Puducherry	43.2	47.5	50.4	54.0	44.7	52.8	44.1	64.3
Punjab	28389.1	28543.0	29480.4	26698.0	28400.8	28536.9	31691.9	31532.3
Rajasthan	19469.7	18367.7	17899.6	19621.9	18039.9	19353.6	19957.0	21288.8
Sikkim	103.2	106.0	102.4	102.2	94.1	101.3	93.9	92.0
Tamil Nadu	10151.8	5592.8	8783.2	9623.7	11478.5	4141.6	10713.6	10390.1
Telangana	7495.0	8232.7	9142.9	7114.8	5129.0	8484.6	9421.1	9275.2
Tripura	729.9	725.2	726.7	761.5	818.3	859.6	855.4	836.3
Uttar Pradesh	50283.6	50745.4	50027.5	39594.0	42550.8	49903.4	51369.9	54643.4
Uttarakhand	1852.0	1827.7	1776.5	1626.0	1746.0	1873.0	1903.2	1876.1
West Bengal	15985.7	16546.5	17078.9	16531.8	17980.6	17146.3	16877.5	18689.9
ALL INDIA	259286.0	257124.7	265047.7	252025.0	251541.6	275111.7	285013.2	285209.4

Source: Ministry of Agriculture and Farmers Welfare, Government of India.

Information of Odisha from Directorate of Agriculture & Food Production, Odisha, Bhubaneswar. & Directorate of Economics & Statistics, Odisha, Bhubaneswar

Annexure - 11.16: District wise Forest Area of 2018-19

in sq. km.

Sl. No.	Name of the District	Geographical Area	Reserve Forests	Proposed Reserve Forests	Protected Forest	Village Forest	Demarcated Protected Forest	Un-Demarketed Protected Forest	Rev. Forest including deemed Forest	Un-classed Forest	Private Forest	District Total	Percentage of geographical Area
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Angul	6375	1762.20	290.71	8.34	11.24	65.17	0.00	968.20	0.73	0.00	3106.59	48.73
2	Balangir	6575	205.70	21.54	0.00	3.21	0.00	22.65	107.79	0.02	0.00	360.91	9.48
3	Balasure	3806	571.16	456.22	0.20	15.86	0.19	1.38	284.17	0.19	0.00	1329.37	22.78
4	Bargarh	5837	0.00	4.01	0.00	0.55	0.00	32.96	60.12	0.02	0.00	97.66	3.90
5	Bhadrak	2505	1105.68	3.63	0.00	4.67	0.00	0.00	496.69	0.14	0.48	1611.29	24.51
6	Boudh	3098	981.52	24.75	0.00	11.93	11.87	249.34	0.00	1.07	0.00	1280.48	41.33
7	Cuttack	3932	522.39	67.58	1.28	21.66	0.83	0.00	276.71	0.02	0.00	890.47	22.65
8	Deogarh	2940	718.19	267.54	0.00	3.93	0.00	0.00	561.21	0.04	0.00	1550.91	52.75
9	Dhenkanal	4452	1141.02	0.00	8.34	14.39	130.08	568.00	35.43	0.04	15.15	1912.45	42.96
10	Gajapati	4325	447.18	25.28	0.04	3.10	90.32	1116.67	794.40	0.15	0.00	2477.14	57.27
11	Ganjam	8206	1486.48	131.59	0.65	20.17	593.66	506.49	280.29	0.81	49.23	3069.37	37.40
12	Jagatsinghpur	1668	0.00	2.75	0.00	0.06	0.00	0.00	43.84	0.01	0.00	46.66	2.80
13	Jajpur	2899	6.35	41.29	9.84	16.96	241.99	0.00	0.00	0.00	0.00	316.43	10.91
14	Jharsuguda	2081	35.48	96.44	0.49	15.37	28.72	0.00	273.74	0.05	0.00	450.29	21.64
15	Kalahandi	7920	1449.03	485.51	7.70	3.00	405.41	0.40	496.21	0.54	6.26	2854.06	36.04
16	Kandhamal	8021	2050.42	993.00	0.00	23.58	763.64	74.31	1952.91	2.00	0.00	5859.86	73.06
17	Kendrapara	2644	15.90	143.00	151.40	2.27	0.00	0.00	39.17	4.50	0.00	356.24	13.47
18	Keonjhar	8303	2004.83	155.01	19.37	30.78	233.93	5.26	815.46	0.22	4.97	3269.83	39.38
19	Khurda	2813	268.46	5.27	0.00	9.44	260.34	0.00	125.39	0.84	0.00	669.74	23.81
20	Koraput	8807	478.59	726.32	291.86	15.60	353.90	0.00	468.31	0.68	20.65	2355.91	26.75
21	Malkangiri	5791	352.56	725.61	226.16	2.68	188.65	636.64	1408.61	0.30	0.36	3541.57	61.16
22	Mayurbhanj	10418	3325.89	149.86	12.60	9.08	77.98	65.78	814.73	2.20	0.00	4458.12	42.79
23	Nuapada	3852	0.87	1493.30	0.00	1.71	24.33	0.00	384.03	0.44	2.67	1907.35	49.52
24	Nayagarh	3890	1402.48	120.23	0.00	5.79	81.77	0.00	380.23	3.77	8.25	2002.52	51.48
25	Nawarangpur	5291	535.34	685.78	296.54	10.69	0.00	0.00	1241.55	0.07	56.56	2826.53	53.42
26	Puri	3479	15.66	91.91	0.00	2.85	0.00	0.00	57.07	0.12	20.22	187.83	5.40
27	Rayagada	7073	773.37	1176.78	0.00	4.89	334.35	0.00	1274.31	0.96	2.83	3567.49	50.44
28	Sambalpur	6657	2207.09	371.94	0.33	6.54	46.61	460.81	912.92	1.18	3.14	4010.56	60.25
29	Sonepur	2337	316.52	0.00	0.00	1.07	0.00	0.00	111.13	0.03	0.00	428.75	18.35
30	Sundargarh	9712	2693.30	418.30	50.08	14.44	245.85	532.22	452.68	0.92	0.00	4407.79	45.38
	Odisha	155707	26873.66	9175.15	1085.22	287.51	4179.59	4272.91	15117.30	22.06	190.77	61204.17	39.31

Source: PCCF, Odisha, Bhubaneswar

Annexure -11.17: Veterinary Institutions and Personnel in Odisha, 2019-2020

(in Nos.)

District	Veterinary Hospitals/ Dispensaries	Live Stock Aid Centres	A.I Centres (A.H.Deptt.)	A.I Centres (others)	No. of Veterinary Doctors in position	No. of L.I. in position
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Angul	16	91	94	52	13	68
Balasore	21	137	137	105	27	125
Bargarh	19	128	139	155	22	81
Bhadrak	13	110	100	88	18	90
Balangir	21	129	134	73	32	131
Boudh	7	32	30	15	9	23
Cuttack	26	188	206	150	35	163
Deogarh	4	24	24	2	7	9
Dhenkanal	18	93	103	39	27	68
Gajapati	11	59	47	4	12	39
Ganjam	39	265	280	43	44	175
Jagatsinghpur	14	101	102	196	17	103
Jajpur	19	126	116	74	18	120
Jharsuguda	9	37	42	15	14	26
Kalahandi	21	137	151	44	28	127
Kandhamal	20	94	96	2	27	82
Kendrapara	14	97	92	163	17	51
Keonjhar	22	126	174	32	35	112
Khurda	20	108	114	32	27	69
Koraput	24	142	142	14	31	151
Malkangiri	13	58	34	0	17	55
Mayurbhanj	42	184	208	31	62	150
Nawarangpur	16	80	78	44	20	55
Nayagarh	16	82	81	25	19	65
Nuapada	8	53	55	17	11	40
Puri	15	159	140	216	21	97
Rayagada	16	108	109	0	21	102
Sambalpur	17	122	117	37	24	74
Sonepur	10	42	47	39	15	36
Sundargarh	30	127	132	0	40	90
ODISHA	541	3239	3324	1707	710	2577

