

PROJECT DOCUMENT**Country: INDIA****Project Title:** Enhancing Climate Resilience of India's Coastal Communities**Project Number (Award ID):** 00097042**Project Number (Atlas Output ID):** 00100901**Implementing Partner:** Ministry of Environment, Forest and Climate Change**Start Date:** 01/07/2019 **End Date:** 30/06/2025**PAC Meeting date:** 18/07/ 2019**Brief Description****Brief project description:**

The project supports the Government of India to enhance the resilience of vulnerable coastal communities to climate change through ecosystem-based adaptation (EbA). The project combines GCF grant finance with significant leveraged co-finance to shift the paradigm towards a new approach integrating ecosystem-centred and community-based approaches to adaptation into coastal management and planning by the public sector, the private sector and civil society.

The project objective is to enhance the resilience of the lives and livelihoods of the most vulnerable populations, particularly women, in the coastal areas of India to climate change and extreme events, using an ecosystem-centred and community-based approach. This will contribute to the GCF's Fund Level Impacts of increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions, and improved resilience of ecosystems and ecosystem services, as well as reduced emissions from sustainable land use and forest / ecosystem management. In addition, the project aims to contribute towards the achievement of climate priorities outlined in India's National Action Plan on Climate Change (2008), the State Action Plans, as well as commitments outlined in India's Nationally Determined Contribution (2015). The project will be aligned with India's emerging strategic investment priorities for GCF funding, which are currently being identified through a consultative process, reflecting the priorities in the aforementioned policies; and will also be aligned with the work program of UNDP as an Accredited Entity of the GCF.

GCF and other leveraged resources will be used at national, state, and community levels to enhance capacities for ecosystem- and community-based approaches to climate change adaptation and enable climate policy and finance shifts to catalyse climate action in all of India's coastal States and Union Territories. Specific ecosystem-based adaptation and climate-adaptive livelihood interventions will be undertaken in the target states of Andhra Pradesh, Maharashtra and Odisha, with pathways to replication and scale across all coastal states, and learning shared across the South Asian region. The project yields sustainable development benefits across coastal districts of the three target states, with more than 1,700,000 direct beneficiaries in the target landscapes whose households' current livelihoods are affected by climate change and will benefit from livelihoods activities through the project, and 10 million indirect beneficiaries living in these landscapes, who will benefit from the mitigation of economic damages and losses associated with extreme weather events, especially storm surges that can cause coastal flooding and erosion. The investment is expected to demonstrate a high degree of economic efficiency, with an economic rate of return in excess of 20% for livelihood activities, of approximately 26% for paddy rice activities, and well above 30% in most coastal protection activities. The project was designed through extensive stakeholder consultations, including engagements with civil society role-players, that influenced the development of the proposal. A formal review of the funding proposal was undertaken by a Technical Working Group, including representatives of the MoEF&CC and the three State Governments. Following revisions, a Project Appraisal Meeting was held in March 2017, including these implementing partners, technical experts and representatives of civil society, at which the final submission package, including all annexes, was approved, and arrangements were discussed for project implementation and operations and maintenance post-project. Following the appraisal meeting, the NDA issued a letter of no objection. The funding proposal has been approved by the GCF board in October 2018.

Contributing Outcome (UNSD): **Output 2.1.1:** Low emission and climate resilient objectives addressed in national, sub-national and sectoral development plans and policies to promote economic diversification and green growth

Indicative CPD Output(s) : **CPD Outcome:** By 2022, environmental and natural resource management is strengthened, and communities have increased access to clean energy and are more resilient to climate change and disaster risks

CPD Output 3.1:

Effective institutional, legislative and policy frameworks in place to enhance the implementation of climate change and disaster risk reduction at national and subnational levels.

Gender marker²: GEN 2

Total resources required:	USD 130,268,606	
Total resources allocated:	UNDP TRAC:	
	Donor:	USD 43,418,606
	Government:	USD 80,450,000
	In-Kind:	USD 6,400,000
Unfunded:	USD 0	

Agreed by (signatures)¹:

Government	UNDP	Implementing Partner
Print Name: Designation:	Print Name: Shoko Noda Designation: Resident Representative	Print Name: Designation:
Date:	Date:	Date:

¹ Note: Adjust signatures as needed

² The Gender Marker measures how much a project invests in gender equality and women's empowerment. Select one for each output: GEN3 (Gender equality as a principle objective); GEN2 (Gender equality as a significant objective); GEN1 (Limited contribution to gender equality); GEN0 (No contribution to gender quality)

I. DEVELOPMENT CHALLENGE

Climate change is impacting ecological functioning in the coastal zone of India² with severe implications for economic sectors dependent on ecosystem goods and services delivered by mangroves, seagrass beds, salt marshes, coral reefs, lagoons, estuaries and other important coastal and marine habitats. The coastal habitats in India form part of complex social-ecological systems³ which underpin the food security and economic stability of India's coastal communities. Coastal ecosystems also have a natural resilience and ability to act as buffers.

The Indian coastline is expected to be amongst the regions most affected by climate change globally, negatively affecting approximately 250 million people (14% of the country's population or 3.5% of the global population) who live within 50 km of India's coast. Changes in monsoon rainfall patterns and drought frequency as a result of climate change are expected to impact negatively on water resources, agricultural output, livelihoods⁴, public health and the economy. Several climate change impacts are exacerbating environmental degradation being caused by direct human influences such as urbanization, overfishing and poorly planned coastal development. Furthermore, ecosystem degradation, compounded by these climate impacts, has negative implications for coastal communities who are dependent on ecosystems for their livelihoods, and are at risk from periodic droughts, saline intrusion, coastal flooding causing loss of life and property, and saline intrusion of fields, rice paddies and groundwater supply⁵.

- **Impacts on coastal mangroves:** Mangrove cover along India's coastline has decreased by 50% in some areas, largely because of human pressures, including alteration of flow of freshwater from upstream.⁶ Sea-level rise is predicted to result in further reductions, contributing directly to 10–20% of future loss of mangrove cover.
- **Impacts on coral reefs:** Climate change is compounding existing threats to coral reef ecosystems. Human pressures such as coastal development, over-fishing and diving are having detrimental effects on the health of coral reefs^{7,8}. This is compounded by climate change causing rises in ocean temperatures that lead to coral bleaching⁹.
- **Impacts on coastal dunes:** Dune ecosystems are particularly affected by increased intensity of extreme weather events – a component of climate change. Such extreme events cause erosion, flooding and direct damage of dunes through wave action and intense rainfall. Other climate change-related impacts such as sea-level rise and saltwater intrusion also destabilize dune systems.
- **Impacts on agriculture:** The agricultural sector is the biggest contributor to India's gross domestic product. 70% of the population is dependent on agriculture for subsistence, income or work, and approximately 650 million people in the country are dependent on the monsoons for crop irrigation. The effects of unpredictable rains, dry spells, floods and intense rainfall events will consequently have significant implications for food production and rural income.
- **Impacts on fisheries:** Climate change and climatic variability have been linked to considerable negative impacts on fisheries; such effects are predicted to increase in future, with a severe impact on the estimated 30% of coastal dwellers directly involved with fishing activities and aquaculture. Climate change is predicted to cause changes in the distribution of fishing grounds and the migratory habits of marine fishery resources¹⁰.
- **Impacts on salt marshes:** Salt marshes are affected by climate change impacts such as altered hydrological regimes caused by changing precipitation patterns¹¹, changes in sediment loading caused by flooding events, and the physical effects of wave energy during extreme weather events.

²India's First Biennial Update Report. 2015.

³Walker, B. & Salt, D. 2006. Resilience Thinking: Sustaining Ecosystems and People in a Changing World. Island Press: Washington DC.

⁴MoEF&CC. 2015. India: First Biennial Update Report to the United Nations Framework Convention on Climate Change.

⁵NDC.

⁶ Available at: http://wwf.panda.org/about_our_earth/blue_planet/coasts/mangroves/mangrove_threats/

⁷ Spalding M & Grenfell A. 1997 New estimates of global and regional coral reef areas. Coral Reefs 16(4): 225–230.

⁸ Cesar H & Burke L. 2003. The economics of worldwide coral reef degradation. Cesar Environmental Economics Consulting. ICRAN/WWF 23.

⁹Obura D. 2001. Can differential bleaching and mortality among coral species offer useful indicators for assessment and management of reefs under stress? Bulletin of Marine Science 69:421–442.

¹⁰CCAP. 2010–2015.

¹¹ Burkett V & Kusler J. 2000. Climate change: Potential impacts and interactions in wetlands of the United States. Journal of American Water Resources Association 36(2):313–320.

- **Impacts on seagrass ecosystems:** Seagrass ecosystems in India are threatened by climate change impacts such as rising sea levels, ocean acidification, changes in salinity, storm surges and temperature increase. These result in increased growth of epiphytes, sediment anoxia and increased prevalence of diseases.

Due to the changing climate parameters, coastal communities are highly vulnerable to loss of life and damage to property through flooding, erosion and saline intrusion. This is expected to intensify as storm surges and sea level rise worsen. Poor coastal communities reliant on small-scale fishing and farming are more vulnerable to impacts of temperature rise and increasingly erratic monsoons on their livelihoods. The infrastructural investments being made to promote development is also highly vulnerable to climate change impacts, loss and damage.

National and state governments are currently making substantial investments in coastal areas, applying Integrated Coastal Zone Management approaches to new agricultural, industrial and export zone development, to ensure that trade-offs between economic development and environmental impact are balanced appropriately. However, these greening strategies do not currently emphasize the role of biodiverse forests and other natural ecosystems in adapting to climate change through buffering extreme events and providing resilient livelihoods. The baseline scenario is thus that India is committed to climate change adaptation at a policy level and is seeking now to put these policies into action at scale. There are number of barriers that currently exist reduces adaptive capacity of the natural ecosystem and further cause degradation of India's coastal zone.

- **Inadequate information on climate vulnerabilities for local-level adaptation planning for the coastal zones:** There is insufficient information on the sensitivity, socio-economic vulnerability and adaptive capacity of coastal communities in the face of climate change. This means that policy- and decision-makers at all levels do not have access to holistic information on climate risks and vulnerabilities.
- **Limited knowledge of and support for the role of EbA in enhancing adaptive capacity:** At present, there is limited understanding of the benefits of coastal ecosystems in reducing negative impacts of climate change. EbA has been established as an effective and cost-effective practice^{12,13,14} for adapting to climate change in coastal areas¹⁵, but there is limited transfer and uptake of such knowledge by relevant institutions. Coastal adaptation thus remains largely focussed on “hard” engineering solutions and fails to consider the full suite of adaptation options, including “soft” ecosystem-centric options. “
- **Limited technical and financial capacity for communities to adopt climate-adaptive livelihood opportunities:** There is limited community-level awareness and knowledge of current and predicted impacts of climate change on livelihood activities, as well as the potential for adopting climate-resilient practices to reduce the vulnerability of livelihoods to climate change impacts, and for undertaking new livelihood activities to spread household risk.
- **Weak linkages in climate-resilient value chains for commodities underpinned by ecosystem goods and services:** There is a need for support in analysing climate-resilient value chains, identifying market opportunities, developing business plans, promotion market linkages, and accessing finance for livelihood and value-chain development.
- **Limited institutional capacity for mainstreaming climate change into coastal zone planning, governance and finance:** There is insufficient coordination of climate change adaptation and climate-resilient planning at the landscape-level, through institutions that are able to represent the various adaptation priorities of multiple stakeholders – including government, local communities and the private sector.

¹² UNEP-WCMC. 2006. In the front line: shoreline protection and other ecosystem services from mangroves and coral reefs. UNEP-WCMC, Cambridge, UK.

¹³ Jones, H.P., D. G. Hole & E. S. Zavaleta. 2012. Harnessing nature to help people adapt to climate change. Nature Climate Change 2: 504-509.

