

Odisha's Public Policy Priorities for Transitioning Towards a Green Economic Recovery

Under The Project

**“Building knowledge and capacity
for Greening the Economic Recovery
in the states”**

Content of the Presentation



Profile of Odisha



Impact of Covid-19



Green Economic urgency!



Why the energy sector



Methodology



Installed capacity



Major Issues



Policy Suggestions



About the Study – “Green Economic Recovery”



Why?

- Ongoing COVID-19 pandemic distorted the entire cycle of public finance led to compression in state budgetary expenditure.
- Recovery packages are not coupled with long term climate financing targets
- Complementing the stressed public resources amid pandemic situation with external (private / International) climate resources for place holding the co- benefits is need of hour
- Adding dimension of equity and inclusion to existing climate budgeting frameworks is need of hour (to motivate states for climate mainstreaming)
- Lack of specific knowledge on how to?
 - build cohesiveness in public actions for thriving climate investments and its requirements?
 - how to prepare climate responsive proposals based on evidence research

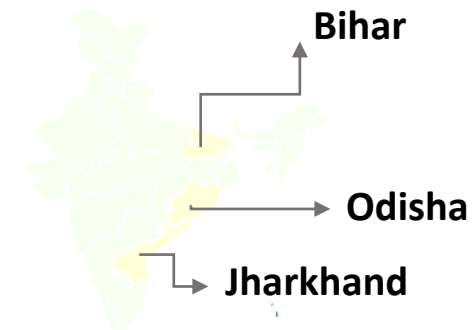


Focus area

All sector of economy contributing to GHG emissions. Intends to:

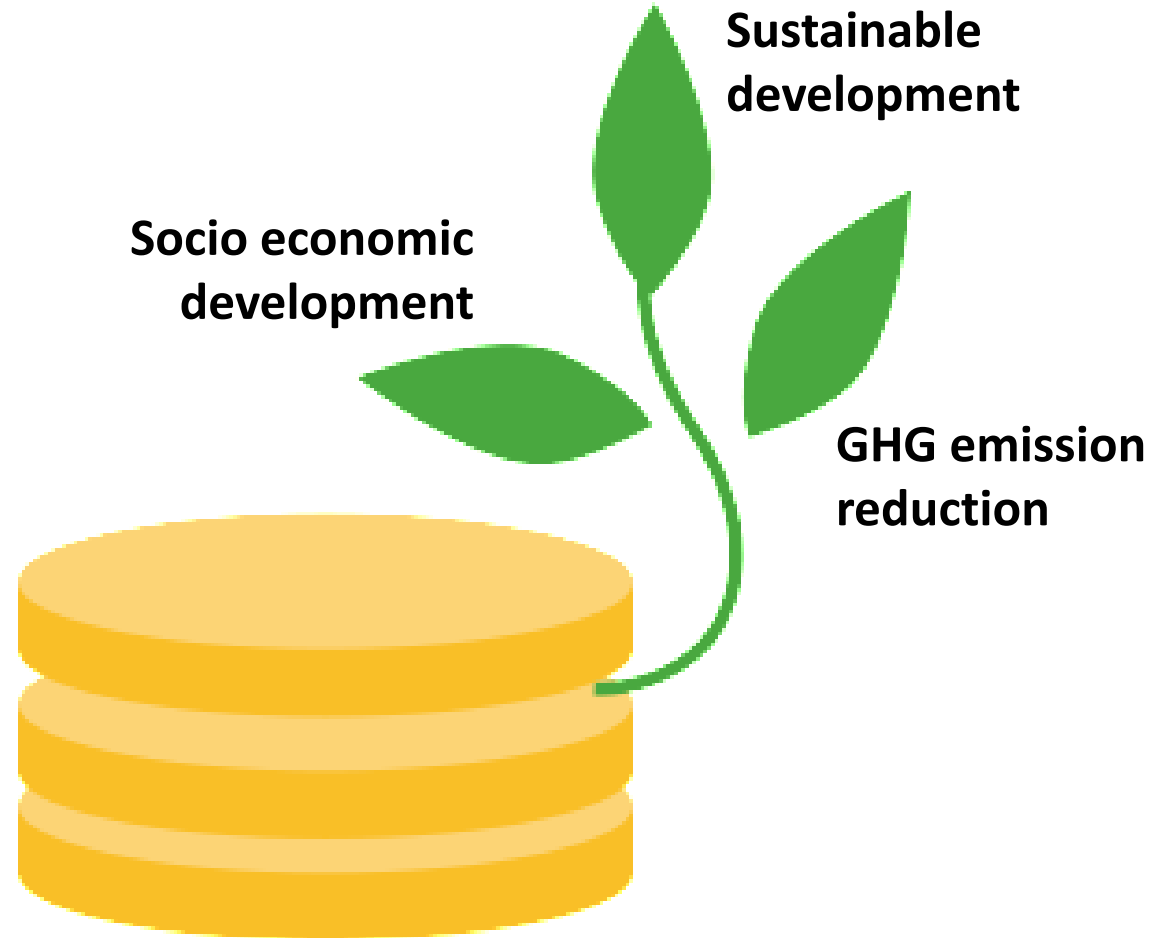
- Assess the impact of the COVID-19 pandemic on different sectors of the State economies and climate financing
- Assess existing climate financing framework in three states and present factsheets and knowledge resources
- Identify the focus areas for capacity building and attention of stakeholders Governments / institutions with regard to adoption of climate financing alternatives and, mainstreaming the climate concerns in public finance