Source: Directorate of Animal Husbandry and Veterinary Services, Odisha

Annuxre-11.18 : Production of Fish across States

(in Tonnes)

State / Union Territory	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17(P)	2017-18(P)	2018-19
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Andaman and Nicobar Islands	35264	36620	36948	37180	37325	38810	39500	41190
Andhra Pradesh	1603168	1808077	2018416	1978580	2352263	2766190	3449560	3992360
Arunachal Pradesh	3300	3710	3625	4000	4050	4110	4250	4670
Assam	228621	254270	266700	282700	294200	306600	327260	331530
Bihar	344470	400140	432298	479800	506887	509080	587850	602130
Chandigarh	96	46	113	120	128	130	140	160
Chhattisgarh	250695	255611	284959	314160	342299	376800	457170	469760
Dadra & Nagar Haveli	50	50	50	60	0	0	0	0
Daman & Diu	17429	19012	19860	31820	23031	24020	24680	5380
Delhi	740	690	880	680	710	950	800	790
Goa	89956	77879	114059	117980	111911	117890	124010	120290
Gujarat	783719	788490	798493	809930	809560	815560	834530	724670
Haryana	106000	111480	105580	111200	121000	144210	190000	217530
Himachal Pradesh	8045	8561	9834	10740	11799	12510	12770	13400
Jammu and Kashmir	19850	966000	20000	20300	20080	20390	20700	22440
Jharkhand	91676	96600	104820	106430	115995	145160	190000	208000
Karnataka	546436	525566	555310	623240	580570	557490	602520	587410
Kerala	693208	679736	708645	726010	727507	592850	562620	714460
Lakshadweep	12372	12372	14373	13190	15938	29800	20770	21910
Madhya Pradesh	75405	85165	96258	109120	115017	138690	143420	173190
Maharashtra	578794	586374	602679	608070	579685	662910	606010	583380
Manipur	22219	24502	28541	30500	32035	32000	33000	32150
Meghalaya	4768	5417	5752	6040	11343	12330	11960	10
Mizoram	2928	5430	5940	6390	6828	7630	7640	7230
Nagaland	6840	7130	7465	7840	8220	8610	8990	9780
Odisha	381828	410143	413785	469550	521279	608100	684960	758960
Puducherry	42403	41066	42081	47400	53808	50250	49920	31380
Punjab	97620	99130	104020	114770	120088	132720	136640	135830
Rajasthan	47850	55160	35100	45420	42461	50200	54040	55850
Sikkim	280	490	420	440	402	380	380	390
Tamil Nadu	611488	620397	624296	697610	709163	669310	681940	730670
Telangana	-	-	-	268360	236752	198920	270040	328410
Tripura	53335	57460	61950	65160	69055	72450	76800	84530
Uttar Pradesh	429718	449750	464484	494270	504808	4300	4580	4950
Uttarakhand	3834	3847	3889	3940	4138	617690	628750	662000
West Bengal	1472045	1490016	1580647	1617320	1671420	1701820	1742090	1770310
ALL INDIA	8666450	9040337	9572270	10260280	10761755	11430840	12590290	13421560

Note: All India data are inclusive of all States and Union Territories.

Source: Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture and Family Welfare, Government of India.

Annexure- 11.19: IIP of Odisha during 2017-18 & 2018-19 along with its growth rate

IIP-2017-18												
Sector/ Month	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Mining	174.4	167.9	150.1	152.0	159.8	127.8	144.3	164.6	181.8	188.1	188.1	195.1
Man.	192.9	210.0	202.9	196.8	198.6	193.7	205.7	182.9	218.7	235.5	224.8	242.0
Elec.	128.1	113.1	122.0	118.6	126.3	109.4	111.9	105.1	100.3	115.9	115.9	136.4
General	178.6	182.3	172.0	169.6	174.6	156.6	169.7	167.5	191.2	203.3	198.3	211.4
IIP- 2018-19												
Sector/ Month	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Mining	175.3	202.0	199.3	167.2	127.7	177.6	206.1	204.5	233.1	250.9	230.6	217.6
Man.	259.7	272.7	262.6	266.3	253.7	247.0	274.5	288.2	285.8	284.9	258.3	308.8
Elec.	131.0	130.6	115.6	101.5	106.5	120.5	119.4	112.6	109.3	109.9	108.4	129.4
General	210.3	228.1	220.7	207.0	184.2	204.4	229.7	234.7	245.9	253.4	231.9	251.6
IIP Growth Rate												
Sector/ Month	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Mining	0.5	20.3	32.7	10.1	-20.1	39.0	42.8	24.3	28.2	33.4	22.6	11.5
Man.	34.6	29.9	29.4	35.3	27.8	27.5	33.5	57.6	30.7	21.0	14.9	27.6
Elec.	2.3	15.5	-5.2	-14.4	-15.7	10.1	6.7	7.1	9.0	-5.2	-6.5	-5.2
General	17.7	25.1	28.4	22.0	5.5	30.5	35.3	40.1	28.6	24.7	16.9	19.0

Source: ASI Division, DE&S

Annexure-11.20: District wise MSME Scenario in Odisha

Sl.No	Name of the District	No. of MSME Units		Investments (INR in Lakhs)		Total Employment	
		2018-19	2019-20	2018-19	2019-20	2018-19	2019-20
		2018-19	2019-20	2018-19	2019-20	2018-19	2019-20
1	2	3	4	5	6	7	8
1	Bargarh	1702	1601	9706.06	4441.79	1308	2967
2	Jharsuguda	2151	1709	10203.8	10410.11	9503	11880
3	Sambalpur	3418	2247	25820.27	16699.22	10727	6550
4	Deogarh	810	600	1825.54	1258.45	2576	1179
5	Sundargarh	6796	5814	28388.77	33075.27	15952	15299
6	Kenonjhar	2302	2300	9253.88	8118.66	6239	5453
7	Balasore	3400	3348	9329.21	9112.85	8674	8302
8	Balasore	4108	4108	15945.75	12019.09	11737	11403
9	Bhadrak	3010	3008	5616.92	6792.41	6960	6630
10	Kendrapara	1335	1333	4951.35	5576.42	2937	3741
11	Jagatsinghpur	1641	1641	6919.02	9577.22	4274	4871
12	Cuttack	4901	3271	25103.35	15317.28	12966	7737
13	Jagatpur	3602	2976	17895.04	20966.94	8220	7244
14	Dhenkanal	2453	900	8645.19	2948.56	5244	1940
15	Angul	2595	2140	31327.16	26629.63	5448	5246
16	Nayagarh	715	582	3715.03	2176.25	2207	1878
17	Bhubaneswar	4970	4973	30421.94	31476.66	16415	16735
18	Puri	2461	2451	7301.28	8163.03	5934	5794
19	Ganjam	3978	1302	7927.64	1273.15	8499	2671
20	Gajapati	436	460	1992.92	2928.5	1023	1374
21	Phulbani	846	804	2212.31	3181.62	2261	2233
22	Boudh	421	64	1367.90	217	1211	170
23	Sonepur	566	563	902.73	1051.88	1571	1392
24	Bolangir	3205	2429	13335.85	10523.28	11078	1929
25	Nuapada	865	910	2434.79	4333.46	2358	2687
26	Kalahandi	1639	1206	13440.55	6750.65	8416	6216
27	Rayagada	2253	1981	11369.33	14944.37	7824	5658
28	Nawarangpur	1031	808	4075.6	4193.8	3619	2475
29	Koraput	1760	1760	7555.31	4470.85	5525	6597
30	Malkangiri	303	362	1302	1980.21	1064	1519
	TOTAL	69673	57651	319656.45	280608.61	191770	159770

