# Stocktaking on Management of Public Investment in Selected States

# A Report on Odisha



#### Preface

The National Institute of Public Finance and Policy (NIPFP) is an autonomous non-profit organisation whose primary functions are to undertake research, consultancy and training in the field of public economics and related policy. The institute emerged as a premier think tank in India and has made significant contributions to policy reforms at all levels of the government.

The present study was commissioned by the World Bank wherein a stocktaking on management of public investments in selected States is proposed. The study seeks to provide an overview of the evolving institutional framework for public investment management in Odisha.

Subnational governments play a critical role in the level, composition and management of public investments. After the dissolution of the Planning Commission, several models for managing public investments and project appraisal have emerged at the State level. Given the challenging economic environment, fiscal consolidation is anticipated to persist, limiting opportunities for expanding infrastructure expenditure. Consequently, it is critical to maximize the efficiency of public investments and mobilise private investments in infrastructure to scale up infrastructure investments. There is also a need to develop an institutional framework for managing investment towards climate change for both mitigation and adaptation measures. Climate resilient public infrastructure is critical given India's exposure to climate risks. The study uses the World Bank framework for PIM modified to the Indian context to understand the strengths and challenges of the framework in operation in the state.

We hope this study will be of interest and use not only to policymakers but also to the wider academic community working in this area. The study was planned and conducted by Supriyo De, RBI Chair Professor, NIPFP and R. Kavita Rao, Director, NIPFP with inputs from Ragnvald Michel Maellberg, Senior Public Sector Specialist, World Bank. The study team included Lekha Chakraborty, Professor, NIPFP; Piyali Das, Assistant Professor; Mayurakshi Mitra, Research Fellow; Seema Maurya, Research Fellow; and Divya Rudhra, Research Fellow. The Governing Body of the Institute does not take any responsibility for the views expressed in the report. The opinions expressed here are those of the authors only.

#### Acknowledgement

This is a report on the project 'Stocktaking on management of public investments in Odisha'. We extend our gratitude to the officials of the Government of Odisha. We sincerely thank Vishal Kumar Dev, Principal Secretary, Department of Finance for his valuable insights. We wish to thank and acknowledge Nihar Ranjan Panda, Joint Secretary, Department of Finance, as the nodal officer, for his seamless coordination and facilitation of the entire interview process. Additionally, we would also like to acknowledge the inputs received during our field visits from Saumyajit Rout, Joint Secretary of the Finance Department; Rajesh Mansingh, Under Secretary of the Finance Department; Niranjan Mishra, FA-cum-Special Secretary of the Panchayati Raj & Drinking Water Department; Sibashis Dhal, FA-cum-Special Secretary of the Works Department; Manasi Dash, FA-cum-Additional Secretary of the Water Resources Department; Sikha Biswal, FA-cum-Additional Secretary of the Housing & Urban Development; Sambit Parija, FA-cum-Additional Secretary of the Energy Department; Smita Pani, FAcum-Additional Secretary of the Rural Development Department; and the Special Relief Commissioner (SRC) Department.

In the completion of this study, we also had the opportunity to discuss various dimensions concerning this project with officials from the Department of Economic Affairs, Ministry of Finance, and colleagues at NIPFP who contributed important materials and views. We would like to especially acknowledge the insightful inputs received from Sanjay Prasad, Additional Secretary, Department of Expenditure, Ministry of Finance; and Anurag Goyal, Senior Advisor, NITI Aayog.

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# Odisha Stocktaking of Public Investment Management

## 1. Public Investment Management (PIM) at a glance<sup>1</sup>

Odisha Governance structure: State Population: 42 million (2011) Gross State Domestic Product 2021-22: ₹ 638,342 Crores NSDP / Capita <sup>2</sup> : ₹ 149,902 (2022-23)	CHUATTES	All of the second secon	a NNRTAL a NNRTAL a a a a b a contral a d b a contral a d b a contral a d b a contral a d b a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral a contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral contral
Total public investment (₹ Cr) 2021-22 % of GSDP		Total Capital Outlay (2021-22) (₹ Cr) % of GSDP	22,726 3.56%
Centrally sponsored schemes (Capital expenditure on CSS, 2022) (₹ Cr)	3,490.33	Externally Aided Projects (₹ Cr) (2021-22) % of GSDP	4,979.94 0.78%
Private infrastructure finance (2020) (₹ Cr)	27,989.17 19 projects	State Sector schemes (₹ Cr) (2021-22)	40,821.15
Gross Fiscal Surplus (%GSDP) (2021-22) Gross Revenue Surplus (% GSDP) (2021- 22) <sup>3</sup>	3.23% 6.81%	Outstanding Debt (₹ Cr) Debt/GSDP ratio (2021-22)⁴	120,140 17.21%
Share of Grants in Aid from Centre Share of Revenue Receipts	,	Devolution of State' s Own Tax Revenue to Local Bodies and PRI's (2021-22) <sup>5</sup>	10%
Share in taxes devolved by the Centre (%) <sup>6</sup>	4.528%	Human Development Index (2021-22)	0.597
Capital Outlay outturn 2021-22 (%)	88.12%	Revenue Outlay Outturn 2021-22 (%)	91.65%
Share of State sponsored projects w/time- overrun 2021-22	32.7%	Average time overrun of State sponsored projects 2021-22	6 Years

<sup>&</sup>lt;sup>1</sup> Time period of this report is limited to 2021-2022 and the report is updated as on date 18th April 2024.

<sup>&</sup>lt;sup>2</sup> Ministry of Statistics and Programme Implementation (MoSPI)

<sup>&</sup>lt;sup>3</sup> Accounts at a Glance

<sup>&</sup>lt;sup>4</sup> State Finances Audit Report 2022

<sup>&</sup>lt;sup>5</sup> Fifth State Finance Commission, Odisha

<sup>&</sup>lt;sup>6</sup> 15<sup>th</sup> Finance Commission

Cost overrun of Central Sector Projects >₹	//1//	Average Central Sector Projects > <b>₹ Cr 150</b>	3-213
Cr 150 (% above of original cost)		w/time overruns in months (range)	months
Climate Vulnerability Index score (CEEW) <sup>7</sup>		Logistic Ease Across Different States (LEADS)- Status 2023	Aspirer

#### 2. Key Findings and Messages

1. Public infrastructure is a key driver of development. In a context of limited fiscal resources, enhanced public spending efficiency is important. To ensure that public resources are efficiently utilized, it is imperative to study the institutions and processes governing public investment in infrastructure. Enhancing infrastructure spending and governance together is more effective than increasing spending alone for the efficient delivery of economic and social infrastructure. Climate resilient public infrastructure is critical given Odisha's exposure to climate risks. Increasing frequency of severe weather events such as droughts, flood and storms pose threats to infrastructure with significant fiscal risks. The present study on Public Investment Management (PIM) applies a comprehensive framework to assess infrastructure governance practices that may identify areas of improvement in procedures and processes used by governments to provide infrastructure assets.

2. To continue on a robust growth path, Odisha has kept the fiscal policy accommodative, with a focus on public investment. The annual growth rate was around 7 percent between 2012-2019. Total expenditure increased by 18.8 percent between 2012 and 2022 and accounted for 21 percent of its Gross State Development Product (GSDP) in 2022. Post-COVID recovery was strong with growth at about 11 percent in 2022, driven by mining and industry. The mining sector is contributing significantly to the revenue surplus position of the state but it is highly volatile. Revenue expenditures is the largest component of total expenditure which accounts for 82 percent of total spending, while Capital outlay spending made up 16.96 percent, in 2022. Given the fiscal surplus in the state, higher capital expenditure may help boost growth via multiplier effect.

3. The state is fiscally disciplined and compliant with the fiscal norms stipulated under the Odisha Fiscal Responsibility and Budgetary Management Act (OFRBM). As a fiscally prudent state, it does not face an imminent risk arising from public debt or contingent liabilities. Enhanced spending efficiency is a priority and there is a scope to strengthen the state's institutions for PIM. About a third of state financed projects are experiencing time overruns and delays with an average of 6 years. There is slippage in the capital outlay outturn. It needs better institutional mechanism for monitoring and evaluation of fund requirements. Further, the allocations for operational and maintenance expenses have been decreasing which might exacerbate asset depreciation. Given the fiscal capacity of the state, the capital spending on Operations and Maintenance (O&M) may be raised for sustainable and effective capital investment.

4. In Odisha, the institutional structure for infrastructure governance has multiple public entities with different and sometime overlapping roles. This creates a potential for lack of coordination of investment plans of the public sector as a whole. It also has associated fiscal risks. The quality of planning of the project is a key bottleneck that can lead to poor execution at the implementation stage. It can lead to time and cost overruns, resulting in a series of revised cost estimates and cost escalations. This could be addressed through enhanced scrutiny of all major projects including: a) publish updated appraisal guidelines including to streamline climate change dimensions, b) designate a central authority to scrutinize projects and their appraisal, with input from an independent agency or experts, c) enhance the public investment prioritization mechanism, d) streamline public-private partnerships (PPP) in the PIM system and e) regular reporting on PIM. The state would also benefit from a PIM

<sup>&</sup>lt;sup>7</sup> Mapping India's Climate Vulnerability Report, October-2021

Information System for seamless management across all the dimensions of the PIM cycle. If implemented, it may facilitate reporting, enhance transparency and improve efficiency of PIM.

5. For the projects funded through the budget, the outlays for new and ongoing projects are appropriated on an annual basis. However, information on total project costs and multiyear commitments for most major projects are not included in the budget documentation. Adding public investment plan documentation to the budget documentation that discloses total project costs and multiyear commitments for major projects would allow to enhance transparency of PIM.

6. Public investment is also undertaken through public corporations of the state. The government reviews and publishes a consolidated report on financial performance of PCs. The Project Approval Committee (PAC) also reviews the investment plans of public corporations. An appraisal methodology for these investments and including climate change dimensions is yet to be published. However, it does not publish a consolidated report on investment plans. The information on investment plans of public corporations maybe published in a consolidated way.

7. The state has a robust institutional mechanism for systematic appraisal of all major projects through the Expenditure Finance Committee (EFC) /Standing Finance Committee (SFC) mechanism. The projects are subject to rigorous technical, economic, and financial analysis in the Detailed Project Report. Currently, the state has the good practice of ensuring that the projects are technically approved before being appropriated from the budget. However, it maybe suggested that the details of the methodology used for the appraisal maybe clarified in a published technical note. There is a need for additional guidelines on the methodology used to undertake cost-benefits or Economic rate of return analysis. Likewise, guidelines on how to streamline Climate change dimensions could be issued.