Select States

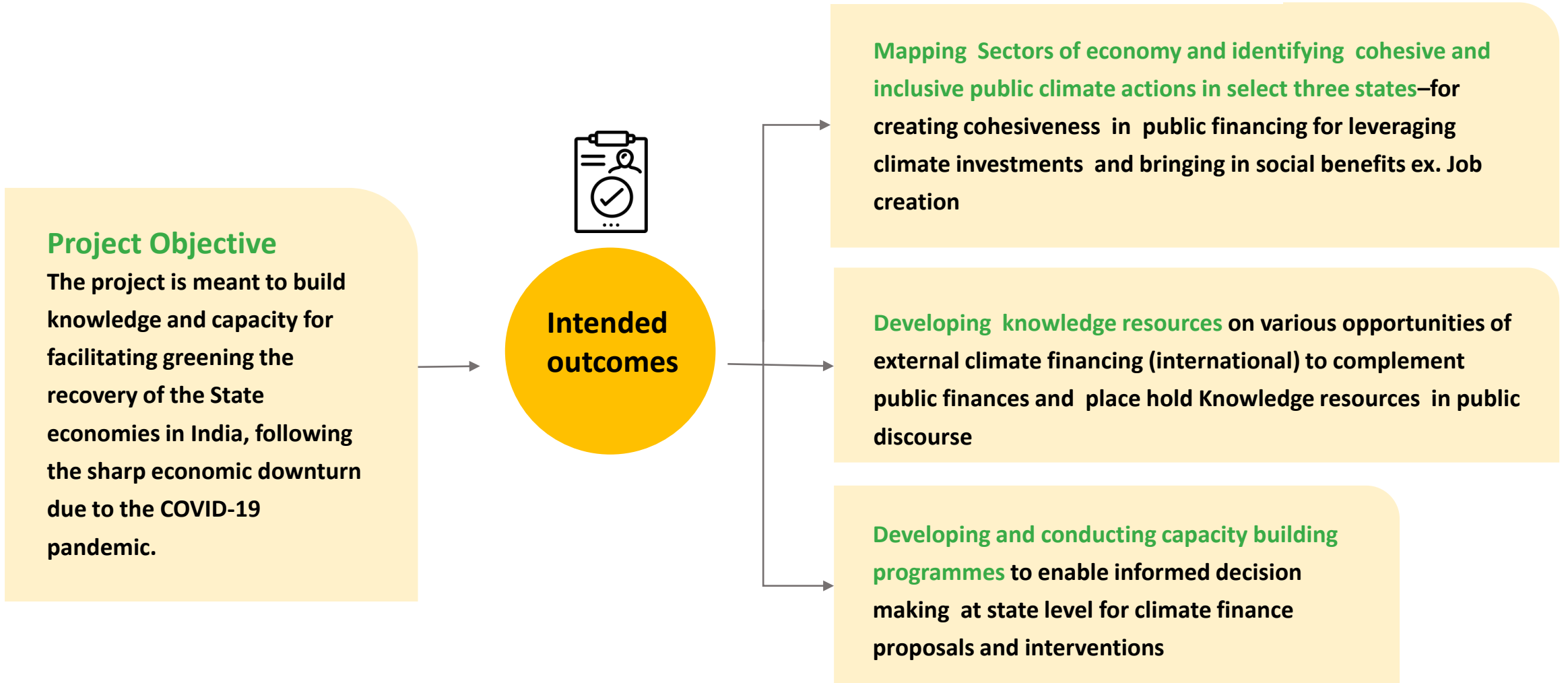


Green Economic Recovery expected outcomes

Public Policy design is critical as a poorly designed recovery process will be ineffective in delivering desired social, economic and climate outcomes. GER offers opportunity to meet these troika of objectives



Green Economic Recovery Project- Objective and Outcomes



Impact of Covid-19



As per the Economic Survey 2020-21, Odisha's **economy contracted 4.9 percent** during the onset pandemic.



There was a **slight dip in energy sector spending**, from 2018-19 Actual (1.88%) to 2020-21 Actual (1.49%)



Priority was given to social sector spending. For example, the distribution of rice; there was a Rs 17,000 crore allocation for special livelihood plan for employment generation, and a Rs 2,200 crore package for the welfare of weaker sections. (Odisha Economic Survey 2020-21).

Green Economy Recovery (GER) is need of the hour!



There is need to drive an **economic recovery pathway** which is in-sync with **sustainable development** and make the economy strong enough to **withstand any sudden shocks** (pandemic or climatic).

A lot of rethinking happening on avoiding economic practices which are detrimental to environmental and keeping climate change in agenda during economic recovery. Energy is amongst the key driver of any economy has huge potential for GHG emission reduction. Our study focuses on **clean energy transition** in Odisha



There is need to bring in public discourse, policy recommendations how to mainstream climate concerns in developmental actions and green economy recovery?

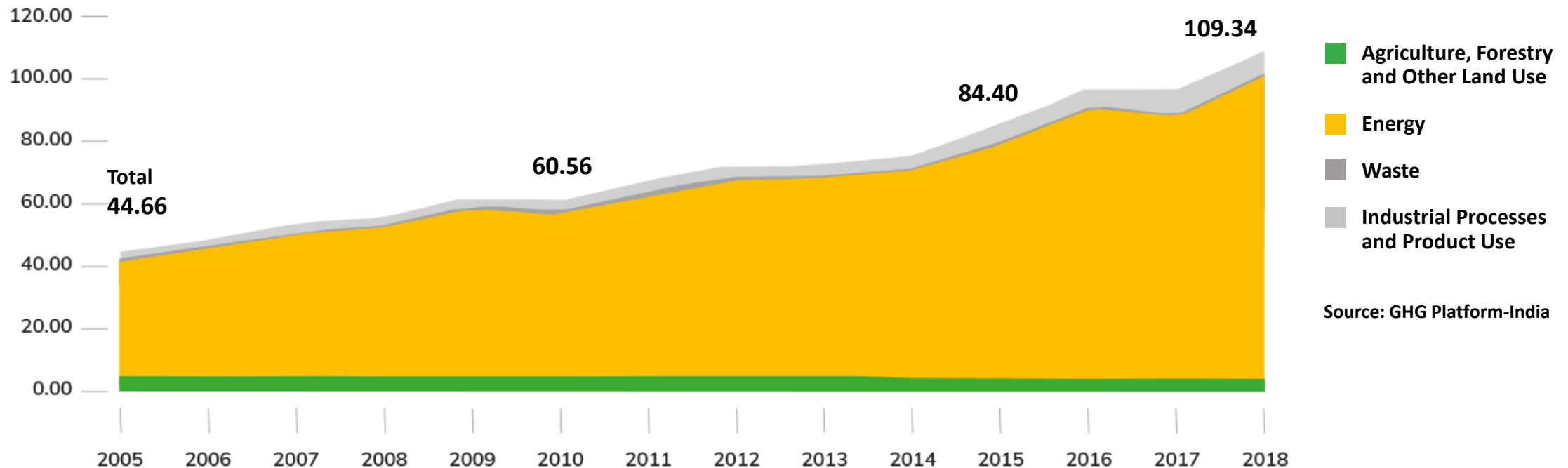
Why the energy sector?

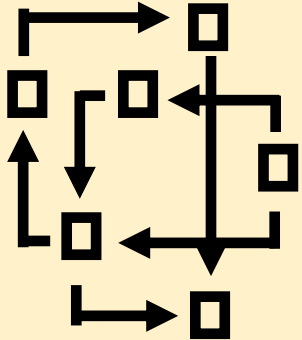
Shows a rising trend. Have the highest GHG emission compared to other sectors

From 2005 to 2018, there has been a 164% increase!

Trend analysis predicts that in 2022, the energy sector will contribute to 107 Mt of CO₂, therefore the need for clean energy is imminent.

