

India: Integrated Coastal Zone Management Project (ICZM Project)

Terms of Reference for Evaluation Impact and Outcomes of the ICZM Project

Background

1. The Integrated Coastal Zone Management Project (ICZMP) assists the Government of India (GoI) through its two Project Development Objectives (PDOs) of (i) building national capacity for implementation of comprehensive coastal management approach in the country, and (ii) piloting the integrated coastal zone management approach in states of Gujarat, Orissa and West Bengal. The two main objectives of the project will be achieved through a combination of targeted capacity building activities and demonstrative pilot investments. The ICZM vision and strategy at National level has been given in chapter – 2 of the National Detailed Project Report (NDPR). The activities and investments are designed and planned to meet the project's objectives under the following four components - national ICZM capacity building; piloting ICZM approaches in Gujarat; piloting ICZM approaches in Orissa and; piloting ICZM approaches in West Bengal. These activities include preparing ICZM plans in the three states and other supporting pilot investments implemented as per planned ICZM approaches. See Annex I of this document for further details on the project's components. Details of the project components, activities and sub-activities have been detailed out in NDPR.
2. While project monitoring will be carried out by the Project Executing Agencies (PEAs), State Project Management Units (SPMUs) and National Project Management Unit (NPMU) by using an internal reporting and Management Information System (MIS), project evaluation is to be carried out by a consultant appointed through this assignment. The consultant will provide services for a systematic and objective assessment of efficiency and quality of project implementation; efficacy of fulfillment of project objectives; and efficiency of the monitoring process and Annual Action Plans for a period of seven years. Evaluation, through this assignment will provide information that is credible and useful, enabling the incorporation of lessons learnt in the decision making process by sharing knowledge gathered by evaluation through the process. Since evaluation is complementary to monitoring, it will provide feedback to the monitoring process and enable its revision.
3. Project monitoring evaluation framework of all the project components, sub-components and pilot investments have been given in chapter – 4 of NDPR. A results framework for monitoring of the project has been developed in the Project Appraisal Document (PAD) for the ICZMP. See Annex II of this document for the results framework of the project that includes details of 4 high level project outcome indicators for the PDOs, intermediate outcomes and their respective indicators. The consultant will utilize this framework given in NDPR and the project components as the basis of designing and implementing the evaluation methodology and processes. Annex II also provides arrangements for results or outcome monitoring for seven years on an yearly basis that will be undertaken by the PEAs, SPMUs and NPMU.
4. Benchmarks of the progress during implementation of the project activities have been given in chapter 4.1 and 4.2 of NDPR. To meet the first PDO, Annex 3A provides provisional benchmarks for one of its indicator – 'Existence of an appropriate national institutional structure for guiding and coordinating implementation of ICZM approaches.' Annex 3B provides details of Knowledge Benchmarks developed during project design. The consultant will review and refine these benchmarks along with other related actions described in detail in the scope of work.
5. Management measures to mitigate environment and social impacts during implementation have been identified for all project activities. Monitoring of these measures will be carried out by the

PEAs, SPMUs and NPMU with the regular monitoring of the project. The consultant will include the evaluation of implementation of the environmental and social measures within the evaluation of the project investment or activities. Provisional evaluation measures have been developed, which will be reviewed and refined by the consultant prior to evaluation. See Annex V for information on this.

Objectives

- i. To carry out a review of baseline conditions.
- ii. To review and refine the institutional benchmarks and knowledge benchmarks for project monitoring and evaluation.
- iii. To create an appropriate evaluation system including methodology and related processes for the entire ICZMP to enable evaluation of the project.
- iv. To evaluate the entire ICZM Project providing appropriate reports to satisfy the results framework of the project and complement the monitoring carried out. To continually provide investigative and diagnostic information through project evaluation that will enable changes to be brought in throughout the project. To finally consolidate and provide documentation of lessons learnt to the implementing agencies on the ICZM approach.

Scope of Work

7. **Project familiarization and understanding:** The consultant will get familiarized with the project through a desk review of existing project documents and reports like the Project Appraisal Document (PAD), National Detailed Project Reports (NDPRs), CRZ 2011, IPZ 2011 National Agenda for coastal management, State Project Reports (SPRs), cost tables, MoAs, MoUs, agreements, Environment & Social Assessment (E&SA) and Environment & Social plans. The consultant will also understand various processes, guidelines and reports developed in the project including ICZM plan guidelines, report on ESAs, mangrove and coral valuations, among other documents. The consultant will develop a clear understanding of the four components under the project, including ICZM Planning and pilot investments in states. Other aspects of the project like institutional and financial arrangements and manuals created, legal framework made, bid documents issued, procurement carried out, models and processes put in place till date will also be understood. The consultant will develop a clear understanding of the project's objectives and results framework developed Annexure-II, which will be the basis for evaluation of the project.
8. The consultant will get familiarized with and understand the monitoring process employed by the NPMU, SPMUs and PEAs including the quarterly reporting process and templates created to monitor the project. The consultant will also familiarise themselves with annual action plans created by NPMUs and SPMUs to understand the percentage of activities that need to be completed in the project for the first year and years to follow.
9. **Review of baseline:** Baseline for Project Outcome Indicators has been identified in Annex II of this document. Baseline for all indicators in terms of ICZM capacity is defined as either 'not applicable or zero' apart from that for 'knowledge benchmarks'. Some project work may have commenced when this assignment is commissioned, the consultant will accordingly review and revise these figures at the time of start of assignment by collating baseline of site conditions for the individual activities/ investments of the four project components through available data, reports and discussions with PEAs, SPMUs and NPMU. In case the available data is inadequate to establish baseline, the consultant will carry out field surveys and collate information from other sources. Baseline for technical knowledge developed through the project will be collated as described in paragraph 14.