8. Selecting the right projects for funding is critical for improving the effectiveness and efficiency of budgetary resources. There is guidance provided in sector strategies, but no published project selection guidelines are available. It is suggested that the guidelines for project selection maybe clarified in a published document. There is also scope for a published guideline on the prioritisation framework depending upon the readiness of the project. This may guide the allocation of limited budgetary resources and ensure project alignment with policy goals.

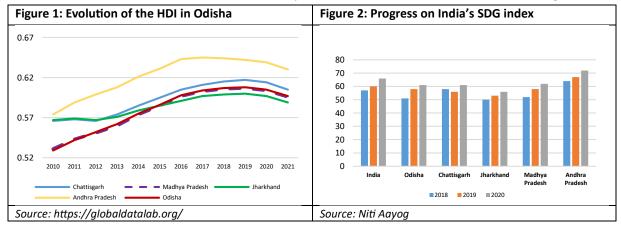
9. Odisha's project implementation and monitoring systems are sound. Large projects are subject to rigorous monitoring. High priority schemes and flagship programmes are implemented in coordination with the Union Government. Each department has its own State Project Monitoring Unit. The Outcome Budget is a performance monitoring tool that indicates actual physical dimensions of the financial outlays. To ensure the prompt completion of ongoing projects, Odisha has also enacted the good practice of Zero-Based Investment Review.

10. Odisha has a strong framework for adaptation to climate change through the Odisha Climate Change Action Plan. Given Odisha's coastal geography and its susceptibility to climate change, the state is investing in climate sustainable and resilient public infrastructure. It is actively contributing and promoting renewable energy generation and distribution. It has introduced "Odisha Renewable Energy Policy of 2022" which aims to promote renewable energy generation and distribution. It is an effort to decarbonize the energy sector. It is making significant investments in adaption to climate change. However, it can accelerate progress on climate-sensitive public investment management. For all public investment projects, analysis of the impact of climate change may also be included during appraisal and selection process.

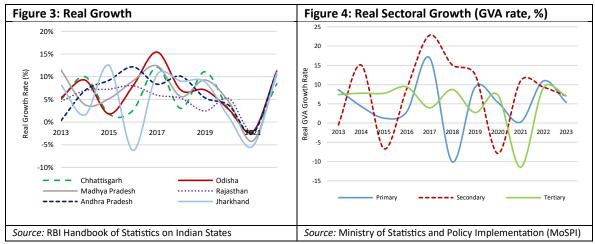
11. The state may coordinate public investment across all entities in response to climate change either through the budget or extra-budgetary institutions. A detailed assessment of fiscal risks to public assets and infrastructure due to climate change will help in adaption. The state needs to develop and publish a framework for managing investment towards climate change.

#### 3. Overview of the state

1. **Odisha has observed a steady improvement in development over the past decade.** Odisha, one of eastern India's coastal state, is India's 11th largest in terms of population (42 million, 2011 census) and eighth largest in terms of area (155,707 km<sup>2</sup>). Odisha's score on the Human Development Index (HDI) was 0.529 in 2021, up 12 percent since 2010 compared to the average of Indian states of 0.633 in 2021, up 10 percent since 2010 (Figure 1). Over the past decade, Odisha's HDI score surpassed Jharkhand, remained close to the HDI score of Madhya Pradesh, while remaining below the HDI score pf Andhra Pradesh and Chhattisgarh. In terms of progress on SDGs, Odisha has done well and scored 61 and ranked 12 on the SDG India 2020 Index up from a score of 51 and rank 22 in 2018 (Figure 2).



2. Odisha benefited from sustained growth prior to the COVID-19 pandemic and, the state has had a strong post-pandemic recovery. Odisha's annual growth rate averaged 7.09 percent between 2012 and 2019, above the average of comparator states<sup>8</sup> (Figure 3). The growth rate peaked in 2017 at 15.44 percent driven by mining activities. COVID-19 had a detrimental impact on economic activity and led to a contraction of growth in Odisha, like comparator states but less than in states such as Madhya Pradesh and Jharkhand. At 11.26 percent in 2022 and the decadal average real growth rate at 6.59 percent in 2022, the post pandemic recovery has been strong, on par with comparator states. While growth is driven by mining and industry (41.3 percent of the State's Gross Value Added (GVA) in 2022-23 (AE)<sup>9</sup>), Tertiary sector has also been an important and stable contributor to growth over the past decade (Figure 4). Primary sector growth has been volatile but also significant in certain years such as 2016, 2019 and 2022.

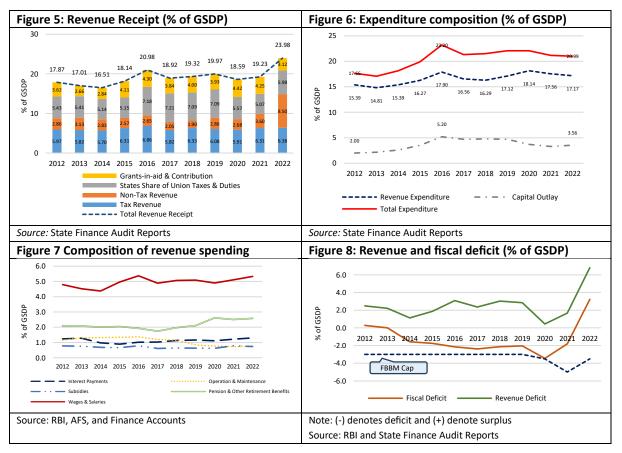


<sup>8</sup> Comparator states was selected based on similarities with Odisha in terms of GSDP size and economic activity i.e. mining

<sup>&</sup>lt;sup>9</sup> Odisha Economic Survey 2022-23.

3. **Over the past decade, the state has significantly increased its revenue receipts**<sup>10</sup>. Driven by an increase in extractive revenues, revenue receipts increased from 18 percent of GSDP in 2011-12 to 24 percent of GSDP in 2021-22 (Figure 5). From 2012 to 2022, Grants in aid and contribution to Odisha averaged 3.73 percent of GSDP in. During this period, Odisha's share of Union taxes and duties and tax revenues averaged 6.02 and 6.13 percent of GSDP respectively. While revenues have increased due to the increased extractive revenues, these are highly volatile and responsive to change in global market demands. Hence, mining revenues reached 51 percent of total own revenue in 2021-22 up from 25 percent in 2020-21 before coming down to 43 percent in FY 2022-23(RE)<sup>11</sup>. To counter the volatility in revenues, the State has established a budget stabilization fund.

4. Odisha's total expenditure increased by 18.8 percent between 2012 and 2022 and accounted for 21 percent of its GSDP in 2022 (Figure 6). Total expenditure has three components, i.e. revenue expenditure, capital outlay, and loans and advances. The smallest component, loans and advances, averaged less than 1 percent of total expenditure between 2012 and 2022. Revenue expenditures is the largest component of total expenditures at 82 percent of total expenditure in 2022. It increased 11.5 percent during the 2012-2022 period, less than the increase in total expenditures. Capital outlay spending increased by 78 percent during this period and represented 16.96 percent of total expenditures in 2022.



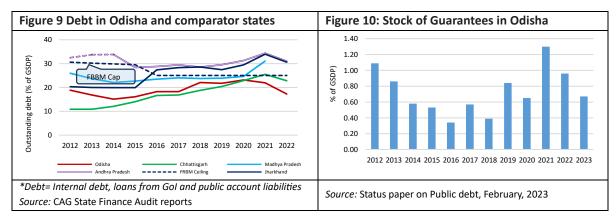
5. The largest share of revenue expenditure is allocated to wages and salaries followed by pension and other retirement benefits (Figure 7). Wages and salaries, the largest component of revenue expenditure, increased from 4.79 to 5.33 percent of GSDP between 2012 and 2022.

<sup>&</sup>lt;sup>10</sup> GSDP for 2018-19 is third revised, 2019-20 is second revised, 2020-21 is first revised, and 2021-22 is first advanced estimate.

<sup>&</sup>lt;sup>11</sup> Fiscal Strategy Report 2023-24.

6. Expenditures on pensions and other retirement benefits, the second largest component of revenue expenditures, also increased, from 2.1 percent of GSDP in 2012 to 2.58 percent of GSDP in 2022. Expenditure on subsidies and interest payments have exhibited a consistent pattern of stability. Allocations for operational and maintenance expenses have been declining during this period.

7. The state has adhered to the Odisha Fiscal Responsibility and Budgetary Management Act (OFRBM) requirements. After being on an upward trend between 2012 and 2020, the debt level has been declining and was 17.2 percent of GSDP in 2022 (Figure 9), below the 25 percent threshold set by the OFRBM<sup>12</sup> requirements. During this period, the fiscal deficit remained below 3 percent<sup>13</sup>, and the Interest Payment to Revenue Receipt ratio was below the statutory limit of 15 percent of revenue receipts. The use of guarantees has been declining between 2021 and 2023 following a period of increased use of guarantees between 2016 and 2021 (Figure 10). In comparison with other mineral-rich states like Andhra Pradesh, Madhya Pradesh, Chhattisgarh, and Jharkhand, Odisha has a lower burden of outstanding debt. The major share of the total outstanding debt of Odisha is internal debt (45 percent of total debt)<sup>14</sup> followed by public account liabilities (40 percent of total debt) and loans from the government of India (15 percent of total debt).



#### 4. Trends in Infrastructure

8. Odisha benefits from an improvement in social and economic infrastructure. As observed both by improved SDG and HDI ratings, social and economic infrastructure has improved over the past decade. Progress has been achieved across key infrastructure segments i.e. transport, water, sanitation and energy and reflects increased efforts to invest in critical infrastructure. Progress in health and education infrastructure is reflected in improvements of the HDI ratings. Meanwhile, Odisha continues to have room for improvement and continued high levels of infrastructure investments will be required to improve access to a quality of infrastructure services necessary for continued progress and to be at par both with comparator states and national levels.

9. While transport and logistics infrastructure has improved over the years there is room to accelerate the progress. Overall length of roads, after experiencing modest growth between 2012 and 2017, has been stable. Regarding rail network, according to the Economic Survey 2022-23, the railway connectivity of Odisha lags almost all the non-hilly states. Reflecting reforms in the logistics sector,

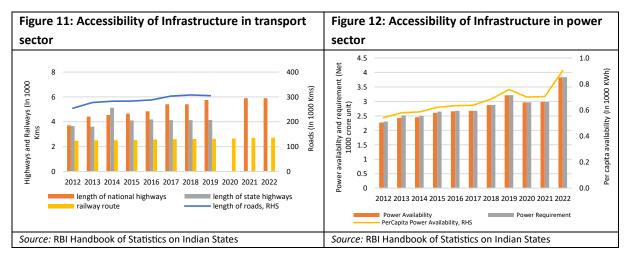
<sup>&</sup>lt;sup>12</sup> Odisha Fiscal Responsibility and Budgetary Management Act Amendments fixed the limit for debt-GSDP ratio to 30.6% in 2011-12, 30.2% in 2012-13, 29.8% for 2013-14, 29.5% for 2014-15, 25% for the years 2015-16 to 2019-20

<sup>&</sup>lt;sup>13</sup> Odisha availed additional 0.5% of borrowing in 2019-20 by fulfilling the necessary conditions under FRBM Act (i.e. 0.25% for Debt/GSDP ratio not more than 25%, and 0.25% for Interest payments not more than 10% of revenue receipts under the circumstances of no revenue deficit in current and proceeding year). This limit further increased by 2% in 2020-21 due to COVID-19.

