

Managing the Coastal Resources adopting ICZM Framework

Odisha, INDIA: ICZM Project- A Case Study

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ICZM Odisha – OBJECTIVE

- The ICZM ,Odisha project was conceived with an objective to facilitate the development and implementation of an integrated management strategy for the coastal zone of Odisha, by adopting a broad perspective and a multi-sectorial approach, to ensure wise use of coastal resources, conservation of critical habitats and biodiversity to built resilience, sustainable economic development & livelihoods, resilient infrastructures to adapt to extreme weather events, nature based solutions and enhance capacity and knowledgebase.
- The major thrust of the project had been coordination of various coastal economic sectors towards long term optimal socio-economic outcomes, climate change compliant coastal infrastructures including resolution of sectoral conflicts and mediating beneficial trade-offs.

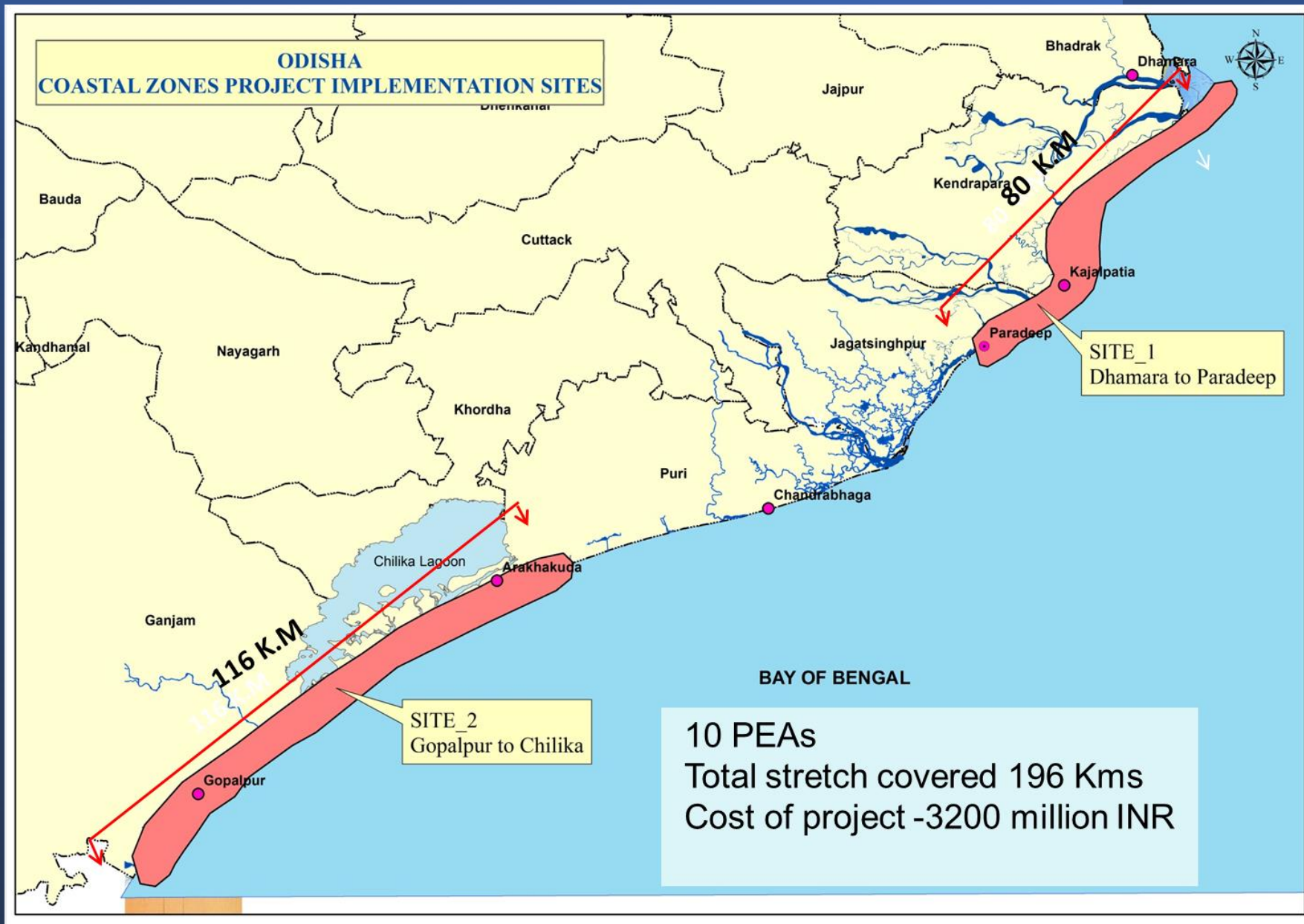
The Integrated Approach

- Due to the complex nature of human activity in the coastal zone of Odisha a holistic and integrated approach is required to obtain a sustainable outcome.
- In this context Ministry of Forest & Environment, Government of India, the World Bank and Government of Odisha came forward with ICZM approach to coordinate activities of various agencies & stakeholders for the sustainable management and usages of coastal resources maintaining the resilience of the coastal ecosystem .



Project Formulation

- The ICZMP Odisha was formulated based on a multidisciplinary and interactive framework to promote integrated sustainable management of coastal zones.
- The project has been a paradigm shift from the *traditional approach of sectoral management of the coastal resources to a comprehensive, integrated approach* for better governance and management.
- Considering the dynamic coastal zone, an adaptive participatory approach for formulation and implementation of the project was followed.