Emission from various sectors (Mt CO₂e)

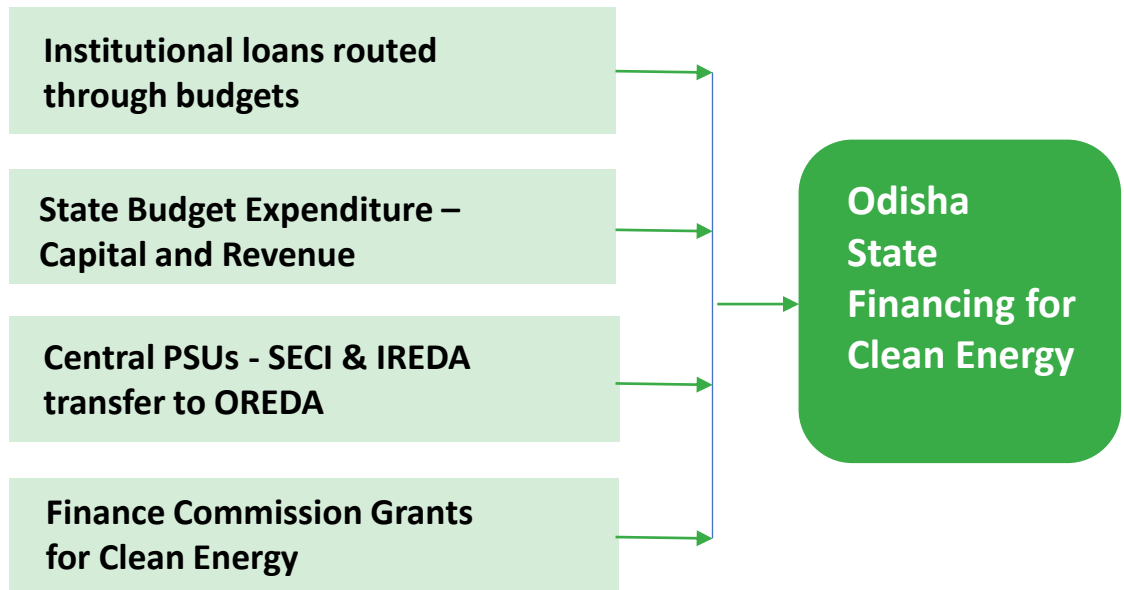




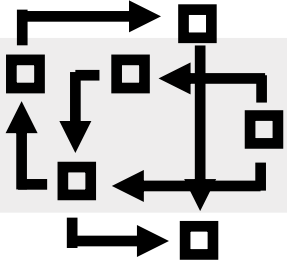
The resource envelope of Odisha power sector was assessed and plausible estimates on finances were made across the following aspects and channels:

- Budgetary allocations from the Energy Department, Government of Odisha
- Share of international loans in budgetary allocations from the Energy Department
- Internal and Extra Budgetary Resource (IEBR) reimbursement to Odisha through Central PSUs in the power and renewable energy sector
- Finance Commission Grants (if any) with respect to clean energy

Different channels of energy financing



Methodology



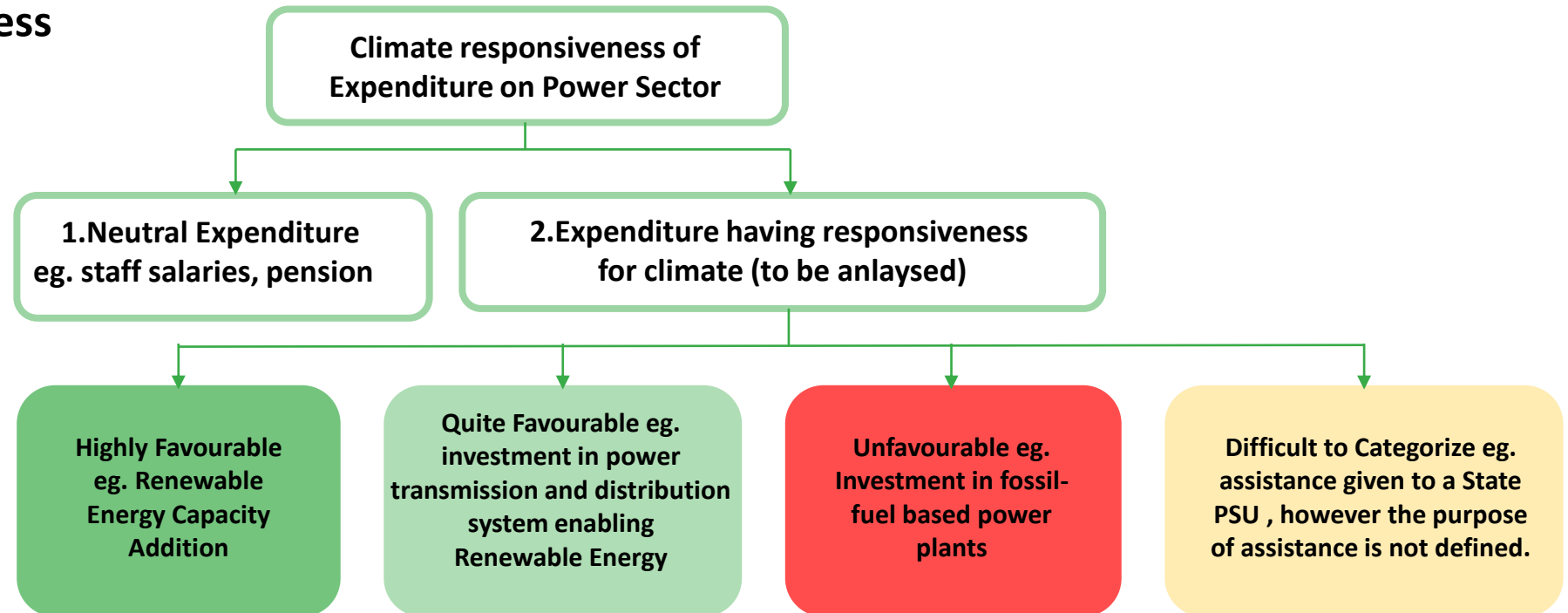
Understanding the coherence of State Budgetary Expenditure in reaching a clean energy transition to make progressive budget decisions to leverage climate financing: categorisation framework

Climate Responsiveness Categorization

Step 1: Identification of key department(s) for power sector

Step 2: Identification of Budget lines that is, neutral or “with climate mitigation responsiveness”

Step 3: Rating the responsiveness of budget expenditure for Climate Change Mitigation (clean energy transition)





