

Neeranchal National Watershed Project

Terms of Reference for

Strategic Environmental and Social Assessment (SESA) Consultants

Background

The Department of Land Resources (DoLR) Government of India is currently preparing the World Bank supported Neeranchal National Watershed Development Project. Neeranchal is expected to positively influence the IWMP outcomes through technical and financial support for better delivery and impacts through improved planning approaches, capacity building, coordination and convergence, and supportive research and development. The main objectives of the IWMP are to restore the ecological balance by harnessing, conserving and developing degraded natural resources such as soil, vegetative cover and water. The outcomes are prevention of soil run-off, regeneration of natural vegetation, rain water harvesting and recharging of the ground water table. This enables multi-cropping and the introduction of diverse agro-based activities, which help to provide sustainable livelihoods to the people residing in the watershed area. In addition, there is a Scheme of Technology Development, Extension and Training (TDET) is also being implemented to promote development of cost effective and proven technologies to support watershed management.

Whereas, Neeranchal is not expected to invest in field based investments and is likely to provide technical capacity building support, it is expected to positively influence the outcomes of IWMP through addressing its shortcomings that would also include environment and social related challenges of watershed programs. It is therefore, critical to closely look at the current state of affairs in the watershed sector and identify potential environmental and social issues, assess the effectiveness of the ongoing watershed programs including the IWMP, especially their outcome focus and impact on people's lives and productivity, and identify the key challenges in sustaining the investments made on watersheds. Issues related to environmental and social sustainability of these investments also need to be considered.

Project Description

The preliminary **Project Development Objective** is: *Neeranchal aims to increase incomes through enhanced agricultural production and improve sustainability of natural resources through better watershed management among the people living in selected micro-watersheds in eight States, by adding value to IWMP programs through institutional reform, capacity building, the development and application of best practices, and convergence with other Government projects.*

Project Components

There are four proposed project components¹:

1) Institutional Reform and Capacity Building, in DoLR and across all states

The component would be delivered across all states and strengthen the capability of key national watershed institutions, particularly the DoLR and NRAA to more effectively plan, coordinate, deliver, and monitor integrated watershed programs; undertake relevant policy and economic analyses; develop national watershed strategies; and report on national progress. Specialized training would also be provided to State Level Nodal Agencies (SLNAs), other designated watershed implementing agencies, village level extension agents, community institutions, Gram Panchayat members, watershed committees, and farmers around improved watershed management practices.

2) State IWMP Support and Post Project Sustainability in Focal States

In the proposed eight focal states, the component would provide intensive support for improved IWMP operations and convergence/integration with other relevant sectors and schemes. The component would strengthen the lead nodal agency responsible for integrated watershed management; pilot integrated catchment assessment and planning processes; develop comprehensive digital databases for improved and integrated watershed management planning; develop strong internal M&E tools, including MIS in the state nodal agency; pilot community-based monitoring and documentation; and support incremental costs of state PMUs related to project implementation.

3) National Innovation Support

The component would support: applied research studies across key thematic areas including integrated landscape management and agricultural intensification, climate smart agriculture and agriculture value chains; applying best practices and tools for basic and advanced hydrological assessment; better demand-driven technology transfer; strengthening the institutional arrangements for coordinating and delivering longer-term needs-based research identification, technology transfer, research quality assurance, and dissemination of rainfed agriculture and watershed management research.

4) Project Management/Implementation Support.

This component would support the operation of a national Project Management Unit (PMU) in DoLR; a comprehensive communication program; 3rd party M&E support directly tied to project activities, including baseline surveys, input and output monitoring, process monitoring, impact assessments, acquisition of necessary remote sensing images, and case studies to guide project implementation.

The project would concentrate on providing specific technical support activities, goods and incremental costs and would generally not finance major physical works. The Neeranchal investments in technical assistance would complement IWMP and its own investments in watershed

¹ Refer to Annex 1 for more details

planning, physical works for soil and water conservation, and alternative livelihoods through ongoing operations. Component 1 in Neeranchal addresses capacity building at central, state and local levels in addition to what IWMP already delivers. Component 2 potentially focuses on issues that have not been considered at scale in most ongoing watershed programs and as such it may be necessary to ensure that their anticipated environmental and social impacts are included and also addressed. Component 3 is largely supporting research, development and technology transfer to support IWMP delivery, farmers, and other stakeholders. Given the technical assistance focus of the project, as at this stage it does not entail Bank direct investments on the ground (such as, water and soil conservation works, constructing check dams, erosion prevention structures etc.), there may be only minor environmental and/or social safeguards issues to be mitigated. At the same time, the project is designed to improve the capacity of DoLR and watershed institutions in participating states to better address safeguards in their IWMP.