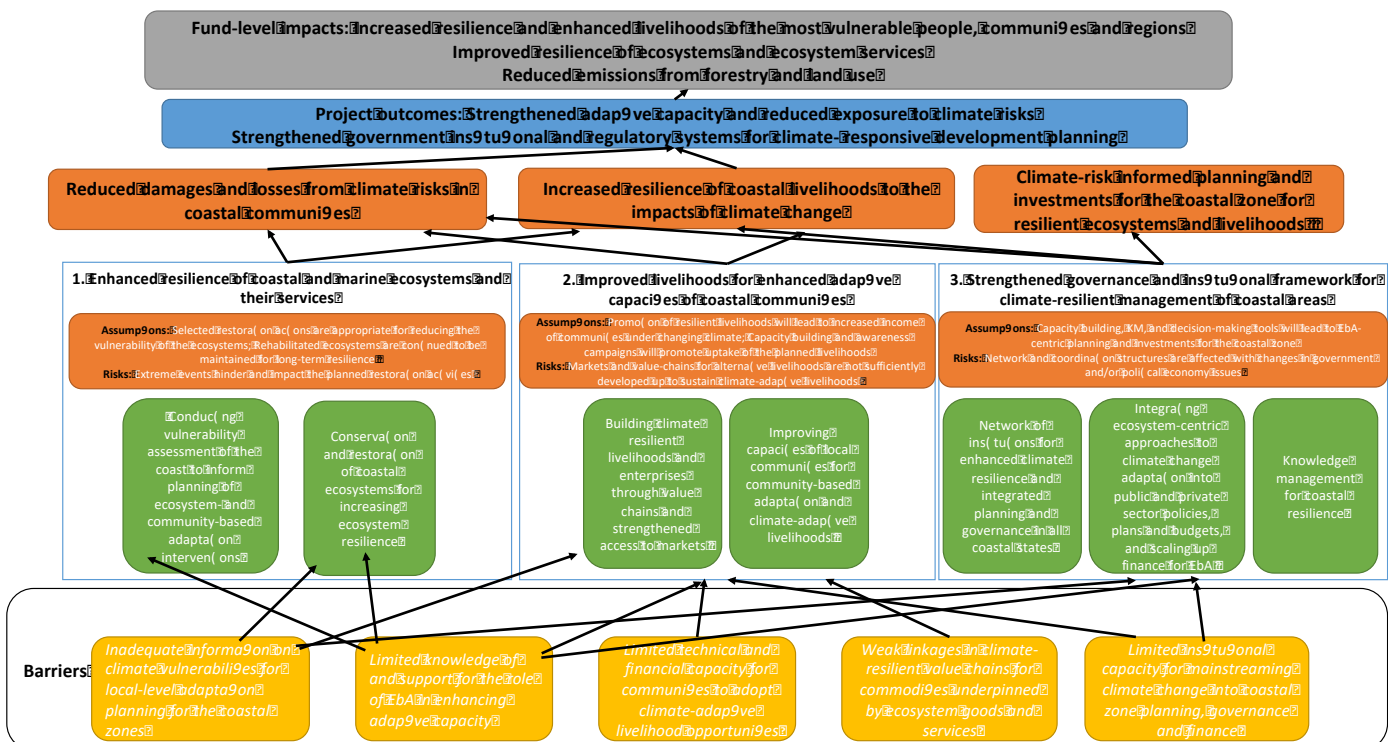
¹⁴ Rao N.S. et al. 2013. An economic analysis of ecosystem-based adaptation and engineering options for climate change adaptation in Lami Town, Republic of the Fiji Islands. SPREP Technical Report. Apia, Samoa.

¹⁵For example, mangroves dissipate wave energy and reduce flooding during extreme weather events.

II. STRATEGY

This project contributes to the achievement of GCF’s Paradigm shift objective of “increased climate-resilient sustainable development” by integrating climate change adaptation – particularly ecosystem restoration and climate-adaptive livelihoods – into coastal management and planning in three states (Andhra Pradesh, Maharashtra and Odisha). The project aims to advance climate change adaptation across India’s coastal zone, with major gains for resilience in the three target States whose coastal populations are vulnerable to extreme events and slow onset climate impacts. The project also establishes pathways to scale for ecosystem-based adaptation across all of India’s 13 coastal states, islands and union territories, where coastal districts house 14.2% of India’s total population, according to India’s Nationally Determined Contribution.

With this holistic vision, planned project interventions will provide direct benefits to 1,744,970 people in households in the 24 target landscapes in Andhra Pradesh, Maharashtra and Odisha States and indirect benefits to 10 million people in these landscapes – from reduced risk exposure through enhanced integration of climate change considerations into coastal governance and planning.



The prognosis for theory of change is climate resilience of India’s coastal communities is secured through harnessing the power of India’s ecological infrastructure to adapt to climate change. This will be achieved through interventions in target landscapes in the three states of Andhra Pradesh, Maharashtra and Odisha to i) protect and restore ecosystems such as mangroves and seagrass, and the services they provide, especially buffering storm surges, and ii) help communities adopt climate-adaptive livelihoods and value chains iii) mainstream EbA principles into coastal planning and governance, enabling intersectoral coordination for addressing climate risk across all of India’s coastal states. It is assumed that following key results will be delivered through the implementation of the project

- 14,945 hectares of coastal ecosystems protected and restored to buffer against the current and future impacts of climate variability and climate change – including 10,575 hectares of mangroves, 700 hectares of saltmarshes, 85 hectares of seagrass beds, 35 hectares of coral reefs and 3,550 ha of coastal watersheds, (Output 1);
- 122,766 tonnes of carbon dioxide equivalent (t CO₂ eq) sequestered in restored ecosystems per year, with 3,682,980 t CO₂ eq sequestered over a 30-year period (Output 1);
- 1,744,970 people – of whom 50% are female – benefiting from the adoption of diversified, climate-resilient livelihood options, predominantly based on conservation and restoration of ecological infrastructure (Output 2); and
- improved capacity of coastal management institutions for planning and implementing climate change adaptation measures – including integrating climate resilience into livelihoods support and infrastructure planning and protecting and restoring ecological infrastructure (Output 3).

Approach adopted

- A. **Vulnerability assessment and ecosystem-based adaptation** measures will be adopted that will restore ecosystems, providing critical goods and services to enhance the resilience of coastal communities to climate change impacts and enhance carbon sequestration. The National Coastal Mission will provide a framework for work in all coastal states on incorporating ecosystem considerations into vulnerability assessment and establishing a system with a decision-support tool to guide planning, decision-making and monitoring of adaptation measures. Based on these assessments, ecosystem-based adaptation measures will be implemented in the three target states of Andhra Pradesh, Maharashtra and Odisha. These measures will focus on mangroves, seagrasses, coral reefs, salt marshes and coastal watersheds. Restoration and conservation of these coastal ecosystems will improve the delivery of critical ecosystem goods and services that will buffer local communities against the current and predicted impacts of climate change (e.g. sea-level rise, cyclones, storm surges) as well as underpin the sustainability of coastal livelihoods (e.g. fisheries, aquaculture).
- B. **Promoting climate-adaptive livelihoods** to enhance the adaptive capacities of coastal communities in the target states of Andhra Pradesh, Maharashtra and Odisha. Vulnerable fishing and farming household will receive support on new climate-adaptive livelihoods, and co-finance will support value chain development, in order to cope with the current and predicted effects of climate change. This will be done i) through adapting current farming practices by switching to new crops and new methods to deal with climate impacts on agroecosystems; and ii) through promoting new adaptive livelihood opportunities, based on the coastal ecosystems being restored to buffer climate impacts. Capacities of communities and sub-national government institutions will be strengthened so that they can continue beyond the project to adapt economic activities in line with evolving climate risks over time. Particular attention will be paid to the needs of women, youth and socially marginalized groups.
- C. **Strengthening frameworks** for landscape-level coastal and marine governance at the national and sub-national levels. Institutional strengthening will focus on establishing a network of institutions that are capacitated to undertake integrated planning for climate resilience in coastal landscapes, with a focus on ecosystem-based and community-centric adaptation measures. Climate change considerations will be mainstreamed into relevant policies, plans and regulations for coastal governance and management, and opportunities sought for new financial mechanisms that enable such measures to be scaled up.

The approach will lead the change through driving three key outputs.

Output 1: Enhanced resilience of coastal and marine ecosystems and their services

Activities undertaken under this output will generate a range of adaptation and sustainable development benefits through the conservation, restoration and maintenance of coastal and marine ecosystems to enhance their resilience. At a national scale and in all the coastal states, a long-term system will be established for undertaking vulnerability assessment of the coast, for undertaking restoration of coastal ecosystems, and for systematic monitoring of the results, including for carbon sequestration. In the 24 target landscapes in the three states, communities will collaborate closely with the Forestry Department in a co-management approach, both as recipients of work opportunities in restoration efforts, and as ongoing partners in maintaining the resource in a healthy condition – managing harvesting of timber on non-timber forest products, controlling pollution and helping to prevent illegal activities.

Protocols and guidelines will be established, and restoration efforts undertaken, including i) mangrove restoration through hydrological rehabilitation, e.g. restoring free tidal flow by constructing main and branch canals and opening access to tidal source; ii) mangrove restoration through planting of seedlings/saplings; iii) restoration of catchments through afforestation to prevent erosion and sedimentation of coastal ecosystems; iv) rehabilitation of seagrass beds and saltmarshes through hydrological rehabilitation; v) artificial regeneration of coral reefs through structure placement; vi) hydrological rehabilitation of coastal lagoons, e.g. dredging/breaching river mouths; vii) restoration of dune vegetation; and viii) establishment of shelter belts using a variety of suitable tree species.

Output 2: Climate-adaptive livelihoods for enhanced resilience of vulnerable coastal communities

The output will help enhance adaptive capacity, including capacity to adapt existing livelihood activities and diversify to climate-resilient options, and to do business planning and access finance for scaling up harvesting, agri-and aquaculture operations. This will also include developing value

chains to ensure uptake and the long-term sustainability of these adaptive livelihoods, including support on business planning, access to finance, certification and labelling of eco-products, and access to markets.

Technical assistance will be provided to livelihood activities in two categories: Category A livelihoods based on coastal ecosystems restored to buffer climate impacts, and establishing value chains to sustain these livelihoods alongside evolving climate impacts; and Category B livelihoods that adapt current farming practices to deal with climate impacts on agro-ecosystems.

Output 3: Strengthened governance and institutional framework for climate-resilient management of coastal areas

This output provides pathways to replication and scale by extending the approaches to ecosystem restoration carried out in Output 1 and approaches to climate-adaptive livelihood support carried out in Output 2, across all of India's 13 coastal States and Union Territories, and also shares knowledge on coastal resilience with countries in the wider South Asian region. This includes integrating adaptation into public and private sector policies, plans and budgets (Activity 3.2) in all coastal states through a network of institutions (Activity 3.1), and undertaking targeted valuation and cost-benefit analyses, to motivate for new investments in EbA as well as knowledge sharing on the evidence base for such investments (Activity 3.3).

III. RESULTS AND PARTNERSHIPS

Expected Results

Key interventions are:

Activity 1.1: Conducting vulnerability assessment of the coast to inform planning of ecosystem- and community-based adaptation interventions in 13 coastal states

During the first few months of project implementation, information and analysis from existing studies will be complemented by a fine-scale assessment of the climate vulnerabilities of India's coast, focusing on aspects that are not currently included in the available studies.

Work interventions include:

- Supporting coastal research and management institutions to add ecosystem-related parameters to methodologies
- Applying the enhanced/revised methodology to establish a system for periodic detailed assessment of vulnerability and adaptive capacity along the entire coastline of India, using the analysis to inform planning of restoration and livelihoods activities for climate change adaptation.
- Developing a Decision-Support Tool for adaptation planning at state and national levels that integrates district-level data with site-/district-level assessments
- Creating an online platform and associated app to facilitate access to information in the Decision-Support Tool for decision-makers, communities, NGOs/CBOs and other relevant stakeholders, as well as to allow them to upload data for tracking changes in ecological and socio-economic vulnerability to climate change in coastal areas.
- Producing a national series of restoration guidelines based on the information used for the Decision Support Tool – one booklet /pdf per ecosystem type, drawing on site-level experience.

Activity 1.2: Conservation and restoration of coastal ecosystems for increasing ecosystem resilience in 3 target states

This project will involve the restoration of 10,575 hectares of mangroves, 700 hectares of saltmarshes, 85 hectares of seagrass beds, 35 hectares of coral reefs and 3,550 hectares of coastal watersheds. The protocols will feed into Target Landscape Integrated Management Plans (TLIMPs) that will be developed for each of the 24 target landscapes. These will meet the requirements of the Coastal Regulation Zone Notification (2011) for Integrated Management Plans in Critically Vulnerable Coastal Areas (CVCAs). Where appropriate, these Plans will include Biodiversity Conservation Action.

Work Interventions include:

- Supporting participatory planning in target landscapes of site-specific EbA measures for conservation and restoration of six ecosystem types based on the analysis of vulnerability to climate change impacts and adaptive capacity undertaken through Activity 1.1.