Key findings from Climate Responsiveness Categorization

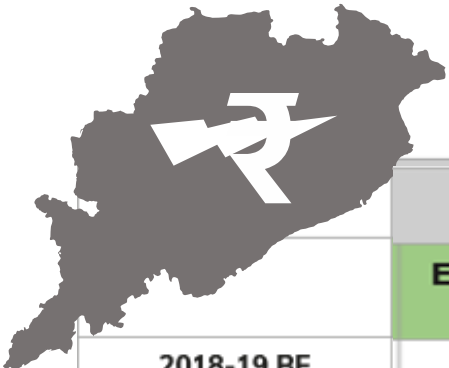
Expenditure towards various categories of climate mitigation impact of Odisha State Power Budget towards Climate Change Mitigation (in Rs. crore)

Categories	2017-18 A	2018-19 A	2019-20 A	2020-21 A	2021-22 BE	2022-23 BE
Highly Favourable	11.20	235.93	21.87	2.22	52.57	954.57
Quite Favourable	1965.43	1764.70	2320.66	1819.00	1483.70	1967.80
Difficult to categorise	21.11	22.31	25.96	24.38	37.62	550.11
Unfavourable	308.69	123.42	63.27	0.00	225.00	0.00
Total	2306.43	2146.36	2431.76	1845.59	1798.88	3472.48

Source: CBGA analysis of Budget and Detailed Demand for Grants for Energy Department, Odisha

Trends in Odisha's Total Budget

Expenditure (TBE) for energy sector budget



	Amount (in Rs. Crore)			
	Energy Sector Budget	Renewable Energy Budget	Energy Versus Total State Expenditure (%)	RE versus Total Energy Expenditure (%)
2018-19 BE	1,983	10	1.65	0.5
2018-19 A	2,146	10	1.88	0.47
2019-20 BE	2,251	10	1.62	0.44
2019-20 A	2,432	10	1.94	0.41
2020-21 A	1,846	2.22	1.49	0.12
2020-21 RE	2,032	100	1.51	4.92
2021-22 BE	1,799	49.57	1.06	2.76
2022-23 BE	3,472	54.56	1.74	1.57

Source: CBGA analysis of Budget and Detailed Demand for Grants for Energy Department, Odisha

Impact of Covid-19 on Odisha Economy



Total budget expenditure of various state departments over the years- post and pre-covid (Rs Crore)

Department	2018-19 BE	2018-19 A	2019-20 BE	2019-20 A	2020-21 BE	2020-21 A	2021-22 BE	2022-23 BE
Odisha Total Budget Expenditure	120028	113948.5	139000	125167.6	150000	135000	170000	200000
Urban Development and Housing	5161.8	4536.5	5578.7	5257.05	6179.65	4802.67	5802.58	7257.56
Transport	590.73	213.88	639.58	450.35	844.56	568.98	872.82	1192.35
Water Resources	10196.05	7448.05	9713.43	6112.26	9374.46	4831.06	8266.85	10044.96
Panchayati Raj & Drinking Water	13725.35	15417.46	18419.03	16400.41	17605.85	14983.88	19800.54	21741.44

Share of various department budget in total state budget expenditure (%)

Department	2018-19 BE	2018-19 A	2019-20 BE	2019-20 A	2020-21 BE	2020-21 A	2021-22 BE	2022-23 BE
Urban Development and Housing	4.3	3.98	4.01	4.2	4.12	3.56	3.41	3.63
Transport	0.49	0.19	0.46	0.36	0.56	0.42	0.51	0.6
Water Resources	8.49	6.54	6.99	4.88	6.25	3.58	4.86	5.02
Panchayati Raj & Drinking Water	11.44	13.53	13.25	13.1	11.74	11.1	11.65	10.87

Source: CBGA analysis of Odisha State Budget and Detailed Demand for Grants

Issues for implementing GER in Odisha

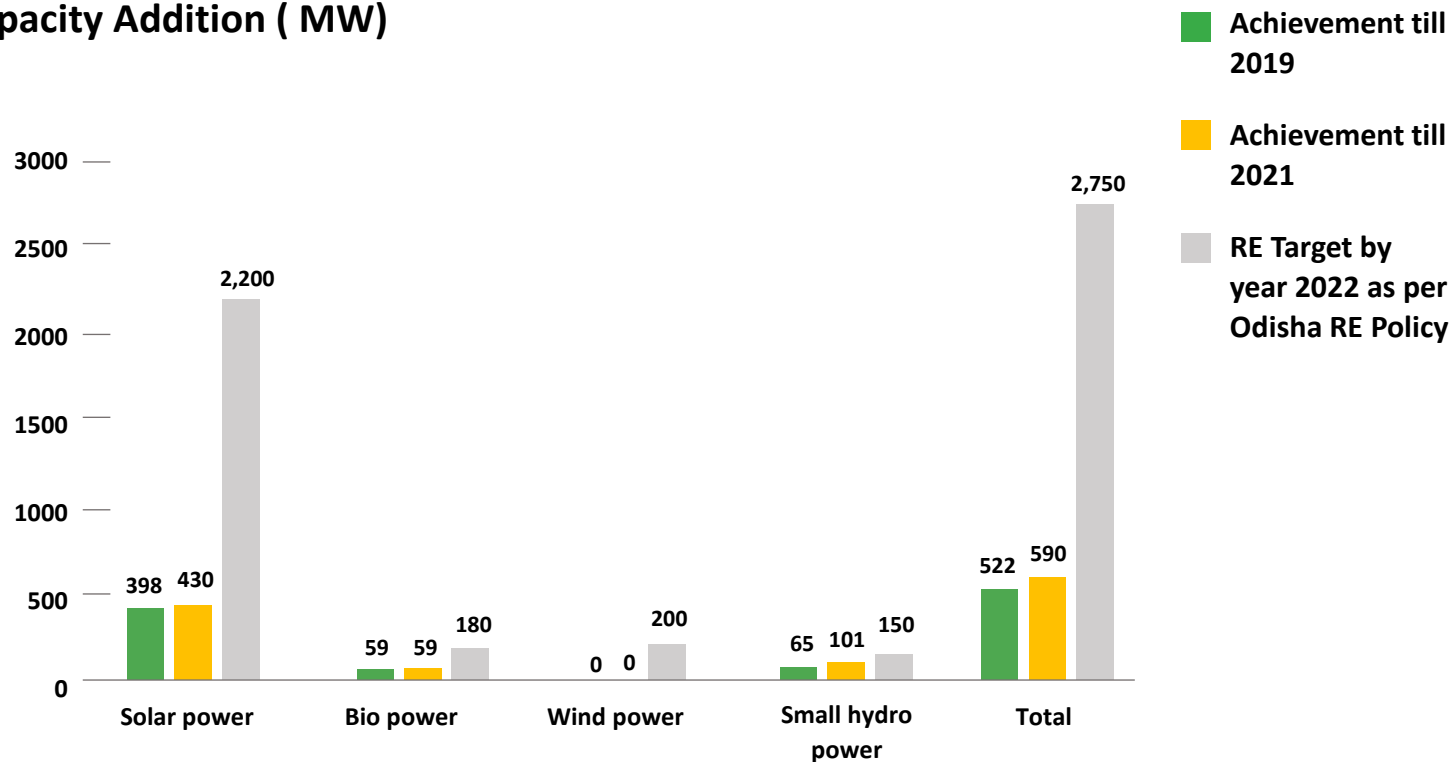


- Clean energy addition in the state is inadequate
- State budgetary provisions for clean energy
- Program planning for clean energy addition
- Cohesiveness of clean energy policies
- Financing of clean energy to state through other channels
- Social sector improvement through job creation