Source: Directorate of Industries, Cuttack

Annexure-11.21: State-Wise Ease of Doing Business Rank

State/Union Territory	2015		2016		2017		2019
	Score	Rank	Score	Rank	Score	Rank	Rank
Andhra Pradesh	70.12	2	98.78	1	98.3	1	1
Arunachal Pradesh	1.23	32	0.30	31	-	34	29
Assam	14.48	22	14.29	24	84.75	17	20
Bihar	16.41	21	75.82	16	81.91	18	26
Chhattisgarh	62.45	4	97.32	4	97.31	6	6
Goa	21.74	19	18.15	21	57.34	19	24
Gujarat	71.14	1	98.21	3	97.99	5	10
Haryana	40.66	14	96.95	6	98.06	3	16
Himachal Pradesh	23.95	17	65.48	17	87.9	16	7
Jammu and Kashmir	5.93	29	0.30	31	32.76	22	21
Jharkhand	63.09	3	96.57	7	98.05	4	5
Karnataka	48.50	9	88.39	13	96.42	8	17
Kerala	22.87	18	26.97	20	44.82	21	28
Madhya Pradesh	62.00	5	97.01	5	97.3	7	4
Maharashtra	49.43	8	92.86	10	92.88	13	13
Manipur	-	-	1.19	28	0.27	32	29
Meghalaya	4.38	30	0.30	31	-	34	29
Mizoram	6.37	28	0.89	29	3.66	30	25
Nagaland	3.41	31	1.49	26	14.16	28	29
Odisha	52.12	7	92.73	11	92.08	14	29
Punjab	36.73	16	91.07	12	54.36	20	19
Rajasthan	61.04	6	96.43	8	95.7	9	8
Sikkim	7.23	27	0.60	30	0.14	33	29
Tamil Nadu	44.58	12	62.80	18	90.68	15	14
Tripura	9.29	26	16.67	22	22.45	25	29
Telangana	42.45	13	98.78	1	98.28	2	3
Uttarakhand	13.36	23	96.13	9	94.24	11	11
Uttar Pradesh	47.37	10	84.52	14	92.89	12	2
West Bengal	46.90	11	84.23	15	94.59	10	9
Andaman and Nicobar Islands	9.73	25	0.30	31	1.25	31	22
Chandigarh	10.04	24	0.30	31	11.54	29	29
Dadra & Nagar Haveli	-	-	1.79	25	21.88	26	23
Delhi	37.35	15	47.62	19	31.69	23	12
Daman & Diu	-	-	14.58	23	28.69	24	18
Lakshadweep	-	-	0.30	31	-	34	15
Puducherry	17.72	20	1.49	26	15.65	27	27

1 Ease of Doing business Index is based on the implementation of the Business Reform Action Plan (BRAP) recommended by the Department of Industrial Policy and Promotion (DIPP) to all States and UTs.

Source: Department of Industrial Policy and Promotion, Government of India.

Annexure-11.22: Abstract of Village electrification status of all 30 Districts as on 31.03.2020

Sl. No	Name of the District	No. of inhabited census villgs. as per 2011 census	No. of villages electrified as on 31.03.19	Total Nos. of villages electrified during 2019-20	Total Nos. of villages electrified as on 31.03.20 4+5	Balance villages to be electrified 3-6
1	2	3	4	5	6	7
1	Angul	1654	1654	0	1654	0
2	Cuttack	1854	1854	0	1854	0
3	Dhenkanal	1081	1081	0	1081	0
4	Jagatsinghpur	1223	1223	0	1223	0
5	Jajpur (CESU portion)	207	207	0	207	0
6	6 Jajpur (NESCO portion)	1391	1391	0	1391	0
7	Kendrapara	1415	1385	30	1415	0
8	Khurda	1356	1356	0	1356	0
9	Nayagarh	1541	1541	0	1541	0
10	Puri (CESU portion)	1523	1503	20	1523	0
11	Puri(SOUTHCO portion)	77	77	0	77	0
12	Balasore	2635	2633	0	2633	*0
13	Bhadrak	1250	1242	0	1242	*0
14	Kenonjhar	2064	2059	0	2059	*0
15	Mayurbhanj	3751	3645	0	3645	*0
16	Bargarh	1179	1179	0	1179	0
17	Bolangir	1751	1751	0	1751	0
18	Deogarh	718	718	0	718	0
19	Jharsugud	347	347	0	347	0
20	Kalahandi	2116	2116	0	2116	0
21	Nuapada	656	656	0	656	0
22	Sambalpur	1229	1229	0	1229	0
23	Sonepur	856	856	0	856	0
24	Sundargarh	1713	1713	0	1713	0
25	Boudh	1117	1117	0	1117	0
26	Loraput	1941	1941	0	1941	0
27	Rayagada	2468	2468	0	2468	0
28	Gajapati	1499	1499	0	1499	0
29	Ganjam	2783	2783	0	2783	0
30	Kandhamal	2417	2417	0	2417	0
31	Malkangiri	995	995	0	995	0
32	Nawarangpur	868	868	0	868	0
	Total	47675	47504	50	47554	0

Annexure-11.23: State-Wise Installed Capacity of Power (In MW)

State/Union Territory	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Andaman and Nicobar Islands	65	65	70	70	50	52	52	57
Andhra Pradesh	16095	16949	17731	11275	14827	22298	23674	24184
Arunachal Pradesh	214	249	249	261	258	274	301	337
Assam	1020	1140	1143	1263	1369	1600	1571	1710
Bihar	1834	1868	2198	2760	2985	3608	4341	4566
Chandigarh	102	106	116	118	124	177	193	198
Chhattisgarh	5347	6532	9975	13086	15540	12060	13527	14044
Dadra and Nagar Haveli	67	80	80	80	90	242	255	276
Daman and Diu	38	48	48	48	59	182	190	206
Delhi	6587	7163	7824	8274	8347	7839	7180	7237
Goa	400	430	400	400	412	541	549	567
Gujarat	21972	26414	27647	28961	29611	30716	31043	32291
Haryana	6882	8114	8282	8754	8792	11056	11260	11268
Himachal Pradesh	3585	3770	3986	4579	4424	3893	4047	4068
Jammu and Kashmir	2307	2394	2579	2611	3122	3274	3389	3394
Jharkhand	3038	2270	2580	2626	2626	2237	1771	1774
Karnataka	13394	13759	14270	15150	17037	21317	27157	28075
Kerala	3828	3856	3892	4107	4163	4999	5083	5083
Lakshadweep	11	11	11	11	1	1	1	1
Madhya Pradesh	8780	10632	13805	15845	17644	19618	21728	23334
Maharashtra	26142	30354	34867	38355	40376	41410	43255	44144
Manipur	158	179	179	200	206	233	242	259
Meghalaya	374	455	455	495	510	518	565	582
Mizoram	139	150	150	161	119	137	196	206
Nagaland	103	117	118	131	140	155	159	170
Odisha	10114	8859	5054	5532	5593	5509	5811	5540
Puducherry	280	282	284	330	335	367	369	370
Punjab	7056	7509	8379	10525	12455	14162	13432	13432
Rajasthan	10161	12156	14282	16229	17784	19776	21684	22589
Sikkim	206	206	314	323	414	758	962	962
Tamil Nadu	17602	19433	21193	22884	24747	29112	30327	31059
Telangana	.	.	.	9470	10892	11501	15139	15826
Tripura	265	412	433	627	677	727	733	752
Uttar Pradesh	13054	14294	14375	15087	18632	23662	24909	25130
Uttarakhand	2527	2561	2635	2809	3177	3313	3399	3403
West Bengal	8567	8616	8959	9576	9984	10383	10518	10568
ALL INDIA	199877	223344	245394	271722	298060	326849	330580	356100

Source: Central Electricity Authority, Ministry of Power, Government of India.