- Developing detailed, ecosystem- and site-specific protocols and guidelines – based on global and national best practices – for restoration of the various ecosystem types (mangroves, saltmarshes, coral reefs, seagrass beds, dune vegetation, etc.) using an EbA approach.
- Establishing co-management structures in target landscapes to foster community support for and participation in conservation and restoration activities, including pollution management to minimize impact on ecosystems.
- Undertaking ecosystem conservation, restoration and management (including pollution control) activities – based on the EbA protocols and through the co-management structures – in the project sites in the three states.
- Developing and implementing community-based/participatory monitoring and maintenance programmes through the co-management structures to maintain restored ecosystems and capture lessons learned and best practices from the project sites.
- Training and supporting communities in 24 target landscapes – with a focus on local youth as well as NGOs/CBOs – to use the coastal adaptation Decision-Support Tool to track the restoration and conservation of coastal ecosystems in 3 target states, including extent of restored ecosystems and carbon sequestered.
- Producing a video in each of the three target States on the restoration and conservation work of the multi-stakeholder partnerships in the target landscapes

Activity 2.1: Building climate resilient livelihoods and enterprises through value chains and strengthened access to markets in 24 landscapes

In this activity, the results of the vulnerability assessment in each of the 24 target landscapes will be combined with the suite of options identified in the livelihoods assessment and value chain analysis, to select specific livelihoods, beneficiary groups, participating community organizations and locations. Beneficiaries will become involved through a range of organizations at community level – including Gram Panchayats (local self-governance institutions), Self-Help Groups, Village Organizations (federations of Self-Help Groups), Fishermen Cooperative Societies, Farmer Producer Organizations, Eco Development Committees, Van Samrakshan Samitis and Joint Forest Management Committees.

Work Interventions include:

- Undertaking participatory, user-centric livelihoods planning in target landscapes
- Providing technical support to community groups to set up the adaptive livelihoods and add value to the products of climate-adaptive aquaculture¹⁶
- Providing training for extension officers and community mobilizers on ensuring that planned livelihoods and value addition activities are climate-risk informed
- Supporting the development of value chains for climate-adaptive livelihoods, facilitating backward linkages for input supply, and forward linkages for processing, packaging, storage, refrigeration, transport and market access
- Providing technical assistance to community groups to set up certification schemes for “eco” products, and to develop bankable business plans to access loan finance for expansion, during or post-project.

Activity 2.2.: Improving capacities of local communities for community-based adaptation and climate-adaptive livelihoods in 24 target landscapes

This will include general capacity building around understanding the impacts of climate change on ecosystem functioning and livelihoods based on natural resources, and specific skills development opportunities. The district-level Livelihoods Facilitators will also provide support to ensure that women, youth and marginalized groups are participating fully in livelihoods activities and decision-making processes, and will help facilitate learning and sharing between communities. State-wide awareness campaigns will also be supported, ensuring broad public support for the importance of ecosystem restoration to buffer extreme events and as the basis for sustainable livelihoods in coastal communities.

Work interventions include:

- Conducting multimedia public education and awareness campaigns across the three states on climate change and its impacts, and the need to conserve and restore ecosystems to underpin livelihoods and buffer extreme events
- Undertaking village-level capacity building on climate change and EbA in target landscapes in light of evolving climate risks - involving women’s groups, self-help groups, producer and fisher

¹⁶ Processing of climate-adaptive aquaculture products: for example fish drying, production of value-added prawn products

organizations, CBOs, NGOs and Panchayat Raj institutions, with focus on women, youth, and marginalized groups

- Delivering training courses for climate-adaptive aquaculture¹⁷, ecotourism¹⁸ and non-timber forest products¹⁹, as well as climate-smart intensification²⁰ and climate-adapted crops²¹ through relevant community-based organizations (e.g. self help groups) and local self-governance institutions (e.g. Gram Panchayats)
- Facilitating sharing of lessons between target landscapes on effective techniques for climate-adaptive livelihoods, including through exchange visits between communities, with focus on women, youth, and marginalized groups.

Activity 3.1: Network of institutions for enhanced climate resilience and integrated planning and governance in all 13 coastal states

Multi-stakeholder coordination structures²² – comprising representatives from relevant state-level ministries²³, district-level government²⁴, NGOs and academic/research institutions – will be established to promote dialogue and coordination concerning climate-resilient planning in coastal areas. Existing interdepartmental platforms will be used in the 13 coastal states/territories to facilitate incorporation of ecosystem- and community-based adaptation approaches. A pan-Indian Coastal Resilience Network will also be established to share knowledge. These institutions will then be responsible for ensuring coordination and collaboration between relevant stakeholders including government institutions, development partners, donor agencies, local communities, CBOs/NGOs and the private sector.

Work Interventions include:

- Establishing multi-stakeholder coordination structures in target landscapes in the three states to provide a platform for dialogue on and coordination of climate-resilient development planning and co-management of coastal ecosystems.
- Using existing interdepartmental platforms in 13 coastal states – particularly State Action Plans for CC and CZM Authorities – to facilitate integration of EbA approaches into relevant policy and legislation, and to share lessons learned and best practices from target landscapes and states.
- Establishing a pan-Indian Coastal Resilience Network of organizations, tertiary institutions, coordination platforms and coastal districts – to promote knowledge exchanges on integration of climate change adaptation into coastal development planning, with a focus on EbA.
- Supporting the proposed National Coastal Mission in integrating climate change adaptation – and particularly EbA – into its programme of work.

Activity 3.2: Integrating ecosystem-centric approaches to climate change adaptation into public and private sector policies, plans and budgets, and scaling up finance for EbA in 13 coastal states

The project will support improved dialogue for mainstreaming and integration of climate change adaptation into existing policies and plans, particularly for local- and state-level spatial and development planning. At national level this will include work through the new National Coastal Mission to integrate climate risk management and EbA principles into national policies and schemes, including the CAMPA afforestation fund and Smart Cities Mission. At state level, interdepartmental platforms in all coastal states will be used to facilitate scenario planning and policy dialogues, and hold public and private sector dialogues. The aim of this process will be to ensure that land use planning undertaken at state and district level, integrates climate risk management, such that natural habitats with potential to buffer extreme weather events and provide a basis for climate-adaptive livelihoods are preserved or restored wherever possible, and that the footprint of new urban and industrial infrastructure is directed into areas of land that are already transformed.

This activity will also enhance capacities for undertaking climate-resilient planning in urban areas along the coast, using a Coastal Calculator Tool to support climate-resilient design of coastal infrastructure. The project will work in the four coastal Smart Cities in the three target States (Kalyan in Maharashtra; Kakinada and Visakhapatnam in Andhra Pradesh; and Bhubaneswar in Odisha) to develop climate

¹⁷Aquaculture: including crab farming, mussel farming, oyster farming, crab hatcheries, ornamental fisheries, integrated duck-fish farming, seaweed farming, integrated multitrophic aquaculture

¹⁸Coastal ecotourism: including scuba diving, tour guiding

¹⁹Coastal NTFFPs: including mangrove beekeeping for honey production

²⁰Climate-smart intensification: including System of Rice Intensification (SRI) for paddy farming

²¹Climate-adapted crops: including Cultivation of aromatic and medicinal plants, mushroom cultivation

²² Similar to the Chilika Development Authority.

²³ E.g. forests, environment tourism, revenue.

²⁴ E.g. district collectors.

change adaptation plans that harness ecological infrastructure to combat sea-level rise and intensified storm surges, promoting safety of lives, livelihoods and property, and smooth functioning of drainage, irrigation and drinking water systems.

Work Interventions include:

- Supporting the new National Coastal Mission to integrate climate risk management and EbA principles into national policies and schemes, including CAMPA afforestation fund and Smart Cities Mission
- Facilitating biennial intersectoral dialogues under the National Coastal Mission - engaging public and private sector role-players on coastal adaptation as a risk management strategy, incl. fisheries, agriculture, tourism, ports and shipping, oil and gas
- Equipping the interdepartmental CZM platforms in 13 coastal states to use scenario planning for business as usual vs ecosystem-based adaptation in the coastal zone
- Developing ecosystem-based adaptation plans for four coastal Smart Cities (Kalyan in Maharashtra; Kakinada and Visakhapatnam in Andhra Pradesh; and Bhubaneswar in Odisha)
- Working through state-level interdepartmental platforms to provide coastal town planners and engineers with training on the Coastal Calculator tool, using EbA for shoreline protection and climate-resilient infrastructure

Activity 3.3: Knowledge management for coastal resilience

A major focus of this activity will be the transfer and replication of lessons and best practices – between target landscapes, between coastal states, and between coastal countries in the South Asian sub-region. Lessons learnt from the restoration of coastal ecosystems, improved livelihoods and strengthened local governance practices will be shared through the various platforms and coordination structures strengthened in Activity 3.1, ensuring coverage of women and other vulnerable groups' experiences. Knowledge products will be generated to build and strengthen awareness about the effectiveness of ecosystem- and community-based adaptation. This will be used to inform the integration of ecosystem-centric approaches to climate change adaptation into sector policies, plans and budgets (see Activity 3.2). Moreover, an enabling environment will be created to foster exchange of knowledge and ideas for innovative and sustainable solutions to climate change impacts. Successful case studies and lessons learned from similar initiatives in India and other countries will be documented and disseminated widely, and knowledge exchange visits arranged within and beyond India.

Knowledge management will take place through the following means:

- Supporting the National Coastal Mission to establish a system for collating data and information on global best practices, lessons learned, evidence from the field and scientific knowledge on ecosystem- and community-based approaches to adaptation in the coastal zone of India.
- Establishing a series of annual workshops under the auspices of the pan-Indian Coastal Resilience Network, involving tertiary institutions, research organizations and relevant NGOs to share research findings related to coastal EbA
- Developing and piloting a training course or curricula on EbA, for delivery through administrative training and other relevant institutes at national and state levels, incorporating project experience and lessons especially on community-based adaptation.
- Working through the Pan-India Coastal Resilience Network to develop and disseminate knowledge products at national, regional and international levels and to share experience and learning.
- Developing nation-wide knowledge products translated into local languages for use in the community-level training courses for village self-help groups and CBOs, and women's capacity development programmes.
- Undertaking exposure and exchange visits for national-, state- and district-level government officials and community leaders to promote knowledge sharing on cross-sectoral coastal governance, climate change adaptation and EbA.
- Creating a knowledge exchange platform involving South Asia's five coastal countries for dialogue and sharing learning on ecosystem- and community-based adaptation to climate change in the coastal zone, building on existing forums.

Resources Required to Achieve the Expected Results

The total resources allocated to the project by GCF to achieve the desired outcomes is **USD 43,418,606**. In addition, **USD 86,850,000** is being co-financed with national and state governments of target states. Hence,

total project financing equates to **USD 130,268,606**. This includes the cost of implementation of activities, staff time and other costs that will facilitate realisation of project goals. Details are given in the budget sheet.

Partnerships

The project will build collaborative partnerships with a variety of stakeholders. The Ministry of Environment, Forest and Climate Change (**MoEF&CC**) is responsible for all climate change matters including implementation of the NAPCC (2008). In most states, **the forest and environment departments** are responsible for coordination and implementation of the State Action Plans on Climate Change and also host the state coastal zone management authority (CZMA), which is present in all the coastal states. These departments will become focal points of implementation in each state. **The project investment will be complemented by new and additional co-finance by national Government and the Governments of the three target States. It will also crowd in financing from private sector, financial institutions, donors, and local communities** in coastal restoration efforts. This will involve building partnerships for using forest compensation funds, promoting complementary engineered solutions for shoreline protection, efforts to enhance the resilience of coastal property and infrastructure, climate-adaptive livelihood support, as well as vulnerability mapping and community-based early warning systems.

Capacity building of local communities, government officials, the private sector and other stakeholders will improve knowledge and awareness on the benefits of adopting EbA approaches to build climate resilience. This will be based on partnerships with **academic institutions** to ensure that experimental learning is captured to determine quantitative benefits provided by adaptation measures such as EbA. This will be informed by a data collection system on coastal adaptation to collate information from project activities as well as other national and global initiatives for analysis. Partnerships with academic institutions through the state-level platforms will also support the generation of new research findings and publications, and new curricula will be developed for relevant learning institutions. An enabling environment will be created to foster exchange of knowledge and ideas for innovative and sustainable solutions to climate change impacts. Successful case studies and lessons learned from similar initiatives in India and other countries will be documented and disseminated widely, and knowledge exchange visits arranged within and beyond India. Details are further provided under the section on “stakeholder engagement plan”.

