Terms of reference (ToRs) for the assessment of ecosystem services – livelihood linkage for integrated management of Bhitarkanika Ramsar site

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Assessment of ecosystem services – livelihood linkage for integrated management of Bhitarkanika Ramsar site, Odisha	**Project number/ cost centre: 16.9020.5.001.00**

List of abbreviations

AVB	General Terms and Conditions of Contract (AVB) for supplying services and work 2019
ToRs	Terms of reference(s)
MoEFCC	Ministry of Environment, Forest and Climate Change
CDA	Chilika Development Authority
WISA	Wetlands International South Asia
NPCA	National Plan for Conservation of Aquatic Ecosystems
CV	Curriculum Vitae
COVID-19	Corona Virus Disease, 2019

1. Context

1.1. Project Background

The MoEFCC, in partnership with the GIZ, is implementing a Technical Cooperation project "Wetlands management for biodiversity and climate protection" with funding support from the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) under the International Climate Initiative (IKI). The goal of the project is to strengthen the institutional framework and capacities for an ecosystem-based integrated management of wetlands of international importance (Ramsar sites) in India. The project is implemented in close cooperation with the NPCA of the MoEFCC.

The objective of this Project is that Wetlands of International Importance (3-4 Ramsar sites) in India are managed according to an ecosystem-based integrated management approach. Three main output areas define the implementation approach of the project:

1. Integrated management planning for 3-4 pilot Ramsar sites based on biodiversity, ecosystem services and climate change risks.
2. Capacity development of national, state and site level stakeholders for integrated wetland management.
3. Development of a wetland monitoring system, including an instrument to track management effectiveness.

Four Ramsar sites have been selected as pilot sites under the project: Pong and Renuka in Himachal Pradesh, Bhitarkanika in Odisha, and the Point Calimere in Tamil Nadu. In addition, the Wetland Research and Training Centre, Chilika Development Authority (CDA) has been identified as a resource centre for the project. The project would be implemented at these sites in partnership with the respective State Wetlands Authorities and site level management institutions. Wetlands International South Asia (WISA) will be a technical partner in project implementation.

1.2. Context of Assignment

Ecosystem-based management of wetlands requires basic knowledge of climate, topography, hydrology, ecology, ecosystem services and their inter-relationship. Equally important is the understanding of natural processes that govern the functioning of a wetland. Other important aspects are the socio-economic setting around the wetland, institutional framework and governance. This assignment focuses on assessing those features and processes that are necessary for ecosystem-based integrated management of wetlands. Such aspects are related to hydrology, ecosystem services, livelihoods and climate change which are seldom studied, and which require further assessments to aid the wetland managers with relevant information. Several processes occur at places beyond the wetland boundary which requires an assessment at the catchment level. Therefore, the assessment, where-ever required, should be done at two scales – 1) within the wetland boundary and 2) within the immediate catchment.

Since ecosystem-based management of wetlands is at a nascent stage in the four project sites, the assessment should be able to correspond to the existing knowledge and available resources of the wetland manager.

Bhitarkanika is located in the deltaic region of Brahmani and Baitarani rivers on the north eastern coast of India in Odisha. It represents one of the largest and most diverse mangrove ecosystems in the entire Indian coast. Bhitarkanika is a wildlife sanctuary of area 672 sq.km; includes a national park of area 145 sq. km, and shares the coast along with the Gahirmatha marine sanctuary. It is a mosaic of tidal rivers, creeks, riverine islands, coastal wetlands and inter-tidal zones. Unique biodiversity values of this wetland include the largest Olive Ridley turtle mass nesting beach in world; one of the largest heronry in Asia and contains the highest density of saltwater crocodile in India.

In terms of ecosystem services, the wetland supports a population of around 2,50,000 people in 410 villages; provides major livelihoods in the form of agriculture, fishing and brackish water aquaculture; and mangroves protect the area from devastating cyclones and tidal surges. The mangrove ecosystems have traditionally been managed by local populations for the production of fish, paddy, medicines, honey, tannins, fuel wood and construction materials. The entire fishing industry in the area that provides employment to local communities is dependent on the rivers and the coastal waters adjoining the mangrove forests. The area is an important source of commercial important fishes such as prawn and shrimp. Several plant species found in Bhitarkanika also provide direct employment to local communities, such as basket and rope making. The area harbours wild strains of paddy, that is tolerant of long duration saline inundation and has significant genetic research value for the staple rice-eating community of east coast of India. There has been rapid population rise on the periphery of the Protected Area due to settlers from other parts of the country. The wetland receives heavy anthropogenic pressure due to the large human as well as cattle population residing in and around the Ramsar site. Human-wildlife conflict is significant in the area and needs to be assessed in order to provide mitigating measures. For integrated management of Bhitarkanika wetland, it is imperative to understand inter-linkages between its ecosystem services and the associated livelihoods.