Project Location

The project would predominantly focus on dryland areas in eight states: Andhra Pradesh, Chhattisgarh, Gujarat, Odisha, Jharkhand, Madhya Pradesh, Maharashtra, and Rajasthan. The states present a wide range of physical characteristics ranging from hilly terrain and forested highlands of central India on one hand to drier landscapes of the western India as well as four states with fairly long coastlines. The eight states also vary in terms of agro-climatic and/or agro-ecological zones with widely varying temperature and rainfall profiles. Broadly, all the states have small and marginal farmers with small sized farmlands facing the challenges of climatic variations with current low levels of resilience to climate change.

Major Components and Outcomes of the SESA

Four Broad Themes for the SESA

There are **four broad themes** proposed to be covered under the SESA: 1) the current state of affairs; 2) impact of the ongoing and planned investments; 3) institutional capacity and challenges, and 4) managing environmental and social risks.

1. Current state of affairs in the watershed sector – a status check:
 - The key priority environmental and social issues in watersheds;
 - What baselines on environmental and social issues are currently available for the project states? Gaps in these baselines for key environmental and social issues relating to watersheds would have to be filled during the status check exercise;
 - The scope and allocation of primary investments under IWMP in the project states;
 - Identifying the key challenges in environmental and social sustainability of these investments.

2. Measuring the impact of investments made in watersheds:

- Assessing the effectiveness of the ongoing IWMP watershed program and how its outcomes and impacts on people and productivity are now being measured (including the periodicity and nature of outcome monitoring);
 - Summarize available secondary data reflecting the planned outcomes of IWMP in the project states - restoration of degraded natural resources, improvement of vegetative cover through regeneration, groundwater recharge and surface storage of water (rain water harvesting), soil moisture content, soil erosion, stream sedimentation, prevented soil run-off, improved livelihoods. Where data might be lacking on IWMP, refer to Bank-supported projects in other states for indicative results from similar watershed programs;
 - Evaluate how effectively IWMP works have been carried out in forestlands, especially where ridges are under forest cover;
3. Institutional capacity and challenges in the watershed sector:
- Identify options to enhance capacity and systems in DoLR and Panchayat Raj Institutions (PRIs) for more effective incorporation of social and environmental issues in IWMP or other watershed programs.
4. Managing potential environmental and social risks of watershed programs:
- Identify the actual (observed) and potential/probable environmental and social risks that could arise out of investing in watershed programs (with a special focus on IWMP);
 - Suggest reasonable mitigation measures and Environmental and Social Management Plans for addressing the identified issues arising out of activities/sub-projects funded under watershed projects and also provide an assessment on how these are currently addressed in IWMP;
 - Given the fact that some of the selected states contain tribal populations, the team will ensure the borrower prepares an Indigenous People Development Framework (IPDF) including guidance to ensure and monitor Free, Prior and Informed Consultation based on broad community support in project areas.
 - Based on the available Environmental and Social Management Frameworks (ESMF) under ongoing Bank-funded State level watershed projects in Himachal Pradesh, Uttarakhand, and Karnataka, prepare a generic ESMF and Environment and Social Management Plan (ESMP) for government financed watershed investment activities. For any identified impact that is not covered under available ESMFs, suggest mitigation measures and indicators for monitoring. The ESMP would particularly focus on measures to help the IWMP mitigate and monitor Environmental Health and Safety (EHS) aspects during construction of works in line with the World Bank EHS guidelines;
 - Suggest a national level monitoring mechanism within MoRD for ensuring better environmental and social sustainability of watershed investments and also to ensure that any identified and potential environmental and social risks are properly identified and monitored in the implementation of national watershed schemes;
 - Based on their EA experience, the consultants will develop environmental and social guidelines for inclusion in a future IWMP operational field manual. These guidelines would

help the communities, and watershed agencies to supervise and implement environmental and social aspects of the project as part of the micro-watershed planning process.