Note: State totals may not tally with All India due to exclusion of certain items like Damodar Valley Corporation, etc. Information of Odisha is from GRIDCO

Annexure-11.24: State-Wise per capita Availability of Power (KW / Per Hour)

State/Union Territory	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Andaman and Nicobar Islands	536.9	489.5	473.8	473.8	473.8	473.8	789.6	850.1
Andhra Pradesh	1005.7	970.5	1051.6	1140.2	1019.8	1098.6	1180.3	1289.4
Arunachal Pradesh	400	400.7	373.9	441.2	427.5	515.7	570.7	618.4
Assam	182.7	194	226.6	254.3	265.4	278.9	281.7	295.3
Bihar	108.5	123.6	142.2	180.7	227.9	242.1	256.3	287.3
Chandigarh	1482.9	1552.1	1492.4	1532.2	1523.7	1559.7	1518	1480.1
Chhattisgarh	572.2	665.7	736.1	831.2	991	927.9	1011.4	1021
Dadra and Nagar Haveli	12685	12830.6	15715.2	15470.2	17281.5	17561.5	17987.3	18424.8
Daman and Diu	7883.5	7657.1	9270.9	8587.5	9620.8	9867.8	10431.8	10526.5
Delhi	1592.2	1549	1599.2	1737.3	1765.8	1838.4	1898.6	1926.9
Goa	2045	2131.4	2655.5	2697.4	3511.6	2962.2	2824.3	2936.1
Gujarat	1232.6	1549	1465.4	1593.3	1714.7	1717.4	1821.2	1930.5
Haryana	1401.8	1507.1	1704.4	1831.4	1871.1	1928.5	2002.7	2116.7
Himachal Pradesh	1182.4	1275.3	1295.6	1273	1277.3	1280.4	1362.9	1402.7
Jammu and Kashmir	867.7	921	971.2	1045.4	1118.6	1131.3	1199.3	1264.5
Jharkhand	182.9	205.2	212.6	224.2	229.3	239.8	235.2	256.7
Karnataka	883.7	933.1	949.6	980.3	997.4	1088.5	1107.5	1172.7
Kerala	583.1	610.7	630.5	662.7	694.7	726.6	746.3	746.2
Lakshadweep	574.3	558.8	745	745	745	745	745	714
Madhya Pradesh	570.2	609.8	680.3	731.2	859.2	905.8	963.2	1042.3
Maharashtra	1047.6	1067.6	1100.5	1184.3	1258	1239	1330.7	1407.4
Manipur	183.3	199.5	201.3	249.1	297.6	271.1	303.8	332.8
Meghalaya	489.2	542.2	541.2	551.3	581.6	578.3	523.3	658.9
Mizoram	325.4	346.5	394.1	389.5	417	457.4	447.3	605.9
Nagaland	258	270.1	283.2	333.7	372.6	375.1	389.3	408.5
Odisha	541	579.8	585.2	621.1	634.1	637.8	684.3	757.6
Puducherry	1716.4	1841	1864.3	1909.3	1951.8	2045.9	2139.1	2210.6
Punjab	1580.7	1664.7	1699.5	1737.8	1793	1916.6	1978.5	1995.2
Rajasthan	721.2	785	845.8	951.7	979.4	982.5	1028.9	1160.6
Sikkim	631.9	673	679.6	656.6	656.6	780	798.1	842.5
Tamil Nadu	1063.3	1055.8	1219.6	1285.7	1338.9	1448.4	1467.2	1514.8
Telangana	.	.	.	1151.8	1415.5	1502.5	1707.1	1888.4
Tripura	245.2	287.1	311.6	285.5	312.2	441.6	695.2	500.4
Uttar Pradesh	361.3	383	408.9	436.2	466.1	529.6	592.8	581.9
Uttarakhand	1009	1058.5	1136	1193.3	1252.9	1283.7	1327.1	1359.4
West Bengal	419.1	458.1	468.1	512.6	516.6	523.4	553.6	570.1
ALL INDIA	708.9	750.8	793.1	851.8	901.4	938.1	978.1	1028.9

Not Applicable -: Not Available.

* : Per Capita Availability of Power is worked out based on Census Population and the population for Andhra Pradesh and Telangana drawn from both Governments' portals for the years 2014-15 and 2018-19.

Source: Central Electricity Authority, Ministry of Power, Government of India.

Annexure: 11.25 : Bank-Wise Key Indicators by the end of 31.03.2020

(in Crore)

Banks	Total branches	Deposit	Advance	CD Ratio	Total Adv. To Agrl.	Adv. To Agrl.	Adv. To services sector.	Adv. To weaker section.	Adv. To DRI	Adv. To women	Adv. To SC/ ST
1	2	3	4	5	6	7	8	9	10	11	12
Public Sector	3089	252492.01	133174.71	52.74	13233.13	25835.35	14622.36	12850.41	70.13	5706.49	6614.69
Private Sector	918	64766.94	53503.31	82.61	6949.95	13187.45	5936.44	4952.83	0.18	7037.78	544.47
RRBs	985	19635.94	8019.52	40.84	3963.58	1689.62	874.7	2838.27	1159.94	1714.03	1642.48
RIDF (NABARD)	0	0	0	0	19978.84	0.00	0.00	0.00	0.00	0.00	0.00
Total Small Finance Bank	118	426.71	1287.42	301.71	725.92	298.37	172.63	966.07	0	784.62	155.01
Total commercial Bank Branches	5110	337321.6	195984.96	58.1	44851.42	41010.79	21606.13	21607.58	1230.25	15242.92	8956.65
Total Co-operative Bank	340	11654.32	14842.88	127.36	14092.61	154.97	90.68	12344.82	0	1459.61	3412.38
Grand Total	5450	348975.92	210827.84	60.41	58944.03	41165.76	21696.81	33952.4	1230.25	16702.53	12369.03

Source: SLBC (15th Issue)

Annexure: 11.26 : Market Share of Commercial and Cooperative Banks in Dispensing Crop Loan

(in Crore)

Year	Commercial Banks	Cooperative Banks	Total	Market Share of Banks (%)	
				Cooperative	Commercial
1	2	3	4	5	6
2011-12	2270.13	4415.89	6686.20	66	34
2012-13	3175.67	5426.49	8457.02	62	38
2013-14	3103.86	7096.64	10200.50	70	30
2014-15	4590.89	8351.11	12942.00	65	35
2015-16	6520.90	9572.22	16093.12	59	41
2016-17	5330.44	10200.65	15531.09	66	34
2017-18	5524.00	11005.80	16529.80	67	33
2018-19	5922.46	12809.99	18732.45	68	32
2019-20	7353.01	13071.03	20424.04	64	36

Source: SLBC (15th Issue)

Annexure: 11.27 : Tourist Composition and Inflow of money via Tourist spending in Odisha