Risks and Assumptions

The project has been designed to address as many potential risks as possible upfront through the project structure itself, building on the lessons learned. Potential risks associated with project implementation are also mitigated through the executing agency’s well established relationship with the executing entity, and the due diligence already carried out, ensuring sound financial and programme monitoring systems as well as strong technical oversight. The overall risks for the project are consequently considered to be low to moderate.

The main risks to project implementation are technical, operational, institutional, social and environmental. Risks related to technical and operational aspects of the project may affect the success of the ecosystem restoration and livelihood support activities. Technical risks could also result in poor design or application of tools and methodologies such as the vulnerability assessment methodology, Decision-Support Tool, and Coastal Calculator. Institutional risks such as limited coordination among project stakeholders and weak political support for the project may result in inefficient delivery of project outputs and thus reduced impact of project interventions. Social risks include poor sensitization – and involvement – of participating communities, leading to weak buy-in and limited engagement of the communities. This would in turn affect the long-term sustainability and viability of project interventions. Environmental risks such as extreme climate events could result in losses and damages caused to project interventions, reducing their efficacy and success.

Several mitigation measures have been designed to address these risks. The project will invest in community mobilization as well as capacity building for communities and officials to promote engagement and appropriate refinement of project interventions during the implementation phase. Project activities will be undertaken in close collaboration with local communities through co-management structures that include clear roles and responsibilities for government, communities and other partners. Site-specific protocols will be developed for EbA interventions that take into account local socio-economic and environmental conditions, with due consideration of social, environmental and other site-specific risks. Coordination between various stakeholders will be facilitated through the project management structure as well as through the coordination mechanisms established under Output 3.

Inclusive and participatory planning processes – initiated during the development of this project proposal – will continue throughout the implementation phase to promote ownership and buy-in from communities and

government officials. An Environmental and Social Management Framework has also been developed to specifically address environmental and social risks that may arise during project implementation.

Stakeholder Engagement

The stakeholder engagement plan below outlines which parties are responsible for implementing the Activities within each Output and which stakeholders will be consulted during and prior to the implementation of each Activity.

Outputs	Activity	Stakeholders
Output 1: Enhanced resilience of coastal and marine ecosystems and their services Responsible parties: <ul style="list-style-type: none"> • Ministry of Environment, Forestry and Climate Change (MoEF&CC) • Environment, Forests, Science and Technology Department (Andhra Pradesh) • Revenue and Forest Department (Maharashtra) • Forest and Environment Department (Odisha) 	Activity 1.1: Planning of ecosystem- and community based adaptation interventions through conducting vulnerability assessment of the coast	<ul style="list-style-type: none"> • Ministry of Earth Sciences' Indian National Centre for Ocean Information Services • Ministry of Environment, Forestry and Climate Change (MoEF&CC) • NGOs/CBOs • Local communities
	Activity 1.2: Community-based conservation and restoration of coastal ecosystems for increasing ecosystem resilience	<ul style="list-style-type: none"> • Ministry of Environment, Forestry and Climate Change (MoEF&CC) • Environment, Forests, Science and Technology Department (Andhra Pradesh) • Revenue and Forest Department (Maharashtra) • Forest and Environment Department (Odisha) • State Coastal Zone Management Authorities • Local communities • Women's Organisations in villages • Village Organisations • Eco Development Committees NGOs/CBOs
	Activity 1.3: Monitoring blue carbon sequestration to mitigate climate change	<ul style="list-style-type: none"> • Ministry of Environment, Forestry and Climate Change (MoEF&CC) • Environment, Forests, Science and Technology Department (Andhra Pradesh) • Revenue and Forest Department (Maharashtra) • Forest and Environment Department (Odisha) • NGOs/CBOs

<p>Output 2: Climate-resilient livelihoods and infrastructure planning for enhanced adaptive capacities of coastal communities</p> <p>Responsible parties:</p> <ul style="list-style-type: none"> • Ministry of Environment, Forestry and Climate Change (MoEF&CC) • Environment, Forests, Science and Technology Department (Andhra Pradesh) • Revenue and Forest Department (Maharashtra) • Forest and Environment Department (Odisha) 	<p>Activity 2.1: Building climate resilient livelihoods and enterprises through strengthened access to markets</p>	<ul style="list-style-type: none"> • Environment, Forests, Science and Technology Department (Andhra Pradesh) • Revenue and Forest Department (Maharashtra) • Forest and Environment Department (Odisha) • Local communities • Women's Organisations in villages • Village Organisations • Eco Development Committees • NGOs/CBOs • Private Sector
	<p>Activity 2.2: Improving capacities of local communities on ecosystem-based adaptation and climate-risk management adaptation and climate-risk management</p>	<ul style="list-style-type: none"> • Local communities • Women's Organisations in villages • Village Organisations • Eco Development Committees • NGOs/CBOs • Private Sector
	<p>Activity 2.3: Supporting public and private sector development of climate resilient infrastructure for coastal villages and towns</p>	<ul style="list-style-type: none"> • Ministry of Environment, Forestry and Climate Change (MoEF&CC) • Ministry of Urban Development • Environment, Forests, Science and Technology Department (Andhra Pradesh) • Revenue and Forest Department (Maharashtra) • Forest and Environment Department (Odisha) • NGOs/CBOs • Private Sector

<p>Output 3: Strengthened governance and institutional framework for climate-resilient management of coastal areas</p> <p>Responsible parties:</p> <ul style="list-style-type: none"> • Ministry of Environment, Forestry and Climate Change (MoEF&CC) • Environment, Forests, Science and Technology Department (Andhra Pradesh) • Revenue and Forest Department (Maharashtra) • Forest and Environment Department (Odisha) 	<p>Activity 3.1: Network of institutions for enhanced climate resilience and integrated planning and governance in all coastal states</p>	<ul style="list-style-type: none"> • Ministry of Environment, Forests and Climate Change (MoEF&CC) • Ministry of Urban Development • Environment, Forests, Science and Technology Department (Andhra Pradesh) • Revenue and Forest Department (Maharashtra) • Forest and Environment Department (Odisha) • Academic/research institutions • Pan-India Coastal Resilience Network • Private Sector
	<p>Activity 3.2: Integrating ecosystem-centric approaches to climate change adaptation into public and private sector policies, plans and budgets, and scaling up finance for EbA</p>	<ul style="list-style-type: none"> • Ministry of Environment, Forests and Climate Change (MoEF&CC) • Environment, Forests, Science and Technology Department (Andhra Pradesh) • Revenue and Forest Department (Maharashtra) • Forest and Environment Department (Odisha) • Private Sector
	<p>Activity 3.3: Knowledge management for coastal resilience</p>	<ul style="list-style-type: none"> • Ministry of Environment, Forestry and Climate Change (MoEF&CC) • Environment, Forests, Science and Technology Department (Andhra Pradesh) • Revenue and Forest Department (Maharashtra) • Forest and Environment Department (Odisha) • Academic/research institutions • Pan-India Coastal Resilience Network • NGOs/CBOs • Women's Organisations in villages

		<ul style="list-style-type: none"> • Village Organisations • Eco Development Committees • Private Sector
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Gender Equality and Empowering Women

The project has been designed through consultation with government agencies, NGOs/CBOs and local communities. These consultations were used to identify adaptation priorities and interventions that will be implemented through engagement with local communities and government officials in the target states as well as at the national level. The project is centered on community participation and engagement with CBOs – such as self-help groups, producer organizations and fisher associations – to foster ownership and empowerment of local communities for implementation of project interventions.

Project activities will adopt a fully participatory approach that will ensure engagement of local communities in the project. This process began during the formulation of the Concept Note and Funding Proposal for this project, during which coastal communities and local CBOs (including women’s groups) were consulted on climate vulnerabilities and adaptation priorities, and also on a suite of climate-adaptive livelihood options. During project implementation, this process will continue, with communities being engaged in planning to ensure that their priorities are taken into account during initial phases of the project (see Activities 1.1 and 2.1), as well as in implementation and monitoring of project achievements. Similarly, these communities will be involved in monitoring the success of ecosystem restoration through participatory monitoring systems (see Activity 1.2.5). This will further serve to promote community engagement in project activities, particularly after the project implementation period. Such approaches have proven successful in ecosystem restoration and livelihood development initiatives such as the UNDP/GEF-funded project “Mainstreaming coastal and marine biodiversity conservation into production centres in the Sindhudurg Coast, Maharashtra”.

The project will have sustained impact through the creation of livelihoods opportunities, including co-financed value-addition, market linkages, and access to finance (see Activity 2.1). This will follow a participatory approach, to ensure that livelihood support is focused on the most vulnerable populations – particularly fishers and farmers – while being socially inclusive by targeting women, the youth, and members of Scheduled Castes and Tribes who have historically been excluded from such participation. For more details, refer to Annex J.

South-South and Triangular Cooperation (SSC/TrC)

A Committee on Coastal Governance will be established, with its secretariat hosted at the NPMU and chaired by the Joint Secretary: Coastal Regulation Zone at MoEF&CC. This committee will be comprised of governance experts and will convene at least once a year, or as needed, to provide guidance and technical support related to decisions on coastal governance. The CCG will also foster South-South partnerships by providing a knowledge exchange platform in Output 3.3 for engagement with other countries in the region that share common concerns on coastal climate change vulnerabilities and impacts. The CCG will be represented in the NPSC.

Knowledge

The knowledge products and knowledge management mechanisms, outlined below.

- Knowledge products translated into local languages for nation-wide use in community-level training for village self-help groups and CBOs, and women's capacity development programmes, supporting knowledge exchange visits between communities.
- A decision-support tool with associated online platform and app used to facilitate access to information and knowledge for decision-makers, communities and informed stakeholders.
- Detailed ecosystem- and site-specific protocols and guidelines – based on scientific best practices and regularly updated – used to inform restoration and adaptive management of various ecosystem types.
- A Coastal Calculator tool applied with relevant government and private sector actors to design shoreline protection and other climate-resilient infrastructure.
- A Pan-Indian Coastal Resilience Network of institutions to promote knowledge exchanges on integration of climate change adaptation into coastal development planning.
- Training courses or curricula on EbA, for delivery through administrative training and other relevant institutes at national and state levels.
- Academic partnerships for experimental learning on building climate resilience for publication in peer-reviewed scientific literature.
- Exposure and exchange visits for national-, state- and district-level government officials to promote knowledge sharing on cross-sectoral coastal governance, climate change adaptation and EbA.

Sustainability and Scaling Up

The project aims to establish pathways to scale for ecosystem-based adaptation across all of India's 13 coastal states, islands and union territories, where coastal districts house 14.2% of India's total population.

The project enables scale-up through capacity development of key public and private sector role-players, developing sufficient institutional and technical capacity to jointly: i) assess the costs and benefits of large-scale interventions that enhance supplies of ecosystem goods/services and thereby promote a diverse array of coastal livelihoods; ii) facilitate detailed planning at the local level to demarcate precisely where specific ecosystem restoration and livelihood activities should be implemented to maximise adaptation benefits; iii) commit to allocating funds for large-scale implementation of such interventions within national and local government budget lines within all coastal districts of India; iv) oversee the effective implementation as well as long-term maintenance of the ecological infrastructure and rural livelihoods developed; and v) adapt the interventions over the course of several decades, as the precise effects of climate change at a landscape-scale become evident, and as methods for restoring ecosystems to maximise adaptation benefits become more refined.

The project will establish a long-term system for periodic detailed assessment of vulnerability and adaptive capacity along the entire coastline of India, supporting the identification of all areas where restoration of coastal ecosystems using an EbA approach can be implemented. The implementation of restoration interventions in the three targeted states will build technical capacities and facilitate the adoption of similar efforts across all other states of India. The EbA Decision-Support Tool will enable identification of specific sites for such implementation of EbA nation-wide, and will be applied by the relevant Coastal Zone Management Authorities in each of the 13 coastal states.

Replication is facilitated by the project through changes in the enabling environment within which district, state and national governments work. The new National Coastal Mission will provide a framework to integrate climate risk management and EbA principles into national policies and schemes, including the CAMPA afforestation fund and Smart Cities Mission. In the three states, climate change adaptation and EbA will be integrated more effectively into cross-sectoral spatial and development planning at the district and state levels. This approach will be replicated and scaled up in all the other coastal states, commencing during the project lifetime through the establishment of interdepartmental platforms in the 13 coastal states, and a Pan-Indian Coastal Resilience Network, and sustained long-term through the National Coastal Mission.