10. **Review and refining of Institutional Benchmarks for monitoring:** The NDPR and PAD outlines institutional benchmarks for the first Project Outcome Indicator (POI) “Existence of an appropriate national institutional structure for guiding and coordinating implementation of ICZM approaches” (See Annex III.) The existence of such an institutional structure consists of multiple elements, which provide a verifiable basis for existence of such a structure, these elements have been termed as ‘institutional benchmarks’ in the PAD. The national institutional structure for ICZM is envisaged to be completed by setting up 4 institutional bodies namely –, National Coastal Zone Management Authority, National Centre for Sustainable Coastal Zone Management and State Coastal Zone Management Authorities and their functioning.
11. The consultant will assess if these benchmarks fulfill the outcome indicator, are complete and can verify the setting up and functioning of the 4 national bodies. The consultant will refine and accordingly revise or add to the provided benchmarks to measure and monitor this indicator. The revised benchmarks will be used for monitoring by the NPMU. Evaluation measures for this POI will be developed by the consultant on the basis of these revised benchmarks as part of this assignment as described in paragraph 15.
12. **Review and refining of Knowledge Benchmarks:** Key intervention in the project are establishment of Society of Integrated Coastal Management (SICOM) as National Project Management Unit (NPMU) to support Ministry of Environment and Forests (MoEF) to implement CRZ and coastal management issues in India and a National Centre for Sustainable Coastal Management and a series of related services that are intended to improve India’s technical knowledge base to satisfy the first PDO of building national capacity. The consultant will assist in development of a series of Knowledge Benchmarks (KBs) that will be used to **monitor & evaluate** the progress of POI2 that reads as - ‘Knowledge Benchmarks are shown to be of high value to end users of knowledge services. These KBs together, constitute an input to the Project Outcome Indicator 2’. Annex IV provides a list of KBs developed during project preparation. In principle, the KBs will be of three general types -
- Output KBs (maximum 3): These focus on simple indicators of outputs from knowledge institutions in the network (including the National Centre for Sustainable Coastal Management). These will be monitored to measure technical knowledge development.
 - Implementation Impact KBs (minimum 4): These focus on end-user perceptions, from the perspective of stakeholders involved in the implementation of the ICZM approach, of the quality and usefulness of various knowledge services. Assessing the quality and usefulness of the implementation impacts mainly relate to evaluation of technical knowledge developed at the end-user level.
 - Policy Impact KBs (minimum 1): These focus on end-user perceptions, from the perspective of decision-makers involved in formulating coastal zone policy, of the quality and usefulness of various knowledge services. Assessing the quality and usefulness of policy impact KBs mainly relate to evaluation of technical knowledge developed at the policy level.
13. The consultant will test up to ten of these KBs through baseline studies. After the baseline work has been completed, the consultant may make recommendations for adjustments to the definition of KBs or to the number of KBs, i.e., aid in elaboration of KBs. The consultant will carry out the following tasks for elaboration of KBs and baseline development of technical knowledge in India through a survey instrument (the survey instrument will be further used for M&E):
- i. Elaboration of KBs: The consultant will further elaborate the (maximum 10) KBs given in Annex IV, to identify the scope and scale of each KB. Primarily the Implementation and Policy Impact Indicators will be elaborated and monitored through a survey instrument. The consultant will develop a sample frame for the survey, which will outline the total size of survey, the institutions, stakeholders, and individuals to be surveyed. The output from this task will be a fuller description of each KB, and a recommended sample frame for the survey.

- ii. Survey Instrument Design and Pre-testing: The consultant will develop a survey using the above sample frame (in the form of a questionnaire) for the Impact KBs, and carry out a pre-testing of the questionnaire on an appropriately selected small focus group. The output of this Task will be a final Survey Instrument, informed by the pre-testing process and feedback from borrower and World Bank.
- iii. Baseline Survey: This task will involve the following:
 - The consultant will execute the survey as well as collect data regarding the Output KBs to develop baseline.
 - The consultant will analyse the survey data to generate a Baseline Evaluation Report summarizing the baseline condition of all KBs at the beginning of the ICZM project.
 - In addition, the consultants will include a short Diagnostics Report that provides an assessment of whether the chosen KBs will adequately reflect progress on the PDO on the basis of the survey carried out. If there are weaknesses found in the KBs during collection of baseline, the Diagnostics Report may make recommendations to the World Bank and the Government of India to modify either the technical definition or total number of KBs or the type of knowledge services that may be of more importance and utility to the end users. If the recommendations are accepted, then the Survey Instrument will be modified accordingly.

14. Evaluation of the entire ICZM Project: The consultant will carry out evaluation of all stages of the project implementation through a designed and time-based evaluation process. Evaluation will aim to satisfy the results framework and National scope and vision on ICZM project and all project elements being monitored by the borrower under the quarterly monitoring process. In particular, the consultant will carry out the evaluation to answer the following specific questions and project elements at the minimum:

- a) *Are all project activities and investments being implemented effectively and efficiently? To satisfy this, quality, effectiveness¹, and efficiency² of implementation of all national and state level project activities and investments under the four project components, as per the planned ICZM approach including implementation of environment and social measures in the project activities will be evaluated. Assessment of sustainability and replicability of the investments will be carried out once assets are in place including operations and maintenance and sustainability of institutions created. The consultant will evaluate all project components and investments including the ICZM planning process and formulated plans for the three states; the actual outputs achieved at the national and state levels – time, expertise and cost taken to complete these; and development and improvement of coastal institutions and technical knowledge.*
- b) *Is the results framework of the project being met through effective progress and achievements in the projects? Are the major achievements of the project in line with stated outcomes and intended results? To satisfy this, efficacy³ of achievement of outcomes of the project's results framework will be evaluated. The consultant will provide a systematic assessment of reasons for efficient progress on achieving or not achieving the planned Results Framework. Evaluation results from (a) above will provide input to this. This assessment will include causal assessments of what has*

¹ Effectiveness here refers to the extent to which an activity or investment is completed or expected to be completed efficiently.

² Efficiency here refers to how economically resources and inputs are used to achieve the project's objective or activity including – fund utilisation & cost effectiveness, e.g., unit rate norms, least cost and comparisons; and FIRR & EIRR; expertise, time, etc.

³ Efficacy here refers to the extent to which project objectives of the results framework are achieved efficiently.

led to the current achievements and if these are aligned to the stated outcomes and the likelihood of future achievements.

- c) *Are all project management elements like financial disbursement and spend, HR processes, risk and dependency management, governance, accountability & legal aspects, communications, etc., aiding efficient and transparent project delivery? To satisfy this, quality, efficiency and transparency of all project management processes followed will be assessed. The assessment will include financial disbursement, spending and processes followed by the borrower at national and state levels and their alignment with the institutional mechanism developed for ICZM project. . The consultant will assess if the financial spend is in line with spending plan or the project's cost model and to what extent resources are being used economically to deliver the project. HR and recruitment processes followed in the project and their alignment to the HR model put in place within the NPMU; management and mitigation of risks anticipated and encountered in the project and their handling by the responsible agencies; implementation of appropriate legal measures and accountability of governance, internal and external communications, its effectiveness and alignment with the communication strategy and action plan will be evaluated among other project management elements.*

- d) *Is the monitoring being carried out efficiently and as planned? Is the data generated used to inform annual plans and to improve the monitoring system? To satisfy this, process of monitoring by borrower and its quality assurance including efficiency will be evaluated. Apart from this, the consultant will assess if monitoring data is being collected as planned, stored and used to inform annual action plans through the reporting and MIS systems. The consultant will suggest improvements and changes to the monitoring process based on the analysis and feedback.*

- e) *Are Annual Action Plans efficient and are these implemented satisfactorily? Are plans being used, implemented and adapted using monitoring & evaluation information as necessary? To satisfy this, the Annual Action Plans created by the NPMU and SPMUs to meet targets given in the results framework and their implementation will be assessed. Information generated by evaluation will inform the formation new plans.*

- f) *Are the Project Development Objectives (PDOs) and project components still valid at mid-term and end-of-term of project in relation to India's country level needs and priorities? To satisfy this, the consultant will evaluate the environmental, social, legal and political context, among other aspects, at the time of mid-term evaluation of the project referring back to the context at project preparation stage and evaluate the validity of the PDOs at this stage and suggest if there is a need to revise the PDOs. Revision of PDOs will be based on percentage of targets met. Suggestions to revise the PDOs may be made if insufficient or on the other hand more than sufficient targets have been met. The project activities and investments planned to meet the PDOs will also be individually evaluated and their validity based on implementation progress, changes in borrower or community requirements, risks and roadblocks faced will be evaluated. Reasons for changes made previously to outputs funded will be documented and suggestions to revisions of project components will be made as part of mid-term evaluation. Sustainability and replicability of investments completed by mid-term will also be evaluated. End-of-term evaluation will provide an overall assessment on the relevance of the PDOs throughout the project life-cycle, documenting reasons for changes brought in them at any stage and the future relevance of the completed PDO activities to the development or fulfillment of the country's needs and priorities on the ICZM approach along with evaluation of sustainability and replicability of PDOs.*