- The SESA would also be supported by development of an Environmental Codes of Practice to improve overall environmental sustainability for the anticipated project sub-activities.

Project Specific Monitoring Requirements:

- The project will also pilot landscape level integrated catchment planning based on hydrological information. The SESA should proposed potential environmental and socio-economic inputs that may need to be considered in these larger scale assessments;
- Component 3 of the project focuses on applied research, technology transfer and innovations. Depending on which technologies and approaches are identified the broad ESFM should allow the client be able to progressively address these;
- The project is likely to support piloting of some innovations including implementation support in some of the most environmentally and economically challenged regions which could well include habitations of indigenous populations. While this could well be covered through existing ESMFs the currently unidentified nature of the interventions should be taken into account.

Proposed Methodology

General Approach

- The consultants would employ a range of tools and approaches for working on the four broad themes proposed to be covered under the SESA;
- A significant volume of the information required for the SESA is available from secondary sources through DoLR, states implementing IWMP, and the World Bank supported watershed projects in Karnataka, Uttarakhand, and Himachal Pradesh. In addition, the World Bank has supported lending operations in all of the project states where the environmental and social assessments will yield important background data. A meta-data approach will involve desk reviews and synthesis of this information;
- Three to four sample States would be selected for actual field work taking into account diversity of agro-ecological, socio-economic conditions. The field work would fill in gaps in the secondary meta-data base analysis. The process would involve creating an environmental and social baseline, limited household sample surveys (where necessary) to get beneficiary feedback, and stakeholder consultations (different levels from central government and down up to village level stakeholders). The consultants would undertake structured focus group discussions, community consultations, and interviews of watershed experts and implementers for identifying key environmental and social issues and potential mitigation measures for managing these risks.

Suggested Structure of the SESA Report

1. Executive Summary
2. Section 1: Introduction and Methodology

3. Section 2: Current State of Affairs in the Watershed Sector
4. Section 3: Measuring the Impact of Investments made in Watersheds
5. Section 4: Institutional Capacity and Challenges in the Watershed Sector
6. Section 5: Managing Potential Environmental and Social Risks of WS Programs
7. Section 6: Project Specific Monitoring Requirements
8. Section 7: Training / Capacity Building Plan for both Environmental and Social Impact Augmentation and Mitigation
9. Conclusion and Recommendations
10. Annexes
 - I. Study areas – state, watershed, village
 - II. List of persons met and dates
 - III. Survey formats
 - IV. Study Team
 - V. Safeguard Policies

Status of Watershed Programs in the States

Despite the fact that the IWMP is an improvement over the previous watershed initiatives such as DDP, DPAP, IWDP, etc, it has not been able to generate the level of participation, ownership and transparency in its delivery. IWMP has also not delivered anticipated results on the ground, especially with farmers and communities. The Draft Document for the Twelfth Five Year Plan speaks of some new innovations in the methodology of implementation of IWMP. Picking from this thread, it is important to study the gaps in the implementation of IWMP at field level.

IWMP was only started from 2009-10. In most of the states, the actual physical work is yet to start. A typical IWMP project is of 5 years duration, out of which 1-2 years is for preparatory phase (for project appraisal, formation of institutions as WDT, WC, preparation of DPR, capacity building, EPA, evaluation etc) and Work Phase. For the states of Jharkhand, A.P., Orissa and MP, Projects of 2009-10 (1st year of implementation of IWMP), the projects have completed the preparatory phase and work phase has just started. Projects of 2010-11, 2011-12 & 2012-13, the projects are still in preparatory phase.

As an example, in the Rajasthan & Maharashtra IWMP Projects of 2009-10 (1st year of implementation of IWMP), the projects have completed the preparatory phase. Evaluation report is yet to be completed and work phase has not started. For Projects of 2010-11, 2011-12 & 2012-13, the projects are still in preparatory phase.

For the state of Gujarat, Projects of 2009-10 (1st year of implementation of IWMP), the projects have completed the preparatory phase. Evaluation report is completed and work phase has not started. Projects of 2010-11, 2011-12 & 2012-13, the projects are still in preparatory phase.

For the state of Chhattisgarh, Projects of 2009-10 (1st year of implementation of IWMP), only 50% of the projects have completed the preparatory phase. Evaluation report is yet to be started and work phase has not started. Projects of 2010-11, 2011-12 & 2012-13, the projects are still in preparatory phase.