<sup>&</sup>lt;sup>14</sup> CAG, State Finance Audit Report 2022

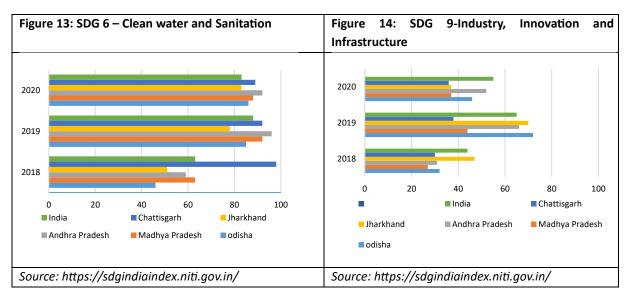
Odisha improved its ranking from 10<sup>th</sup> (2019) to 7<sup>th</sup> (2021) on the Logistics Ease Across Different States (LEADS) ranking. Meanwhile, Odisha moved down from achiever status in 2022 to an aspirer status in 2023. This reflects challenges compared to other states in infrastructure (road, rail, terminal, warehousing, and packaging) as well as below average logistics services. While Odisha is on par with comparator states<sup>15</sup> regarding grievance redressal and ease of entry, the state scores lower than average regarding government facilitation and warehousing approvals. The development of industrial parks, investment regions, micro, small and medium enterprises parks and economic corridors are expected to contribute to improve the logistics environment.

10. **Power sector reforms and investments have improved access to energy in Odisha.** The state was among the first states to implement power distribution reforms. The first state to begin the privatization of energy distribution, Odisha has managed to mobilize private investments in the energy sector. state. The state has also mobilized investments in the sector. Hence, it received Rs. 2,725 crores from the central government for reforms in 2021-22 and 2022-23. Consequently, the gap between power availability and power demand has been removed and the per capita power availability has increased (Figure 12). The rate of electricity access increased from 82 percent in 2015 to 100 percent in 2019 and power losses were reduced from 35 percent in 2015 to 28 percent in 2018. Odisha has also actively promoted green energy. The State's 2023 renewable energy policy targets 10,000 MW capacity by 2030 up from the current 627 MW.



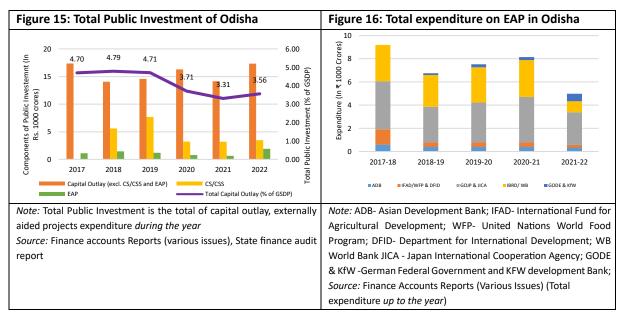
11. Odisha has made strong progress on infrastructure related SDGs, higher than the average of comparator states. The state is working on Sustainable Development Goals (SDGs) through a dedicated High-Powered Committee. Strong commitment to achieving the SDGs has yielded strong results. Hence, both indicator 6 and indicator 9 observe strong progress in Odisha between 2018 and 2020. During this period, the score of Odisha on SDG indicator 6 improved by 86.9 percent against 37.3 percent for comparator states. Meanwhile, although progress has been significant, the score of Odisha on these indicators is below the average in India (Figure 13 and 14).

<sup>&</sup>lt;sup>15</sup> On LEADs, Odisha is compared to other coastal states i.e. Andhra Pradesh, Goa, Gujarat, Karnataka, Kerala, Maharashtra, Tamil Nadu and West Bengal



#### 5. Evolution of Odisha's public investment efforts

12. **Total public investment**<sup>16</sup> **is on a downward trend in Odisha since FY2017-18.** Total public investments in Odisha was reduced from 7 percent of GDSP in 2017 to 4.3 percent of GSDP in 2022 (Figure 15). This decline is mainly due to lower investments from Central Schemes (CS)/Centrally Sponsored Schemes (CSS) and reduced expenditure on externally aided projects<sup>17</sup> (EAP). The biggest reduction in EAP where for projects funded by International Bank for Reconstruction and Development (IBRD) and the Government of Japan (GOJP) (Figure 16). Post 2014, capital outlay as a share of GSDP has been higher for Odisha when compared to its comparator states (Figure 17).

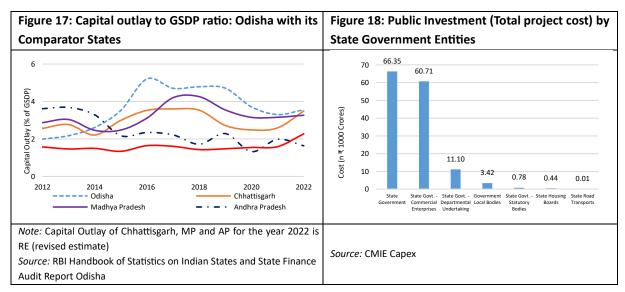


13. **Public investment is channelized through various government entities**, i.e., the State government, Departmental Undertakings, State Government Commercial Enterprises and Statutory Bodies. In the context of Odisha, the State government assumes the predominant role in investment.

<sup>&</sup>lt;sup>16</sup> Total public investment consists of investment funded out of capital outlay in the budget which also includes expenditure supported through externally aided projects and expenditure supported by CSS. Investments undertaken by State Public Sector Enterprises are not included as information on the last component is not available in the public domain. Total public investment presented includes the first three components.

<sup>&</sup>lt;sup>17</sup> Total Expenditure on EAP is *up to the year* in Figure 16

Over the period since 2011, the State government has directed an investment of approximately  $\gtrless$  66 thousand crores, closely followed by State Government Commercial Enterprises, which have allocated around  $\gtrless$  60 thousand crores (Figure 18). In 2018<sup>18</sup>, there was a total of 53 working government companies of which 8 operated in the power sector and 12 operated in the infrastructure sector. A total of 26 government companies were inactive and 3 statutory corporation were active in finance, service and other sectors. The power corporations totalled 67,4 percent of total equity invested in PSEs by Odisha, followed by infrastructure PSEs totalling 10.7 percent of total equity. In 2018, 66 percent of working government companies and all the statutory companies observed delays in sending their accounts to the Comptroller and Auditor General of India.



#### 6. Trends in allocation of public investments

#### Sector Allocation

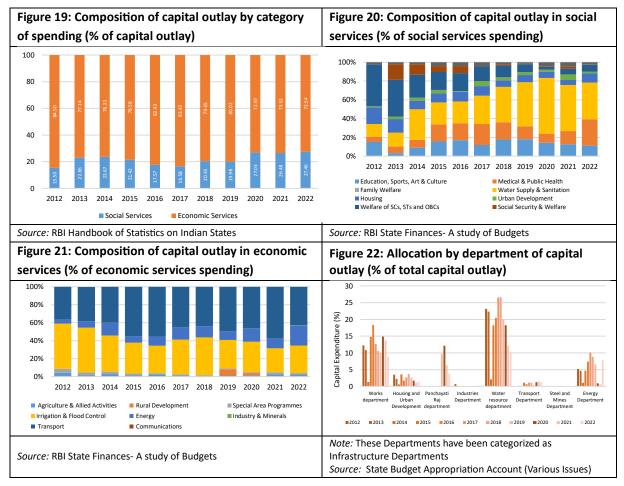
14. Social sector allocation has increased over the past decade and is lower than that of the economic sector. Over the past decade (2011-12 to 2021-22), social sector expenditure has accounted for an average of 21.72% of developmental expenditure, while economic sector expenditure has constituted the majority at 78.28% (Figure 19). Meanwhile, social sector expenditures almost doubled during this period, reaching 27.5 percent of total expenditures, reflecting substantial increases in spending on water supply and sanitation, and public health (Figure 20). In economic services, transport, irrigation and flood control as well as energy are the three largest sectors (Figure 21). Both allocations to transport and energy have increased between 2012 and 2022. During this period, while allocations to irrigation and flood control were reduced, they remain a key component of economic services capital outlays.

#### Departmental Allocation

15. **Capital outlay allocation by department reflect sector spending priorities.** Hence, key departments are works department, water resource department, energy department, Panchayati Raj, housing and urban department and transport department. There has been a notable decrease in capital outlay for the water resource department, even though it has consistently maintained the highest budgetary allocations for capital expenditures over the past decade (Figure 22). The works

<sup>&</sup>lt;sup>18</sup> https://cag.gov.in/uploads/download\_audit\_report/2020/4.%20Part-A,%20Introduction-05f9a7256586c51.95709211.pdf

department holds the second position in terms of capital outlay allocation. The energy department has witnessed a significant upswing in its capital allocation in 2022, after a steep fall during the COVID-19 pandemic.

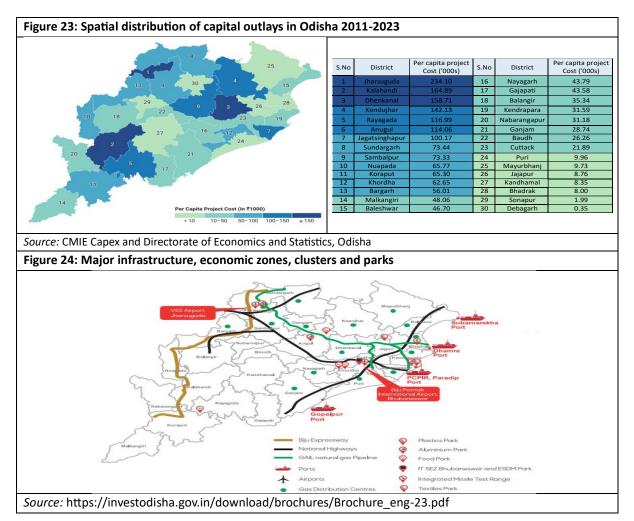


#### Geographical Allocation

16. **The geographical allocation of capital outlays is broadly aligned with strategic priorities.** The geographical allocation of infrastructure projects in Odisha 2011- 2023 is presented in Figure 23. The data lists infrastructure projects with ownership categories<sup>19</sup> and total project costs<sup>20</sup>. The total project costs have been associated with the projects that are implemented, announced, or completed in that district and are aggregated by their locations (districts). There is considerable variation in the level of investment across districts. Nevertheless, when compared with strategic priorities as stated in the Odisha Industrial Development Plan 2025, the actual investments are broadly aligned. Hence, the concentration of investments are in areas which have been identified as investment regions, investment and manufacturing zones, industry clusters or economic corridors.