- g) *Are the institutional and implementation arrangements sound and effective? To what extent do the developed institutions impact on and aid in improving the ability of the country to make better use of its resources?* The primary institutional arrangements put in place under the project in the country to execute the project will be evaluated including their competency, relevance and sustainability to carry the project forward, and suggestions for changes will be made if required. Assessment of how institutional arrangements have aided efficient project implementation will be made annually. The mid-term evaluation will consolidate the reasons for the presence of sound and effective institutional arrangements or the opposite and provide suggestion for changes based on analysis of functioning competency, relevance and effectiveness of these institutions. The end-of term evaluation will assess the sustainability of these institutions and assess the long-term impact it will have on improving the India's ability to implement ICZM approaches and plans.
- h) *Are all environmental and social safeguards triggered in the project adequately managed, mitigated? Are social aspects of gender, inclusion, social accounting, involuntary resettlement and indigenous people adequately addressed?* Environmental and social surveys and audits will be carried out to evaluate the quality, causal analysis, satisfactory or unsatisfactory implementation of management plans and safeguards, unintended positive or negative impacts and lessons learnt from investments using the developed environment and social management plans and E&SA developed.
- i) *Was the economic and financial analyses undertaken at the start of the Project valid? Has the Project overestimated or underestimated the economic benefits and financial returns when conceptualized. Based on the re-examination, what lessons are learnt? Are the sub-components and sub-activities mentioned in NDPR / SDPRs are implemented accordingly?*
- j) *Do the project benefits reach targeted beneficiaries?* Assessment of direct and indirect project beneficiaries, their numbers will be carried out annually, at mid-term and end-of term of project to ensure adequate numbers and targeted groups are benefitting from project investments through consultations, beneficiary surveys and by an economic analysis.
- k) *What are the reasons for failures in the project? What are the reasons for exceptional experiences and successes? Has the project yielded any unforeseen positive or negative impacts?* The consultant will identify and provide analysis and causes of failures, exceptional experiences and successes in the project to date, explaining why they have occurred through case-studies, stories & best practices. Evaluation will include causal assessments, inquiries, identification of risks, roadblocks and externalities that did not allow the project to progress as planned and how these were tackled or solved. In cases where achievements have been more than anticipated, the consultant will provide reasons for the same and will document lessons and good practices.
- l) *What are the overall lessons learnt from the evaluation of pilot investments on the ICZM planning and approach for the country?* Eventually the evaluation process will collate all generated and documented lessons on the ICZM process and approach through the pilot investments and activities carried out in the ICZMP to aid future roll out of the ICZM approach at the national level in India.
15. To carry out the ICZMP's evaluation to satisfy the above questions and described elements, the consultant will complete the following tasks while complementing the monitoring process of the project:
- i. Defining principles of evaluation at the outset: The consultant will clearly define the principles for the design of the evaluation process. The consultant will include the principle of complementarity

with monitoring, allowing evaluation to answer questions generated through monitoring information and the reverse, where evaluation information will influence monitoring processes or generate new domains for monitoring. The consultant will ensure that evaluation methods are formulated on evidence based approaches and principles, which will involve consultative and participatory tools to evaluate implementation of the project activities. Principles of objectivity, transparency and confidentiality will be included in the evaluation process. The consultant will incorporate other evaluation principles as deemed fit based on the fundamentals of the project itself, the requirements of the NPMU and SPMUs, in agreement with the borrower and the World Bank.

- ii. Formulating the evaluation methodology for the project: The consultant will formulate a methodology for evaluation for the project. The approach to the methodology will – be time based and enable evaluation of all stages of the project at every 6months, yearly, mid-term & end of term; enable evaluation to satisfy objective (v) of the assignment; enable the questions & described elements in paragraph 15 to be answered and enable evaluation of all elements of the project being monitored; aid in assessment of quality, efficiency and effectiveness of the ICZMP outcome delivery, efficacy of delivery of objectives and assessment of validity & enabling revision of PDOs and project components; aid in assessing project beneficiaries; aid in provision of analysis and assessment of causes of successes, failure or delay; enable the borrower to carry out on-going corrections and adjustments through lessons learnt; enable assessment of sustainability and replicability of investments once assets are created; enable evaluation of knowledge and institutions developed and their sustainability & usefulness and thereby improved capability of the country on implementing ICZM approaches in future; and provide overall lessons to implement ICZM approaches.

The consultant may develop one evaluation methodology for the entire project or approach the development of the methodology differently by producing several methodologies that form a comprehensive whole, for the given PDOs or POIs depending upon feasibility and ease of execution. At the minimum, the consultant will specify a separate, clear methodology to evaluate the ICZM planning process and the plans developed through the project. Methodology to evaluate institutions developed and monitor & evaluate technical knowledge developed through the project to satisfy the POI 1&2 will also be separately provided. The consultant will incorporate flexibility within the methodology developed, so that lessons from project evaluation can influence the assignment's implementation positively through changes in methodology if required over the course of the project implementation.

- iii. Defining evaluation measures or benchmarks for the entire ICZMP: The consultant will define adequate number of evaluation measures or benchmarks for the entire ICZM Project, which will be aligned with all PDOs, Intermediate Outcomes and Outcome Indicators of the Results Framework. The earlier modified Institutional Benchmarks may be used by the consultant to develop Institutional Evaluation Measures/ Benchmarks. Evaluation measures/ benchmarks for technical knowledge development (POI2) will be refined as part of the process of elaborating KBs as given in paragraph 12 & 13. The environmental and social evaluation measures relating to safeguards triggered by the project for national & state level pilot investments will be assessed and redefined by the consultant, these will be used as part of overall project evaluation measures (see Annex V).

Ultimately, the consultant will produce a clear, specific, measurable and relevant set of evaluation measures or benchmarks for the entire ICZMP that will be in accordance with the results framework, enabling the answering of all the questions posed and details outlined above and enabling assessment of effectiveness/ efficacy & efficiency of all elements and investments of the project being monitored.

- iv. Developing evaluation tools and methods: Based on the agreed principles of evaluation and the methodology, the consultant will develop appropriate tools to carry out evaluation, for all measures or benchmarks developed. Tools developed by the consultant will aim to measure all evaluable aspects of project implementation. The consultant will also clearly specify the methods and tools that will be utilized to carry out evaluation at different stages of the project and if there will be any structural variations within these at the different times of execution.

Evaluation tools can include quantitative and qualitative assessment tools, evidence-based studies & surveys, participatory surveys and questionnaires, audits, consultations, site visits and technical inspections, analysis of provided monitoring information among others and as required for each evaluation measure or benchmark. Sustainability and replicability will be assessed for all investments by assessments of Operations & Maintenance arrangements, using tools like impressions and interviews with target groups, partners, government, etc. on assets created, their usefulness and effective functioning, once the assets are in place.

The consultant will identify critical project activities that have high reputational risk in consultation with the borrower and the World Bank by formulating an adequate process for rating the importance of project activities. The consultant will ensure that evaluation measures or benchmarks for critical activities or investments are adequately validated through use of mechanisms like triangulation in surveys and evidence collected.

