

**“Bihar Kosi Basin Development Project (Cr. 5696)”**  
**Terms of Reference**  
**for**  
**Consulting Services for Independent Consultant –**  
**Annual Environment and Social Audit**

**1. Background of BKBDP**

The Kosi River Basin is one of the most active areas experiencing flooding in the state of Bihar. As a result of inadequate flood management systems in a hazard-prone area, the Kosi River breached a portion of the Kosi Eastern embankment system on August 18, 2008. Total 3.3 million people and large area were devastated resulting from this flood in Bihar. Five districts, namely, Supaul, Saharsa, Madhepura, Araria and Purnia, were severely affected.

The first phase (Phase I) provided timely and focused support for reconstruction efforts, and second phase (Phase II) was planned to be focused on a long-term program to support Bihar’s need to enhance resilience & connectivity to minimize impacts from floods in the targeted districts in Kosi River Basin, and to enhance Bihar’s capacity to respond promptly and effectively to an eligible crisis or emergency. Phase I is already completed and the project is in Phase II which addresses longer term challenges as described above and is prepared in the broader context of the State’s five-year plan for 2011-2016 and the preliminary results of the GoB’s Agriculture Roadmap for 2012 to 2022. This Roadmap, which set ambitious targets for the holistic development of agricultural activity in the state, recognizes the need for coordinated action from multiple departments and proposes a multi-sector approach to increase agriculture productivity by expanding farmer’s access to, and adoption of, innovative farm technologies and practices, and extending their linkages to market infrastructure.

**2. Project Description**

The Bihar Kosi Basin Development Project (BKBDP) is the second of the World Bank’s larger support to the GoB on improved flood management on the Kosi Basin and focuses on tackling the longer-term challenges of enhancing capacity to manage floods and investing in economic development through investments in flood management, agricultural productivity, and connectivity to improve farmer’s access to markets focusing on the flood affected districts of Supaul, Saharsa, Madhepura, Araria and Purnia. The BKBDP project started in the month of March 2016 and the completion period of this project is set in the month of March 2023.

To implement the BKBDP project, the **Bihar Aapda Punarwas Evam Punarnirman Society (BAPEPS)** set up under the Planning and Development Department, Government of Bihar (GoB) is project implementing entity and entrusted as PMU with assigned work related with development and implementation of proposed projects under different components and to ensure quality completion of project within schedule time frame.

**3. Project Development Objective**

The project development objective of BKBDP is to enhance resilience & connectivity to minimize impacts from floods in the targeted districts in Kosi River Basin, and to enhance Bihar’s capacity to respond promptly and effectively to an eligible crisis or emergency.

## 4. Project Components

The project comprises the following five components:

### **Component 1 – Improving Flood Risk Management, US\$ 100 million (with US \$ 66.7 million IDA financing)**

The objective of this component is to increase the capacity of the Water Resources Department (WRD) to manage flood risk and to decrease vulnerability to floods in the Kosi River Basin. This objective will be achieved by investing in flood protection infrastructure to reduce vulnerability and by strengthening institutional capacity to better manage the flood protection infrastructure and understand how the Kosi River system functions. Activities will build on technical studies and flood forecast modeling already underway in BKFRP and FMIS II, in addition to pilot embankment strengthening works underway in BKFRP. The component is broken into three subcomponents.

#### *Sub-component 1.1 - Reinforcement of flood control infrastructure (US\$95 million)*

The objective of this subcomponent is to strengthen and reinforce existing flood control infrastructure in the Kosi River Basin. Investments will primarily include: (i) restoration/strengthening of Eastern and Western Kosi embankments, approximately 70 km; (ii) restoration of selected stretches of the Ex-Zamindari embankments, approximately 25 km; (iii) strengthening existing spurs that are severely damaged and protecting critical erosion prone river banks; and (iv) procurement of 12 dredgers for management of silt deposits in the river system. Alternative designs and construction materials including stone-filled machine-made gabions, reno-mattresses, geo-tubes, and geo-bags will be used for the infrastructure works to improve performance at competitive costs.

#### *Subcomponent 1.2 - Support to strengthen institutional capacity to manage flood risk (US \$ 5 million)*

The objective of this subcomponent is to strengthen State level capacity to understand, manage, and communicate flood risk. The project will fund training and capacity building activities for WRD staff to familiarize themselves with modern methods in flood risk management and maintenance of investments. Additionally, the project will finance an institutional analysis study for improving the daily functioning of WRD, and leverage the expertise that has been enhanced through the FMIS investments. Activities will be financed to further integrate FMIS into WRD and to scale the technical capacity of FMIS throughout the Department. Ongoing activities under BKFRP and FMIS II, along with activities financed in this subcomponent, will account for the potential future impact of climate change and will guide further investments in structural and non-structural measures in Subcomponent 1.3.