Year	Tourist (in nos.)			Growth Rate(%)	"Inflow of money (Rs. In crore)"			Growth Rate(%)
	Domestic	Foreign	Total		Domestic	Foreign	Total	
1	2	3	4	5	6	7	8	9
2008-09	6,482,213	42,303	6,524,516	4.32	3254.65	135.46	3390.11	6.1
2009-10	7,104,079	47,105	7,151,184	9.60	3566.89	150.83	3717.72	9.66
2010-11	7,770,741	53,212	7,823,953	9.41	3901.61	170.39	4072.00	9.53
2011-12	8,472,208	62,816	8,535,024	9.09	4253.81	201.14	4454.95	9.40
2012-13	9,291,734	65,522	9,357,256	9.63	4665.29	209.81	4875.10	9.43
2013-14	10,064,072	67,400	10,131,472	8.27	10288.60	308.94	10597.54	117.38
2014-15	11,051,351	72,215	11,123,566	9.79	11297.91	331.01	11628.92	9.73
2015-16	12,067,695	67,364	12,135,059	9.09	12336.93	308.78	12645.71	8.74
2016-17	13,112,728	77,496	13,190,224	8.69	13405.27	355.22	13760.49	8.82
2017-18	14,261,546	102,995	14,364,541	8.90	14579.72	472.10	15051.82	9.38
2018-19	15,509,529	113,721	15,623,250	8.76	15441.67	474.00	15915.67	5.74
2019-20	15,035,593	100,567	15,136,160	(-)3.12	14,969.81	419.17	15388.98	(-)3.31

Source :Department of Tourism,Odisha

Annexure: 11.28 : Total Road Length since 2000-01 to 2019-20

(Length in Kms.)

Year	National Highway	State Highway	Major District Road	Other District Road	Total	Total of State Road
2	3	4	5	6	7	8
2000-01	2739.49	5048.68	3676.82	4576.50	16041.49	13302.00
2001-02	2739.49	5048.68	3676.82	6176.50	17641.49	14902.00
2002-03	3175.49	5048.68	3287.589	6153.379	17665.14	14489.65
2003-04	3175.49	5048.68	3287.589	6138.379	17650.14	14474.65
2004-05	3557.49	5014.477	3287.589	6138.379	17997.94	14440.45
2005-06	3592.027	5102.477	3189.474	6122.379	18006.36	14414.33
2006-07	3592.027	3886.966	4277.195	6314.049	18070.24	14478.21
2007-08	3595.027	3886.966	4277.195	6314.049	18073.24	14478.21
2008-09	3595.027	3886.966	4277.195	6314.049	18073.24	14478.21
2009-10	3592.932	3686.889	4057.127	6812.699	18149.65	14556.72
2010-11	3594.162	3686.889	4057.127	6812.699	18150.88	14556.72
2011-12	3594.162	3695.475	4198.266	7024.769	18512.67	14918.51
2012-13	3593.282	3607.128	4298.046	7521.854	19020.31	15427.03
2013-14	3593.282	5124.576	2805.341	8589.837	20113.04	16519.75
2014-15	3876.537	4840.491	2820.721	9804.953	21342.70	17466.17
2015-16	4510.712	4175.901	2696.711	11997.863	23381.19	18870.48
2016-17	4855.325	4139.006	2627.036	13666.819	25288.19	20432.86
2017-18	4857.365	4137.530	2815.936	15328.71	27139.541	22282.176
2018-19	4848.058	4143.053	2811.784	18835.008	30637.90	25789.845
2019-20	4848.058	4172.80	2780.96	18840.81	30642.628	25794.57

Source: Works Department, Govt. of Odisha

Annexure : 11.29 : Interstate comparison of IMR (2001-2018)

Name of the States	2001	2002	2004	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Andhra Pradesh	66	62	59	57	52	49	46	43	41	39	39	37	34	32	29
Assam	74	70	66	68	64	61	58	55	55	54	49	47	44	44	41
Bihar	62	61	61	61	56	52	48	44	43	42	42	42	38	35	32
Gujrat	60	60	53	54	50	48	44	41	38	36	35	33	30	30	28
Haryana	66	62	61	60	54	51	48	44	42	41	36	36	33	30	30
Karntak	58	55	49	50	45	41	38	35	32	31	29	28	24	25	23
Kerala	11	10	12	14	12	12	13	12	12	12	12	12	10	10	7
Madhya Pradesh	86	85	79	76	70	67	62	59	56	54	52	50	47	47	48
Maharastra	45	45	36	36	33	31	28	25	25	24	22	21	19	19	19
Odisha	91	87	77	75	69	65	61	57	53	51	49	46	44	41	40
Punjab	52	51	45	44	41	38	34	30	28	26	24	23	21	21	20
Rajastan	80	78	67	68	63	59	55	52	49	47	46	43	41	38	37
Tamilnadu	49	44	41	37	31	28	24	22	21	21	20	19	17	16	15
Uttar Pradesh	83	80	72	73	67	63	61	57	53	50	48	46	43	41	43
West Bengal	51	49	40	38	35	33	31	32	32	31	28	26	25	24	22
India	66	63	58	58	53	50	47	44	42	40	39	37	34	33	32

Source: Sample Registration System Bulletin

Annexure : 11.30 : Interstate comparison of under -5 mortality rates (2010 to 2018)

Name of the States	2010			2011			2012			2013			2014			2015			2016			2017			2018		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Andhra Pradesh	48	53	36	45	49	34	43	48	31	41	46	29	40	44	29	39	43	29	37	41	26	35	39	25	33	37	24
Assam	83	88	42	78	83	39	75	80	37	73	77	34	66	71	28	62	65	27	52	56	23	48	51	22	47	50	23
Bihar	64	65	47	59	61	41	57	58	39	54	56	37	53	54	43	48	48	47	43	44	34	41	42	34	37	37	32
Gujrat	56	65	39	52	60	35	48	56	32	45	53	28	41	51	27	39	47	26	33	42	19	33	40	21	31	37	21
Haryana	55	58	47	51	54	43	48	52	39	45	49	34	40	44	32	43	47	36	37	41	29	35	38	22	36	39	30
Karnatak	45	49	36	40	43	33	37	40	31	35	38	28	31	35	25	31	35	25	29	33	20	28	30	24	28	30	24
Kerala	15	16	12	13	14	10	13	13	10	12	13	9	13	14	12	13	14	11	11	12	10	12	12	12	10	11	9
Madhya Pradesh	82	88	54	77	82	50	73	79	46	69	75	40	65	72	37	62	67	43	55	60	35	55	61	34	56	60	39
Maharashtra	33	39	23	28	33	19	28	33	20	26	32	18	23	28	15	24	29	15	21	27	14	21	25	16	22	27	15
Odisha	78	81	46	72	76	43	68	72	42	66	70	39	60	63	38	56	59	37	50	52	38	47	49	37	44	45	35
Punjab	43	49	31	38	43	28	34	38	26	31	35	24	27	30	22	27	30	21	24	25	23	24	26	21	23	23	22
Rajasthan	69	76	42	64	70	38	59	65	36	57	63	32	51	58	28	50	55	31	45	49	33	43	47	29	40	43	31
Tamilnadu	27	30	24	25	28	21	24	28	20	23	26	17	21	26	17	20	25	16	19	23	15	19	22	17	17	22	14
Uttar Pradesh	79	82	60	73	77	54	68	72	49	64	68	44	57	62	40	51	54	40	47	50	37	46	49	35	47	49	38
West Bengal	37	40	28	38	41	29	38	40	29	35	37	26	30	32	25	30	31	26	27	29	23	26	27	25	26	27	25
India	59	66	38	55	61	35	52	58	32	49	55	29	45	51	28	43	48	28	39	43	25	37	42	25	36	40	26

Source: Sample Registration System Bulletin

Annexure : 11.31 : Interstate comparison of Institutional Delivery in % (2005-06 to 2015-16)