- v. Carrying out project evaluation, M&E of knowledge developed and evaluation reporting:
The consultant will carry out M&E of knowledge developed by re-executing the modified end-user survey instrument (see paragraph 13) and by collecting output data in years 2 and 4 of the project, for all KBs. A third M&E will be carried out at project closing for knowledge developed. The output KBs will be monitored directly as outputs of various institutions while impact KBs will be evaluated in response to the end-user survey.

The consultant will ensure that knowledge accumulated through evaluation is fed back into operational learning process through an evaluation reporting system. All evaluation reports will provide SICOM – MoEF and the World Bank.. On the basis of the methodology developed and with reference to the relevant evaluation measures or benchmarks to answer questions posed in para 15, the consultant will evaluate the project for quarterly and a consolidated report at the end of the project. using the tools defined providing the following reports:

First Quarterly report will aim to present evidenced, investigative and diagnostic information on quality, causes of effective and efficient progress of project implementation within the given time frame.. The reports will aim to present information for all evaluation measures developed for the project's results framework and the relevant questions & related elements given in paragraph 14 providing suggestion for changes.

A mid-term evaluation report will be provided to provide evidenced, investigative and diagnostic information on progress over the 7 years on quality, efficiency and efficacy of implementation, assessments of beneficiaries, enumerating lessons and changes brought in the implementation process by the aid of the evaluation information. In cases, where certain investments are completed within 7 years, assessments of replicability and sustainability will also be provided. Information will be provided on relevance and revision or restructuring, if needed, of PDOs and project components as well as the functioning competency, relevance and effectiveness institutional arrangements with suggestions for changes.

The final evaluation report will provide collated and comprehensive information on sustainability and replicability of the pilot investments apart from evidenced, investigative and diagnostic

information progress on quality, efficiency and efficacy of the project implementation. This report will provide information on overall assessment of completion, national level relevance, future sustainability of PDOs and project components at end-of project term. The report will contain financial and economic analysis of project and assessment of beneficiaries. This report will also provide information on the sustainability of national level institutions developed within the Gol and the extent to which these enhance the country's ability to undertake coastal zone management using an integrated approach. This aspect will be further evaluated and strengthened through the level, quality, usability, satisfaction, attitudinal changes brought in by knowledge developed through the project. Overall lessons collated for the entire ICZM approach learnt through the implementation of pilot investments in the project will also be enumerated.

The consultant will also help to evaluate the DPRs / proposals prepared for Phase –II of the ICZM Project and will also provide suggestions / comments. Tenure of the consultancy project may be extended for phase-II of the ICZM Project if required. The consultant will provide three printed copies of the evaluation reports at the end of each reporting period and one soft copy on a CD. The consultant will provide all data collected, photographic and video information collected, tools and questionnaires developed, results of questionnaires and surveys administered and any other background research carried out for the reports submitted.

Key Personnel:

Nos	Position	Key Qualifications	Nos	Man-months
1	Team leader-evaluation expert	Bachelor's degree in economics with a Masters degree in economics or management. 10 years of experience in monitoring & evaluating projects essential. At least 15 years of experience in leading evaluations of implementation of large scale projects and programs.	1	1 year
2.	ICZM specialist	Bachelors in environment sciences, engineering, architecture or planning with a masters or higher degree in coastal, regional or environmental planning or management. 15 years of experience in working on coastal management projects and programs. Experience of ICZM in developed countries essential.	1	six months
3.	Institutional development specialist	Masters or higher degree in political science, economics, public finance, public policy or administration. 15 years of experience in institutional development and design with at least 10 years of experience in leading institutional design and implementation programs essential.	1	six months

4.	Coastal knowledge development specialist	Masters or higher degree in coastal or marine sciences with at least 10 years of experience in creating or managing extensive and <i>integrated</i> knowledge base of marine and coastal resources.	1	six months
5.	Project & performance management specialist	Master degree in Project Management with at least 15 years of progressive experience in project management and 10 years of experience in formulating and leading large projects, in which - experience of World Bank related procurement and financial management, developing and assessing project performance evaluation indicators, recruitment & HR management, risk management and managing governance & accountability essential.	1	six months
6.	Environmental Economist	Masters or higher degree in economics or environmental management with at least 15 years of experience in carrying out economic and financial analysis of large scale projects essential. Experience of working at least 5 ICZM projects across the World essential.	1	3 months
7.	Environment specialist	Bachelors degree in engineering, or environmental sciences with masters or higher degree in environment management or planning with 15 years of experience in conducting environment and social assessments, audits and EIAs, at least 10 years of experience in leading environment management projects & audits of infrastructure projects.	1	3 months each
8.	Social Development and Livelihood Development specialist	Masters degree in social sciences with 15 years of experience in conducting social assessments and, at least 5 years of experience in leading livelihood development projects and in fisheries development programs.	1	Six months
9.	Field evaluation officers (SRF)	Masters degree in social sciences, environmental sciences, planning or management with at least 5	2	9 months

		years of experience in carrying out monitoring and evaluation surveys, quality assurance and assessments at field level for implementation of infrastructure projects essential. Knowledge of local language essential.		
10.	Field evaluation officers (JRF)	Masters degree in social sciences, environmental sciences, planning or management with at least 5 years of experience in carrying out monitoring and evaluation surveys, quality assurance and assessments at field level for implementation of infrastructure projects essential. Knowledge of local language essential.	4	9 months
11.	Support staff	As required		

Note: The consultant may provide for short-term specialists, who may be required for evaluation of specialized activities like coral transplantation, mangrove & shelterbelt plantation, geo-tube installation or green building construction as required.

Deliverables and Payment Schedule:

Deliverables	Time Frame (from start date)	Payment (% of consultancy assignment)
Submission of inception report: The consultant will provide an inception report that cover tasks under paragraphs 7 & 8 providing brief understanding of the ICZM project and its processes, work plan for implementing this assignment and CVs of key personnel designated.	1 week	5%
Submission of interim report that will cover: refined institutional benchmarks as given in para 10 & 11; refined knowledge benchmarks with baseline established for knowledge as given in para 12 & 13; defined evaluation principles, developed evaluation methodology, measures/ benchmarks, tools & methods as given in para 15(i), 15(ii), 15 (iii) & 15(iv) .	1 months	5%
On first 3 monthly submission as given in para 15 (v).	3 months	20%
Submission of second 3 monthly report	6 months	20%
Submission of third 3 monthly report para 15 (v).	9 months	20%
Submission of fourth 3 monthly report & consolidated final report para 15 (v).	12 months	30%

Annex- I Details of project components and activities.

Component I – National ICZM capacity building

This component will include (i) mapping delineation and demarcation of hazard lines, (ii) Training and delineation of coastal sediment cells all along the mainland coast of India; (iii) mapping delineation and demarcation, as required, of the Ecologically Sensitive Areas (ESAs), also all along the mainland coast of India; (iv) capacity building of the MoEF as the secretariat for the National Coastal Zone Management Authority (NCZMA), and nation-wide training programme for ICZM; and (v) setting up and operationalisation of the new National Centre for Sustainable Coastal Management (NSCM) and (v) Society of Integrated Coastal Management (SICOM)

Component II – Piloting ICZM approaches in Gujarat

This component supports capacity building of the state level agencies and institutions, including preparation of an ICZM plan for the coastal sediment cell that includes the Gulf of Kutch (a stretch of 180km or 10 percent of Gujarat's coast). To complement the ICZM plan preparation, the component will support capacity building of the Gujarat State Forest and Environment Department, Gujarat State Pollution Control Board, Gujarat Ecological Educational and Research Foundation, Bhaskaracharya Institute of Space Applications and Geo-Informatics and any other relevant agencies. This component will also support pilot investments, all located in the GoK to complement the ICZM plan and capacity building sub-components including: (a) conservation & protection of coastal resources including mangroves and coastal shelterbelt plantation, coral reef regeneration, and establishment of marine resource information and conservation centre; (b) environment and pollution management by completing the sewerage system for Jamnagar City to prevent further degradation of coral reefs; and (c) livelihood security of coastal communities including eco-tourism and related livelihood improvement activities in the coastal villages within and outside forest areas. Project Management support will include staffing and operation of the State Project Management Unit (SPMU), establishing a grievance redressal system.