IV. PROJECT MANAGEMENT

Cost Efficiency and Effectiveness

Cost-effectiveness of the project and its interventions is promoted at a number of different levels, through: i) adapting protocols for ecological restoration and livelihood development that have been used successfully in India's coastal zone and other coastal environments; ii) engaging local communities in establishing appropriate co-management structures for the planning, implementation and long-term maintenance of all interventions; and iii) intensive cross-sectoral collaboration between national ministries and state-level

departments to ensure that all operation and maintenance plans for investments in ecological infrastructure and coastal livelihoods are rigorously followed in the long-term. Particular means through which cost-effectiveness is enhanced include the following:

Project design with tested EbA solutions to challenges: The bio-geographical and socio-economic suitability of the project activities have been successfully tested in the field. The cost-effectiveness of proposed ecosystem- and community-based adaptation solutions has been tested in a number of projects at varying scales. This includes three recent/current UNDP-managed GEF-financed projects (Sindhudurg, EGREE, Gulf of Mannar) involving restoration of coastal ecosystems and generation of ecosystem-based livelihoods. It also includes experience and lessons learnt from the Asian Development Bank-managed Special Climate Change Fund project on “India: Climate Resilient Coastal Protection and Management” working in Karnataka and Maharashtra, and the GIZ-funded AdaptCap Project in coastal Tamil Nadu and Andhra Pradesh. The project builds on all these initiatives’ lessons of cost-effectiveness and efficiency of delivery. The project will also build synergies with other projects and national and state-level schemes and missions working in the same target states and landscapes, to maximize effectiveness and cost-effectiveness.

Building on evidence from cost benefit analysis: Evidence from around the world shows that ecosystem-based approaches can be cost-effective in helping communities adapt to unavoidable climate change impacts, whilst simultaneously delivering multiple social, economic and environmental benefits²⁵. UNDP has conducted a series of cost-benefit analyses of EbA interventions in Africa, Asia and Latin America^{26,27}, demonstrating that potential EbA interventions compare favourably with business as usual scenarios or other adaptation options. A cost-benefit analysis of ecosystem and engineering options for coastal protection was recently undertaken by GIZ in Vietnam²⁸, assessing the costs and benefits of coastal reforestation and forest conservation – including mangrove rehabilitation – versus hard infrastructure, namely a concrete dyke upgrade. The results showed that the cost of mangrove restoration would amount to an estimated 1.7 million Vietnam dong per capita, whilst a sea dyke system would cost approximately 38.8 million dong per capita²⁹. The mangroves provided the same protection to the coastline as a concrete dyke upgrade, with reduced vulnerability to extreme weather events and flooding from spring tides, and was therefore deemed more cost-effective. The project builds on this body of work in designing specific EbA interventions for effectiveness and cost-effectiveness.

Project Management

The locations of the 24 target landscapes are shown on the maps of Andhra Pradesh, Maharashtra and Odisha and the landscapes are listed below:

Name of state	District	Target landscape
Andhra Pradesh	Nellore	1. Pulicat Lake, 2. Nelapattu Bird Sanctuary and surrounding communities
	Krishna	3. Krishna Wildlife Sanctuary, 4. Bantumilli Wetlands
	East Godavari	5. Coringa Wildlife Sanctuary and surrounding communities
	Srikakulam	6. Telineelapuram, 7. Sompeta
Maharashtra	Sindhudurg	8. Devgad, 9. Malvan, 10. Vengurla
	Ratnagiri	11. Dapoli, 12. Guhagar, 13. Rajapur,
	Raigad	14. Panvel, 15. Uran
	Palghar	16. Dahanu, 17. Palghar,
Odisha	Ganjam	18. Chilika-Ganjam, 19. Bahuda

²⁵UNDP. 2015. *Making the Case for Ecosystem-based Adaptation: The Global Mountain EbA Programme in Nepal, Peru and Uganda*. UNDP, New York.

²⁶Rossing, T, Chhenjum Sherpa, N & Egan, A (2015). *Challenging gender roles and crossing castes: Promoting women’s livelihoods through broom grass cultivation in the Nepal Himalaya*. UNDP.

²⁷UNDP. 2015. *Natural Resource Economic Analyses for the Ecosystem Based Adaptation (EbA) Project in Mount Elgon Ecosystem*. Uganda, Ministry of Water and Environment.

²⁸ GIZ. 2013. *Saved health, saved wealth: An approach to quantifying the benefits of climate change adaptation: Practical application in coastal protection projects in Viet Nam*. Available at:

http://www.perspectives.cc/typo3home/groups/Publications/giz_2013_Saved_health_saved_wealth_-_an_approach_to_quantifying_the_benefits_of_climate_change_adaptation.pdf.

²⁹ Asian Development Bank. 2015. *Ecosystem-based approaches to climate change challenges in the Greater Mekong Subregion*.

<i>Puri</i>	20. Chilika-Puri, 21. Mahanadi Mouth, 22. Devi Mouth
<i>Baleshwar</i>	23. Talasari
<i>Kendrapara</i>	24. Bhitarkanika

For more information on management arrangements, kindly refer to the section on “governance and management arrangements”.

Agreement on intellectual property rights and use of logo on the project’s deliverables and disclosure of information

To accord proper acknowledgement to the GCF for providing grant funding, the GCF logo will appear together with the UNDP logo on all promotional materials, other written materials like publications developed by the project, and project hardware. Any citation on publications regarding projects funded by the GCF will also accord proper acknowledgement to the GCF. Information will be disclosed in accordance with relevant policies notably the UNDP Disclosure Policy³⁰ and the relevant GCF policy.

Disclosure of information

Information will be disclosed in accordance with relevant policies notably the UNDP Disclosure Policy³¹ and the GCF Disclosure Policy³².

Carbon offsets or units

As outlined in the AMA agreement between UNDP and the GCF, to the extent permitted by applicable laws and regulations, the Implementing Partner will ensure that any greenhouse gas emission reductions (e.g. in emissions by sources or an enhancement of removal by sinks) achieved by this project shall not be converted into any offset credits or units generated thereby, or if so converted, will be retired without allowing any other emissions of greenhouse gases to be offset.

³⁰ See http://www.undp.org/content/undp/en/home/operations/transparency/information_disclosurepolicy/

³¹ See http://www.undp.org/content/undp/en/home/operations/transparency/information_disclosurepolicy/

³² See https://www.greenclimate.fund/documents/20182/184476/GCF_B.12_24_-_Comprehensive_Information_Disclosure_Policy_of_the_Fund.pdf/f551e954-baa9-4e0d-bec7-352194b49bcb

V. RESULTS FRAMEWORK³³

Intended Outcome as stated in the UNSDF Country Programme Results and Resource Framework: outcome 6. By 2022, environmental and natural resource management is strengthened and communities have increased access to clean energy and are more resilient to climate change and disaster risks.											
CPD Outcome: By 2022, environmental and natural resource management is strengthened, and communities have increased access to clean energy and are more resilient to climate change and disaster risks											
CPD Output 3.1: Effective institutional, legislative and policy frameworks in place to enhance the implementation of climate change and disaster risk reduction at national and subnational levels.											
Applicable Output(s) from the UNDP Strategic Plan as mentioned in the CPD: Output 2.1.1: Low emission and climate resilient objectives addressed in national, sub-national and sectoral development plans and policies to promote economic diversification and green growth											
Enhancing Climate Resilience of India's Coastal Communities / 00100901											
EXPECTED OUTPUTS	OUTPUT INDICATORS ³⁴	DATA SOURCE	BASELINE		TARGETS (by frequency of data collection)						DATA COLLECTION METHODS & RISKS
			Value	Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	

³³ UNDP publishes its project information (indicators, baselines, targets and results) to meet the International Aid Transparency Initiative (IATI) standards. Make sure that indicators are S.M.A.R.T. (Specific, Measurable, Attainable, Relevant and Time-bound), provide accurate baselines and targets underpinned by reliable evidence and data, and avoid acronyms so that external audience clearly understand the results of the project.

³⁴ It is recommended that projects use output indicators from the Strategic Plan IRRF, as relevant, in addition to project-specific results indicators. Indicators should be disaggregated by sex or for other targeted groups where relevant.

<p>Output 3.1: Effective institutional, legislative and policy frameworks in place to enhance the implementation of climate change and disaster risk reduction at national and subnational levels.</p> <p>Baseline: 2 Target: 10</p>	<p>Indicator 3.1.1: Number of national, state and sectoral disaster risk reduction and climate change strategy/action plans that also address gender considerations implemented.</p>		2	10		2	2	2	2	2	
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VI. MONITORING AND EVALUATION

In accordance with UNDP's programming policies and procedures, the project will be monitored through the following monitoring and evaluation plans:
[Note: monitoring and evaluation plans should be adapted to project context, as needed]

Monitoring Plan

Monitoring Activity	Purpose	Frequency	Expected Action	Partners (if joint)	Cost (if any)-USD
Track results progress	<p>Progress data against the results indicators in the RRF will be collected and analysed to assess the progress of the project in achieving the agreed outputs.</p> <ul style="list-style-type: none"> Monitoring of Indicators in RRF 	Quarterly	Slower than expected progress will be addressed by project management.		60,000
Monitor and Manage Risk	<p>Identify specific risks that may threaten achievement of intended results. Identify and monitor risk management actions using a risk log. This includes monitoring measures and plans that may have been required as per UNDP's Social and Environmental Standards. Audits will be conducted in accordance with UNDP's audit policy to manage financial risk.</p> <ul style="list-style-type: none"> Audit SES Gender action plan Stakeholder action plan Addressing environmental and social grievances 	Quarterly	Risks are identified by project management and actions are taken to manage risk. The risk log is actively maintained to keep track of identified risks and actions taken.		118,000
Learn	<p>Knowledge, good practices and lessons will be captured regularly, as well as actively sourced from other projects and partners and integrated back into the project.</p>	annually	Relevant lessons are captured by the project team and used to inform management decisions.		128,000

	<ul style="list-style-type: none"> Lessons learnt, case studies and knowledge generation GCF learning mission/cite visits Translation of evaluation reports 				
Annual Project Quality Assurance	<p>The quality of the project will be assessed against UNDP's quality standards to identify project strengths and weaknesses and to inform management decision making to improve the project.</p> <ul style="list-style-type: none"> Baseline assessments-mid term and end line impact monitoring and evaluation 	Annually	Areas of strength and weakness will be reviewed by project management and used to inform decisions to improve project performance.		400,000
Review and Make Course Corrections	Internal review of data and evidence from all monitoring actions to inform decision making.	annually	Performance data, risks, lessons and quality will be discussed by the project board and used to make course corrections.		
Project Report	<p>A progress report will be presented to the Project Board / Project Steering Committee (PSC) and key stakeholders, consisting of progress data showing the results achieved against pre-defined annual targets at the output level, the annual project quality rating summary, an updated risk long with mitigation measures, and any evaluation or review reports prepared over the period.</p> <ul style="list-style-type: none"> Inception workshop 	Annually, and at the end of the project (final report)			11,000
Project Review (Project Board / PSC)	The project's governance mechanism (i.e., project board / PSC) will hold regular project reviews to assess the performance of the project and review the Multi-Year Work Plan to ensure realistic budgeting over the life of the project. In the project's final year, the Project Board shall hold an end-of project review to capture lessons learned and discuss opportunities for scaling up and to socialize project results and lessons learned	Specify frequency (i.e., at least annually)	Any quality concerns or slower than expected progress should be discussed by the project board and management actions agreed to address the issues identified.		24,000

	with relevant audiences. <ul style="list-style-type: none"> • Project Board Meetings 				
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Evaluation Plan³⁵

Evaluation Title	Partners (if joint)	Related Strategic Plan Output	UNDAF/CPD Outcome	Planned Completion Date	Key Evaluation Stakeholders	Cost and Source of Funding
Mid-Term Evaluation			CPD 3.1	August, 2022		USD 40,000
Terminal Evaluation			CPD 3.1	January, 2025		USD 60,000

³⁵ Optional, if needed

VII. MULTI-YEAR WORK PLAN ³⁶³⁷

EXPECTED (Project) OUTPUTS	PLANNED ACTIVITIES	Planned Budget by Year						RESPONSIBLE PARTY	PLANNED BUDGET		
		Y1	Y2	Y3	Y4	Y5	Y6		Funding Source	Budget Description	Amount
Output 1: Enhanced resilience of coastal and marine ecosystems and their services <i>Indicator:</i> Numbers of hectares of coastal ecosystems – disaggregated by type – that are successfully restored to reduce the impact of climate-induced disasters and other climate change impacts <i>Baseline:</i> 0 <i>Final Target:</i> Mangroves: 10,575 ha Saltmarsh: 700 ha Coral: 35 ha Seagrass: 85 ha Watersheds 3,550 ha <i>Gender marker: GEN 2</i>	1.1 Conducting vulnerability assessment of the coast to inform planning of ecosystem- and community-based adaptation interventions	467,061	388,979	384,063	340,149	314,469	314,469		GCF		2,209,190
	1.2 Community-based conservation and restoration of coastal ecosystems for increasing ecosystem resilience	2,355,659	4,684,319	6,994,978	4,666,319	4,666,319	9,000		GCF		23,376,593
	Sub-Total for Output 1 : 25,585,783										

³⁶ Cost definitions and classifications for programme and development effectiveness costs to be charged to the project are defined in the Executive Board decision DP/2010/32

³⁷ Changes to a project budget affecting the scope (outputs), completion date, or total estimated project costs require a formal budget revision that must be signed by the project board. In other cases, the UNDP programme manager alone may sign the revision provided the other signatories have no objection. This procedure may be applied for example when the purpose of the revision is only to re-phase activities among years.