Issue: Target in the Odisha Renewable Energy Policy



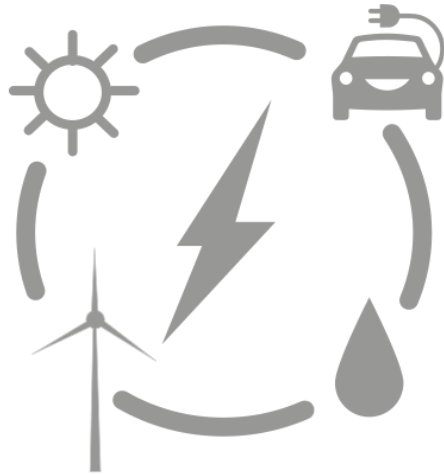
Physical Progress made by Odisha in Renewable Energy Capacity Addition (MW)



The Government of Odisha has set up a target of 2750MW of renewable energy sources by 2022 to reduce its dependence on conventional sources of energy. In 2021, Odisha made significant progress in adding renewable energy capacity with an increase of 68MW over the previous year. The unachieved target from stipulated target in the Odisha Renewable Energy Policy need to be achieved through planning.

Source: Ministry of New and Renewable Energy (MNRE) data Accessed on 5th November, 2022

Installed Capacity of power from different sources (MW)



Installed Capacity (MW)

	Renewable Energy	Hydro Power	Thermal Power	Total
2019	522	2,151	6,547	9,220
2021	596	2,151	5,027	7,774
2022	627	2,163	4,858	7,648

Share of Installed Capacity (%)

	Renewable Energy	Hydro Power	Thermal Power
2019	5.7	23.3	71.0
2021	7.7	27.7	64.7
2022	8.2	28.3	63.5

Source: CEA data, 2019, 2021, 2022

State is dependent on loans for its energy demands

- The Budget of Odisha's Department of Energy is estimated at Rs 1,799 crore for FY 2021-22 (BE). Of this, Rs 150 crore is the expenditure received as loans and advances.
- Between 2017-18 and 2020-21, disbursement through Central PSUs such as Indian Renewable Energy Development Agency (IREDA) fell from 40.12 crore to 13.91 crore.
- No grants were recommended for the renewable energy sector for any State in the Fourteenth and Thirteenth Finance Commission.

Major Head: 6801- LOANS FOR POWER PROJECTS

Sub-Minor Head	2016-17 A	2017-18 A	2018-19 A	2019-20 A	2020-21 BE	2020-21 RE	2021-22 BE
3095- UDAY	0	0	0	0	0	0	0
2886- Odisha's share for UMPP(Loan to GRIDCO)	0	0	0	63.3	0	0	0
2152- Accelerated Power Development Reform Programme (Loans to DISTCOs under APDRP)	0	105.5	0	0	0	0	0
3009- Integrated Power Development Scheme (Loan to DISCOMS)	50	100	106.2	88.1	100	100	0
3009- Integrated Power Development Scheme	0	0	0	0	2	2	0
3103- Odisha Transmission System Improvement Project - JICA - EAP	0	20	44	100	100	336.3	150
2612- CAPEX Programme for development and up gradation of Distribution System (Loans to GRIDCO)	121.7	0	0	0	0	0	0
Grand Total	171.7	225.5	150.2	251.4	250	559.8	150

Detailed Demand for Grants for Odisha State Energy Department (Energy Department, Odisha Government)

Major skilling schemes in climate mitigation



Odisha follows a few schemes that indirectly impact the GER of the state:

Pradhan Mantri Kaushal Vikas Yojana (PMKVY)

Suryamitra Skill Development Programmes

Green Skill Development Programme

Issue: Electric Vehicle - lack of conducive environment



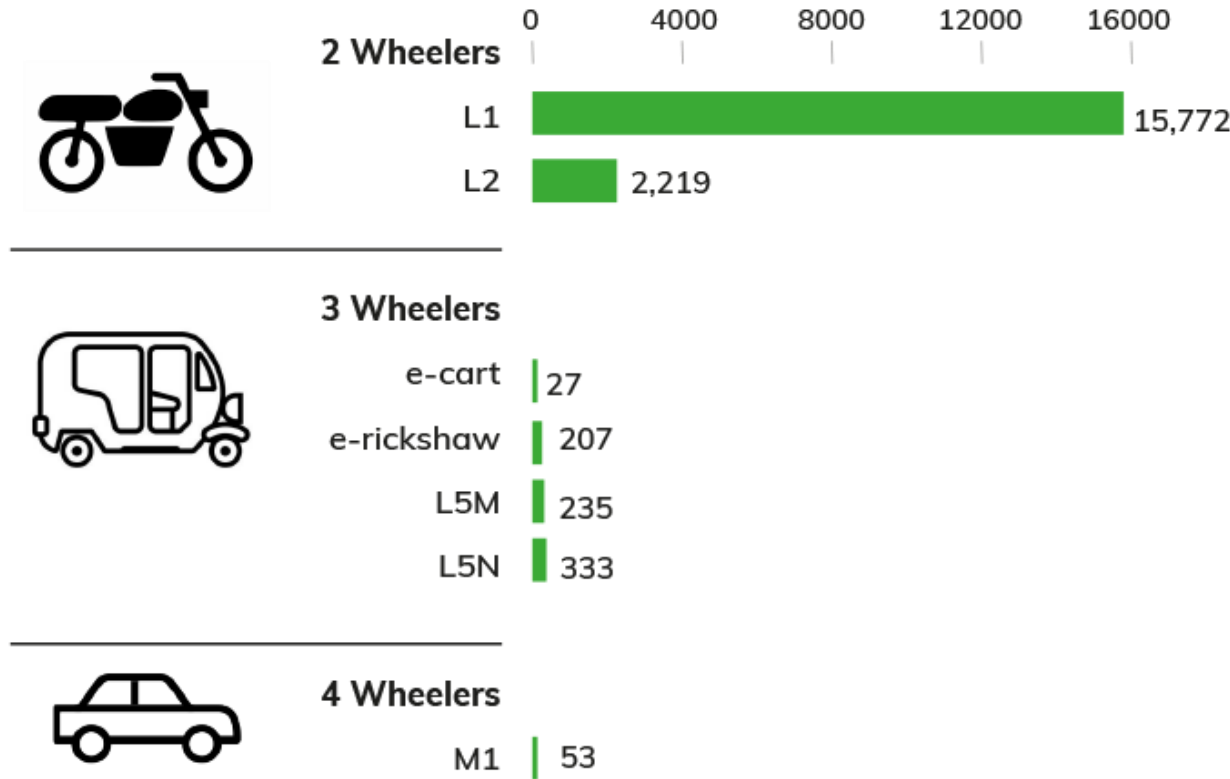
The EV policy of 2021 for Odisha primarily focuses on providing subsidy and financial incentives for the public and private vehicles.