Name of the States	NFHS-4(2015-16)			DLHS4/AHS-3(2012-13)			CES(2009)			DLHS-3(2007-08)			NFHS-3(2005-06)		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Andhra Pradesh	91.6	89.7	96.5	88.5	85.9	94.8	94.2	94.3	94	73	65.7	90.9	64.4	55.9	81.5
Assam	70.6	68.2	92.9	65.9	62.9	84.5	64.4	61.9	81.6	35.1	31.8	66.7	22.4	17.9	58
Bihar	63.8	62.7	74.3	55.4	53.6	71.5	48.3	46	67.4	27.5	25.5	54.1	19.9	16.7	44
Gujrat	88.7	85.5	93.4	NA	NA	NA	78.1	73.1	86.5	56.4	48	83.7	52.7	39.2	75.7
Haryana	80.5	80.4	80.6	77	74.3	81.9	63.3	59.5	72.7	46.8	42.1	61.5	35.7	26.7	64
Karnatak	94.3	93.5	95.4	89.1	85.8	94	86.4	83.3	92.4	65.1	59.7	79.8	64.7	54.8	81.8
Kerala	99.9	99.9	99.9	99.6	99.7	99.8	99.9	100	99.7	99.4	99.2	99.9	99.3	99	100
Madhya Pradesh	80.8	76.4	93.8	82.6	79.9	89.9	81	77.4	91.3	46.9	40.7	72.1	26.2	17.1	57.2
Maharastra	90.3	86.7	94.8	92	88.8	95.7	81.8	74.4	92	63.5	54.1	87.2	64.6	48.9	83.3
Odisha	85.3	84.5	89.7	80.8	79.8	86.9	75.5	74.4	81.8	44.1	40.2	74.4	35.6	31.3	63.1
Punjab	90.5	91.5	89	82.7	81.8	84.3	60.3	54.1	72.4	63.1	59.5	72.3	51.3	47.6	57.9
Rajastan	84	82.3	90.3	78	75.2	88.3	70.5	67.5	80.1	45.4	40.6	67.5	29.6	20.8	63.7
Tamilnadu	99	98.7	99.2	99	98.9	99	98.4	98.1	98.7	94	91.8	97.5	87.8	84	92.4
Uttar Pradesh	67.8	66.8	71.7	56.7	54.8	64.9	62.1	59.9	70.1	24.5	22	38	20.6	15.8	39.5
West Bengal	75.2	71.9	83.7	74.6	69.9	85.8	69.5	63.3	85.5	48.9	43.3	80.7	42	32.2	79.7
India	78.9	75.1	88.7	NA	NA	NA	72.9	68	85.6	46.9	37.8	70.4	38.7	28.9	67.5

Source: NFHS/DLHS/CES Study Reports

Annexure : 11.32 : Progress of Immunization Programme in Odisha (No. in Lakh)

Programmes	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
1	2	3	4	5	6	7	8	9	10	11
TT(PW)	7.67	7.73	7.14	7.55	7.32	7.3	6.7	6.85	6.9	6.7
DPT	7.17	7.27	7.58	7.01	7.23	5.33	6.74	6.49	6.61	6.6
Polio	7.2	6.61	7.44	7.03	7.24	6.88	6.72	6.49	6.5	6.65
BCG	7.85	8.02	7.4	7.3	7.34	7.03	6.62	6.38	6.39	6.23
Measles	6.98	7.08	7.57	6.86	7.08	6.85	6.8	4.72	5.32	6.75
DT	5.68	5.53	6.39	6.19	6.24	6.46	7.19	4.9	5.99	5.75
TT(10 Yrs)	8.74	7.62	7.78	6.78	6.78	6.5	6.12	5.33	5.43	8.08
TT(16 Yrs)	8.15	7.22	7.77	6.77	6.58	6.16	5.82	5.13	5.11	7.67

Source: Directorate of Family Welfare , Odisha , Bhubaneswar

Annexure : 11.33 : Interstate comparison of Maternal Mortality Ratio (MMR)

Name of the States	2004-06	2007-09	2010-12	2011-13	2014-16	2016-18
1	2	3	4	5	6	7
Andhra Pradesh	154	134	110	92	74	65
Assam	480	390	328	300	237	215
Bihar	312	261	219	208	165	149
Gujrat	160	148	122	112	91	75
Haryana	186	153	146	127	101	91
Karnatak	213	178	144	133	108	92
Kerala	95	81	66	61	46	43
Madhya Pradesh	335	269	230	221	173	173
Maharastra	130	104	87	68	61	46
Odisha	303	258	235	222	180	150
Punjab	192	172	155	141	122	129
Rajastan	388	318	255	244	199	164
Tamilnadu	111	97	90	79	66	60
Uttar Pradesh	440	359	292	285	201	197
West Bengal	141	145	117	113	101	98
India	254	212	178	167	130	113

Source: Reports of SRS/ NITI Ayog

Annexure : 11.34 : COVID HOSPITALS IN ODISHA

Sl.No.	Name of the District	Names of COVID Hospital	Capacity	No. of ICU Beds
1	2	3	4	5
1	Anugul	NSCH, (MCL) Talcher (DCH)	144	6
2	Balangir	KISS Campus (DCH)	180	20
3	Balasore	Jyothi Hospital (DCH)	100	20
4	Bargarh	MCH Building (DCH)	92	8
5	Bhadrak	Salandi Hospital, (DCH)	116	4
6	Boudh	Old Jail Campus, (DCHC)	120	0
7	Cuttack	Ashwini Hospital, (DCH)	116	34
8		GIMSAR (DCH)	150	0
9	Deogarh	Govt.Polytechnic College, (DCHC)	194	0
10	Dhenkanal	Old DHH, (DCH)	250	6
11	Gajapati	Centurion Health University, (DCH)	102	10
12		ITI, Kaliapada, Mohana, (D CHC)	60	0
13		SDC, Betaguda (DCHC)	72	0
14	Ganjam	Amit Aswini Covid Hospital, Berhampur (DCH)	76	74
15		Boys and Girls Hostel, Saraswati Sisu Mandir, Berhampur, (DCHC)	500	0
16		City Hospital , Berhampur (DCHC)	50	0
17		Girls Hostel, Biju Pattanaik Homeopathic College, Berhampur (DCHC)	50	0
18		Leprosy Hospital Building, Aska (DCHC)	150	0
19		MKCG(Pediatric Ward) (DCH)	126	24
20		TATA Medical Hospital, (DCH)	163	50
21	Jagatsinghapur	Biju Jatri Niwas, DCHC	65	5
22	Jajpur	TATA Hospital, Duburi, (DCH)	135	15
23	Jharsuguda	CHC, MCL, Bandhabahal	50	0
24		Old DHH, (DCH)	100	17
25	Kalahandi	Govt.Engineering College, (DCH)	190	10
26	Kandhamal	GNMTC, (DCH)	140	10
27	Kendrapara	Covid Health Care Institution, Chhatta (DCHC)	90	0
28		Govt.Politechnic Hostel, (DCH)	160	10
29	Kendujhar	Ranki, Keonjhar, (DCH)	200	14
30		TATA Hospital, Joda, (DCH)	45	5
31	Khordha	Aditya Ashwini Hospital, Bhubaneswar	99	51
32		IMS & SUM Hospital, (DCH)	500	125
33		KIIMS Hospital, (DCH)	455	45
34		Neelachal Hospital, Balakati	126	15
35	Koraput	SDH Jeypore, (DCH)	147	1
36	Malkangiri	BED College, Malkangiri (DCHC)	250	0
37		OLD DHH, (DCH)	96	4
38	Mayurbhanj	KIMS Campus , Baripada, (DCH)	190	10
39	Nabarangpur	BED College, (DCH)	184	16
40	Nayagarh	Chandpur TB Hospital, (DCH)	190	10
41	Nuapada	Anwasha Hostel, Tila, (DCH)	200	9
42	Puri	Ayurveda College	58	0
43		IDH PURI, (DCH)	40	15
44	Rayagada	ESI Hospital, (DCHC)	100	10
45	Sambalpur	DHH Sambalpur , (DCH)	180	30
46	Sonepur	Govt. ITI, (DCHC)	152	2
47	Sundargarh	Hitech Medical College, Rourkela (DCH)	175	25
48		Sundargarh Medical College, NTPC	200	0
TOTAL			7328	710

Annexure: 11.35 : District-wise COVID-19 Confirmed Cases in Odisha (Absolute Series)

(In Nos.)