Coordination with other Studies and Information

It will be useful to refer to other salient work during the planning and execution of the Neeranchal SESA, including the following:

- Institutional assessment being undertaken in Gujarat, Odisha and Chhattisgarh;
- SESA studies undertaken for other Bank studies in the 8 project states;
- Environmental and social assessment work from the new Karnataka Watershed Development Project-II;
- Poverty and Social Impact Assessment conducted for Karnataka Watershed Development Project-II;
- World Bank safeguards policies (Annex 2)

Consultants and Competencies Required

1. Team Leader

Key Responsibilities

- Overall planning and delivery of the SESA to the client within the stated time period;
- Planning and coordinating work tasks and field visits of social and environmental specialists, based on deployment of two teams (each with one social and environmental specialist) to ensure that the four key themes for the SESA are well covered within the allotted time for completion and across the selected focal states;
- Joining in the field work as required, particularly to provide gender inputs to the SESA;
- Drawing on input from team members and self to develop the draft SESA;
- Revising the draft SESA based on comments from the DoLR and World Bank, and making necessary revisions;
- Ensuring a final draft is also translated into Hindi.

Competencies Required

The key competencies are:

- a. Minimum 10 years of demonstrated experience in related consultancy services including for externally aided projects of a similar nature including World Bank assisted projects, preferably with at least one watershed management project/program;
- b. Minimum of 5 years demonstrated experience managing technical teams for similar studies;
- c. Have gender specific training and at least 5 years of experience in undertaking gender - related assessments;
- d. Post-graduate degree in any Environment-related discipline or Social Studies

2. Environmental Specialists (x2)

Key Responsibilities

Under the guidance and direction of a SESA team leader:

- Assist in gathering relevant secondary information and reports as part of developing a meta-data base to support the SESA;
- Review and synthesize relevant information to address the environmental aspects of the SESA across the four thematic areas;
- Undertake field visits to assigned states, along with a social specialist to fill in gaps as needed across the four key themes for the SESA in the selected focal states;
- Draft relevant material for the draft report, related to environmental inputs;
- Help revising the draft SESA based on comments from the DoLR and World Bank, and making necessary revisions;

Competencies Required

The key competencies are:

- e. Minimum 8 years of demonstrated experience in delivering environmental technical services for similar assignments, including for externally aided projects, and in particular World Bank assisted projects, preferably with at least one watershed management project/program;
- f. Post-graduate degree in any Environment-related discipline

3. Social Specialists (x2)

Key Responsibilities

Under the guidance and direction of a SESA team leader:

- Assist in gathering relevant secondary information and reports as part of developing a meta-data base to support the SESA;
- Review and synthesize relevant information to address the social aspects of the SESA across the four thematic areas;
- Undertake field visits to assigned states, along with an environment specialist to fill in gaps as needed across the four key themes for the SESA in the selected focal states;
- Draft relevant material for the draft report, related to social inputs; and
- Help revising the draft SESA based on comments from the Do/LR and The World Bank, and making necessary revisions.

Competencies Required

The key competencies are:

- g. Minimum **8** years of demonstrated experience in working as social expert for large infrastructure projects, preferably with at least one watershed management project/program. Familiarity with the World Bank's related guidelines and operational directives and adequate experience of sampling, handling large scale surveys and qualitative data collection and analysis. Experience of working in similar region and local language will be advantageous.
- h. Post-graduate degree or equivalent qualification in social sciences or in related disciplines.

Key Deliverables and Milestones

Key Deliverable	Time From Contract Signing (Weeks)
On approval of inception report, work plan and survey questionnaires including sampling methodology	3
On presentation and acceptance of initial findings	8
On submission of first draft	10
On submission of final draft	12
On submission of Hindi translation	16

Estimated Inputs and Costs

Consultancy Description	Person Work-Days	Rate/Day (INR)	Total Fees (Lakh)	Field Travel (Days)
Team Leader	60	8,000	4.80	20
Environmental Specialist I	40	6,500	2.60	15
Environmental Specialist II	40	6,500	2.60	15
Social Specialist I	40	6,500	2.60	15
Social Specialist II	40	6,500	2.60	15
Other Costs	Hindi translation	Lump Sum	0.30	

The Individual Consultants would be paid on the basis of actual working days as per work plan for the individual consultant or changes thereof approved by DoLR. Further, for field visits, the individual Consultant would be eligible for receiving reimbursement of First AC Train fare/ Apex Air fare (economy class) by Air India; reimbursement for boarding and lodging up to Rs. 3000/- per day as per actual; and reimbursement of local travel charges up to Rs. 500/- per day.