Component III – Piloting ICZM approaches in Orissa

This component includes capacity building of state level agencies and institutions, including preparation of an ICZM plan for the coastal sediment cells of stretches of Paradip-Dhamra and Gopalpur-Chilika, including a regional coastal process study. The project will involve capacity building of the Orissa's Forest and Environment Department, Orissa State Pollution Control Board, and Chilika Development Authority (for species and wetland research). The pilot investments in Orissa include: (a) conservation and protection of coastal resources including protection of Olive Ridley turtles and other aquatic wildlife; mangroves and shelterbelt plantation; conservation of archeological heritage, shoreline protection of Pentha village; (b) environment and pollution management by completing solid waste management for coastal town of Paradip ; and livelihood security of coastal communities including allied farming improvement support in 60 fishing villages on the periphery of Chilka lake and Gahirmata Wildlife Sanctuary; support to fishing groups in developing coir-making; and provision of cyclone shelters. Project management support similar to component II will also be provided.

Component IV- Piloting ICZM approaches in West Bengal

This component includes capacity building of the state level agencies and institutions, including preparation of the ICZM plan for the coastal sediment cells in the coastal areas of West Bengal. A capacity building sub-component will support the Environment Department, Calcutta University (for research on microbial biodiversity), and the Institute of Environmental Studies and Wetland Management. Pilot investments in West Bengal to complement the ICZM plan are planned in the two stretches of (i) Digha- Shankarpur and (ii) Sagar Island in Sundarbans. The pilot investments will include (a) conservation and protection of coastal resources including mangrove and coastal shelterbelt plantation, pilot works in shoreline protection for Digha beach; and rehabilitation of the marine aquarium at Digha; (b) environment and pollution management by completing the sewerage system for Digha; cleaning and environmental improvement of the Digha beach;; and distribution of grid electricity on Sagar Island; and (c) livelihood security of coastal communities in Sagar Island including support to CBO coordinated livelihood improvement activities; afforestation based livelihood improvement; promotion of small-scale tourism and eco-tourism activities; and provision of cyclone shelters in the coastal villages. Project management support will be similar to Gujarat Component.

Annex II: Results Framework and Monitoring for ICZMP

PDO	Project Outcome Indicators	Use of Project Outcome Information
To assist GoI in (i) building national capacity for implementation of comprehensive coastal management approach in the country, and (ii) piloting the integrated coastal zone management approach in states of Gujarat, Orissa and West Bengal	<ol style="list-style-type: none"> 1. Existence of an appropriate national institutional structure for guiding and coordinating implementation of ICZM approaches⁴ 2. “Knowledge Benchmarks”⁵ showing improvement according to end-users of knowledge services 3. Number of pilot ICZM activities demonstrating cross-sectoral and spatial integration completed 4. Number of other ICZM Plans initiated to replicate the lessons learnt 	<ul style="list-style-type: none"> - To measure progress on strengthening the institutional framework for guiding and coordinating ICZM in India. - To assess the impact of project interventions for integrated development and conservation of coastal zones in India.

Intermediate Outcomes	Intermediate Outcome Indicators	Use of Intermediate Outcome Monitoring
<p>Component One (National)</p> <ul style="list-style-type: none"> - National Capacity Built for guiding and coordinating ICZM - Coastal Management Areas Demarcated and Verified 	<p>Component One:</p> <ol style="list-style-type: none"> 1. ‘<i>Plan for institutional structure at National, State and District level supportive of integrated coastal zone management prepared and submitted to State Government for approval (Yes/No)</i>’ 2. ‘<i>Skilled staff in ICZM planning and implementation at National level (Number)</i>’. The target is 75 3. ICZM knowledge outputs generated by National Center for Sustainable Coastal Management (<i>Number</i>). Target is 13 consisting of – 10 research papers peer reviewed and published in journals of international repute; 3 databases for planning baseline documents – viz. coastal/marine biodiversity network, National GHG emission, and coastal sediment cell delineation as benchmark with coastal erosion maps; and ICZM guidelines and protocols 4. Kilometer of mainland coastline for which coastal sediment cell, hazard line and ecologically sensitive areas mapped and 	<p>Component One:</p> <p>To measure progress; to record, discuss with clients and agree on corrective measures</p>

⁴ For detailed explanation of the institutional development indicator (a set of benchmarks), see Annex 3A.

⁵ For detailed explanation of knowledge development indicators (a set of benchmarks), see Annex 3B.

Intermediate Outcomes	Intermediate Outcome Indicators	Use of Intermediate Outcome Monitoring
	demarcated	
<p>Component Two (Gujarat): Gujarat state and other stakeholder's capacity built in implementing ICZM approaches</p>	<p>Component Two:</p> <p>1. <i>'ICZM plan for Gulf of Kachchh prepared using the designed participatory process, and submitted for approval to Government of Gujarat (Yes/No)'</i></p> <p>2' <i>Skilled staff in ICZM planning and implementation in Gujarat State (Number)'. Target is 20</i></p> <p>3. <i>'Pilot investment projects in Gujarat ICZM (Number). Target is 6:</i> sewerage and STP for Jamnagar; mangrove plantation; coral regeneration at Gulf of Kachhch; Pollution Control Board laboratory capacity enhancement for marine and coastal pollution; establishing CBOs/SHGs in 168 villages for livelihood improvements; and eco-tourism.</p> <p>4. <i>Core Indicator: Area restored or re/afforested (Ha. of mangroves). Target of 12,000 Ha. of mangrove plantations</i></p> <p>5. <i>Core Indicator: Industrial/municipal waste disposal capacity created under the project. Target of 1 million coastal population provided with sewerage with supporting waste water treatment of 80MLD of which 50-60 MLD potential for industrial recycling</i></p>	<p>Component Two:</p> <p>To measure progress; to record, discuss with clients and agree on corrective measures</p>