	Activity 3.2 Integrating ecosystem-centric approaches to climate change adaptation into public and private sector policies, plans and budgets, and scaling up finance for EbA										
	Activity 3.3 Knowledge management for coastal resilience	1,03,520	99,206	86,366	86,366	60,686	60,686				496,830
	Subtotal 2,984,780										
Evaluation (as relevant)	EVALUATION										
General Management Support		4,14,581	4,11,138	3,39,651	3,09,054	3,09,662	2,83,210				2,067,296
TOTAL											43,418,606

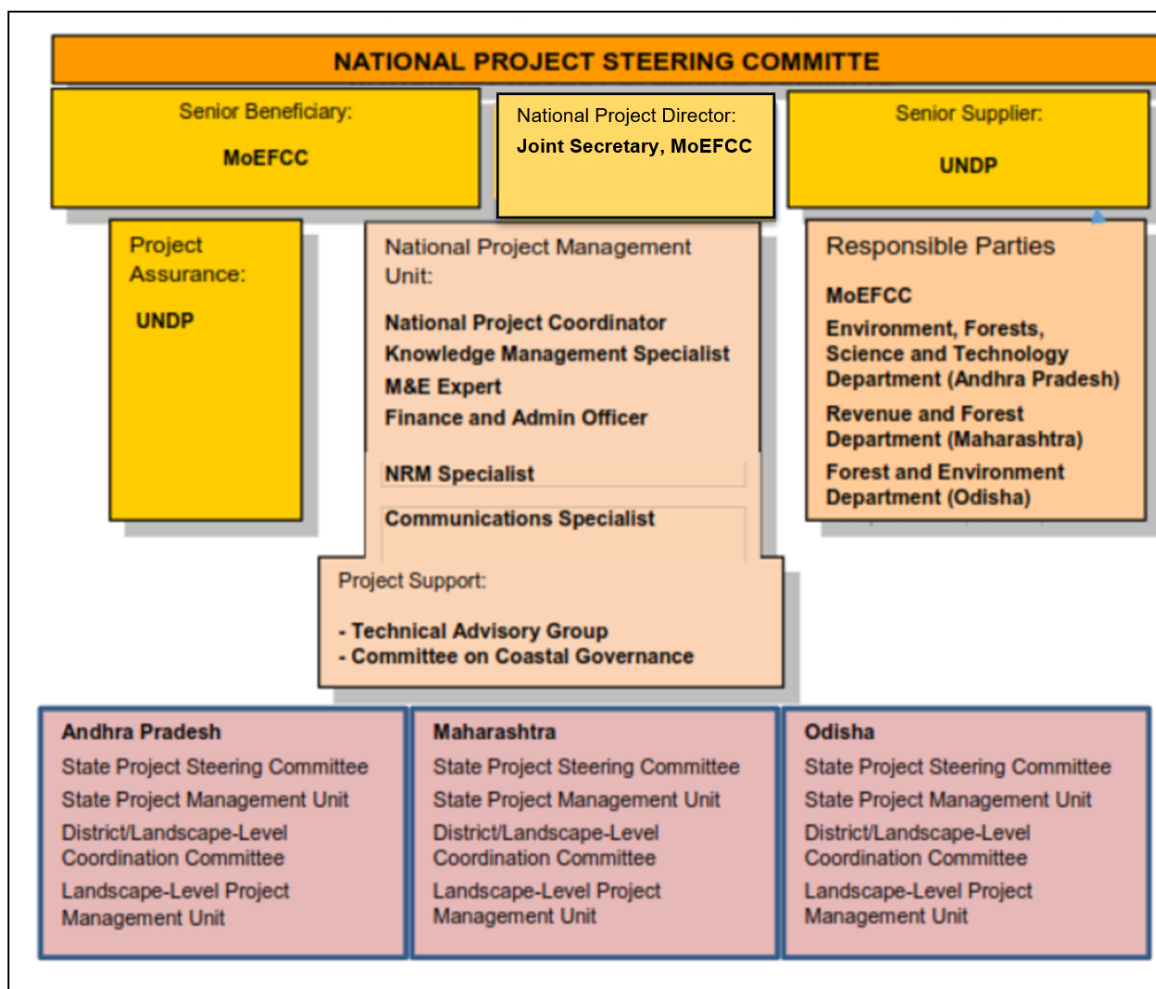
VIII. GOVERNANCE AND MANAGEMENT ARRANGEMENTS

Roles and responsibilities of the project's governance mechanism: The project will be implemented following UNDP's national implementation modality.

The **Implementing Partner** for this project is Ministry of Environment, Forest and Climate Change (MoEF&CC). The Implementing Partner is responsible and accountable for managing this project, including the monitoring and evaluation of project interventions, achieving project outcomes, and for the effective use of UNDP resources. The Implementing Partner is responsible for:

- Approving and signing the multiyear workplan;
- Approving and signing the combined delivery report at the end of the year; and,
- Signing the financial report or the funding authorization and certificate of expenditures.

The project organisation structure is as follows:



Project Board: The Project Board (also called Project Steering Committee) is responsible for making by consensus, management decisions when guidance is required by the Project Manager, including recommendations for UNDP/Implementing Partner approval of project plans and revisions, and addressing any project level grievances. In order to ensure UNDP's ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition. In case a consensus cannot be reached within the Board, final decision shall rest with the UNDP Programme Manager.

Specific responsibilities of the Project Board include:

- Provide overall guidance and direction to the project, ensuring it remains within any specified constraints;

- Address project issues as raised by the project manager;
- Provide guidance on new project risks, and agree on possible countermeasures and management actions to address specific risks;
- Agree on project manager's tolerances as required;
- Review the project progress, and provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans;
- Appraise the annual project implementation report, including the quality assessment rating report; make recommendations for the workplan;
- Provide ad hoc direction and advice for exceptional situations when the project manager's tolerances are exceeded; and
- Assess and decide to proceed on project changes through appropriate revisions.

The composition of the Project Board must include the following roles:

Executive: The Executive is an individual who represents ownership of the project who will chair the Project Board. This role can be held by a representative from the Government Cooperating Agency or UNDP. The Executive is: MoEF&CC

The Executive is ultimately responsible for the project, supported by the Senior Beneficiary and Senior Supplier. The Executive's role is to ensure that the project is focused throughout its life cycle on achieving its objectives and delivering outputs that will contribute to higher level outcomes. The executive has to ensure that the project gives value for money, ensuring cost-conscious approach to the project, balancing the demands of beneficiary and supplier.

Specific Responsibilities: (as part of the above responsibilities for the Project Board)

- Ensure that there is a coherent project organisation structure and logical set of plans;
- Set tolerances in the AWP and other plans as required for the Project Manager;
- Monitor and control the progress of the project at a strategic level;
- Ensure that risks are being tracked and mitigated as effectively as possible;
- Brief relevant stakeholders about project progress;
- Organise and chair Project Board meetings.

Senior Supplier: The Senior Supplier is an individual or group representing the interests of the parties concerned which provide funding and/or technical expertise to the project (designing, developing, facilitating, procuring, implementing). The Senior Supplier's primary function within the Board is to provide guidance regarding the technical feasibility of the project. The Senior Supplier role must have the authority to commit or acquire supplier resources required. If necessary, more than one person may be required for this role. Typically, the implementing partner, UNDP and/or donor(s) would be represented under this role. The Senior Supplier is: UNDP

Specific Responsibilities (as part of the above responsibilities for the Project Board)

- Make sure that progress towards the outputs remains consistent from the supplier perspective;
- Promote and maintain focus on the expected project output(s) from the point of view of supplier management;
- Ensure that the supplier resources required for the project are made available;
- Contribute supplier opinions on Project Board decisions on whether to implement recommendations on proposed changes;
- Arbitrate on, and ensure resolution of, any supplier priority or resource conflicts.

Senior Beneficiary: The Senior Beneficiary is an individual or group of individuals representing the interests of those who will ultimately benefit from the project. The Senior Beneficiary's primary function within the Board is to ensure the realization of project results from the perspective of project beneficiaries. The Senior Beneficiary role is held by a representative of the government or civil society. The Senior Beneficiary is: MoEF&CC

The Senior Beneficiary is responsible for validating the needs and for monitoring that the solution will meet those needs within the constraints of the project. The Senior Beneficiary role monitors progress against targets and quality criteria. This role may require more than one person to cover all the beneficiary interests. For the sake of effectiveness, the role should not be split between too many people.

Specific Responsibilities (as part of the above responsibilities for the Project Board)

- Prioritize and contribute beneficiaries' opinions on Project Board decisions on whether to implement recommendations on proposed changes;

- Specification of the Beneficiary's needs is accurate, complete and unambiguous;
- Implementation of activities at all stages is monitored to ensure that they will meet the beneficiary's needs and are progressing towards that target;
- Impact of potential changes is evaluated from the beneficiary point of view;
- Risks to the beneficiaries are frequently monitored.

National Project Coordinator / Project Manager: The Project Manager has the authority to run the project on a day-to-day basis on behalf of the Project Board within the constraints laid down by the Board. The Project Manager is responsible for day-to-day management and decision-making for the project. The Project Manager's prime responsibility is to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost.

The Implementing Partner appoints the Project Manager, who should be different from the Implementing Partner's representative in the Project Board.

Specific responsibilities include:

- Provide direction and guidance to project team(s)/ responsible party (ies);
- Liaise with the Project Board to assure the overall direction and integrity of the project;
- Identify and obtain any support and advice required for the management, planning and control of the project;
- Responsible for project administration;
- Plan the activities of the project and monitor progress against the project results framework and the approved annual workplan;
- Mobilize personnel, goods and services, training and micro-capital grants to initiative activities, including drafting terms of reference and work specifications, and overseeing all contractors' work;
- Monitor events as determined in the project monitoring schedule plan/timetable, and update the plan as required;
- Manage requests for the provision of financial resources by UNDP, through advance of funds, direct payments or reimbursement using the fund authorization and certificate of expenditures;
- Monitor financial resources and accounting to ensure the accuracy and reliability of financial reports;
- Be responsible for preparing and submitting financial reports to UNDP on a quarterly basis;
- Manage and monitor the project risks initially identified and submit new risks to the project board for consideration and decision on possible actions if required; update the status of these risks by maintaining the project risks log;
- Capture lessons learned during project implementation;
- Prepare the annual workplan for the following year; and update the Atlas Project Management module if external access is made available.
- Prepare the Annual Project Report and submit the final report to the Project Board;
- Based on the Annual Project Report and the Project Board review, prepare the AWP for the following year.
- Ensure the interim evaluation process is undertaken as per the UNDP guidance, and submit the interim evaluation report to the Project Board.
- Identify follow-on actions and submit them for consideration to the Project Board;
- Ensure the final evaluation process is undertaken as per the UNDP guidance, and submit the final evaluation report to the Project Board;

Project Assurance: UNDP provides a three – tier supervision, oversight and quality assurance role – funded by the agency fee – involving UNDP staff in Country Offices and at regional and headquarters levels. Project Assurance must be totally independent of the Project Management function. The quality assurance role supports the Project Board and Project Management Unit by carrying out objective and independent project oversight and monitoring functions. This role ensures appropriate project management milestones are managed and completed. The Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. This project oversight and quality assurance role is covered by the accredited entity fee provided by the GCF.