Review of Consultants' Services

The DoLR Project Director – Neeranchal, will have overall responsibility for the consultancy. A designated PIU member may be assigned for management of the consultancy. The consultant will provide a brief update of progress every two weeks and join any meetings or discussions as required, with sufficient notice being provided by DoLR. The consultant will make a presentation of findings for feedback. Any written feedback required will be provided to the consultant within five working days.

SELECTION CRITERIA FOR INDIVIDUAL CONSULTANTS

The successful Individual Consultant will be chosen based on the following criteria.

Selection criteria

Sl. No.	Evaluation Criteria	Maximum marks
Part A	Evaluation Criteria for Short- listing of Applications	
a)	Qualification	20
i)	Additional Academic Qualification beyond the minimum required	10
ii)	Any Additional Professional Qualification beyond the minimum required	10
b)	Experience (relevant expertise justifying adequacy for the assignment)	60
i)	Year-wise tasks completed in last three years of similar nature	15
ii)	Experience of working with Government of India and various State Governments	10
iii)	Experience of working with World Bank	20
iv)	Works currently in hand	5
v)	Experience of working for any similar programme of Government of India with Multilateral Bodies	10
Part-B	Interview - Assessment of Capability of candidate for the assignment through Interview	20
	Total	100

Annex 1. Project Description

Concept/Description

The proposed project has four components with a total estimated cost of US\$521 million over seven years. The project would be co-financed by the GoI (US\$276 million or 53%) and the Bank (US\$245 million or 47%).

1. **Component 1: Central Institutional and Human Capacity Building (US\$25 million).**

The component would strengthen the capability of key national watershed institutions, particularly the DoLR and NRAA. Capacity building will focus on specialized technical, fiduciary, and management skills to more effectively plan, coordinate, deliver, and monitor integrated watershed programs; undertake relevant policy and economic analyses; develop national watershed strategies; and report on national progress. Capacity building will include training and exposure visits to other countries. Institutional building will support the development of a single body within MoRD to facilitate coordination between IWMP and other national schemes impacting on watershed development, particularly MGNREGS. Legal and policy support will include reviewing and reforming existing legal/policy frameworks to better enable community based organizations (CBOs) to play a stronger regulatory role in the use of natural resources. It also includes support for regular review, analysis, and revision of relevant policies and guidelines governing watershed management, for example the Common Guidelines for Watershed Development. The component would also strengthen monitoring and evaluation (M&E) systems, including management information systems (MIS) and Geographic Information Systems (GIS) within DoLR and NRAA for tracking the national performance of IWMP and other watershed related programs.

In all states implementing IWMP, specialized training would be provided to State Level Nodal Agencies (SLNAs) and other designated watershed implementing agencies to strengthen technical skills around more holistic watershed and broader natural resource management, and rural livelihoods. Capacity building would also strengthen procurement, financial, administrative, and management capabilities. Incremental training (beyond what is currently offered in IWMP) would also be provided to village level extension agents, community institutions, Gram Panchayat members, watershed committees, and farmers around improved watershed management practices, intensified agriculture, surface and groundwater management, climate change adaptation, value addition and marketing, etc. The component will help establish a national training program to develop certified watershed professionals at the state and community level. Within communities, special emphasis would be given to lead farmers to become certified watershed practitioners as champions and peer-to-peer mentors to other farmers. Capacity building would encompass a range of approaches including classroom training, formal courses, mentoring, and exposure visits within India and to other countries as appropriate, based on needs assessments and followed by impact assessments.