Intermediate Outcomes	Intermediate Outcome Indicators	Use of Intermediate Outcome Monitoring
<p>Component Three (Orissa): Orissa state and other stakeholder's capacity built in implementing ICZM approaches</p>	<p>Component Three:</p> <ol style="list-style-type: none"> 1. 'ICZM plan for Paradip-Dhamra and Gopalpur-Chilika prepared using the designed participatory process, and submitted to approval by Government of Odisha (Yes/No)' 2. 'Skilled staff in ICZM planning and implementation in Odisha State (Number)'. Target is 20. 3. 'Pilot investment projects in Odisha (10)': Capacity building of OPCB, and CDA; monitoring and surveillance infrastructure capacity enhancement of wildlife and forest division including research facilities in 5 locations including turtle and crocodile hatcheries established; conservation of 6 out of 8 coastal archeological and heritage sites; shoreline protection at Pentha village; 14 multi-purpose cyclone shelters; 140 Ha. mangrove plantation; 600 SHGs established with sustainable income; Eco-tourism at 4 locations involving coastal communities; and Integrated Solid Waste Management facility in Paradeep Municipality. 4. <i>Core Indicator. Coastline and freshwater under biodiversity protection (km)</i>. Target is 400 km. of Odisha coast brought under enhanced coastal and marine monitoring and surveillance to facilitate ecological protection of biodiversity areas 	<p>Component Three:</p> <p>To measure progress; to record, discuss with clients and agree on corrective measures</p>
<p>Component Four (West Bengal): West Bengal state and other stakeholder's capacity built in implementing ICZM approaches</p>	<p>Component Four:</p> <ol style="list-style-type: none"> 1. 'ICZM plan for West Bengal Coast prepared using the designed participatory process, and submitted for approval by Government of West Bengal'(Yes/No) 2. 'Skilled staff in ICZM planning and implementation in West Bengal State (Number)'. Target is 15. 3. 'Pilot investment projects in West Bengal (10)'. Capacity building of Kolkatta university and IESWM; Sewerage and storm water drainage system in Digha; Digha beach improvement including hawker relocation; Distribution of grid electricity in Sagar Island; 25 multi-purpose cyclone shelters; Eco-tourism infrastructure in Sagar Island; and Livelihood improvement for 	<p>Component Four:</p> <p>To measure progress; to record, discuss with clients and agree on corrective measures</p>

Intermediate Outcomes	Intermediate Outcome Indicators	Use of Intermediate Outcome Monitoring
	Sagar Island communities	

Notes on similarity of indicators for all three state level components (Components Two, Three and Four):

- (a) All states have a similar set of indicators as all are essentially starting from Baseline conditions of “Not Applicable” or “Zero” in terms of ICZM capacity. The project seeks to monitor similar institutional indicators in each state.
- (b) Target values for state capacity building plans reflect a slow build-up corresponding to potential start-up delays but achievement of 75 percent of funding targets by mid-term.
- (c) The number and type of potential pilot investment projects varies by state and the targets also thus vary. These investments are described in greater detail in PAD Annex 4. No pilot is in fact expected to be fully functioning efficiently before end of Year 3, although ISRs will also track potential intermediate steps (planned, implemented). In each state, a target of 2 pilots is expected to be operating efficiently by end of Year 3, with gradual progression thereafter. Note that full “efficient functioning” is not expected by all pilots by end of project because some may still at that stage be in different stages of implementation. Through this means, Orissa and West Bengal in effect have 67 percent of their potential projects functioning (6 of 9) while in Gujarat some 85 percent will be functioning by end of project (5 of 7). This in effect sets the performance target for Gujarat higher, as it also generally has intrinsically more local capacity.

Annex III: Provisional Institutional Benchmarks

The following provisional benchmarks have been defined during project preparation:

- (IB-1a) Existence of a National Board or similar entity for Coastal Zone Management ("CZM Board"). The CZM Board has the general function of guiding National CZM policy through MoEF. It is composed of representatives from various organizations and technical experts. Its existence is recognized upon promulgation of any legislation that refers to this body (or any such body with equivalent function and composition). Current Status: CZM Board has been proposed by MoEF. However, the institutional benchmark is irrelevant at present, since the Government has given the responsibilities to the NCZMA.
- (IB-1b) Functioning of CZM Board. The CZM Board will be regarded as functioning if it has sufficient numbers appointed to form a quorum, and if at least [# TBD] meetings occur on a [yearly/quarterly] basis.
- (IB-2a) Existence of a National Coastal Zone Management Authority (NCZMA). The NCZMA has the general function of monitoring and enforcing compliance with the CRZ Notification. Its existence is recognized upon the formal appointment of the majority of its members and the convening of its first meeting after the new revised notification.
- (IB-2b) Functioning of NCZMA. The NCZMA will be regarded as functioning if it is meeting on a regular basis (IV times per year) to review proposals referring recommendations to MoEF.
- (IB-2c) Existence and functioning of SICOM to support MoEF in policy design, project development and decision support and to act as a secretariat for NCZMA.
- (IB-3a) Existence of a National Center for Sustainable Coastal Management (NCSCM). This benchmark will be fulfilled upon formal establishment and inauguration of the NCSCM as defined under this project. Its establishment includes appointment of all senior management positions within the organizational structure of the body, and at least six months of operation under the guidance of this management team.
- (IB-3a) Functioning of the NCSCM. This benchmark will be satisfied upon submittal of a detailed work program which would identify its knowledge activities, and capacity building activities for the first twelve months of operation.
- (IB-4) Functioning of State Coastal Zone Management Authorities (SCZMAs). SCZMAs have already been formally established in a number of states, including the focal states of Gujarat, Orissa, and West Bengal which are beneficiaries of this project. This benchmark will be satisfied if and only if these three states are routinely providing input to and interacting with NCZMA through any of the following means: (i) examining proposals in CRZ areas and making recommendations to NCZMA; (ii) reviewing and taking actions on alleged violations of CRZ Notification; (iii) identifying ecologically sensitive and economically important areas in CRZ; and (iv) providing annual reports to NCZMA.

Targets

The target for the overall indicator is to have the entire structure in place/functioning by mid-term (Year 3) and that it continues to function in subsequent years. Note that lapses may be possible if the IBs associated with on-going function (IB-1b, IB-2b, IB-4) are not achieved.

Annex IV: Provisional Knowledge Benchmarks

A provisional listing of KBs has been developed during project preparation. In principle, the KBs will be of three general types:

- Output KBs (maximum 3): These focus on simple indicators of outputs from knowledge institutions in the network (including the SICOM, SPMUs and National Center for Sustainable Coastal Management)
- Implementation Impact KBs (minimum 4): These focus on end-user perceptions, from the perspective of stakeholders involved in the implementation of the ICZM approach, of the quality and usefulness of various knowledge services.
- Policy Impact KBs (minimum 1): These focus on end-user perceptions, from the perspective of decision-makers involved in formulating coastal zone policy, of the quality and usefulness of various knowledge services.

Output KBs: The following KBs are raw measures of various services or achievements that are directly generated by key institutions within the network.

- (KB-1a). Total publications (all India) submitted to Peer Reviewed Journals relating to ICZM
- (KB-1b). Gaps (all India) in trained and qualified practitioners in ICZM (follow up gap analysis recently completed in October 2009)
- (KB-1c). Total number of reports from monitoring and evaluation of coastal zone management projects/programs in India, and national/international best practices.

Implementation Impact KBs: The following are reflected by the results of a survey instrument directed to stakeholders involved in ICZM implementation.

- (KB-2a). Types of services available for ICZM planning and implementation that were found satisfactory by the national level ministries and institutions, and how these services were used.
- (KB-2b). Types of services available for ICZM planning and implementation that were found satisfactory by the state level ministries and institutions (includes municipalities), and how these services were used.
- (KB-2c). Types of services available for ICZM planning and implementation that were found satisfactory by non-governmental stakeholders (including local community organizations, national and international NGOs, and private sector), and how these services were used.
- (KB-2d). Satisfaction in academic and research circles with quality and availability of basic data and information for conducting research and analysis on coastal zone management issues
- (KB-2e). Aggregate satisfaction (all stakeholders) with amount of funding available to conduct research and studies that are required for ICZM planning

Policy Impact KBs. The following are reflected by the results of a survey instrument direct to decision-makers involved in coastal zone policy.