To smoothly transition the policy, the State government would facilitate ease of business primarily for the stakeholders that are directly involved in the purchase and installation of EV in the State.

As of 2022, there are 18,824 electric vehicles in the State, which is less than 0.2% of the 95,50,505 vehicles that were registered in the state.

The EV policy of Odisha 2021 has put a target of 20% of all registered vehicles to be electric by 2025 which needs planning at the state

Electric Vehicles in Odisha by model



Source- FAME-II Ministry of Heavy Industries portal accessed in September 2022

Landscape of efforts, budgets and policies for GER of Odisha



Solar policies need to be exclusively implemented in the state. Odisha state is following central scheme like KUSUM Scheme

There is need to mainstream more programmes for low carbon development of Urban Development sector

Planning for Green Budget of Odisha could think about monitoring indicators and immediate requirement for clean energy transition

Skilling programs need a focused strategy for focusing on green jobs.

Odisha's Climate Budget offers opportunity for GER planning



Odisha has laid down strategies in various sectors of the economy for making them responsive to the needs of climate change mitigation. However, most of the existing strategies operate in a sporadic manner and lack a long-term vision for financing. To institute a framework for green economic recovery and leverage climate financing, **each sectoral policy should mainstream concerns of climate change, environmental sustainability and inclusivity.**

Odisha Climate Budget

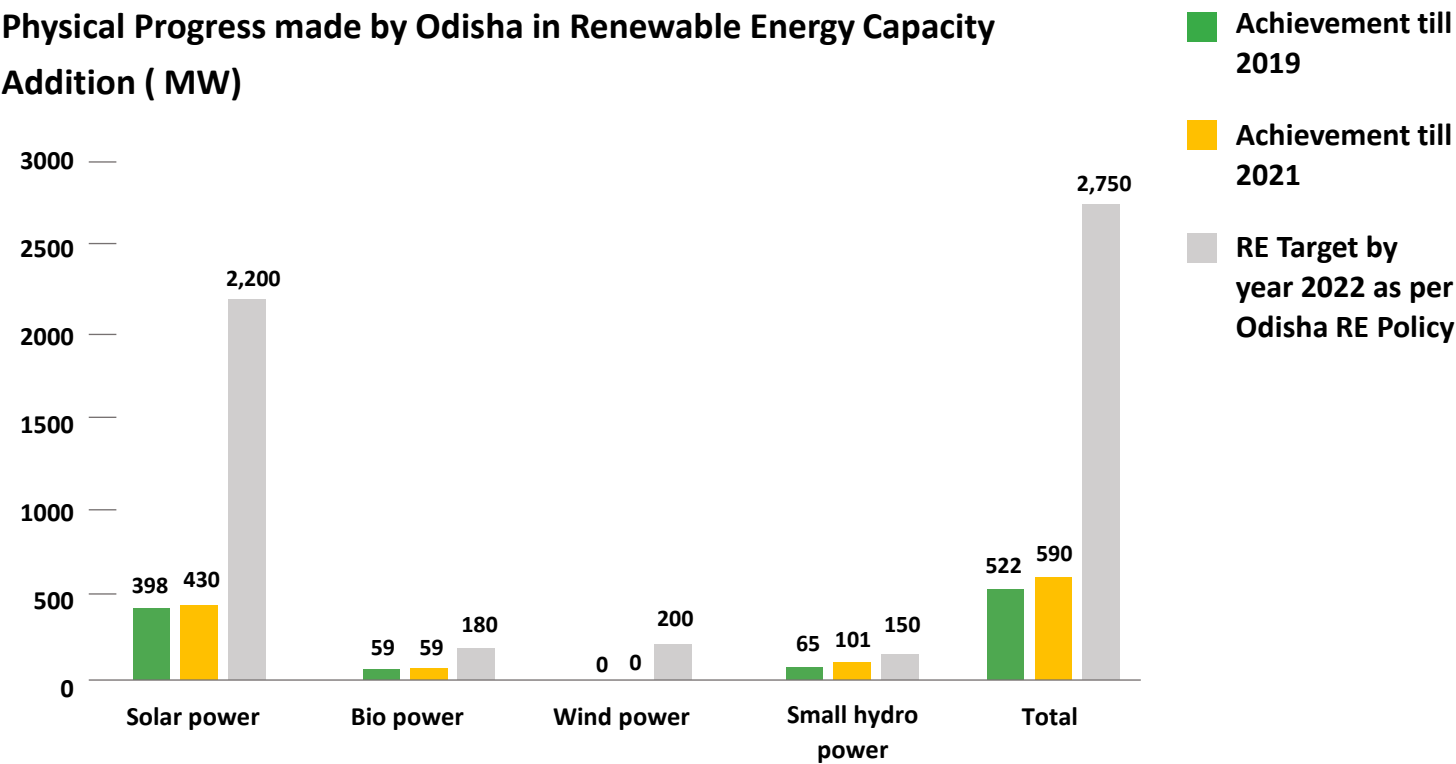
The state is the first that has introduced a **dedicated budget with an appraisal mechanism and a separate budget on climate change.** This budget statement has identified priority climate actions based on their climate relevance and sensitivity. This also provides a measure of transparency to potential investors and improves investor confidence in government policies. Odisha is the first state in the country, which received **clearance for the first project with Green Climate Fund (GCF) financing.** Odisha's Climate Budget 2020-21 based on a climate impact appraisal framework is definitely a pioneering and positive step in the right direction, which other states in the country should follow as a tool for Green economy recovery planning

Policy Suggestions



1. Stipulated target in the Odisha Renewable Energy Policy need to be achieved through planning

Physical Progress made by Odisha in Renewable Energy Capacity Addition (MW)



The Government of Odisha has set up a target of 2750MW of renewable energy sources by 2022 to reduce its dependence on conventional sources of energy. In 2021, Odisha made significant progress in adding renewable energy capacity with an increase of 68MW over the previous year. The unachieved target from stipulated target in the Odisha Renewable Energy Policy need to be achieved through planning.