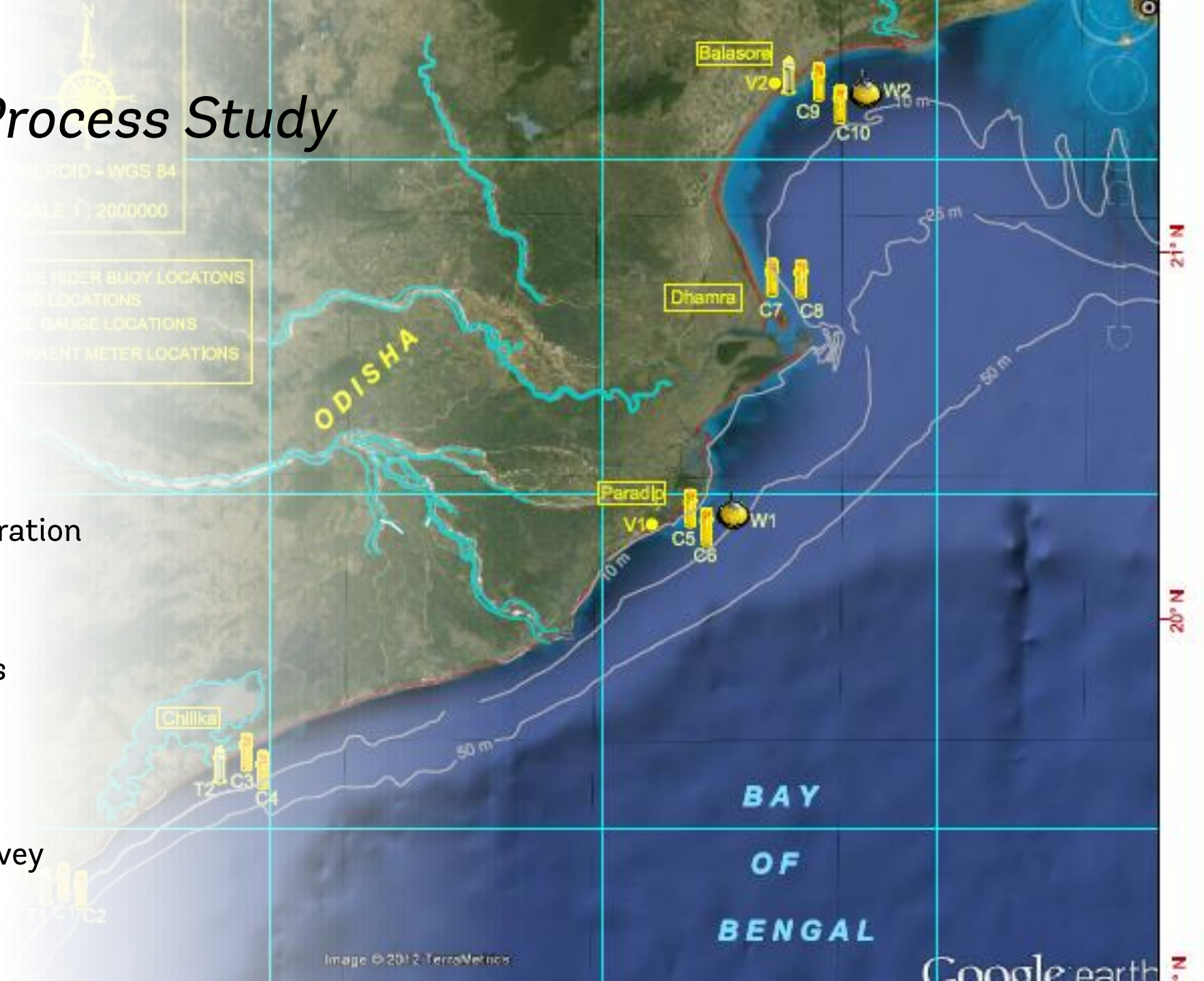


Project Benefits

- The project benefitted 2.5 million coastal population of the state.
- About 0.4 million people from 235 coastal villages of Kendrapara, Jagatsinghpur, Puri, Khurda and Ganjam were directly benefitted from the project activities.
- Responsible fishery promoted in Chilika lake ; 0.2 million fishers are benefitted by up-gradation of landing centers, strengthening of PFCS, cold chain & certification .
- The two coastal stretches covering two sensitive coastal ecosystems i.e. Chilika Lake & Bhitarkanika Mangrove ecosystem. The conservation, livelihood & development issues are addressed under the pilot project.

Regional Coastal Process Study

- Coastal Energy:
- Wave
- Wind
- Tide
- Current
- Coastal Sediments:
- Suspended Sediment Concentration
- Bed Sediments
- Beach Sediment
- River Discharge Measurements
- Coastal Morphology:
- Sea Bathymetry- CRZ-4
- Beach Profile Measurements
- Thematic Mapping Terrain Survey



Strategy for successful implementation

- During the course of implementation of the project critical areas related to conservation of the coastal environment and the conflicting livelihood issues, are being put to test the practical application of the ICZM framework in the project area.
- The focus of ICZMP (O) has been to develop and implement operational models by each PEA with best possible infrastructure, technical inputs, capacity development coupled with stake holder engagement and meticulous multilevel monitoring and constant improvement .
- Empowerment of the coastal communities to transform them from resource users to resource managers .
- The credible primary data generated and the lessons learned were used for formulation of the ICZM & Shoreline Management Plan .

The ICZM Project Outputs

- The multipurpose cyclone shelters would protect life and property of about 25 thousand people during disaster and the center can be used for other purposes by the community.
- Protection and conservation of rare and endangered species of turtles, crocodiles, birds, dolphins and restoration of mangroves.
- Generation of baseline data & monitoring of costal environment as well as management of solid waste
- Conservation of heritage sites and monuments, promotion of community based tourism .
- Strengthening capacity of all concerned for effective Integrated Coastal Zone Management.
- Shoreline Management Plans for planning future developments along the Odisha coast especially to locate ports, marine zones for waste disposal, eco-sensitive areas, fishery, tourism & Ports.