- (KB-3a). Attitude of national level policy makers on usefulness of in-country knowledge resources, what knowledge resources informed their decision-making
- (KB-3b). Attitude of state level policy makers on usefulness of in-country knowledge resources, and what knowledge resources informed their decision-making.

Annex V: Evaluation measures developed for Environment & Social management of project activities.

National Component
Hazard Line mapping
<ol style="list-style-type: none"> 1. Assess effectiveness or ineffectiveness of communication & correct knowledge around hazard line in reducing environment & social impacts. 2. Evaluate the reasons & benefits of acquiring land for hazard line markers, if any acquisition reported.
Mapping, Delineation and Demarcation of Hazard Line all along the mainland coast
<ol style="list-style-type: none"> 1. Causal analysis of both increase and decrease in threat to the ecosystems of the ESAs on designation. 2. Analysis of positive or negative change in livelihoods of communities within the ESA due to designation. 3. Evaluate and document lessons learnt on environmental & social changes brought about by ESA designation and offer recommendations for future implementation
Mapping, delineation and demarcation of Coastal Sediment Cells all along the mainland coast
<ol style="list-style-type: none"> 1. Assessment of positive or negative environmental changes along shoreline due to implemented coastal protection measures based on knowledge of Sediment cells. 2. Evaluation of env changes due to removal of engineering measures that are in violation of SMP. 3. Time based assessment of environmental changes along shoreline of sediment cells that lie in two different states and require protection measures. 4. Evaluate and document lessons learnt on environmental changes to shoreline by implementing SMPs & coastal protection measures and offer recommendations for future implementation
Setting up of SICOM to plan and coordinate MoEF and NCZMA
<ol style="list-style-type: none"> 1. To plan and coordinate sustainable coastal management in India by supporting policy guidance's and project development mechanisms 2. Supporting in preparation of legislations, National agenda development, project development related to pollution abatement, plantation and participatory management of mangroves, coral reef etc.
Setting up and operation of the new National Centre for Sustainable Coastal Management at Chennai
<ol style="list-style-type: none"> 1. Independent assessment of the design of the green building and green management measures. 2. Causal analysis of satisfactory or unsatisfactory implementation of green building measures and other env & social measures during construction of building. 3. Evaluate and document lessons learnt and offer recommendations to implement green buildings.
Gujarat Component
ICZM planning for Gulf of Kutch
<p>E1: Assess quality and robustness of env and social measures and safeguards in background documents like ToRs, guidelines, processes for ICZM plan and analyse reasons for unsatisfactory quality or non-existence of env & soc safeguards in these documents.</p> <p>E2: Analyse compliance of ICZM plan with all env & soc management measures and safeguards in the given guidelines and ToR, assess reasons for non-compliance.</p> <p>E3: Assess effectiveness of implementation of stakeholder engagement, consultations, communications and grievance redressal systems -analysing causal contributions of these to both intended good and unintended poor results.</p> <p>E4. Evaluate and document lessons learnt and offer recommendations for improvement.</p>
Capacity building of GEER Applied Research on coral plantation techniques(GEER Foundation)
<ol style="list-style-type: none"> 1. Analysis of the results of implemented env management activities. 2. Causal analysis of satisfactory or unsatisfactory implementation of intended env and soc management activities in coral plantation. 3. Examination & exploration of unintended positive or negative results to marine ecology. 4. Evaluate and document lessons learnt and offer recommendations for improvement of env & soc measures in future transplantations by MNP.
Coral Reef regeneration by MNP- 1700 sqm /1000 sqm

<ol style="list-style-type: none"> 1. Analysis of the results of implemented env & soc management activities. 2. Causal analysis of satisfactory or unsatisfactory implementation of planned env and soc management activities in coral plantation. 3. Examination & exploration of unintended positive or negative results to marine ecology. 4. Evaluate and document lessons learnt and offer recommendations for improvement in env & soc measures incorporated in future transplantations by other states.
Mangrove & Shelterbed plantation by MNP- 6100ha
<ol style="list-style-type: none"> 1. Analysis of the results of implemented env & soc management activities. 2. Causal analysis of satisfactory or unsatisfactory implementation of intended env and soc management activities 3. Analysis of unintended adverse or positive environmental & social results from plantations. 4. Evaluate and document lessons learnt and offer recommendations for improvement in env & soc measures for future plantations.
Mangrove plantation on revenue land by GEC & capacity building of coastal communities- 10,000ha
<ol style="list-style-type: none"> 1. Analysis of the results of implemented env & soc management activities. 2. Causal analysis of satisfactory or unsatisfactory implementation of intended env and soc management activities 3. Analysis of unintended adverse or positive environmental & social results from plantations. 4. Evaluate and document lessons learnt and offer recommendations for improvement in env & soc measures for future plantations.
MRCI at Dwaraka by Tourism Dept/ MNP
<ol style="list-style-type: none"> 1. Analysis of the results of implemented env & soc management activities. 2. Causal analysis of satisfactory or unsatisfactory implementation of planned env and soc management activities in setting up of the MRCI. 3. Independent evaluation of the design of MRCI. 4. Examination of conservation of environmental attributes and exploration of unintended positive or negative results to these. 5. Evaluate and document lessons learnt and offer recommendations for improvement of env & soc measures to implement construction of buildings near coasts.
Environmental sanitation of Jamnagar city
<ol style="list-style-type: none"> 1. Analysis of the results of implemented env & soc management activities. 2. Causal analysis of satisfactory or unsatisfactory implementation of planned env and soc measures in laying the sewers. 3. Evaluation of the site design and enhancements proposed. 4. Examination of conservation of environmental attributes and exploration of unintended positive or negative results to these. 5. Evaluate and document lessons learnt and offer recommendations for improvement in construction.
Eco-tourism and livelihood improvement by MNP- coral & mangrove trails
<ol style="list-style-type: none"> 1. Analysis of the results of implemented env & soc management activities. 2. Causal analysis of satisfactory or unsatisfactory implementation of planned env and soc measures in construction of coral & mangrove trails. 3.
West Bengal Component
ICZM Planning for West Bengal coast
<p>E1: Assess quality and robustness of env and social measures and safeguards in background documents like ToRs, guidelines, processes for ICZM plan and analyse reasons for unsatisfactory quality or non-existence of env & soc safeguards in these documents.</p> <p>E2: Analyse compliance of ICZM plan with all env & soc management measures and safeguards in the given guidelines and ToR, assess reasons for non-compliance.</p> <p>E3: Assess effectiveness of implementation of stakeholder engagement, consultations, communications and grievance redressal systems -analysing causal contributions of these to both intended good and unintended poor results.</p> <p>E4. Evaluate and document lessons learnt and offer recommendations for improvement.</p>
Mangrove and bio-shield plantation by Forest Department.