District	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20
Angul	0	0	25	45	275	564	3500	3757	1428
Balangir	0	0	82	105	276	1389	2537	2413	1023
Balasore	0	20	132	201	647	2740	3954	2630	1044
Bargarh	0	0	11	98	316	1785	4260	2258	857
Bhadrak	1	18	101	112	394	2100	2576	1426	428
Boudh	0	0	34	8	104	472	1273	699	138
Cuttack	0	1	119	418	1517	6469	12297	5122	1752
Deogarh	0	1	31	29	33	128	443	411	111
Dhenkanal	0	1	18	60	265	1414	2037	1359	435
Gajapati	0	0	36	405	1069	1367	707	276	82
Ganjam	0	0	431	1041	9200	7397	2124	995	397
Jagatsinghpur	0	0	82	216	431	1186	3461	2229	1103
Jajpur	0	36	244	235	773	2590	4548	2469	630
Jharsuguda	0	1	6	98	209	1003	3250	1830	652
Kalahandi	0	2	18	51	166	1178	1947	1866	691
Kandhamal	0	0	22	156	394	1653	2323	1120	211
Kendrapara	0	2	137	112	241	1390	3271	2488	966
Keonjhar	0	1	25	119	643	1181	2391	2032	1000
Khurda	3	44	94	512	3638	12943	20803	10606	2407
Koraput	0	1	7	39	770	2808	2571	1211	330
Malkangiri	0	0	21	85	460	1839	1283	1188	272
Mayurbhanj	0	0	26	187	478	2966	4523	3273	1489
Nabarangpur	0	0	2	40	236	853	2585	1588	385
Nayagarh	0	0	68	90	498	2397	1803	1167	318
Nuapada	0	0	33	49	61	366	2689	2501	1045
Puri	0	1	90	177	535	2833	6575	2374	834
Rayagada	0	0	0	39	858	3939	2664	598	170
Sambalpur	0	0	11	45	381	2469	3149	1956	685
Subarnapur	0	0	8	29	60	623	2254	1463	205
Sundargarh	0	10	47	143	1235	3040	3113	3540	1888
Total	4	139	1961	4944	26163	73082	110911	66845	22976

Source: Directorate of Animal Husbandry and Veterinary Services, Odisha

Annexure 11.36 : District-wise COVID-19 Recovered Cases in Odisha (Absolute Series)

(In Nos.)

District	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20
Angul	0	0	19	34	178	261	2378	4528	1756
Balangir	0	0	6	144	148	1044	2299	2589	1282
Balasore	0	0	124	154	439	2103	3491	3297	1368
Bargarh	0	0	0	56	284	845	4134	2879	1136
Bhadrak	0	2	93	125	264	1592	2406	1977	564
Boudh	0	0	33	7	40	445	979	891	280
Cuttack	0	1	35	417	944	3913	11514	7914	2402
Deogarh	0	0	2	39	28	99	369	437	164
Dhenkanal	0	1	1	54	82	1063	1982	1618	648
Gajapati	0	0	0	212	591	1821	774	377	111
Ganjam	0	0	334	659	6349	8990	3365	1100	480
Jagatsinghpur	0	0	30	146	405	624	2984	2626	1502
Jajpur	0	1	178	189	658	1609	4307	3458	862
Jharsuguda	0	0	2	42	225	547	2963	2393	683
Kalahandi	0	2	11	51	40	1003	1459	2179	918
Kandhamal	0	0	3	172	148	1536	2019	1635	296
Kendrapara	0	1	56	160	177	664	2960	2975	1267
Keonjhar	0	0	8	85	470	860	2190	2338	1118
Khurda	0	27	40	563	1125	8806	20991	15251	3490
Koraput	0	0	1	23	238	2500	2828	1423	601
Malkangiri	0	0	3	49	278	1495	1402	1335	480
Mayurbhanj	0	0	14	126	326	1593	4755	3724	1841
Nabarangpur	0	0	0	12	162	643	2097	2070	582
Nayagarh	0	0	21	105	251	1807	2026	1478	570
Nuapada	0	0	0	78	25	251	1819	2953	1288
Puri	0	1	44	165	166	2332	5860	3362	1195
Rayagada	0	0	0	12	428	3318	3268	925	187
Sambalpur	0	0	4	20	169	1790	2952	2725	732
Subarnapur	0	0	0	35	21	391	2030	1755	362
Sundargarh	0	5	23	129	669	2824	2848	3648	2164
Total	0	41	1085	4063	15328	56769	105449	85860	30329

Source: Odisha State Dashboard: COVID-19, <https://statedashboard.odisha.gov.in>

Annexure: 11.37 :District-wise COVID-19 Deceased Cases in Odisha (Absolute Series)

(In Nos.)

District	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20
Angul	0	0	0	0	2	2	2	17	4
Balangir	0	0	0	0	0	5	18	6	5
Balasore	0	0	0	0	3	8	17	40	11
Bargarh	0	0	0	1	0	8	3	7	19
Bhadrak	0	0	0	0	4	6	6	5	4
Boudh	0	0	0	0	0	0	1	8	2
Cuttack	0	0	1	3	5	21	40	39	23
Deogarh	0	0	0	0	0	0	0	2	3
Dhenkanal	0	0	0	0	0	2	4	12	5
Gajapati	0	0	0	0	11	7	5	6	3
Ganjam	0	0	3	11	85	92	30	10	9
Jagatsinghpur	0	0	0	0	2	3	5	13	9
Jajpur	0	0	0	0	1	5	4	9	3
Jharsuguda	0	0	0	0	1	0	1	14	8
Kalahandi	0	0	0	0	0	2	8	10	4
Kandhamal	0	0	0	0	3	9	13	7	3
Kendrapara	0	0	0	0	2	1	11	9	7
Keonjhar	0	0	0	0	0	6	4	12	10
Khurda	0	1	2	2	20	42	68	92	51
Koraput	0	0	0	0	0	3	7	3	3
Malkangiri	0	0	0	0	2	5	3	5	4
Mayurbhanj	0	0	0	0	0	5	18	34	21
Nabarangpur	0	0	0	0	0	2	3	7	1
Nayagarh	0	0	0	0	3	10	12	12	4
Nuapada	0	0	0	0	0	0	1	16	4
Puri	0	0	0	1	2	12	42	27	9
Rayagada	0	0	0	0	7	18	12	3	3
Sambalpur	0	0	0	0	0	13	8	11	39
Subarnapur	0	0	0	0	0	2	6	6	7
Sundargarh	0	0	0	0	9	27	4	30	62
Total	0	1	6	18	162	316	356	472	340

Source: Odisha State Dashboard: COVID-19, <https://statedashboard.odisha.gov.in>

Annexure 11.38: COVID-19 Scenario in India: National and Sub National Perspective