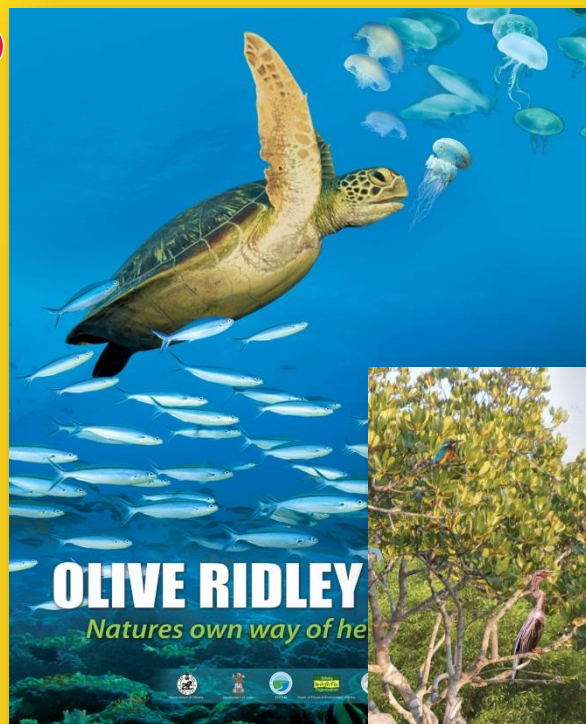
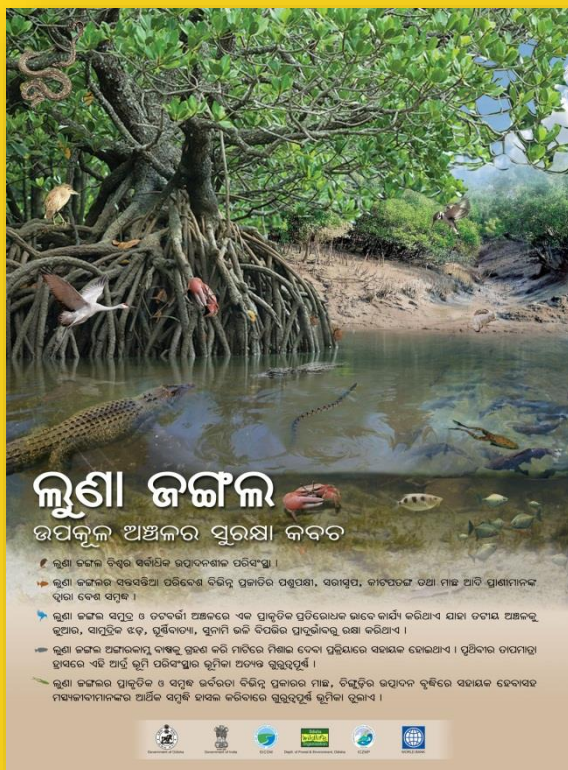
Lesson learnt & Way Forward

- *Integration* is key to the success of the project that warrants high priority.
- Capacity building of the implementing PEAs is crucial for success.
- Empowerment of the local communities through capacity building to transform them from resource users to resource managers is essential for success of the project.
- The focus of SPMU has been to develop and implement operational models by each PEA with best possible technical inputs coupled with meticulous multilevel monitoring and constant improvement.
- Attempt would be made to make the integration more holistic; bring in agriculture, health, animal husbandry sector and more important issues like river coast continuum.
- The Integrated Coastal Zone Management plan formulation would be based on the experience gained so far and the knowledge base developed.



Piloted Activities

- Coastal Protection Measure for Control of Coastal Erosion at Pentha (PEA- Water Resource Department)
- Construction of 14nos of multi- purpose cyclone shelter (MCS) (PEA- Odisha State Disaster Management Authority (OSDMA))
- Biodiversity Conservation & Eco-tourism in protected area (PEA- Wildlife Wing of Forest & Environment Dept)
- Alternative Livelihood for fisher folk whose livelihood is adversely affected due to conservation of biodiversity under fisheries sector (PEA- Fisheries & Animal Resource Department)
- Community based eco-tourism in Chilika and Tampara lake(PEA- OTDC,Tourism Department)
- Training-cum-production centre on coir -(PEA- MSME Department)
- Centre for Management of Coastal Ecosystem at Paradeep at Paradeep- (PEA- Odisha State Pollution Control Board)
- Solid waste management in Paradeep -(PEA- Paradeep Municipality, Department of Housing & Urban Development)
- Improvement and conservation of archaeological heritage sites-(PEA-Department of Culture)
- Strengthening of Wetland Research & Training Centre at Chilika-(PEA- Chilika Development Authority)
- Regional Coastal Processes Study/ICZM Plan (SPMU)



Thank you

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