<p>1. Analysis of the results of implemented env & soc management activities. 2. Causal analysis of satisfactory or unsatisfactory implementation of intended env and soc management activities. 3. Analysis of unintended adverse or positive environmental & social results from plantations. 4. Evaluate and document lessons learnt and offer recommendations for improvement in env & soc measures for future plantations.</p>
<p>Rehabilitation of the marine aquarium by ZSI</p>
<p>1. Analysis of the results of implemented env & soc management activities. 2. Causal analysis of satisfactory or unsatisfactory implementation of planned env and soc management activities in renovating the site. 3. Independent evaluation of the design of aquarium.</p>
<p>Completing Sewerage System at Digha by the Public Health Engg Department</p>
<p>1. Analysis of the results of implemented env & soc management activities. 2. Causal analysis of satisfactory or unsatisfactory implementation of planned env and soc measures in laying the sewers. 3. Evaluate and explore unintended environmental/ soc results. 4. Evaluate and document lessons learnt and offer recommendations for improvement.</p>
<p>Construction of STP - waste stabilisation pond method</p>
<p>1. Analysis of the results of implemented env & soc management activities. 2. Causal analysis of satisfactory or unsatisfactory implementation of planned env and soc management activities in setting up of the STP. 3. Evaluation of the site design and enhancements proposed. 4. Examination of conservation of environmental attributes (if any) and exploration of unintended positive or negative results to these. 5. Evaluate and document lessons learnt and offer recommendations for improvement in construction.</p>
<p>Cleaning, solid waste management and environmental improvement of the Digha-sankarpur beach by the DSDA.</p>
<p>1. Analysis of the results of implemented env & soc management activities. 2. Causal analysis of satisfactory or unsatisfactory implementation of planned env and soc measures in cleaning Digha-Sankarpur beach. 3. Evaluate and explore unintended environmental/ soc results. 4. Evaluate and document lessons learnt and offer recommendations for improvement.</p>
<p>Landfill site development</p>
<p>1. Analysis of the results of implemented env & soc management activities. 2. Causal analysis of satisfactory or unsatisfactory implementation of planned env and soc management activities in setting up of the facility. 3. Evaluate and document lessons learnt and offer recommendations for improvement in env & soc measures while constructing landfills.</p>
<p>Developing drainage system of storm water & phytoremediation tanks at Digha by DSDA</p>
<p>1. Analysis of the results of implemented env & soc management activities. 2. Causal analysis of satisfactory or unsatisfactory implementation of planned env and soc measures in laying the drains. 3. Evaluate and explore unintended environmental/ soc results. 4. Evaluate and document lessons learnt and offer recommendations for improvement.</p>
<p>Support to community livelihood through Eco-tourism at Sagar Island by the Sundarban Affairs Department (SAD)</p>
<p>1. Analysis of the results of implemented env & soc management activities. 2. Causal analysis of satisfactory or unsatisfactory implementation of planned env and soc management activities in setting up of the structure. 3. Evaluate and document lessons learnt and offer recommendations for improvements in env & soc mgt activities & shelter design.</p>
<p>Provision of cyclone shelters in Sunderban by the Disaster Management Department</p>
<p>1. Analysis of the results of implemented env & soc management activities. 2. Causal analysis of satisfactory or unsatisfactory implementation of planned env and soc management activities in setting up of the structures. 3. Independent evaluation of the design of shelters. 4. Evaluate and document lessons learnt and offer recommendations for improvements in env & soc</p>

mgt activities & shelter design.
Odhisha Component
ICZM Planning for Paradip-Dhamra and Chilika-Gopalpur coastal stretches in Odhisha
E1: Assess quality and robustness of env and social measures and safeguards in background documents like ToRs, guidelines, processes for ICZM plan and analyse reasons for unsatisfactory quality or non-existence of env & soc safeguards in these documents. E2: Analyse compliance of ICZM plan with all env & soc management measures and safeguards in the given guidelines and ToR, assess reasons for non-compliance. E3: Assess effectiveness of implementation of stakeholder engagement, consultations, communications and grievance redressal systems -analysing causal contributions of these to both intended good and unintended poor results. E4. Evaluate and document lessons learnt and offer recommendations for improvement.
Strengthening pollution monitoring capacity- constructing lab by OSPCB
Not needed
Shoreline protection at Pentha Village by shelterbed plantation and geotubes, WRD +FD
1. Analysis of the results of implemented env & soc management activities. 2. Causal analysis of satisfactory or unsatisfactory implementation of planned env and soc management activities. 3. Analysis of unintended adverse or positive environmental & social results from plantations. 4. Evaluate and document lessons learnt in implementing env & soc measures and offer recommendations for improvement in future plantations.
Geotubes at Pentha Beach
1. Analysis of the results of implemented env & soc management activities. 2. Causal analysis of satisfactory or unsatisfactory implementation of planned env and soc management activities in setting up of the geotubes. 3. Examination of conservation of environmental attributes and exploration of unintended positive or negative results to these. 4. Evaluate and document lessons learnt in implementing env & soc measures and offer recommendations for future.
Protection of aquatic wildlife by Wildlife Dept
Not needed
Conservation of Archaeological Heritage by Culture Dept.
1. Analysis of the results of implemented env & soc management activities. 2. Causal analysis of satisfactory or unsatisfactory implementation of planned env and soc management activities. 3. Examination of conservation of structures & documentation of unintended positive or negative results to these. 4. Causal analysis of improved community livelihoods in areas around the heritage sites. 5. Evaluate and document lessons learnt in implementing env & soc measures and offer recommendations for improvement.
Mangrove and Shelterbelt plantation by Wildlife Dept (WD).
1. Analysis of the results of implemented env & soc management activities. 2. Causal analysis of satisfactory or unsatisfactory implementation of planned env and soc management activities. 3. Analysis of unintended adverse or positive environmental & social results from plantations. 4. Evaluate and document lessons learnt on implementing env & soc measures and offer recommendations for improvement in future plantations.
Pollution Abatement at Paradip
1. Analysis of the results of implemented env & soc management activities. 2. Causal analysis of satisfactory or unsatisfactory implementation of planned env and soc management activities in setting up of the facility. 3. Evaluate and document lessons learnt and offer recommendations for improvement in env & soc measures while constructing landfills.

Livelihood Improvement for fishing groups through small scale tourism by OTDC at Chilika and Tampara
<ol style="list-style-type: none"> 1. Analysis of the results of implemented env & soc management activities. 2. Causal analysis of satisfactory or unsatisfactory implementation of planned env and soc management activities in setting up of the infrastructure. 3. Analysis of types of beneficiaries and change in livelihoods & incomes of community through developments. 4. Analysis of design of various complexes. 5. Evaluate and document lessons learnt and offer recommendations for improvement in env & soc mgt of small-scale construction.
Livelihood improvement support to fisher people by Fisheries Dept.
Not needed
Support to fisher groups for coir making by the directorate of handicrafts and cottage industries (DHCI)
Not needed
Biodiversity based eco-tourism and livelihood development by Wildlife dept.
<ol style="list-style-type: none"> 1. Analysis of the results of implemented env & soc management activities 2. Causal analysis of satisfactory or unsatisfactory implementation of env & soc measures in renovation and construction process of all sites by Wildlife Dept. 3. Evaluate and enumerate lessons on env measures for construction in forested areas.
Construction of Multi-purpose Cyclone Shelters in 14 villages by OSDMA
<ol style="list-style-type: none"> 1. Analysis of the results of implemented env & soc management activities. 2. Causal analysis of satisfactory or unsatisfactory implementation of planned env and soc management activities in setting up of the structures 3. Independent evaluation of the design of shelters. 4. Evaluate and document lessons learnt and offer recommendations for improvements in env & soc mgt activities & shelter design.