As an Accredited Entity to the GCF, UNDP delivers the following GCF-specific oversight and quality assurance services: (i) day to day project oversight supervision covering the start-up and implementation; (ii) oversight of project completion; and (iii) oversight of project reporting. A detailed list of the services is presented in the table below.

Function	Detailed description of activity	Typical GCF fee breakdown
Day-to-day oversight supervision	<p>1. Project start-up:</p> <ul style="list-style-type: none"> • In the case of Full Funding Proposals, prepare all the necessary documentation for the negotiation and execution of the Funding Activity Agreement (for the project) with the GCF, including all schedules • In the case of readiness proposals, if needed assist the NDA and/or government partners prepare all the necessary documentation for approval of a readiness grant proposal • Prepare the Project Document with the government counterparts • Technical and financial clearance for the Project Document • Organize Local Project Appraisal Committee • Project document signature • Ensure quick project start and first disbursement • Hire project management unit staff • Coordinate/prepare the project inception workshop • Oversee finalization of the project inception workshop report <p>2. Project implementation:</p> <ul style="list-style-type: none"> • <u>Project Board</u>: Coordinate/prepare/attend annual Project Board Meetings • <u>Annual work plans</u>: Quality assurance of annual work plans prepared by the project team; issue UNDP annual work plan; strict monitoring of the implementation of the work plan and the project timetable according to the conditions of the FAA and disbursement schedule (or in the case of readiness the approved readiness proposal) • <u>Prepare GCF/UNDP annual project report</u>: review input provided by Project Manager/team; provide specialized technical support and complete required sections • <u>Portfolio Report (readiness)</u>: Prepare and review a Portfolio Report of all readiness activities done by UNDP in line with Clause 9.02 of the Readiness Framework Agreement. • <u>Procurement plan</u>: Monitor the implementation of the project procurement plan • <u>Supervision missions</u>: Participate in and support in-country GCF visits/learning mission/site visits; conduct annual supervision/oversight site missions • <u>Interim Independent Evaluation Report</u>: Initiate, coordinate, finalize the project interim evaluation report and management response • <u>Risk management and troubleshooting</u>: Ensure that risks are properly managed, and that the risk log in Atlas (UNDP financial management system) is regularly updated; Troubleshooting project missions from the regional technical advisors or management and programme support unit staff as and when necessary (i.e. high risk, slow performing projects) • <u>Project budget</u>: Provide quality assurance of project budget and financial transactions according to UNDP and GCF policies • <u>Performance management of staff</u>: where UNDP supervises or co-supervises project staff • <u>Corporate level policy functions</u>: Overall fiduciary and financial policies, accountability and oversight; Treasury Functions including banking information and arrangements and cash management; Travel services, asset management, and procurement policies and support; Management and oversight of the audit exercise for all GCF projects; Information Systems and Technology provision, maintenance and support; Legal advice and contracting/procurement support policy advice; Strategic Human Resources Management and related entitlement administration; Office of Audit and Investigations oversight/investigations into 	70%

Function	Detailed description of activity	Typical GCF fee breakdown
	allegations of misconduct, corruption, wrongdoing and fraud; and social and environmental compliance unit and grievance mechanism.	
Oversight of project completion	<ul style="list-style-type: none"> Initiate, coordinate, finalize the Project Completion Report, Final Independent Evaluation Report and management response Quality assurance of final evaluation report and management response Independent Evaluation Office assessment of final evaluation reports; evaluation guidance and standard setting Quality assurance of final cumulative budget implementation and reporting to the GCF Return of any un-spent GCF resources to the GCF 	10%
Oversight of project reporting	<ul style="list-style-type: none"> Quality assurance of the project interim evaluation report and management response Technical review of project reports: quality assurance and technical inputs in relevant project reports Quality assurance of the GCF annual project report Preparation and certification of UNDP annual financial statements and donor reports Prepare and submit fund specific financial reports 	20%
	TOTAL	100%

Governance role for project target groups:

The project will involve a wide range of stakeholders including communities, community-based organizations, non-governmental organizations, monitoring and research institutions, small and large-scale private sector operators, in addition to public sector role-players from various spheres of government. The National Designated Authority (NDA) for the GCF in the Ministry of Environment, Forest and Climate Change (MoEFCC) led a focused process of consultations on priorities for climate change adaptation in the coastal zone of the three states, seeking to understand vulnerable coastal communities' adaptation needs and how GCF funding could help the country meet the incremental costs of addressing these needs and establishing pathways to scale across India's coastal zone.

The NGO sector, together with small-scale community-based organizations such as Eco Development Committees, Van Samrakshan Samitis, self-help groups, producer organizations and fisher associations, will be important role-players on the ground in the target states and landscapes. A wide range of smaller NGOs and community-based organizations in the three target states and the 24 target landscapes will also be involved in ongoing stakeholder engagement processes. Private sector role-players will also be engaged during the project – from the financial services sector, and in key economic sectors such as oil and gas, ports and shipping, power generation and energy, tourism, fishing and agriculture. These sectors will be engaged on investing in upstream activities generated by the livelihoods activities (e.g. processing aquaculture products) and on applying EbA principles in managing their own coastal landholdings, including planning of new infrastructure development.

In addition, a series of site-level engagements was conducted with communities in selected target landscapes in each of the three states, to understand better their vulnerabilities to climate change, their adaptive capacity. The process of engagement with community members and beneficiaries in the 24 target will be continued during the first year of implementation if the project is approved. This engagement in the sites will include two key elements: i) undertaking participatory, community-based land-use planning, based on an analysis of vulnerability to climate change impacts and adaptive capacity, to identify and locate site-specific measures for ecosystem conservation and restoration, and explore the community's ongoing role in co-managing these sites; and ii) undertaking participatory livelihoods planning in target landscapes and villages – evaluating livelihood options in aquaculture, agriculture and MSMEs through development of community-centric, value-chain development strategies, and identifying appropriate sites for harvesting, growing, fishing, culturing, storage and processing.

Project activities will adopt a fully participatory approach that will ensure engagement of local communities in the project. During project implementation, this process will continue, with communities being engaged in planning to ensure that their priorities are taken into account during initial phases of the project (see Activities 1.1 and 2.1), as well as in implementation and monitoring of project achievements.

IX. LEGAL CONTEXT

[NOTE: Please choose **one** of the following options, as applicable. Delete all other options from the document]

The project document shall be the instrument envisaged and defined in the [Supplemental Provisions](#) to the Project Document, attached hereto and forming an integral part hereof, as “the Project Document”.

This project will be implemented by MoEF&CC in accordance with its financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP. Where the financial governance of an Implementing Partner does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, the financial governance of UNDP shall apply.

Any designations on maps or other references employed in this project document do not imply the expression of any opinion whatsoever on the part of UNDP concerning the legal status of any country, territory, city or area or its authorities, or concerning the delimitation of its frontiers or boundaries.

By signing this UNDP GCF project document, the Implementing Partner also agrees to the terms and conditions of the GCF Funded Activity Agreement (FAA) included in Annex and to use the GCF funds for the purposes for which they were provided. UNDP has the right to terminate this project should the Implementing Partner breach the terms of the GCF FFA.

X. RISK MANAGEMENT

1. Consistent with the Article III of the SBAA *[or the Supplemental Provisions to the Project Document]*, the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP’s property in the Implementing Partner’s custody, rests with the Implementing Partner. To this end, the Implementing Partner shall:
 - a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
 - b) assume all risks and liabilities related to the Implementing Partner’s security, and the full implementation of the security plan.
2. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the Implementing Partner’s obligations under this Project Document.
3. The Implementing Partner agrees to undertake all reasonable efforts to ensure that no UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via http://www.un.org/sc/committees/1267/aq_sanctions_list.shtml.
4. Social and environmental sustainability will be enhanced through application of the UNDP Social and Environmental Standards (<http://www.undp.org/ses>) and related Accountability Mechanism (<http://www.undp.org/secu-srm>).
5. The Implementing Partner shall: (a) conduct project and programme-related activities in a manner consistent with the UNDP Social and Environmental Standards, (b) implement any management or mitigation plan prepared for the project or programme to comply with such standards, and (c) engage in a constructive and timely manner to address any concerns and complaints raised through the Accountability Mechanism. UNDP will seek to ensure that communities and other project stakeholders are informed of and have access to the Accountability Mechanism.
6. All signatories to the Project Document shall cooperate in good faith with any exercise to evaluate any programme or project-related commitments or compliance with the UNDP Social and Environmental

Standards. This includes providing access to project sites, relevant personnel, information, and documentation.

7. The Implementing Partner will take appropriate steps to prevent misuse of funds, fraud or corruption, by its officials, consultants, responsible parties, subcontractors and sub-recipients in implementing the project or using UNDP funds. The Implementing Partner will ensure that its financial management, anti-corruption and anti-fraud policies are in place and enforced for all funding received from or through UNDP.
8. The requirements of the following documents, then in force at the time of signature of the Project Document, apply to the Implementing Partner: (a) UNDP Policy on Fraud and other Corrupt Practices and (b) UNDP Office of Audit and Investigations Investigation Guidelines. The Implementing Partner agrees to the requirements of the above documents, which are an integral part of this Project Document and are available online at www.undp.org.
9. In the event that an investigation is required, UNDP has the obligation to conduct investigations relating to any aspect of UNDP projects and programmes. The Implementing Partner shall provide its full cooperation, including making available personnel, relevant documentation, and granting access to the Implementing Partner's (and its consultants', responsible parties', subcontractors' and sub-recipients') premises, for such purposes at reasonable times and on reasonable conditions as may be required for the purpose of an investigation. Should there be a limitation in meeting this obligation, UNDP shall consult with the Implementing Partner to find a solution.
10. The signatories to this Project Document will promptly inform one another in case of any incidence of inappropriate use of funds, or credible allegation of fraud or corruption with due confidentiality.

Where the Implementing Partner becomes aware that a UNDP project or activity, in whole or in part, is the focus of investigation for alleged fraud/corruption, the Implementing Partner will inform the UNDP Resident Representative/Head of Office, who will promptly inform UNDP's Office of Audit and Investigations (OAI). The Implementing Partner shall provide regular updates to the head of UNDP in the country and OAI of the status of, and actions relating to, such investigation.

11. *Choose one of the three following options:*

Option 1: UNDP shall be entitled to a refund from the Implementing Partner of any funds provided that have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document. Such amount may be deducted by UNDP from any payment due to the Implementing Partner under this or any other agreement. Recovery of such amount by UNDP shall not diminish or curtail the Implementing Partner's obligations under this Project Document.

Option 2: The Implementing Partner agrees that, where applicable, donors to UNDP (including the Government) whose funding is the source, in whole or in part, of the funds for the activities which are the subject of this Project Document, may seek recourse to the Implementing Partner for the recovery of any funds determined by UNDP to have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document.

Option 3: UNDP shall be entitled to a refund from the Implementing Partner of any funds provided that have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document. Such amount may be deducted by UNDP from any payment due to the Implementing Partner under this or any other agreement.

Where such funds have not been refunded to UNDP, the Implementing Partner agrees that donors to UNDP (including the Government) whose funding is the source, in whole or in part, of the funds for the activities under this Project Document, may seek recourse to the Implementing Partner for the recovery of any funds determined by UNDP to have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document.

Note: The term "Project Document" as used in this clause shall be deemed to include any relevant subsidiary agreement further to the Project Document, including those with responsible parties, subcontractors and sub-recipients.

12. Each contract issued by the Implementing Partner in connection with this Project Document shall include a provision representing that no fees, gratuities, rebates, gifts, commissions or other payments, other

than those shown in the proposal, have been given, received, or promised in connection with the selection process or in contract execution, and that the recipient of funds from the Implementing Partner shall cooperate with any and all investigations and post-payment audits.

13. Should UNDP refer to the relevant national authorities for appropriate legal action any alleged wrongdoing relating to the project, the Government will ensure that the relevant national authorities shall actively investigate the same and take appropriate legal action against all individuals found to have participated in the wrongdoing, recover and return any recovered funds to UNDP.
14. The Implementing Partner shall ensure that all of its obligations set forth under this section entitled "Risk Management" are passed on to each responsible party, subcontractor and sub-recipient and that all the clauses under this section entitled "Risk Management Standard Clauses" are included, *mutatis mutandis*, in all sub-contracts or sub-agreements entered into further to this Project Document.