1.3. Objectives and Scope of Assignment

The objective of this assignment is to conduct an assessment of inter-linkages between livelihoods and ecosystem services provided by the wetland and recommend measures to improve livelihoods and sustaining ecosystem services. The assessment should identify key ecosystem services; major livelihoods that depend on the wetland; the changes in wetland characteristics that impact current livelihoods and the activities that negatively impact the wetland characteristics. The study should identify key stakeholders working within the area, their roles and responsibilities, and recommend an institutional arrangement for integrated management of Bhitarkanika Ramsar site. Since the site has various interest groups, the study should be able to develop a strategy for long-term engagement with all these groups, at local community as well as state-level.

Early engagement of stakeholders is crucial for effective wetland management. The study should be able to identify local bodies, resource persons and institutions for early engagement. It should recommend an institutional arrangement providing long-term engagement strategies with the community and other key stakeholders. Considering the vastness of Bhitarkanika, both in terms of its extent and population size, an assessment primarily based on participatory approaches is suggested. The assessment should be able to demonstrate the feasibility of participatory approach, in terms of human and financial resources, and time availability. The study should also take into account the impact of COVID-19 and assess the post-lockdown scenario in terms of changes in livelihoods, migration and natural resource use.

2. Tasks to be performed by the contractor

The contractor is responsible for providing the following services:

2.1. Socio-economic profile of Bhitarkanika Ramsar site

- Document and analyse trends of population, decadal population growth, age – sex structure, workforce characteristics, occupation (seasonality), migration (with focus on COVID-19) and income profile
- Identify and document the status of physical infrastructure within the Ramsar site, including water supply, drainage and sewerage, solid waste management, transportation, etc.
- Listing of ecosystem services in terms of provisioning, regulating, supporting and cultural services.

2.2. Dependence on the wetland

- List all livelihood and economic activities within the Ramsar site.
- Document number of people involved in the wetland-based livelihood activities, considering the seasonality. This should include, in addition to the major activities such as agriculture and fishing, other wetland dependent activities such as extraction of fuel wood, honey, medicines, tannins, raw materials for rope and basket making, etc.
- Document current status of tourism in Bhitarkanika, focussing on tourism depended livelihoods.
- Identify markets for wetland resources, considering seasonality
- Document cultural practices of the communities dependent on the wetland
- Identify sources of water and fuel for domestic purposes

2.3. Assessment of institutional arrangement

- Review of existing policies, plans and programmes, at national, state and district-level, related to the wetland, including eco-sensitive zone (ESZ)
- Existing legal and regulatory setup governing the activities within the Ramsar site
- Document local institutional arrangement impacting livelihoods/ wetland resource use. Identify community level organisations, NGOs, local institutions and resource persons for stakeholder engagement.

- Stakeholder analysis – assessment of interests, power, influence for state, district and community-level institutions
- Identify existing conflicts within different stakeholders
- Assess status of human-wildlife conflict – most impacted livelihoods, major species involved in conflict, drivers of conflict.

2.4. Assessment of inter-linkages between livelihoods and ecosystem services

- Trends in livelihood activities including change in cropping and fishing patterns, trends in livestock number and grazing area, aquaculture practices, tourism, etc.
- Changes in livelihood practices due to impact of COVID-19 and lockdown situation, focussing on change in dependence of people on natural resources.
- Prioritization of ecosystem services based on existing livelihoods, economic activities and protection from natural hazards
- Assessment of impact of current livelihood/ economic practices on the key wetland features (water quality, soil, mangroves, wildlife)
- Assessment of change in ecological characteristics of the wetland on livelihood activities
- Identification of synergies and conflicts between various livelihood/ economic activities