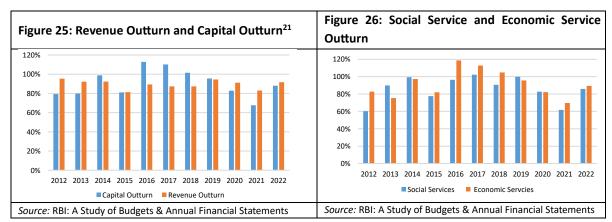
<sup>&</sup>lt;sup>19</sup> The ownership categories are- Central Government, State Government and Public Corporations

<sup>&</sup>lt;sup>20</sup> Project costs are cumulative over the years from 2011 to 2023



#### 7. Operational efficiency

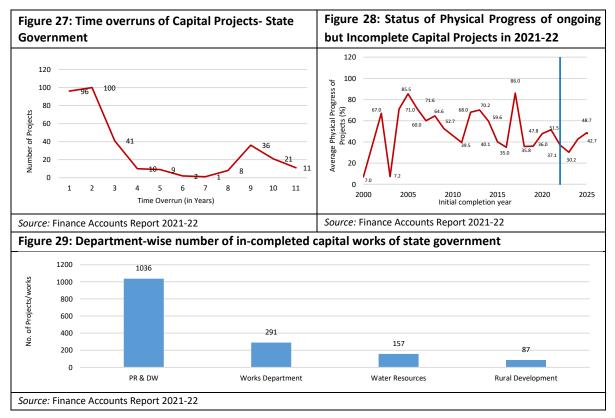
17. **Both revenue and capital outturn have, on average, been high between 2012 and 2022.** Capital outturn averaged 90.7 percent during this period with lows of 67.7 percent in 2021 and 79.4 percent in 2012 and highs of 112.8 percent and 110.3 percent in 2016 and 2017 (Figure 25). Revenue outturn averaged a similar 89.6 percent during this period. Revenue outturn variation was lower with lows of 81.3 percent in 2015 and 83 percent in 2021 and highs of 95.4 percent in 2012 and 94.6 percent in 2019. Overall, this is indicative of a well performing resource management system.



<sup>&</sup>lt;sup>21</sup> Outturn is the ratio of Actual expenditure to Budgeted Estimates of expenditure. It is an indicator of the utilisation of funds.

18. Both capital outlay outturn for social and economic services were high between 2012 and 2022, with capital outlurn for economic services higher than for social services. Capital outlay outturn for social services averaged 86 percent between 2012 and 2022. During the same period, capital outlay outturn for economic services was higher, averaging 91.8 percent. Meanwhile, capital outlay outturn for both social and economic services varied substantially between 2012-2022 (Figure 26). Between 2016 and 2021, both social and economic services capital outlay outturn decreased followed by an increase in 2022.

19. **About a third of state financed projects are experiencing time overruns and delays average 6 years.** In 2021-22 there were 1,571 ongoing projects in Odisha of which 510 experienced delays. While the average delay of capital projects is 6 years, most projects have time overruns of 1-2 years. The average physical progress of projects experiencing delays was 51 percent in 2021 (Figure 28). With 1,036 delayed projects, the Panchayati Raj & Drinking Water Department has the most delayed projects followed by the Works department (291 delayed projects), the Water Resources department (157 delayed projects) and the Rural Development department (87 delayed projects, Figure 29).



20. **Central sector projects in Odisha experience both time and cost overruns.** An analysis of central sector projects in Odisha provides some additional information on the nature of problems arising in project execution. Cost overruns of Central Sector (CS) Projects (150 crore and above) in Odisha was around 41 percent of initial costs in February 2023 with 22 out of 70 projects experiencing cost overruns<sup>22</sup>. In December 2023, 18 out of 83 CS projects had cost overruns of around 54 percent of initial costs. There are time overruns with delays varying between 3 and 213 months (both in February and December 2023). The number of projects experiencing delays was 47 in February 2023 and 43 in December 2023. The main reasons for cost escalation were: under-estimation of original

<sup>&</sup>lt;sup>22</sup> Flash Reports on Central Sector Projects, MOSPI

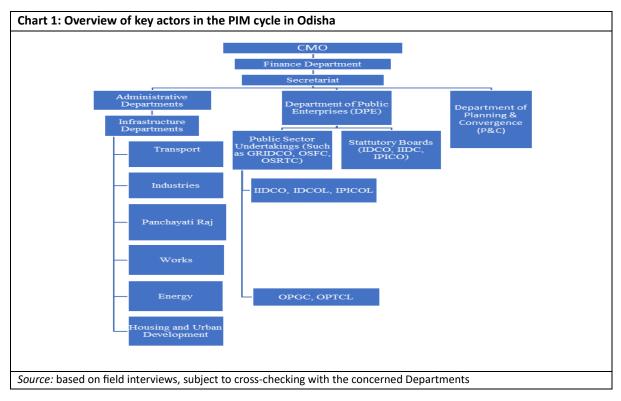
cost, high cost of environmental safeguards, rehabilitation measures, higher than expected land acquisition costs, shortage of skilled manpower and time overruns. It is likely that similar challenges explain time and cost overruns of state financed projects. Besides, for state financed projects environmental clearances, litigations owing to land acquisitions, and poorly prepared detailed project reports (DPR) were some of the reasons for project delays and cost escalation<sup>23</sup>.

#### 8. State Public Investment Management Institutions

21. This analysis has been undertaken based on a framework developed by the World Bank and National Institute of Public Finances (NIPFP). The framework is anchored in the Public Investment Management Assessment Framework of the International Monetary Fund (IMF) and the World Bank's "Must have features of Public Investment Management (PIM)" framework. The analysis of the institutional framework for investment management includes planning and strategy, appraisal, selection, management, monitoring and evaluation. The present analysis does not cover local entities such as Urban Local Bodies or Panchayati Raj. The assessment is presented below and summarized in table 4.

#### Key institutions involved in PIM in Odisha

22. **A system with multiple actors.** The infrastructure governance institutional structure in Odisha involves multiple public entities with different and some cases overlapping roles. Chart 1 presents an overview of the key public institutions involved in the PIM cycle while Table 1 briefly presents these institutions and their mandate.



<sup>&</sup>lt;sup>23</sup> Based on field interviews

	Table 1: Key Institutions in Public Investment Management
Institution	Mandate and delegation of powers
Department of Planning & Convergence (P&C)	<ul> <li>Preparing policy frameworks for short-term and long-term goals; Planning in coordinating with State Planning Board and State Evaluation Unit</li> <li>Convergence and allocation of resources in a systematic and planned manner, with proper utilization</li> <li>Co-ordinates with other infrastructure and development departments</li> <li>Monitoring and review of the implementation of programmes</li> <li>Following departments under its control: State Planning Board, Social Welfare Board, Loc: Development Works, Bureau of Statistics and Economics; Regional Institute of Planning Applied Economics &amp; Statistics (RIPAE&amp;S), State Evaluation Unit, State Development an Coordination Committee, State Development Advisory Board. Rural Engineering Organisation</li> <li>Collaborating with the Prime Minister's Office (PMO), Gol, to expedite approvals an clearances for large-scale infrastructure and manufacturing projects in the state.</li> <li>Coordinating Externally Aided Projects</li> <li>Formulating Annual plans and issuing directives for the execution of developmental program at the at the regional level; District level-level planning; District Planning Committees (DPCs established to decentralise planning</li> <li>Analysis of economic and social policies and publication of statistical information.</li> <li>Facilitating Administrative Departments for undertaking public-private partnership (PPF projects</li> <li>Coordinating with various Departments for the formulation and execution of developmentar programs, special employment programs and Directorate of Economics and Statistics (DE&amp;S Support to inter-departmental committees</li> <li>Coordinating and monitoring the implementation of Sustainable Development Goals (SDGs)</li> <li>Monitoring and evaluating the performance of ten districts under the Aspirational District Programme in the areas of Health and Nutrition, Education, Agriculture and Water Resource Basic Infrastructure, Skill Development, and Financial Inclusi</li></ul>
Odisha Industrial Infrastructure Development Corporation (IDCO)	<ul> <li>Statutory Corporation without equity capital investment by the Govt. of Odisha. Receives loar from the state annually for infrastructure development activities; Generated an investibl surplus</li> <li>Develop infrastructure facilities in the specified industrial zones,</li> <li>Facilitate growth of industries, trade, and commerce.</li> <li>Nodal Agency for providing industrial infrastructure in the state; crucial role in providing lan to large-scale projects</li> <li>Infrastructural development activities: roads, drainage systems, power supply, wate resources, street lighting.</li> <li>Social infrastructure: banking, post offices, telecommunication facilities, shopping complexes</li> <li>Planning and execution of construction projects for various government departments an undertakings.</li> <li>Provides construction services for public health engineering works.</li> <li>Strategic partnership with leading organizations like MECON/RITES/RPNN which have state-o the-art technologies</li> <li>Enables private investment in infrastructure projects by providing support services for executing infrastructure and industrial projects.</li> </ul>
Industrial Promotion & Investment Corporation of Odisha Ltd (IPICOL)	<ul> <li>Special focus on medium and large-scale industries.</li> <li>State Level Nodal Agency (SLNA) for administering a Single Window System (SWS) to streamline industrial processes.</li> <li>Developed the Single Window Web Portal Government of Odisha, Single Window for Investor Facilitation and Tracking (GO SWIFT) to enable online submissions, payments, and tracking for 32 industrial services across 14 government departments; Portal ensures time-bound clearances and approvals.</li> <li>Oversees project review, processing, and monitoring during implementation.</li> <li>Identifies emerging sectors to attract investors; Promotional responsibilities are mandated by the Odisha Industries and Facilitation Act (OIFA) of 2004.</li> </ul>

Table 1: Key Institutions in Public Investment Management			
Institution	Mandate and delegation of powers		
Department of Public Enterprises (DPE)	<ul> <li>Nodal agency for Public Sector Undertakings (PSUs).</li> <li>Oversees the functional areas of the government's public enterprise reform program through the Odisha State Renewal Fund Society (OSRFS)<sup>24</sup></li> <li>Formulates policies and guidelines for effective functional management of PSUs.</li> <li>Conducts periodic performance reviews of PSUs.</li> <li>Regulates industrial project proposals through a project approval committee</li> <li>Establishes standards for financial discipline, budgeting, accounting, and auditing within PSUs.</li> <li>Consolidates information and provides guidance to prevent financial instability in PSUs.</li> <li>Coordination among various PSUs.</li> <li>Implements the sale, privatization, or divestment of the identified State PSUs and Co-operative Enterprises.</li> <li>Enforces the Corporate Governance Manual for the smooth functioning of State PSUs.</li> </ul>		

#### Overview of the PIM process in Odisha<sup>25</sup>:

#### Institutions for appraisal and approval of projects

23. **Major capital projects are systematically subject to rigorous technical, economic, and financial analysis.** Appraisal and approval of public funded schemes and projects is under the ambit of Expenditure Finance Committee (EFC) /Standing Finance Committee (SFC) mechanism. Planning and Convergence department is also responsible for the appraisal and approval of publicly funded schemes and projects. The appraisal and approval forum are presented in the Table 2 below (according to the financial limit of the projects/schemes).