Sl. No.	State	Tested (Lakh)	Confirmed	Recovered	Deceased	Active
1	Andaman & Nicobar Islands	14	4778	4647	61	70
2	Andhra Pradesh	110	872839	860368	7042	5429
3	Arunachal Pradesh	36	16395	15605	55	735
4	Assam	55.1	214019	209444	997	3575
5	Bihar	160	240249	233791	1300	5157
6	Chandigarh	15	18239	16981	296	962
7	Chhatisgarh	28.3	249699	227158	3025	19516
8	Dadra & Nagar Haveli and Daman & Diu		3345	3293	2	21
9	Delhi	68.7	597112	565039	9763	22310
10	Goa	36	48935	46924	701	1310
11	Gujarat	83.7	221493	203211	4110	14172
12	Haryana	38.4	246679	232108	2624	11947
13	Himachal Pradesh	58	46201	37837	743	7577
14	Jammu & Kashmir	32.2	114038	107282	1761	4995
15	Jharkhand	43.8	110639	107898	988	1753
16	Karnataka	120	895284	858370	11880	25015
17	Kerala	67	644697	582351	2473	59748
18	Ladakh	97.3	8969	8054	122	793
19	Madhya Pradesh	39.9	217302	200664	3358	13280
20	Maharashtra	110	1859367	1737080	47827	73374
21	Manipur	44	26396	23166	311	2919
22	Meghalaya	26	12410	11686	122	602
23	Mizoram	16	3968	3764	6	198
24	Nagaland	12	11479	10666	67	628
25	Odisha	62.1	321913	316970	1837	3106
26	Puducherry	43	37311	36308	615	388
27	Punjab	34	157331	145093	4964	7274
28	Rajasthan	46.6	284116	260773	2468	20875
29	Sikkim	64.3	5213	4639	117	364
30	Tamil Nadu	130	792788	770378	11822	10588
31	Telangana	58.7	274540	265367	1477	7696
32	Tripura	54	32922	32102	370	427
33	Uttar Pradesh	210	558173	528832	7967	21374
34	Uttarakhand	14.5	79141	71541	1307	5399
35	West Bengal	62.1	507995	475425	8820	23750
36	ALL INDIA	2090.7	2779983	2656406	30719	92781

Source: Odisha State Dashboard: COVID-19, <https://statedashboard.odisha.gov.in>

Annexure: 11.39: Comparison of COVID-19 Cases among the State in India as on 9th Dec 2020

Sl. No.	State/ UT	Recovery Rate (%)	Death Rate (%)	Confirmed Rate (Per Million Population)	Probability of Positivity
1	All India	98.49	1.51	7228	0.05
2	Andaman & Nicobar Islands	98.70	1.30	11975	0.00
3	Andhra Pradesh	99.19	0.81	16625	0.08
4	Arunachal Pradesh	99.65	0.35	10794	0.00
5	Assam	99.53	0.47	6174	0.04
6	Bihar	99.45	0.55	1981	0.02
7	Chandigarh	98.29	1.71	15289	0.01
8	Chhatisgarh	98.69	1.31	8579	0.09
9	Dadra and Nagar Haveli and Daman & Diu	99.94	0.06	3286	
10	Delhi	98.30	1.70	29571	0.09
11	Goa	98.53	1.47	31592	0.01
12	Gujarat	98.02	1.98	3217	0.03
13	Haryana	98.88	1.12	8484	0.06
14	Himachal Pradesh	98.07	1.93	6289	0.01
15	Jammu & Kashmir	98.39	1.61	8572	0.04
16	Jharkhand	99.09	0.91	2917	0.03
17	Karnataka	98.63	1.37	13500	0.07
18	Kerala	99.58	0.42	18260	0.10
19	Ladakh	98.51	1.49	30404	0.00
20	Madhya Pradesh	98.35	1.65	2607	0.05
21	Maharashtra	97.32	2.68	15081	0.17
22	Manipur	98.68	1.32	8423	0.01
23	Meghalaya	98.97	1.03	3812	0.00
24	Mizoram	99.84	0.16	3296	0.00
25	Nagaland	99.38	0.62	5288	0.01
26	Odisha	99.42	0.58	7341	0.05
27	Puducherry	98.33	1.67	24276	0.01
28	Punjab	96.69	3.31	5228	0.05
29	Rajasthan	99.06	0.94	3630	0.06
30	Sikkim	97.54	2.46	7781	0.00
31	Tamil Nadu	98.49	1.51	10425	0.06
32	Telangana	99.45	0.55	7327	0.05
33	Tripura	98.86	1.14	8166	0.01
34	Uttar Pradesh	98.52	1.48	2449	0.03
35	Uttarakhand	98.21	1.79	7023	0.05
36	West Bengal	98.18	1.82	5210	0.08

Source: Compilation from <https://www.covid19india.org/>

Annexure: 11.40: Recovery and Mortality Rates in Odisha (as on 14 November 2020)

Perspective	Recovery Rate (%)	Mortality Rate (%)
World	66.44	2.43
India	93.07	1.47
Odisha	96.43	0.49

Source: Government of Odisha (2020). People's Guide Supplementary Budget 2020-21. Finance Department, Government of Odisha. November 2020

Annexure: 11.41 Impact of COVID on Government Revenue

(In Nos.)

Sl. No.	Description	Budget Estimates 2020-21	Actual Up to			% Actual to Budget		
			Jun-20	Sep-20	Dec-20	Jun-20	Sep-20	Dec-20
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Revenue Receipts	124300.00	23005.62	45872.05	67983.37	18.51	36.90	54.69
	(a) Tax Revenue (i + ii + iii + iv + v + vi + vii)	74649.74	10805.61	25443.47	39144.96	14.48	34.08	52.44
(i)	G S T	15469.00	2155.34	5419.69	8831.11	13.93	35.04	57.09
(ii)	Stamps and Registration Fees	3000.00	726.01	1928.56	2291.90	24.20	64.29	76.40
(iii)	Land Revenue	510.00	52.36	144.59	282.01	10.27	28.35	55.30
(iv)	Sales Tax	8750.00	752.53	2559.98	4562.21	8.60	29.26	52.14
(v)	State Excise Duties	5250.00	136.88	1179.99	2358.41	2.61	22.48	44.92
(vi)	State's Share of Union Taxes	36299.74	6204.87	12032.70	17203.26	17.09	33.15	47.39
(vii)	Other Taxes and Duties	5371.00	777.62	2177.96	3616.06	14.48	40.55	67.33
	(b) Non-Tax Revenue	17650.00	3706.80	8268.74	12167.33	21.00	46.85	68.94
	(c) Grants-in-Aid and Contribution	32000.26	8493.21	12159.85	16671.08	26.54	38.00	52.10
2	Capital Receipts	18128.00	-1044.39	-985.14	1898.11	-5.76	-5.43	10.47
	(a) Recovery of Loans and Advances (Non debt Capital Receipts)	250.00	24.21	45.34	127.40	9.69	18.14	50.96
	(b) Other Receipts	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	(c) Borrowings and Other Liabilities (Net)	17878.00	-1068.60	-1030.48	1770.71	-5.98	-5.76	9.90
3	Total Receipts (1 + 2)	142428.00	21961.23	44886.92	69881.48	15.42	31.52	49.06
4	Revenue Expenditure	114790.86	18622.75	39082.22	60896.97	16.22	34.05	53.05
5	Capital Expenditure	26513.14	3065.42	5155.85	8087.72	11.56	19.45	30.50
6	Total Expenditure (4 + 5)	141304.00	21688.17	44238.07	68984.69	15.35	31.31	48.82
7	Revenue Surplus (+) / Deficit (-)	9509.14	4382.87	6789.83	7086.40	46.09	71.40	74.52
8	Mizoram	-17878.00	1068.60	1030.48	-1770.71	-5.98	-5.76	9.90
	Fiscal Surplus / Deficit	1124.00	273.07	648.84	896.79	24.29	57.73	79.79
9	Gross Lendings	1124.00	273.07	648.84	896.79	24.29	57.73	79.79

Source: Government of Odisha Accounts at a Glance, 2020-21 (relevant reports)