2. **Component 2: National Innovation Support (US\$44 million).** The component would support improved coordination and networking of relevant government scientific institutions (for example, the Indian Council of Agricultural Research – ICAR), NGOs involved with research and development (R&D), and other national R&D organization related to watershed management, both from within India and globally. This would underpin development and adoption of innovative knowledge, tools and systems to improve watershed planning, program implementation, agricultural intensification, water management, and livelihoods. Specific support would include: i) strategic planning to identify and generate a consensus on: critical research priorities for improved watershed development and agree on a pathway forward; individual agency contributions to the R&D agenda from both within the ICAR network and externally; institutional arrangements for coordinating and delivering necessary watershed-related R&D knowledge and products, technology transfer and dissemination systems; and maintaining research quality; ii) financing applied “action” research across agreed, key thematic priority areas²; iii) developing a national level data center in DoLR or NRAA, linked with emerging state data bases (see component 4); and iv) improving in-house M&E systems in each state that could then be networked at the national level.

3. **Component 3: IWMP Implementation Support in Focal States (US\$363 million).** In the proposed eight focal states, the component would provide intensive support for improved IWMP operations and convergence/integration with other relevant sectors and schemes. It would be linked directly to planned and sanctioned IWMP field operations in specific areas. Component assistance would include: i) strengthening a single nodal agency responsible for integrated watershed management, which would facilitate convergence of schemes and programs; ii) implementation of integrated catchment assessment and planning processes with a particular focus on broader hydrology and integrated catchment development³ at a scale of up to 25,000 ha; strengthening micro-watershed planning and implementation under IWMP to incorporate larger-scale catchment assessment/planning guidance; developing and piloting forest and soil carbon financing schemes that would benefit communities and farmers⁴; piloting the use of new decision-support models for more holistic planning at both landscape-scale catchment and micro-watershed scales, and better site selection; iii) developing comprehensive digital data bases for improved integrated watershed management planning, pulling together available state-level data, images, and map layers, and establishing a land resources portal for wider data access by stakeholders such as other state government departments and universities. The state level data bases would be linked to the proposed national data base in DoLR; iv) develop strong internal M&E tools, including MIS in the state nodal agency; v) piloting community-based monitoring and documentation through simple

2 While not pre-empting the results of a strategic planning process, these could include integrated landscape management, agricultural intensification, climate smart agriculture, greenhouse gas footprints, and agriculture value chains, identifying and applying best practice approaches and tools for basic and advanced hydrological assessment and monitoring to deliver downscaled hydrological data to sub-catchment and micro-watershed scales, etc. The applied R&D may be conducted through existing government research institutions and/or external agencies.

3 Would cover more unified development of land and water resources (including private land), production systems, inputs, market access and marketing, institutions and governance, sustainable use, regeneration and management of commons, aquifer based planning for sustainable groundwater use, management and regeneration, institutional development/strengthening, planning and skill building.

4 For soil carbon financing, a recent and successful example is from the Kenya Agricultural Carbon Project that is benefiting smallholder farmers.

water monitoring equipment and IT tools as well as training on participatory M&E and water management⁵; and vi) incremental costs of state PMUs related to project implementation.

4. **Component 4: Project Implementation Support (US\$49 million).** This component would support: i) incremental, specialized staff costs (full and part-time) in the national Project Management Unit (PMU) in DoLR; ii) incremental administration costs for travel, creating and managing an integrated project website and improved communications; financial management and internal/external audit, and procurement; and equipment to support overall project implementation; iii) a comprehensive communication program to ensure wide awareness about the project objectives and lessons, and foster stakeholder engagement in the continuous improvement of the project; iv) 3rd party M&E support directly tied to project activities, including baseline surveys, input and output monitoring, process monitoring, impact assessments, acquisition of necessary remote sensing images, and case studies to guide project implementation.

⁵ For example, the Bank-supported Andhra Pradesh Drought Adaptation Initiative for groundwater management.

Annex 2. - List of the World Bank Operational Policies and Guidelines

<http://web.worldbank.org/WBSITE/EXTERNAL/PROJECTS/EXTPOLICIES/EXTSAFEPOL/0,,m enuPK:584441~pagePK:64168427~piPK:64168435~theSitePK:584435,00.html>

Operational Policies (OP) /Bank Practices (BP) / Operational Directives (OD)

OP / BP 4.01 Environmental Assessment

OP / BP 4.04 Natural Habitats

OP 4.09 Pest Management

OP 4.11 Cultural Property

OP / BP 4.12 Involuntary Resettlement

OD 4.20 Indigenous Peoples

OP / BP 4.36 Forestry

OP / BP 7.60 Projects in Disputed Areas

BP 17.50 Disclosure of Operational Information