	Table 2: Institutions for the appraisal and approval of projects			
Financial Limit	Appraisal Forum	Approval Forum		
Up to Rs.5.00 crore	Concerned Administrative Department in consultation with the Financial Advisor (FA) of the Department	Secretary of the Administrative Department		
Above Rs.5.00 crore and up to Rs.50.00 crore	<b>Standing Finance Committee (SFC)</b> of the Administrative Department under the Chairmanship of Secretary concerned with Financial Advisor as Member- Convenor, Special Secretary/ Additional Secretary/ Joint Secretary in-charge of the scheme concerned in the Department, concerned Heads of Department, representative of Finance Department, Planning & Convergence Department, and representative of related Department, if required.	Minister in charge of the Administrative Department		
Above Rs.50.00 crore and up to Rs.100.00 crore	The Expenditure Finance Committee (EFC) is chaired by the Secretary of Finance and consists of the Secretary of the Administrative Department and FA, concerned Heads	Minister in charge of the Administrative Department		
Above Rs.100.00 crore and up to Rs.250.00 crore				

<sup>&</sup>lt;sup>24</sup> The Orissa State Renewal Fund Society (OSRFS) was established under the administrative jurisdiction of the Department of Public Enterprises to carry on the Public Enterprises Reform Program. This came after the closure of the Department for International Development (DFID) supported Public Enterprise Reform Program, Phase-II, which officially ended on December 31, 2008.
<sup>25</sup> Needs confirmation

	Above				
	Rs.250.00		State Cabinet		
	crore				

Source: EFC/SFC Circular, GOI OM no. 9523/ F., Date: 22 – 03 – 2021

## 24. **Project appraisals are submitted through an application called Budget Execution Technique Automation (BETA).** BETA is an intra-secretariat web-based application running exclusively on secretariat Local Area Network of the Government of Odisha and is accessible by all departments. If a particular Department requires approval of the Finance and Planning department, then, a 20-point concept note needs to be provided. In this, the concerned Department must fill in and give views and suggestions.

#### Institutional Framework for Public Private Partnerships (PPP) Projects:

25. **The Government of Odisha (GoO) introduced the Odisha Public-Private Partnership (PPP) Policy, in 2023.** To facilitate PPP projects, the policy provides guidelines for project selection, procurement, implementation, monitoring and evaluation of PPP Projects. The state has recently set up the institutional framework for PPP projects, amending the Odisha Public Private Partnership, 2007.

#### Institutional framework for the appraisal of PPP Projects<sup>26</sup>:

- Tier 1: High-Level Clearance Authority (HLCA) and Empowered Committee on Infrastructure (ECI) are the two institutional bodies that have been formed. HLCA (Chair: Chief Minister) can approve projects above Rs 500 Crore. ECI (Chair: Chief Secretary) can approve projects less than Rs 500 Crore.
- Tier 2: Directorate of PPP in the Finance Department handles PPP Projects up to Rs 10 cr capital expenditure with no VGF. It assists the administrative department through the project concept to the completion stage. PPP Cells have been set up in core infrastructure Departments. It has developed asset monetization guidelines. It monitors the implementation of PPP projects and manages OIDF.
- Tier 3: Nodal persons in Administrative Departments and District PPP Committee coordinate with the Directorate and facilitate the implementation of PPP projects.

#### Process of project appraisal and analysis

26. The quality of planning of the project is a key bottleneck that can lead to poor execution at the implementation stage. It can lead to time and cost overruns, resulting in a series of revised cost estimates and cost escalations. For all new projects, a Concept Paper is to be prepared by the Administrative Department in consultation with the Financial Advisor. After approval of the secretary of the department, the concept paper is sent to the Planning and Convergence Department (P&C) and the Finance Department. The finance department in consultation with P&C grants the In-principle approval of the proposed scheme. It allocates funds for pre-project activities, such as the preparation of a Detailed Project Report (DPR). For ongoing schemes, it is mandatory to appraise these schemes/projects by assessing their requirement under the current scenario. Mid-term review is a precondition under such circumstances. Accordingly, all ongoing schemes are appraised with the same procedure as envisaged for new schemes/ projects. BETA system is an important platform for sharing project information with various departments.

<sup>&</sup>lt;sup>26</sup> Finance Department Resolution No 30636 FIN-PPP-PPP-0005-2020-F, Government of Odisha, 7<sup>th</sup>, Nov, 2023

#### 27. After giving In-Principle approval, the Detailed Paper (DP) and Detailed Project Report (DPR)

<sup>27</sup>are prepared. DP contains the description of the project/scheme by the administrative department concerned. The DPR contains the contextual background of the project. DPR highlights the reasons for selecting the particular project among other options. An Environmental and Social Impact Assessment is made. Measures are identified to mitigate the adverse impact and issues with land acquisition, diversion of forest land, wildlife clearances, rehabilitation and resettlement are addressed in this section. DPR gives details on the alternative strategies available. A detailed financial analysis is also made. It has the cost estimates, budget for the scheme/project, means of financing and phasing of expenditure. Infrastructure projects are assessed on the basis of the cost and tenor of the debt. Issues relating to project sustainability, stakeholder commitment, operation-maintenance of assets after project completion and other related issues are addressed. The time frame of the project is also indicated with the proposed zero date for commencement. A financial and economic cost-benefit analysis of the project is undertaken. The project also undergoes a risk analysis to identify and assess implementation risks and mitigation measures. Risk analysis includes legal/contractual risks, environmental risks, revenue risks, project management risks, regulatory risks, etc. The DPR also evaluates the project's disaster resilience and assesses its impact on Sustainable Development Goal (SDG) indicators.

28. **Appraisal for each capital project follows a standard methodology as given in the DPR**. After suggesting the required changes to DP/DPR, the P&C and Finance Department give their approval to the administrative department. Most major projects are centrally reviewed. From the above exposition, it can be concluded that in the project appraisal stage, major capital projects are subject to technical, economic, and financial analysis. It follows a standardized methodology with centralized support. While overall procedures and process exist, they could benefit from being clarified and made more transparent. As noted above, there are PIM processes in place for a broad set of different type of projects and project size. Meanwhile, some of the processes and procedures are yet to be fully mapped out which could create uncertainties and cause unnecessary delays. Mapping the procedures and processes fully and presenting them in a set of published guidelines could be beneficial for the efficiency of the institutional structure. Also, there is currently no Public Investment Management Information System that allows to manage the entire process. Such as system covering all the dimensions of the PIM cycle, could if implemented also contribute to enhanced transparency and potentially result in improved efficiency.

#### **Strategic Planning**

#### **Fiscal targets and rules**

29. The state has a legal architecture to support debt sustainability. Odisha Fiscal Responsibility and Budget Management Act, 2005 (OFRBMA 2005, amended in 2021) mandates the government to ensure fiscal stability, sustainable debt management and progressive elimination of revenue deficit. It focuses on greater transparency in fiscal operations with medium-term fiscal planning. The broad provisions of the act are: Reduce revenue deficit to nil, Reduce fiscal deficit to gross state domestic product to not more than 3 percent, Reduce the ratio of salary to State's own revenue to 80 percent, Reduce the ratio of non-interest committed revenue expenditure to the State's own and mandated

<sup>&</sup>lt;sup>27</sup> Annexure1 (Concept Note) and Annexure 2 (Detailed Project Report) EFC/SFC Circular, GOI OM no. 9523/ F., Date: 22 – 03 - 2021

Revenue to 55 percent, Cap the ratio of interest payment to revenue receipt to 15 percent, Cap the debt GSDP ratio to 25 percent<sup>28</sup>. According to the provisions of the OFRBM (Amendment) Act 2021, an additional borrowing limit of 2 percent of GSDP over the fiscal deficit target was allowed to counter the detrimental effects of the pandemic. The additional borrowing of 2 percent includes 1 percent unconditional borrowing and 1 percent for implementation of reforms. The provision is made for the following reforms: Implementation of One Nation One Ration card system, Ease of doing business, Urban Local Body or Utility Reforms and Power Sector Reforms. Each reform is given a weightage of 0.25 percent of GSDP each.

30. The Medium-Term Fiscal Policy Statement (MTFP) for Odisha is tabled in the State legislature. It necessitates the alignment of fiscal policy with budget preparation. Each financial year, the State Government presents this statement on fiscal policy to the legislature, along with the annual financial statement and requests for grants. This set forth a three-year rolling target for prescribed fiscal indicators. It includes an assessment of sustainability of revenue receipts and expenditure, use of capital receipts and market borrowing for capital assets. It also has a fiscal policy strategy statement with an account of expenditure, borrowing, liability, guarantees and activity of SPSUs. Hence, there is a medium-term fiscal policy statement (MTFP) to align budget preparation and public investment plans with fiscal policy. It is instituted through the legislature, with numerical debt ceilings.

31. To ensure transparency, the Finance Department publishes a Monthly Fiscal Report with details on fiscal position, tax and non-tax receipts and expenditures. A new system Budget Execution Technique Automation (BETA) was developed by the state. It has been setup to ensure effective online monitoring of monthly and quarterly expenditure pattern.