XI. ANNEXES

1. Project Quality Assurance Report

Design & Appraisal Stage Quality Assurance can be accessed [here](#) and are shared in a separate annex

2. Social and Environmental Screening

SESP can be accessed [here](#) and is shared in a separate annex

ESMF can be accessed [here](#) and is shared in a separate annex

3. Risk Analysis. Use the template below

SI	Description	Risk Category	Impact & Probability	Risk Treatment / Management Measures ³⁹	Risk Owner
1	Limited capacity of government officers and community members (including self-help groups, CBOs, etc.) to plan and implement restoration and livelihood support interventions.	Technical and operational	I = 4 P = 3	The project will ensure strong engagement and mobilization of local-level government and community members to ensure their participation in project activities. Awareness raising and technical capacity building for both officials and communities will be undertaken to ensure that design and implementation of project interventions are based on sound understanding of climate risks and adaptation measures. All planning will be fully participatory, involving members of various vulnerable segments of the target communities (e.g. women, youth, socially marginalized) in prioritization of project interventions given their particular vulnerabilities to climate change. This mitigation measure is expected to adjust the risk level to "Low".	National Project Coordinator
2	Limited coordination between government ministries, UNDP, communities, NGOs/CBOs, private sector and other stakeholders reduces the efficiency and effectiveness of implementation of project interventions.	Technical and operational	I = 1 P = 3	Strong institutional and implementation arrangements for the project's management framework will ensure effective coordination and collaboration between project partners. Project management units at the national level as well as in each target state will facilitate constant dialogue between project partners and stakeholders. This will be complemented by UNDP's role as executing agency responsible for project oversight. In addition, co-management structures will promote coordination and collaboration between government officials and local communities for on-the-ground activities. The project will also build institutional capacities for coordination between various stakeholders. In particular, this will be achieved through cross-sectoral coordination structures to be established under Output 3. Moreover, project activities focus specifically on building capacities in various institutions for adoption of integrated and cross-sectoral approaches to adaptation planning at the national and sub-national levels. This mitigation measure is expected to adjust the risk level to "Low".	National Project Coordinator
3	Extreme weather events impact restoration and livelihoods activities, either preventing their implementation or reducing their efficacy.	Social and environmental	I = 4 P = 3	Restoration interventions will be planned and implemented based on site-specific implementation protocols to be developed under the project. These protocols will take into account the local environmental conditions – including frequency, severity and type of climate-induced hazards – and explicitly outline lowest risk options for implementation. Identification of localized sites for restoration (which was initiated during the development of this project proposal) will be further refined during implementation, taking into account factors such as exposure and sensitivity to climate-induced hazards (see Activity 1.1). Protocols will be regularly updated to enable adaptive management of sites. By identifying risks posed by climate-induced hazards, planners and implementers will be able to make provision	National Project Coordinator

³⁹ What actions have been taken/will be taken to manage this risk.

SI	Description	Risk Category	Impact & Probability	Risk Treatment / Management Measures ³⁹	Risk Owner
				<p>for site-specific mitigation measures.</p> <p>The design of livelihoods interventions – to be supported in each locality – will also take into account the potential for disruption by extreme weather events. Local knowledge on the impacts of climate-induced hazards will be used to inform the types of interventions at the localized level. In addition, implementation of these activities will be undertaken based on information from weather advisories to ensure that due consideration is given to impending climate risks.</p> <p>This mitigation measure is expected adjust the risk level to “Low”.</p>	
4	Limited awareness and sensitization of local communities reduces rates of adoption of livelihood practices and involvement in EbA interventions.	Social and environmental	I = 4 P = 2	<p>The fully participatory nature of engagement with local communities for Activities 1.2 and 2.1 will be complemented by sensitisation and awareness-raising of local communities concerning climate risks, adaptation options and the benefits of project activities. This engagement will be inclusive of all segments of the population, including men, women, the youth, the elderly, people with disabilities and marginalised groups. Inclusive and participatory engagement of local communities through such a multi-stakeholder approach is expected to promote community buy-in and adoption of project activities, which will contribute towards adoption as well as longevity and sustainability of project interventions. Extension officers and community facilitators will be selected from target landscapes wherever possible, and will be provided with training on techniques for effective community engagement.</p>	National Project Coordinator
5	Project activities result in collateral environmental degradation	Social and environmental	I = 4 P = 2	<p>The ecosystem and livelihood activities are based on experiences and lessons learned from past ongoing initiatives in India, particularly the UNDP-supported Sindhudurg and EGREE projects. These initiatives have demonstrated proven approaches towards ecosystem restoration and livelihoods support interventions that have minimal negative impacts on the natural environment. This project will replicate the methods and approaches employed in such activities from these successful activities to ensure the least possible impact on the natural environment. This includes careful design and monitoring of aquaculture in creeks and brackish ponds to avoid exceeding carrying capacity; or causing pollution or eutrophication of water, or saline intrusion into neighbouring paddies. The Forest Department will retain responsibility in each target state for working with community organizations and facilitators to monitor any specific risks identified at local level and check that mitigation measures are in place throughout project implementation.</p> <p>Community participation is also essential also as the “eyes and ears” of enforcement by the Forestry Department, ensuring that there are no incursions into sensitive areas undergoing restoration or newly under protection – either by outsiders, or by community members seeking to undertake illegal activities. The process of developing restoration protocols for each site will involve discussions between the Forestry Department and community structures on arrangements for co-management and sustainable harvesting in each site. This process will be coordinated and monitored across the project by the Natural Resource Management Officer in the national PMU and by the Ecological and Adaptation Specialists in the State PMUs. In the target landscapes the development, implementation and monitoring of site restoration protocols will be undertaken by the NGOs contracted by the Forestry Department, working with community co-management structures and the Ecological and Adaptation Specialists. Such arrangements will determine communities’ access to the specific resource (e.g. forests, mangroves) where appropriate, and within predetermined parameters (e.g. off-take rates, times of the week etc.). In some cases, the initial phases of</p>	National Project Coordinator & UNDP

SI	Description	Risk Category	Impact & Probability	Risk Treatment / Management Measures ³⁹	Risk Owner
				<p>restoration work will necessitate the exclusion of community members from areas where they previously had access, for example to harvesting resources. Such restrictions will be explained and awareness raised on the medium and long-term benefits, and where possible, alternative sites will be provided for compensatory access to resources.</p> <p>Furthermore, the project will engage with all stakeholders to develop landscape-level plans that identify optimal land use and management within a given project sites. This process will include – wherever necessary – obtaining the necessary planning permission for any infrastructural developments associated with restoration and livelihoods work. This approach to planning at a landscape scale will help ensure that planning permission is not granted in isolation, but as part of a wider plan for the specific coastal zone that includes protection of intact and restored coastal habitats.</p> <p>Regarding climate-resilient infrastructural and urban planning (Activity 3.2), the emphasis of the project is on planning for rather than carrying out any major housing, water or sanitation infrastructure development. Any such development occurring in parallel with the project, however, will be governed by the Environment Protection Act, and will conduct an Environmental Impact Assessment if so obliged in terms of the Schedule of EIA notification (2006) ensuring that any potential environmental degradation is minimised, and that appropriate mitigation measures will be undertaken</p>	
6	Livelihood support may not add significantly to income generation of local people.	Social and environmental	I = 3 P = 2	The choices from the suite of selected climate-adaptive livelihood options to be supported in each locality will be determined and finalized after intensive and inclusive consultations with relevant stakeholders, particularly the local communities who are expected to be primary beneficiaries. This will allow for communities to be involved in selecting those livelihood options that they perceive to be most likely to augment their income. In addition, only those climate-adaptive livelihood options that have substantial potential for income generation and have viable markets in specific localities will be considered. As part of this process, livelihoods facilitators will be trained to conduct more detailed market analyses in the context of specific target landscapes. Facilitators will provide support on appropriate siting and permitting, business planning, access to finance, and developing value chains, including facilitating deals with buyers of products. All of these measures will mitigate against the risk of livelihoods options not fulfilling their potential for income generation.	National Project Coordinator & UNDP
7	Conflict between potential beneficiaries of livelihood interventions in target communities.	Social and environmental	I = 3 P = 2	The project will follow a fully participatory and inclusive process for identification of eventual beneficiaries in the target landscapes, focusing on farming and fishing households whose current livelihoods are vulnerable to climate impacts. Local communities and CBOs will be intensely involved in this process to ensure that consensus is achieved on which community members are most vulnerable to the effects of climate change and are thus most deserving of being selected as beneficiaries. Project interventions will focus on providing tangible benefits for women, female-headed households, the youth and the elderly, and members of Scheduled Castes and Tribes. These groups are particularly vulnerable to the impacts of climate change, as they have limited access to economic assets and resources (e.g. land, fishing equipment), experience high rates unemployment, have limited education, and have limited market access. The exact beneficiaries will be identified during the first phase of the project (undertaking the fine-scale vulnerability assessment and participatory livelihoods mapping – see Activities 1.1 and 2.1) to ensure that project interventions address climate vulnerabilities within the local socio-economic and environmental context.	National Project Coordinator & UNDP

SI	Description	Risk Category	Impact & Probability	Risk Treatment / Management Measures ³⁹	Risk Owner
				Furthermore, the ESMF creates a framework for a Grievance Redress Mechanism that will allow for potential conflict to be resolved to ensure an equitable distribution of project benefits	
8	Limited involvement and participation of women and other marginalized groups in project implementation	Social and environmental	I = 3 P = 2	The project has a strong focus on inclusion of women and socially marginalized groups within the planning and implementation of project activities. This inclusion began during the design of this project proposal, with numerous consultations targeting women's self-help groups and members of marginalized groups, especially Scheduled Tribes. During project implementation, this consultation process will continue to guide implementation of project activities, with certain activities targeting women and other vulnerable groups as the primary beneficiaries, and youth training opportunities being open to youth from all social backgrounds. Women's participation in both co-management structures and livelihood opportunities will be actively promoted through engagement by community facilitators.	National Project Coordinator & UNDP
9	Project support to climate-adaptive aquaculture unintentionally leads to increase in wild harvesting of breeding stock or mature organisms	Social and environmental	I = 3 P = 2	The project will improve access to markets for crabs for beneficiaries, but there is already much unmet demand regionally. By promoting sustainable farming of crabs from hatchery-produced seed, the project will help meet this demand and take pressure off the wild resource. Oyster spat is plentiful and attaches naturally to the substrate provided. Mussel seeds are not plentiful and will be supplied to project beneficiaries through hatcheries. No harvesting will be allowed to supply ornamental fish, breeding stock for which will be supplied through the Marine Products Export Development Agency. The project will strengthen community co-management of marine resources, and enforcement of protected areas along the coast in the target landscapes. Beyond these areas, all harvesting of marine resources will be governed by India's Comprehensive Marine Fisheries Policy of 2004.	National Project Coordinator
10	Project support to climate-adaptive aquaculture leads to excessive pollution of creeks and degraded environment	Social and environmental	I = 3 P = 2	Aquaculture of oysters and mussels has a limited impact on water quality, as shown in the independent specialists study conducted in response to the iTAP review and crab culture is strictly regulated by the Guideline for Carrying Capacity Assessment of Sustainable, Small-scale Aquaculture Activities, already in place for Maharashtra, following international guidelines from FAO and local carrying capacity assessments, and including waste management through estimation of nutrient loading and its dilution through tidal exchange. Similar Guidelines will be developed in 2018 in the other two target states, in line with their existing procedures for applying for aquaculture permits which also address waste management and require ongoing monitoring of water quality (the Fisheries Policy of Andhra Pradesh 2015-2020 and the government of Odisha's GE/(GL)-S-29/2015/16538 dt. 3/6/2015 ⁴⁰). Ornamental fish will be raised in tanks, and risk of pollution will be mitigated through treatment of wastewater for reuse.	National Project Coordinator & UNDP

4. Capacity Assessment: Results of capacity assessments of Implementing Partner (including HACT Micro Assessment)

HACT Micro Assessments for IP and RPs can be accessed [here](#) and are shared in a separate annex

⁴⁰Govt. of Odisha.2015, Principles for lease of brackish water areas in the state, Fisheries and ARD Department, Odisha Gazette.

5. Project Board Terms of Reference and TORs of key management positions – Attach as Annex



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