2.5. Recommendations

- Suggest measures to manage livelihood/ economic activities that have existing and potential detrimental impacts on the wetland ecology, focussing on agriculture and aquaculture
- Suggest measures for livelihood improvement through sustainable use of wetland resources, focussing on agriculture, aquaculture and tourism.
- Suggest green recovery measures for livelihoods impacted due to COVID-19.
- Suggest strategies to strengthen synergies and minimize conflicts between different livelihood activities
- Suggest measures to minimize human-wildlife conflict.
- Suggest an institutional arrangement for integrated management of the wetland.
- Recommend strategy for multi-stakeholder engagement for integrated management. This should be done by initiating early engagement with all the stakeholders at the community-level, local NGOs and other site-level institutions, line departments, institutions at the state-level and any other institution working within the Ramsar site. Also, recommend strategies to minimize conflicts between different stakeholders. The engagement strategy should be developed considering its long-term effect beyond the time period of the project.

Certain milestones, as laid out in the table below, are to be achieved by certain dates during the contract term, and at particular locations:

Milestone	**Deadline/place/person responsible (Tentative) – from signing of contract**
Submission of inception report and presentation (methodology, work plan, literature review, collation of existing data/ information)	2 weeks
Submission of primary field results	5 weeks
Submission and presentation of interim report including assessments and preliminary results	8 weeks
Stakeholder consultation workshop presenting assessment results and recommendations	10 weeks
Submission and presentation of draft report incorporating suggestions from stakeholders and experts	14 weeks
Submission of final report (incorporating recommendations)	16 weeks

Period of assignment: From September 2020 until January 2021.

The following report structure is suggested:

i. Executive summary highlighting the important findings of the assessment and key recommendations
ii. Introduction including a brief review of existing literature describing the inter-linkages between ecosystem services and livelihoods of Bhitarkanika Ramsar site
iii. Methodology followed for carrying out the assessment
iv. Analysis and results
    - Socio-economic characterisation of Bhitarkanika Ramsar site
    - Description of ecosystem services provided by the wetland
    - Institutional and policy framework impacting livelihoods and ecosystem services
    - Status and trends analysis - changes in livelihood/ economic activity pattern of Bhitarkanika Ramsar site
    - Assessment of inter-linkages between ecosystem services and livelihoods
    - Recommendations for improving livelihoods and sustaining ecosystem services, including green recovery measures for COVID-19 scenario.
v. Conclusions
vi. References
vii. Annexures, including field assessment reports

The contractor shall report to the team leader of the Wetlands project and work in close cooperation with the Office of Mangrove Forest Department, Wildlife, Rajnagar. GIZ

representative may also join the contractor during field visits. The field work for the assignment shall be coordinated with the forest department and GIZ.

3. Concept

In the bid, the bidder is required to show how the objectives defined in Chapter 2 are to be achieved, if applicable under consideration of further specific method-related requirements (technical-methodological concept). In addition, the bidder must describe the project management system for service provision.

Technical-methodological concept

Strategy: The bidder is required to consider the tasks to be performed with reference to the objectives of the services put out to tender (see Chapter 1). Following this, the bidder presents and justifies the strategy with which it intends to provide the services for which it is responsible (see Chapter 2).
The bidder is required to present the actors relevant for the services for which it is responsible and describe the **cooperation** with them.

The bidder is required to present and explain its approach to **steering** the measures with the project partners and its contribution to the results-based monitoring system.

The bidder is required to describe the key **processes** for the services for which it is responsible and create a schedule that describes how the services according to Chapter 2 are to be provided. In particular, the bidder is required to describe the necessary work steps and, if applicable, take account of the milestones and contributions of other actors in accordance with Chapter 2.

The bidder is required to describe its contribution to knowledge management for the partner and GIZ and promote scaling-up effects (**learning and innovation**).

Other specific requirements

- The assignment should be carried out in close cooperation with the site manager of Bhitarkanika Ramsar site. The assignment execution should follow the feedback mechanism with regular discussion and engagement of the contractor with GIZ and Odisha Forest Department to review and provide suggestions. For this purpose, the contractor would be available for discussions and meetings in Delhi/Odisha or over skype as and when required.
- Study should be primarily based on participatory approaches (PRA) including focussed group discussions, community dialogues and group meetings. Dependence on household surveys must be kept minimum and only done where felt necessary.
- Taking into account the current situation due to COVID-19, the impacts of lockdown and the corresponding changes in the field situation in the post-lockdown scenario, suitable approach/methodology and tools should be developed for the assessment.
- Preparation of methodology; assessments and recommendations should include field surveys, stakeholder interviews and review of secondary data and literature.