#### **Investment Planning**

32. **Odisha prepares state and sectoral strategies to guide public investment decisions.** The Odisha Industrial Development Plan: Vision 2025 was launched. It includes a compendium of Investible Projects which is a list of costed projects with a focus on strategic sectors. The projects are costed and in certain stages of approval. The sectors and areas are: industrial parks, textiles, healthcare, logistics, transport, information technology, electronics manufacturing, food processing, urban infrastructure, smart city, chemicals, petrochemicals, plastics, energy, tourism and downstream industries. Several sectoral policies for Industries, Logistics, and aerospace among others have been put in the public domain. Most of the strategic plans have broad investment targets but do not include costed plans. Strategies are used as strategic guidance for project decision-making. Meanwhile, during budget discussions, project decisions are informed by current strategic priorities and fiscal situation. Table 3 presents the details of some key strategies and policies along with their salient features. Strategies and policies have output focused targets and elements of Monitoring and Evaluation systems.

Table 3: Overview of Strategic Planning in Odisha         Strategic Policy       Salient Features         Document       Salient Features		
Odisha Logistic Policy, 2022	<ul> <li>Envisions the transformation of Odisha into a hub for trade and commerce through improved competitiveness, efficiency and sustainability</li> <li>Develop logistics infrastructure including logistics park, dry ports, free trade warehousing stores</li> <li>Fostering private participation, reducing logistics cost, establishing a robust logistics ecosystem and ensuring availability of skilled resources</li> </ul>	

<sup>&</sup>lt;sup>28</sup> The limit for debt to GSDP ratio has been amended several times

Table 3: Overview of Strategic Planning in Odisha		
Strategic Policy Document	Salient Features	
	Recommends the establishment of State Logistics Cell- for coordination and implementation	
Industrial Policy Resolution, 2022	<ul> <li>Envisions the transformation of Odisha into an advance industrialized state</li> <li>Based on four key pillars: Investment promotion, Investment facilitation, Industrial Infrastructure development and Incentive Framework.</li> <li>Financial and non-financial incentives and infrastructure and institutional support to support industrial base</li> <li>Nodal agency for promotion and facilitation of investment (more than Rs. 50 crore) is Industrial promotion and investment corporation of Odisha limited (IPICOL). Industrial Planning and Strategizing Unit (IPSU) adds to IPICOL by preparing state industrial development plans. Odisha Investment and export promotion office (OIEPO) will promote investment destination of the state and will act as a part of IPICOL.</li> <li>District level: District Investment promotion agency (DIPA) is tasked with investment promotion</li> <li>Single window clearance mechanism</li> <li>Develop industrial parks throughout the state.</li> <li>Initiated Odisha East Coast Corridor and will further develop more industrial corridors under a suitable state sponsored scheme.</li> <li>Financing industrial infrastructure, Industrial Infrastructure development fund and maintenance fund will be setup.</li> <li>Some financial incentives include 100% exemption from payment of electricity duty, capital investment subsidy.</li> </ul>	
Odisha MSME development policy, 2022	<ul> <li>Stimulate the growth of micro, small and medium enterprise in the state; Facilitate their access to domestic and international markets.</li> <li>Development of MSME parks to offer ready infrastructure, implementation of incentive package for promotion of MSMEs</li> <li>Policy identified eight key sectors for additional financial and non-financial benefits.</li> <li>Financial assistance offered through : exemption of stamp duty, subsidies for capital investment, interest rate subsidies, electricity duty exemption, subsidy for investing in quality certification, technology purchase subsidy etc</li> </ul>	
Compendium of Investment projects	<ul> <li>List of projects with project cost, focus sector, project location, employment, status of approval and nodal agency</li> <li>Sectors with special focus: Textiles &amp; Apparel, Healthcare &amp; biotech, logistics &amp; transport, Information technology: Agro &amp; food processing, Industrial parks, smart city projects, chemicals, petrochemicals, plastics, energy, tourism, skill development.</li> </ul>	
Renewable Energy Policy, 2022 Long Term Energy Action Plan 2024	<ul> <li>Adopts clean energy alternatives, to investment in the clean energy sector.</li> <li>Single window clearance for renewable energy projects, exemptions and incentives for the development of renewable energy projects.</li> <li>Renewable energy research institute will be set up along with Policy Advocacy &amp; Vision Group (PAVG) to act as an advisor for policy related issues.</li> <li>Measures for specific technologies like Hydro, Solar, Wind, Biomass.</li> <li>Energy department is collaborating with German development agency, Deutsche Gesellschaft far International Zusammenarbeit GmbH (GIZ) to develop a long-term action plan. GIZ will provide technical assistance for the plan which will be finalized by 2024.</li> <li>Optimization of generation, transmission, power procurement, improvement of efficiency and long-term planning, improving access to finances, disaster-resilient transmission, overall energy security are some of the key objectives of the plan.</li> </ul>	
Odisha Export Policy, 2022	<ul> <li>Odisha is the 7<sup>th</sup> largest exporting state of India (2021-2022) with the highest exports in the sector of Mineral &amp; Metal.</li> <li>Objective: export target of Rs. 3.5 lakh crore by 2026-2027 with a particular emphasis on sectors including Mineral &amp; Metals, Marine, Chemical &amp; Allied products, Handloom, Handicraft, Agriculture, Horticulture, IT, tourism.</li> <li>Provides support through financial assistance in the form of reimbursement.</li> <li>Odisha's export policy is aligned with foreign trade policy 2022-2027.</li> </ul>	

Table 3: Overview of Strategic Planning in Odisha				
Strategic Policy Salient Features				
Odisha Port Policy, 2022 and Odisha Civil Aviation Policy, 2022	The 2022 Odisha port policy has a goal of promoting holistic growth of non-major ports and inland waterways, the policy also encourages private investment. Likewise, 2022 Odisha civil aviation policy is designed to enhance air connectivity, cultivating a more favorable environment for business. This 5-year policy will unlock aviation sector's untapped potential and stimulate employment opportunities. <sup>29</sup>			

#### **Prioritisation, Selection and Budgeting**

33. Beyond guidance provided in sector strategies, there is no published project selection guidelines. Prioritization of projects depends on the developmental requirements of the people of Odisha. Generally, projects that affect a large section of the population (such as the provision of drinking water facilities) are taken up.<sup>30</sup> The sectoral strategies provide strategic guidance for project selection. During budget discussions, some project selection decisions are informed by current strategic priorities and fiscal situation. The appraisal process of the project facilitates the selection of schemes/projects for funding through the budgetary process. Detailed Paper (DP) and the Detailed Project Report (DPR) guide the prioritization, selection and budgeting of projects. The financial advisor of the administrative department sends the DP/DPR, along with the Expenditure Finance Committee/Standing Finance Committee (EFC/SFC) memorandum<sup>31</sup>, for review and recommendation by the EFC/SFC. As per the suggestions of EFC/SFC, necessary changes are incorporated and the DP/DPR is submitted for approval by the competent authority. After this entire process, the approved DP/DPR is uploaded to the BETA system for record-keeping. In cases of ongoing projects/schemes, during the preparation of the EFC/ SFC memorandum, the Administrative Departments would need to provide physical as well as financial information on the past performance of the project/ scheme for the entire period of operation. An independent third party is commissioned to conduct evaluations and impact assessments for major projects or projects with high value (> Rs. 200 crore). The key findings of this evaluation are presented to EFC/SFC for consideration of project continuation. This process of appraisal and approval is to be furnished before the closure period of the project to ensure budget allocation in the subsequent financial year.

#### **Operation and Monitoring and Evaluation**

34. **Financial performance of PSU is monitored.** The DPE oversees PSU and monitors their financial performance. It reviews and publishes an annual report on the financial performance of public corporations. The government reviews the investment plans of public corporations through **Project Approval Committee (PAC).** However, it may not publish a consolidated report on investment plans.

35. Large projects are subject to rigorous monitoring. High priority schemes and flagship programmes are implemented in coordination with the Union Government. A joint coordination mechanism exists between the Central and State governments for projects that are jointly implemented by both levels of government. To ensure the timely implementation of these large projects, a Project Monitoring Group (PMG) operates at the Centre under the Cabinet Committee on Investment (CCI). It reviews the implementation of infrastructure-based investment projects in

<sup>&</sup>lt;sup>29</sup> Based on Fiscal Strategy Report 2023-2024

<sup>&</sup>lt;sup>30</sup> Discussed during field interviews.

<sup>&</sup>lt;sup>31</sup> Annexure 3 (EFC/SFC Memorandum for appraisal of schemes)

Odisha. The projects encompass a wide array of sectors, including steel, power, coal, mining, oil and gas, roads, highways, and railways<sup>32</sup>.

36. **Each department has its own State Project Monitoring Unit.** Monitoring of projects is done by the officials of respective departments. Some major projects are closely monitored compared to others. For some projects, there are weekly reviews undertaken and are monitored frequently both financially and physically.

37. To ensure the prompt completion of ongoing projects, Odisha has also enacted the Zero-Based Investment Review. It is a legally mandated review by the OFRBM Act for ongoing infrastructure projects that are languishing due to poor monitoring and implementation. This review process prioritizes fund allocation for ongoing projects to ensure their timely completion. The initiative was initially introduced in 2002-03 to expedite project completion.

38. **Each department has its own Outcome Budget**. It indicates the expected output and outcomes or the actual physical dimensions of the financial outlays. It is a performance monitoring tool. The govt has integrated the Outcome Budget Monitoring into the Budget Execution Technique Automation (BETA) system.

39. There is a consolidated asset register that are updated by surveys of the stocks, values, and conditions of public assets. The government of Odisha in collaboration with the Odisha Space Application Centre (ORSAC) has set up the State's Geo-Asset portal, Odisha Public Asset Management System (OPAMS) in 2021. It has high-resolution satellite data. It is a single window gateway for geospatially validated data of all public assets of the state.