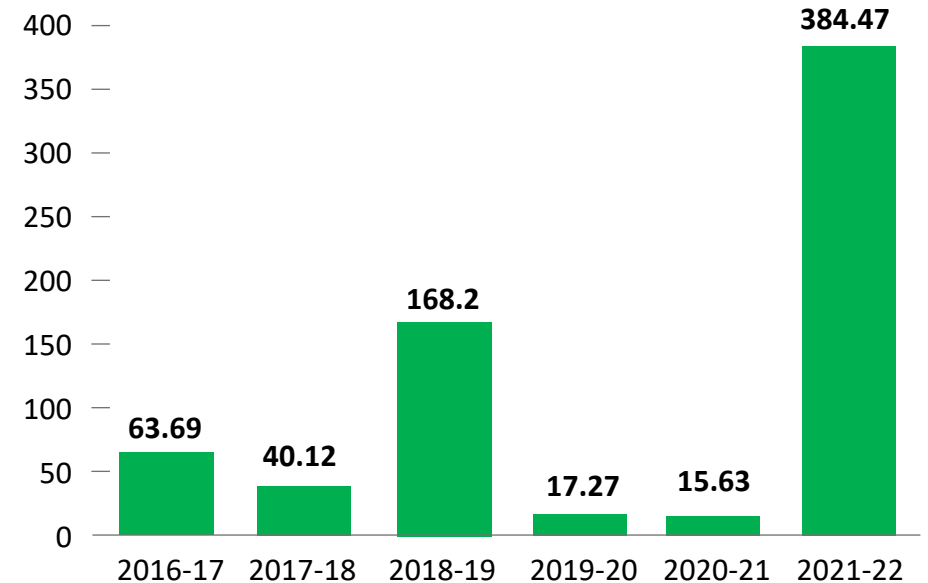
Source: Ministry of New and Renewable Energy (MNRE) data Accessed on 5th November, 2022

Policy Suggestions

2. The state should explore new climate finance mechanisms like green bonds for investing in transmission and distribution network

Odisha is heavily dependent on external loans for transmission and distribution network. Often this increases the burden on state finances due to the requirement of co-financing by the grantee state. Currently, high Transmission and Distribution (T&D) losses are proving a debacle for private investment in RE sector. The state should explore new climate finance mechanisms (like Green Bonds) for leveraging investment in transmission and distribution infrastructure in association with technical assistance from IREDA and MNRE.

Disbursement through central PSUs such as Indian Renewable Energy Development Agency (IREDA) to Odisha (Rs Crore)



Source: IREDA Annual Report 2021-22

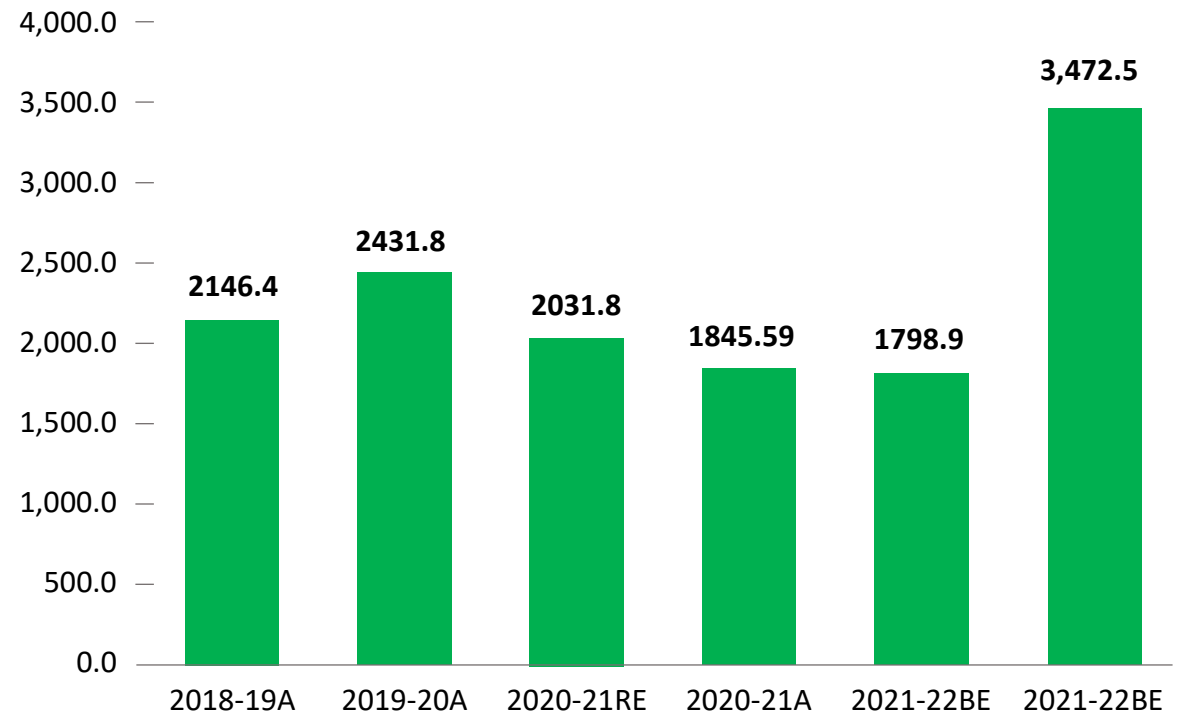
Policy Suggestions



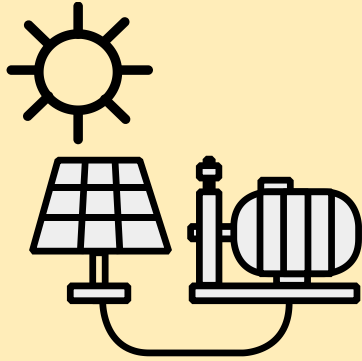
3. Need to leverage external funds to augment with public finance resources – Can be achieved through cohesive environment to investors.

- Non-availability of power transmission and evacuation infrastructure
- Non-availability of land and single window clearance system
- Unclear tax exemptions etc.