- Present the draft results at an expert meeting to get feedback on the proposed strategy
- Incorporate the experts' feedback into the final result

Project management of the contractor
The bidder is required to explain its approach for coordination with the GIZ project.

- The contractor is responsible for selecting, preparing, training and steering the experts (international and national, short and long term) assigned to perform the advisory tasks.
- The contractor makes available equipment and supplies (consumables) and assumes the associated operating and administrative costs.
- The contractor manages costs and expenditures, accounting processes and invoicing in line with the requirements of GIZ.
  The contractor reports regularly to GIZ in accordance with the AVB of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH from 2019

In derogation from GIZ AVB, the contractor makes contributions to reports to GIZ's commissioning party instead of submitting its own reports.

The bidder is required to draw up a **personnel assignment plan** with explanatory notes that lists all the experts proposed in the bid; the plan includes information on assignment dates (duration and expert days) and locations of the individual members of the team complete with the allocation of work steps as set out in the schedule.

Technical Backstopping
The bidder is required to describe its backstopping concept. The following services are part of the standard backstopping package, which (like ancillary personnel costs) must be factored into the fee schedules of the staff listed in the bid in accordance with section 5.4 of the AVB:

- Service-delivery control
- Managing adaptations to changing conditions
- Ensuring the flow of information between GIZ and field staff
- Contractor's responsibility for seconded personnel
- Process-oriented technical-conceptual steering of the consultancy inputs
- Securing the administrative conclusion of the project
- Ensuring compliance with reporting requirements
- Providing specialist support for the on-site team by staff at company headquarters
- Sharing the lessons learned by the contractor and leveraging the value of lessons learned on site

Eligibility Criteria for firms

The qualifying criteria for the firms/institutions/organisations applying for this is given as follows:

- Should be registered in India;

- Should have annual turnover of at least Euro 50,000;
- Should have present staff strength of 5 persons;
- Should have implemented reference project with a minimum value commission of Euro 5,000;
- Should have implemented at least one reference project in the field of livelihood and institutional assessment in rural India;
- Should have implemented at least one reference project in Odisha in the last three years
- Should have a wetland ecologist;
- Should have experience in conducting ecosystem services/ livelihood assessment;
- Should have at least 5 years of experience in ecosystem services/ livelihood assessment of coastal wetlands.
- Should have experience of implementing assignments with multi-disciplinary teams of experts
- Should have 5 years' experience in implementing assignments in east coast of India, especially Odisha
- Experience in implementing development projects
- Sub-contracting the assignment or its parts to other agencies is not permitted.

4. Personnel concept

The bidder is required to provide personnel who are suited to filling the positions described, on the basis of their CVs (see Chapter 7), the range of tasks involved and the required qualifications.

The below specified qualifications represent the requirements to reach the maximum number of points.

Team leader

Tasks of the team leader

- Development of methodology and execution of the assignment of the assignment
- Overall responsibility for the advisory packages of the contractor (quality and deadlines)
- Coordinating and ensuring communication with GIZ, partners and others involved in the project
- Personnel management, in particular identifying the need for short-term assignments within the available budget, as well as planning and steering assignments and supporting local and international short-term experts
- Regular reporting in accordance with deadlines

Qualifications of the team leader

- Education/training (2.1.1): University qualification (PhD or Master's) in Social sciences/ rural management from a reputed institute.
- Language (2.1.2): Good business language skills in English

- General professional experience (2.1.3): 7 - 10 years of professional experience in rural development and livelihood sector
- Specific professional experience (2.1.4): 3 years in topics of wetlands ecosystem services and linkages to livelihoods
- Leadership/management experience (2.1.5): 5 years of experience of managing similar assignments.
- Regional experience (2.1.6): 5 years of experience in projects in coastal areas of India, of which 2 years in projects in Odisha

Technical Expert 1 (Social Scientist)

Tasks of expert 1

- Assist the team leader in the following tasks:
  - Developing methodology for the assessment
  - Conduct and oversee field assessments including PRAs, focus group discussions and key informant interviews.
  - Data analysis, formulation of recommendations;
  - Report preparation