No	Institutional Features	Institutional Strength	<u>Effectiveness</u>
1	Is there a medium-term fiscal framework (MTFF) to align budget preparation w/ fiscal policy?	<b>High-Medium*:</b> An MTFF is prepared prior to budget preparation, which includes fiscal aggregates and allows distinctions between recurrent and capital spending <i>However, it doesn't allow distinctions</i> <i>between ongoing and new projects</i>	<b>High:</b> Budget document is consistent with the allocations that were indicated in the MTFF, in particular for capital spending and fiscal deficit
2 Does State government prepare costed State and sectoral strategies for public investment targets and M&E system?		<b>High:</b> State or sectoral public investment strategies or plans are published covering projects funded through the budget regardless of financing source (e.g. EAP, public corporation, PPP). The strategies include costing of individual major investments and broad aggregate cost estimates. Measurable output outcome targets are monitored and published through the Outcome Budget for each Department	<b>High:</b> There is systematic and extensive use of output and outcome information. This is actively used and documented in most major projects. <i>(Outcome Budget has list of projects with programme details).</i> <i>Most projects in sectoral plans are approved for budget funding</i>
3	Are major capital projects subject to rigorous technical, economic, and financial analysis?	<b>High*:</b> Major projects are systematically subject to rigorous technical, economic, and financial analysis, and selected results of this analysis are published. (DPR) <i>However, it may not an undergo</i> <i>independent external review.</i>	Non-availability of suitable information. Effectiveness assessment is based on share of major projects that are subject to rigorous project appraisal. Do appraisal documents provide systematic and credible assessments, in line with legal or regulatory requirements? Are lower-value

Table 4: Assessment of Public Investment Management in Odisha

<sup>&</sup>lt;sup>32</sup>https://timesofindia.indiatimes.com/city/bhubaneswar/pmg-satisfied-with-implementation-of-projects-in-odisha/articleshow/52693065.cms

No	Institutional Features	Institutional Strength	<u>Effectiveness</u>
			projects systematically identified and discarded or returned for further development and possible resubmission? There are often major discrepancies between the formal requirements for project appraisal and the actual practices. High effectiveness indicates that most projects are subject to systematic and rigorous appraisal, with clear linkages to the decision to include projects in the pipeline; further, appraisals are realistic. Good practice indicates that all projects should be appraised, but the depth of the appraisal would reflect the value and the risks of the project. Only the projects that are assessed to have high value and are ready for implementation are included in the pipeline, and other projects are rejected or returned for further development.
4	Is there a standard methodology and central support for the appraisal of projects?	<b>High:</b> There is a standard methodology and central support for project appraisal	<b>High:</b> Standard methodology is used to ensure high-quality project appraisals for most major projects. The methodology is consistently applied for most major projects.
5	Does the government undertake a central review of major project appraisals before decisions are taken to include projects in the budget?	Medium: Major projects (including donor- or PPP-funded) are reviewed by a central authority (Planning& Convergence and Finance Dept) prior to inclusion in the budget. PPP projects are reviewed by Directorate of PPP Projects. High rating requires that all major projects (including donor- or PPP-funded) are scrutinized by a central ministry, with input from an independent agency or experts prior to inclusion in the budget.	Non-availability of suitable information. High effectiveness implies that there is rigorous central review of major project proposals and proposals are regularly rejected or returned for further development. In this case, the rigor of the review process should be clearly documented in project review documents and at least 10 percent of the reviews should include independent inputs. It would be expected that several project proposals are rejected or returned for further development.
6	Does the government publish and adhere to standard criteria for project selection?	<b>Medium:</b> There are no published criteria. Departments may have certain criteria but it is not in the public domain. High rating requires that there are published criteria for project selection, and generally projects are selected through the required process.	Medium: The majority of projects are selected in accordance with the internal but unpublished criteria. In some cases, departments follow a dual process, whereby some projects go through the prescribed criteria and others are selected through ad hoc approaches. High rating requires that the entire capital budget is selected in accordance with the specified criteria and through the required process
7	Does the government maintain a pipeline of appraised investment projects for inclusion in the annual budget?	<b>High:</b> The government maintains a pipeline of appraised investment projects for inclusion in the annual budget but other projects may be selected.	Medium: Majority of projects are selected from the pipeline. High rating requires that all projects are selected from the pipeline.

No	Institutional Features	Institutional Strength	Effectiveness
8	Is there a multi-year forecast of capital spending by department and are projections of total construction costs of major capital projects prepared and published	Medium: Medium: 3-5 year projections of capital spending by department or sector is published High rating requires that 3-5 year projections of capital spending by department or sector is published; total cost of major capital projects published includes annual detailed breakdown of cost	Medium: Approved capital budgets are broadly in line with the ceiling (information from field interview). Also, WAMIS portal provides cost ceilings and the breakdown of project cost to each administrative department. High rating requires that projections are consistent with subsequent budget allocation. Some deviation is always possible, but medium-term projections should on average be broadly in line with budget allocations.
9	Are total project outlays appropriated by the legislature at the time of a project's commencement?	Low: Outlays are appropriated on an annual basis, but information on total project costs is not included in the budget documentation. High rating requires that Outlays are appropriated on an annual basis and information on total project costs, and multiyear commitments is included in the budget documentation.	Low: Budget documents include only few major projects that are appropriated High rating requires that total project costs and multiyear commitments are disclosed for most major projects. This can be in the budget itself, or in another credible document, for instance, a PIP that is reconciled with the budget or MTFF
10 (a)	Does the government monitor the financial performance of PCs?	<b>High:</b> The government reviews and publishes a consolidated report on financial performance of PCs	Medium: Review process covers the largest PCs measured by assets. There is a consolidated report published that reviews the financial performances of PC. However, it is dated.
10 (b)	Does the government oversee the investment plans of public corporations (PCs)	<b>High:</b> The government systematically review the investment plans of PCs. The government oversees investments made into PCs. White paper published by the Department of Public Enterprises (DPE) provides the details about profit and loss position of State PSUs. Investment and profit/loss positions are reviewed by CAG.	Medium: There is no transparent complementarity between Government and PCs investment into capital projects. The financial performance of the PSUs reports information on turnovers, total assets, profit/loss etc. However, the information on investment plans on projects are not reported in a consolidated way. High rating requires that that there is extensive information sharing and coordination on public investments, documented in a consolidated ownership report. Formal requirements for reporting, review and disclosure are being followed in practice, and it is easy to assess the consistency and complementarity between government and PC investment projects. The review process covers the largest PCs measured by assets or most of the total PC infrastructure investments
11	Are major capital projects subject to monitoring during project implementation?	<b>High:</b> For all major projects, total project costs, as well as physical progress, are centrally monitored during project implementation.	<b>High:</b> There is systematic data on portfolio delays and cost overruns for the majority of projects in the portfolio and that few monitored projects are behind schedule or over budget.

No	Institutional Features	Institutional Strength	<u>Effectiveness</u>
12	Are asset registers (Central, Departmental <sup>[1]</sup> etc.) updated by surveys of the stocks, values, and conditions of public assets regularly?	<b>Medium:</b> Asset registers are maintained. High rating requires that Asset registers are comprehensive and updated regularly at reasonable intervals.	Medium: Asset Registers are maintained but it's not clear if it is comprehensive

#### 9. Resilience of public investments

40. **Odisha is exposed to climate change.** Odisha is ranked 10th of Indian states on the Council on Energy, Environment and Water's (CEEW) climate change vulnerability index with a score of 0.368. Odisha is exposed to droughts and floods. The state has a long coastline and is exposed to regular cyclones (see Table 5). Given this, Odisha is facing infrastructure vulnerabilities due to climate change. According to the Odisha State Action Plan on Climate Change OPCC), climate change is also likely to impact water resources, agriculture, and urban areas.

Table 5: Odisha's Exposure and Vulnerability to Climate Change		
Exposure	Exposure Risk to Odisha	
Temperature Rise Heatwave every year (recent heat wave in Jharsuguda, Odisha (45.4°C))		
Cyclone and	and Odisha might face extreme and severe droughts. Intensity and frequency of tropical cyclones might	
Drought risk rise; vulnerability to disaster increased. Residential sector most at risk.		
Sea Level Rise and	Sea level rise may increase risk for coastal flooding.	
coastal erosion	Coastal Vulnerability Index (CVI) estimated by the Indian National Centre for Ocean Information	
	Services reveals-	
	• about 107 kms of coastal stretch including Northern Puri, parts of Jagatsighpur,	
	Kendrapara, northern and southern Balasore are at high-risk	
	• about 297 kms of coastal stretch including northern Ganjam, Chilika, Central Puri,	
	Jagatsinghpur, Kendrapara, Southern Bhadrak and northern Balasore are at medium risk	
	• 76 kilometres including Ganjam, Chilika, southern puri, Kendrapara are at low risk.	

41. **Institutions have been established to address the climate change challenges.** Many institutions have been established to work on Odisha's response to climate change. Table 6 briefly presents these institutions and their mandate. The establishment of the High-Level Coordination Committee and Climate Change Cell, Dept. of Environment and Climate Change has been particularly important as it coordinates and implement activities proposed to be undertaken as per state action plan on climate.

Table 6: Key Institutions for Climate Change Response	
Institution	Climate change responsibility
Climate Change Cell, Dept. of Environment and Climate Change	<ul> <li>Implementing agency for State Action Plan for Climate Change.</li> <li>Coordinates with the Nodal Officers of line departments and stakeholders to implement the climate change programmes (Line departments like Agriculture, Health, Industry, Energy, Housing and Urban Development, Transport, Water Resources, Revenue and Disaster Management, Mining etc. and different regulatory authorities, R &amp; D institutions, non-government organizations)</li> <li>Exchange of information on climate change issues.</li> <li>Formulates an Annual Action Plan with the implementing departments.</li> <li>Explores additional sources of funding for Action plans implementation.</li> </ul>
High-Level Coordination Committee	<ul> <li>Monitors and deliberates over the implementation of climate change activities, (Head: Chief Secretary) along with concerned departmental Secretaries (Eleven Departments).</li> <li>A nodal officer in each department is appointed to review and monitor the Departmental Action Plans.</li> </ul>

ENVIS (Environment Information System)	<ul> <li>Environmental information database</li> <li>Engaged in collection, collation, storage, retrieval, and dissemination of environmental information.</li> <li>Database on Climate Change Database has been prepared.</li> </ul>
Green Energy Development Corporation of Odisha Ltd. (GEDCOL) and Odisha Hydro Power Corporation (OHPC)	<ul> <li>GEDCOL –</li> <li>wholly owned subsidiary company of OHPC.</li> <li>Power utility in the energy sector with a diversified energy portfolio</li> <li>Address environmental concerns and harness renewable energy sources.</li> <li>Some ongoing Solar Projects of GEDCOL are- Ground-Mounted Solar Project, Ground mounted Solar project at Chipilima, Ground Mounted Solar PV Project at Boudh District.</li> <li>OHPC-</li> <li>A power utility, formed after power sector restructuring.</li> <li>Establish electric generation stations using non-conventional sources like hydro, thermal, and nuclear energy.</li> <li>Conducts studies, and prepares project and feasibility reports. It prioritizes environmental considerations.</li> </ul>
Odisha Renewable Energy Development Agency (OREDA)	<ul> <li>A nodal agency for research promotion and development of RE.</li> <li>Seeks increased share of RE in the total power mix and develops a Low Carbon Growth Path.</li> <li>Some initiatives are Konark Solarisation, Roof Top Solar Power Plant in residential, commercial and Government buildings, and solarisation of agricultural pump sets.</li> </ul>

#### 42. Several strategies and policies have been issued to tackle climate change in Odisha. Multiple

strategies and policies have been issues by the Government of Odisha to address the climate change challenges it is facing. These are presented briefly in Table 7.