Budgetary allocation by the Odisha Energy Department (Rs Crore)

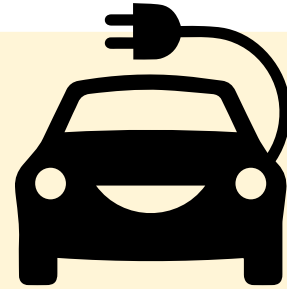


Source: Detailed Demand for Grants for Odisha State Energy Department (Energy Department, Odisha)



4. Use of Solar

Till 2021, Odisha had an installed solar capacity of 430MW. However, the state has a production potential of 2,578 MW. This gap between potential and realisation is mainly due to a gap in capital investments and policy framework. Odisha has also lagged in its renewable energy policy target of 2200MW by 2022. The approach needs to change drastically if the state has to become a self-sufficient solar producer of the country.



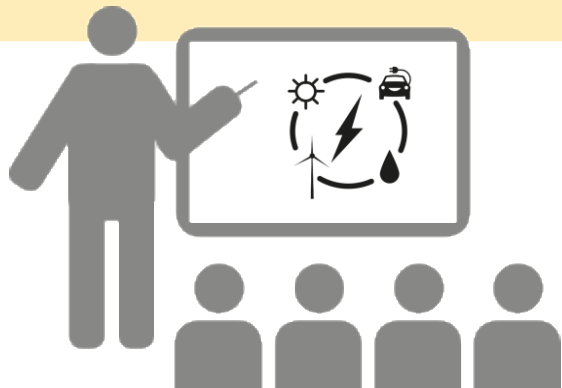
5. Electric Vehicle Policy

As per EV policy 2025, one in every five vehicles registered in Odisha will be electric, targets the State's electric vehicle (EV) policy. This is an ambitious target, even for States that have a head start in EV adoption. Financial planning and augmenting financial resources through budgets could be key in building cohesive ecosystem from public financing channels.

Policy Suggestions

6. Skill Development

Retraining/upgrading the skill of locally placed semi-skilled technicians and service providers for off-grid renewable technologies offers practical solution to reduce the skill gap that is available in the remote areas to adopt renewable energy technologies



7. Odisha Climate Budget

State has dedicated climate budget and identify climate relevant and climate sensitive.

- M & E indicators and Cost benefit Analysis
- Green budgets including other objectives !

Policy suggestions

8. State can put forth demand for direct grant for renewable energy sector by the subsequent Finance Commission

Considering the centrality of the financial strength of DISCOMs to the soundness of State finances, the fifteenth Finance commission recommended an **additional borrowing space of 0.5 per cent of GSDP** for States, during the four-year period 2021-22 to 2024-25..

However, the performance matrix recommended by 15th Finance Commission for monitoring the performance improvement of the states in power sector due to extra borrowing space, does not include renewable energy addition or other climate mitigation oriented actions as the performance criteria



A grant for Renewable energy sector should be demanded by the state with forthcoming finance commission.

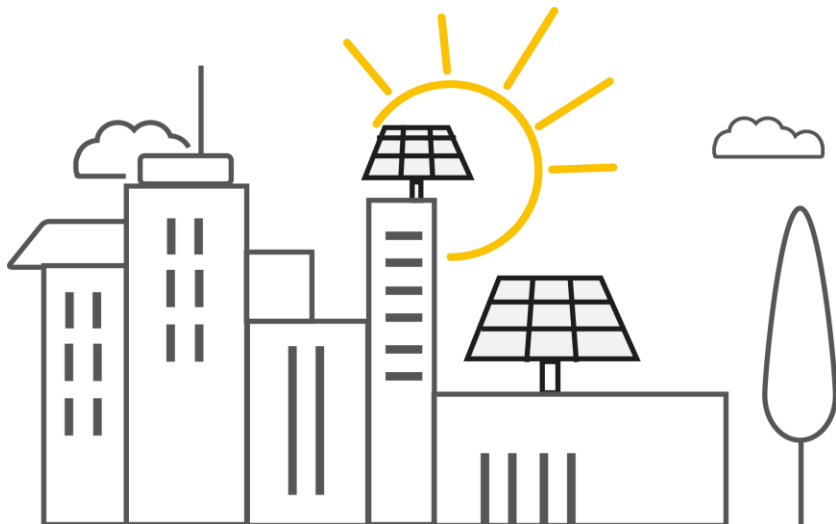
Policy suggestions

9. Odisha step up the policy guidelines for implementation of Union government guidance on Climate Smart Cities for low carbon development of cities

Union government is promoting and supporting the development of renewable energy, build climate resilient infrastructures, and adoption of energy efficient technologies in cities.

For example, the Climate Smart Cities Assessment Framework (CSCAF) of MoHUA is an initiative which was launched in February, 2019 for 100 Smart Cities as a guiding framework for cities towards climate actions.

CSCAF serves as a tool for states and cities to assess their current climate situation and provides a roadmap for cities to adopt and implement relevant climate actions. In compliance with these union government guidelines, Odisha should set guidelines on implementing the union level programmes for climate smart cities. There is a need to make climate change mitigation concerns an integral part of Urban Development programmes and schemes in odisha, as it brings in local co-benefits by reducing air pollution, improving the longevity of created capital assets



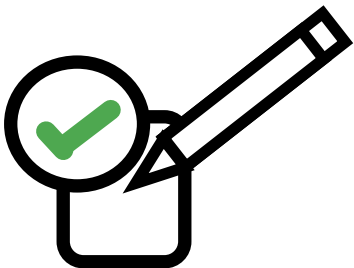
Policy suggestions

9. Odisha step up the policy guidelines for implementation of Union government guidance on Climate Smart Cities for low carbon development of cities (continued)

Key Urban Developmental Schemes (Rs Crore)

Major Head	Minor Head	Sub-Minor Head (Scheme)	2019-20 RE	2019-20 A	2020-21 RE	2020-21 (A)	2021-22 BE	2021-22 RE	2022-23 (BE)
2215- Water Supply And Sanitation	All expenses	3221- Swachha Bharat Mission (SBM) - Urban	90.00	167.41	135.00	22.12	215.00	165.00	250.00
2217- Urban Development	All expenses	2613- AMRUT	593.81	674.21	26.16	26.16	3.38	3.38	601.32
2217- Urban Development	All expenses	2916- National Urban Livelihood Mission	46.95	23.87	42.00	8.15	9.94	9.95	9.95

Source: CBGA analysis of Odisha State Budget and Detailed Demand for Grants





Thank You

Work presented from working paper:

Odisha's Policy and Budgetary Priorities for Transitioning towards Green Economic Recovery

Authors: Subrata Sekhar Rath and Jyotsna Goel

About Project:

Building Knowledge and Capacity for Green Economic Recovery of the States in India

The project is meant to build knowledge and capacity for facilitating the green recovery of the State economies in India, following the sharp economic downturn due to the COVID-19 pandemic. The research will help in developing knowledge resources and recommendations that State Government actors could refer to for incorporating climate mitigation actions under their economic revival measures.

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