Qualifications of expert 1

- Education/training (2.2.1): Master's degree in social sciences/rural management or any other related field
- Language (2.2.2): English and Odiya (necessary for field work)
- General professional experience (2.2.3): Minimum 5 years of experience in working in rural development/ livelihood sector
- Specific professional experience (2.2.4): Well-versed with PRA exercises and socio-ecological assessments
- Regional experience (2.2.6): Minimum 3 years of working experience in Odisha or any other part of the east coast

Technical Expert 2 (Ecologist)

Tasks of expert 2

- Conduct and oversee field assessments including socio-ecological assessment
- Data analysis
- Report Preparation

Qualifications of Expert 2

- Education/training (2.2.1): Master's degree in ecology or socio-ecology or any other related field
- Language (2.2.2): English and Odiya (necessary for field work)
- General professional experience (2.2.3): 5 years of experience in conducting socio-ecological assessment
- Specific professional experience (2.2.4): Well-versed with wetland ecology
- Regional experience (2.2.6): 3-5 years of experience of working in Odisha
- Other (2.2.8): Well-versed with wetland dependent livelihoods.

Soft skills of team members

In addition to their specialist qualifications, the following qualifications are required of team members:

- Team skills
- Initiative
- Communication skills
- Sociocultural competence
- Efficient, partner- and client-focused working methods
- Interdisciplinary thinking

Short-term expert pool with minimum 5, maximum 7 members

Tasks of the short-term expert pool

Assist the team leader and technical expert in the following tasks:

- Data collation and preliminary analyses
- Field studies, data compilation and analysis
- Formulation of recommendations

Qualifications of the short-term expert pool

- Education/training (2.6.1): Experts with Master's in social sciences /rural management/ecology/ wetland ecology remote sensing/ GIS.
- Language (2.6.2): Good language skills in English and atleast 2 experts with good language skills in Odiya
- General professional experience (2.6.3): technical experts with at least 3 years of experience in ecosystem services/ livelihood assessments
- Specific professional experience (2.6.4) Experts with at least 2 years of experience in GIS-based mapping/ analysis for rural areas; working with Panchayat/ community-based organisations etc.
- Regional experience (2.6.5): 2 experts with at least 3 years of experience in Odisha

The bidder must provide a clear overview of all proposed short-term experts and their individual qualifications.

5. Costing requirements

Assignment of personnel

Team leader: Up to 40 expert days

Technical Experts 1 and 2: Up to 100 expert days total

Expert Pool including field investigators: Up to 450 days total

Travel
The bidder is required to calculate the travel by the specified experts and the experts it has proposed based on the places of performance stipulated in Chapter 2 and list the expenses separately by daily allowance, accommodation expenses, flight costs and other travel expenses.

Workshops, training
The contractor implements the stakeholder workshops at Odisha. In the current COVID-19 scenario, contractor should implement online meetings/ discussions where ever possible.

6. Inputs of GIZ or other actors

GIZ and Odisha forest department are expected to make the following available:

- Necessary communication to government department to facilitate the tasks outlined in the project
- Conceptual inputs and information related to livelihoods and ecosystem services of Bhitarkanika region as and when required

7. Requirements on the format of the bid

The structure of the bid must correspond to the structure of the ToRs. In particular, the detailed structure of the concept (Chapter 3) is to be organised in accordance with the positively weighted criteria in the assessment grid (not with zero). It must be legible (font size 11 or larger) and clearly formulated. The bid is drawn up in English (language).

The core proposal/bid shall not exceed 15 pages (excluding CVs & other supporting company documents; as mentioned in grid for assessing eligibility of firms).

The CVs of the personnel proposed in accordance with Chapter 4 of the ToRs must be submitted using the format specified in the terms and conditions for application. The individual CV shall not exceed 2 pages. The CVs must clearly show the position and job the proposed person held in the reference project and for how long. The CVs shall be submitted in English (language).

If one of the maximum page lengths is exceeded, the content appearing after the cut-off point will not be included in the assessment.

As the contract to be concluded is a contract for works, please offer a fixed lump sum price that covers all applicable costs (fees, travel expenses etc.). The price bid will be evaluated based on the specified lump sum price. For our internal costing and any further commissions, please also provide the daily rate which the prices are based on. A breakdown of days is not required.