Table 7: Odisha's Climate Change strategies		
Key Strategies	Coverage	
Odisha Climate Change Action Plan (OCCAP)	<ul> <li>First state to formulate the State Action Plan on Climate Change (SAPCC) in 2010.</li> <li>OCCAP aligned to NDCs.</li> <li>Address climate change vulnerability with a comprehensive climate response framework.</li> <li>Currently, OCCAP (2021-30) outlines the strategies for 12 departments and aligns those with the SDGs and NDCs.</li> <li>Departments- Agriculture, Coast and Disaster, Energy, Fisheries and Animal Resources, Forests, Health, Industries, Mining, Transport, Urban and water Resources and Waste Management.</li> </ul>	
Climate Change Budget Coding	<ul> <li>First to formulate Climate Change Budget Coding in India.</li> <li>Climate-proofing effort for climate resilience outcomes of development programmes.</li> <li>Aims to secure the development benefits of large-scale projects from the potential future climate change loss.</li> <li>Phased climate change Impact Appraisal analysis to examine the Climate Change Relevance Share (CCRS) and the Climate Change Sensitivity Share (CCSS).</li> <li>CCRS identifies developmental schemes that require climate-related planning.</li> <li>CCSS identifies vulnerable components within the scheme or programme for extra proofing.</li> <li>The share of the scores of CCRS and CCSS are applied to the sectoral budget for climate-proofing efforts.</li> <li>Overall 11 sectors are covered in this analysis.</li> </ul>	
Climate Finance	<ul> <li>Climate financing for both adaptation and mitigation to climate change.</li> <li>Three sources of climate financing- State Budget, Project funding sources (such as the Green Climate Fund, and National Adaptation Fund on Climate Change Project), and Odisha Environment Management Fund (OEMF).</li> </ul>	
Renewable Energy Policy 2022)	<ul> <li>Odisha Renewable Energy (RE) Policy- 2022 - Develop commercially viable projects using RE technologies.</li> <li>Harnessing green and clean energy.</li> <li>Single window clearance for all RE projects.</li> <li>Assists project developers for consents, clearances and permits for RE projects in a time-bound manner.</li> </ul>	

43. **An assessment of PIM and Climate change has been undertaken.** The assessment covers five dimensions i.e. climate-aware planning, coordination across entities, climate related criteria in appraisal and selection of public investments, budgeting and risk management. It is presented in table 8.

	Table 8: Summary Assessment: Public Investment Management of Climate Change			
C1.	C1. Climate-aware planning: Is public investment planned from a climate change perspective?			
а	Are national and sectoral public investment strategies and plans consistent with NDC or other overarching climate change strategy on mitigation and adaptation?	<b>Partially Met:</b> National and sectoral public investment strategies and plans are consistent with NDC or other overarching climate change strategies for some sectors. (State Action Plan on Climate Change has climate goals set in alignment with INDC (Intended Nationally Determined Contributions. The State Action Plan on Climate Change (SAPCC) outlines strategies across 11 Departments viz. Agriculture, Revenue and Disaster Management, Energy, Fisheries and Animal Resources, Forest, Environment and Climate Change, Health, Industries, Mining, Transport, Urban and Water Resources. These sectors form the basis for conducting the Phased Climate Change Impact Appraisal (CCIA) analysis" (Climate Budget Odisha, 2023-34)		
b	Do central government and/or sub- national government regulations on spatial and urban planning, and construction address climate-related risks and impacts on public investment?	Fully Met: Central government and/or sub-national government regulations on spatial and urban planning, and construction (through building codes) address climate related risks and impacts on public investment		
	estment across the public sector?	e effective coordination of decision making on climate change related public		
1	Is decision-making on public investment coordinated across central government from a climate-change perspective?	Partially Met: Decision-making on public investment is coordinated across budgetary central government from a climate-change perspective. Decision making on public investment is coordinated across the government from a climate-change perspective. However, it may not include externally financed projects, PPPs and extrabudgetary entities		
СЗ.	Do project appraisal and selection inclu	Ide climate-related analysis and criteria?		
1	Does the appraisal of major infrastructure projects require climate-related analysis to be conducted according to a standard methodology with central support?	<b>Partially Met:</b> The appraisal of major infrastructure projects requires climate-related analysis to be conducted according to a standard methodology.		
	Are climate-related elements included among the criteria used by the government for the selection of infrastructure projects? ( <i>Question</i> <i>relevant if ques C3 (1) is positive</i> )	<b>Partially Met</b> : Climate-related elements are included among the criteria used by the government for the selection of all major budget-funded projects, and the criteria are published. However, climate-related criteria used by the government for the selection of all major projects may not include externally financed projects, projects financed by extra-budgetary entities, and PPPs. The criteria for selection may not be published. The available criteria for climate related projects is for prioritization (high, low, medium)		
C.4	Budgeting and portfolio management:	Is climate-related investment spending subject to active management and		
	ersight?			
1	Are planned climate related public investment expenditures, sources of financing, outputs and outcomes identified in the budget and related documents, monitored, and	Partially Met: Some planned climate related public investment expenditures are identified in the budget and related documents, including investment expenditures funded externally, by extrabudgetary entities, and PPPs. /Most planned climate related public investment expenditures, sources of		
	reported?	financing, and outputs and outcomes are identified in the budget and related documents, including investment expenditures funded externally, by extrabudgetary entities, and PPPs, and expenditure on these projects is monitored and reported. However, Climate related expenditure is monitored and reported but not climate related investment		
	C5. Risk management: Are fiscal risks relating to climate change and infrastructure incorporated in budgets and fisca risk analysis and managed according to a plan?			

1	Does the government publish a national disaster risk management strategy that incorporates the potential impact of climate change on public infrastructure assets and networks?	<b>Fully Met:</b> The government publishes a national disaster risk management strategy that identifies and analyses the key climate-related risks to public infrastructure assets and networks in terms of hazards, exposure and vulnerability, and includes the government's plans to mitigate and respond to these risks.
3	Does the government conduct and publish a fiscal risk analysis that incorporates climate related risks to public infrastructure assets?	<b>Partially Met</b> :The government conducts and publishes a fiscal risk analysis that incorporates a qualitative assessment of <i>natural disasters</i> , <i>however</i> , <i>climate-related risks to public infrastructure assets are not documented. A fiscal risk analysis may incorporate a quantitative assessment of climate related risks to public infrastructure assets over the medium term and policies to mitigate these risks, and a qualitative assessment of the risks that arise over the long-term.</i>

# 10. List of recommendations from the assessment

	Table 9: Summary of Recommendations			
Stra	tegic Planning			
1	Improve coordination of major projects regardless of funding source by instituting a central authority which takes inputs from an independent agency or experts, that may review and scrutinize all major projects.			
2	Develop a Public Investment Management Information System that allows seamless management of the investment cycle.			
3	Develop a harmonized system of PIM including PPP's, wherein reports on status of projects in public investment pipeline is regularly updated.			
4	Strengthen the planning process by disclosing total project costs and multiyear commitments for major projects through Public investment plan documentation in the budget documentation.			
5	Publish information on investment plans of public corporations in a consolidated way.			
Proj	ect Appraisal			
6	Publish a technical note with details of the methodology used for the appraisal. There is a need for additional guidelines on the methodology used to undertake cost-benefits or Economic rate of return analysis.			
7	Publish a note on appraisal methodology which incorporates climate change dimensions, and which is applicable for all public investments.			
Prio	ritization, Selection and Budgeting			
8	Develop and publish guidelines for project selection.			
9	Publish guidelines on the framework for prioritization among projects. It may depend on readiness of the project.			
Оре	ration, Monitoring and Evaluation			
10	Strengthen the institutional mechanism for monitoring and evaluation of the fund requirement to reduce slippage in outlay.			
11	Regularly update Asset registers comprehensively and at reasonable intervals.			
12	Publish regularly consolidated reports with exhaustive information on Public Investments			
Clim	ate Sensitive Public Investment			
12	Develop and publish a framework for managing public investments towards climate change.			
13	Strengthen the appraisal and selection process by incorporating the analysis of the impact of climate change for all public investment projects.			
13	Coordinate public investment across <i>all</i> entities in response to climate change either through the budget or extra- budgetary institutions.			
14	Conduct an assessment of fiscal risks to public assets and infrastructure due to climate change.			

#### 10. References

Barro, Robert J. 1990. Government spending in a simple model of endogeneous growth. *Journal of Political Economy, 98*(S5), 103-125.

Blanchard, Olivier J, and Perotti, R. 2002. An Empirical Characterization of the Dynamic Effects of Changes in Government Spending and Taxes on Output. *The Quarterly Journal of Economics*, *117*(4), 1329–1368.

Blanchard, Olivier J. 2019. Public Debt and Low-Interest Rate. (Working Paper No. 25621), NationalBureauofEconomicResearch,MassachusettsAvenueCambridge.

Comptroller and Auditor General of India. Various Issues. *Finance Accounts Reports.* Government of Odisha.

Comptroller and Auditor General of India. Various Issues. *State Finances Audit Reports.* Government of Odisha.

Electronics & Information Technology Department, Government of Odisha. (2022). Odisha IT Policy 2022.

Finance Department, Government of Odisha. (2023-24). Fiscal Strategy Report.

Finance Department. 2019. *Statements Presented along with the Annual Budget 2019-20 Under the Odisha Fiscal Responsibility and Budget Management Rules, 2005*. Government of Odisha.

Finance Department. 2023. Fiscal Strategy Report 2023-24. Government of Odisha.

Finance Department. 2023. Odisha Climate Budget 2023-24. Government of Odisha.

Finance Department. 2023. Status Paper on the Public Debt of Odisha. Government of Odisha.

Fiscal Responsibility and Budget Management (Amendment) Act, Odisha Act 11 of 2021.

Forest, Environment, and Climate Change Department. 2021-30. Odisha Climate Change Action Plan 2021-30. Government of Odisha.

Industries Department. 2022. Industrial Policy Resolution 2022 Odisha. Government of Odisha.

MSME Department. 2022. Odisha Export Policy 2022. Government of Odisha.

Mundle, Sudipto., and Sahu, Ajaya. 2022. The Budget Bets on Capital Expenditure to Revive Growth How Will This Strategy Play Out?. *Economic & Political Weekly*, 57, 40-46.

Planning and Convergence, Directorate of Economics and Statistics. 2023. *Odisha Economic Survey 2022-23*. Bhubaneswar: Government of Odisha.

Power Finance Corporation Ltd. (2022). Report on Performance of Power Utilities.

Turnovsky, S.J. 1997. Equilibrium Growth in a Small Economy Facing an Imperfect World Capital Market. *Review of Development Economics*, 1, 1-22.