A Flood Management Master Plan will be completed to enhance flood and sedimentation management systems. Inputs into the Master Plan are currently ongoing under BKFRP and the project will finance the additional required activities. The Master Plan will also produce recommendations for structural investments to minimize riverbank erosion and shifts in the course of the river. The scaling up of embankment asset management system, flood forecasting, and early warning modeling activities will be financed to increase the planning and response capacity of the GoB. These models will monitor precipitation events and utilize the data to project the potential impacts of climate change on the hydrological dynamics of the Kosi River Basin.

**Component 2 – Enhancing Agricultural Productivity and Competitiveness, US\$ 24 million (with US \$ 16 million IDA Financing)**

Increase the agricultural production and productivity by expanding farmer's access to, and adoption of, innovative farm technologies and practices, and extending their linkages to market infrastructure, through:

*Sub-component 2.1 – Intensification and Diversification of Agricultural Production Systems*

Providing matching grants to Farmer Interest Groups (FIG's) for financing their Business Plans for increased agricultural productivity, intensification, diversification and competitiveness, through: a) Demonstration and dissemination of use of new technologies; and b) Improved agricultural inputs and practices.

*Sub-component 2.2 – Strengthening of Agricultural Value Chains*

Mobilizing Farmer Interest Groups to form Producer Organizations; b) Providing matching grants to Producer Organizations for establishing Agricultural Business Centre, including financing the respective ABC Business plans for produce aggregation and development of value added activities.

*Sub-component 2.3 – Institutional Development for Market-led Extension*

Strengthening the institutional capacity of the AFRD in the Targeted districts in order to promote the: a) Convergence among state and centrally sponsored interventions in the agricultural sector; b) Interdepartmental coordination at district, block and village levels; c) Sectoral transformation from production – centred extension systems to market oriented ones; d) Field-tests and scale-up to climate resilient agricultural practices; e) Analysis of value chains, market conducts and farmers' commercial options; and f) Establishment of partnerships with allied services such as financial institutions and insurance providers.

**Component 3 – Augmenting connectivity, US\$ 173 million (with 115.33 million IDA Financing)**

The objective of this component is to improve farmers' access to markets through the expansion of the local transport network that connects rural roads to the main road network. To achieve this objective, the component will be structured in two subcomponents. These activities will be a continuation of the initiatives started under BKFRP, and will include the same specifications, implementation arrangements, and bidding plans already in place.

*Subcomponent 3.1 – Construction of roads and strengthening institutional capacity (US\$80 million with US\$ 53.33 million Bank financing).*

This subcomponent will finance the construction of linking roads to major roads and the upgrading of rural roads to provide small villages (population less than 500) greater access to local markets. The sub-component will be implemented in the five flood-affected districts of the Kosi River Basin: Araria, Madhepura, Purnea, Saharsa, and Supaul. An estimated 400 km of rural roads will be constructed at a cost of US\$80 million, of which 280 km of roads have already been identified across 89 sites. All paved and unpaved rural roads will be constructed as black top roads and will be built to the latest rural road standards followed under the GoI and Bank financed PMGSY Rural Roads Program. In addition to the large-scale investments, pilot projects will be

conducted to demonstrate new technologies that promote cost effective, modern, climate resilient, and environmentally friendly road reconstruction.

*Subcomponent 3.2 – Institutional strengthening activities (US\$3.00 million with US\$ 2.00 million Bank financing).*

This subcomponent will focus on the development of an asset management and maintenance system, as well as a road maintenance strategy. Activities will also be financed to support training in technical skills and management information systems for the staff of the Rural Works Department.

*Subcomponent 3.2 – Construction of bridges (US\$90.00 million with US\$ 60.00 million Bank financing).*

This subcomponent will finance the construction of small and medium bridges to provide greater access to local markets. An estimated 58 bridges will be constructed at a cost of US\$90 million. All 58 bridges have been identified. New cross drainage structures will be provided where new streams have formed and where these were missing earlier. Bridges and culverts will be designed to withstand earthquake forces (per the guidelines of the Bureau of Indian Standards) and with regard to topography and hydrology (per the guidelines of the Indian Roads Congress, the Ministry of Road Transport and Highways, and projected demographic changes).

#### **Component 4 – Contingent Emergency Response, US\$ 0 million**

Following an adverse natural event that causes a major natural disaster, the GoB may request the Bank to re-allocate project funds to support response and reconstruction. This component would draw resources from the unallocated expenditure category and/or allow the GoB to request the Bank to re-categorize and reallocate financing from other project components to partially cover emergency response and recovery costs. This component could also be used to channel additional funds should they become available as a result of the emergency.

#### **Component 5 – Implementation Support, US\$ 12.00 million (with US \$ 8 million IDA Financing)**

This component would finance activities required for project implementation. These would include incremental operating costs, including those related to operating BAPEPS and the IAs. These funds are also available to BAPEPS to employ subject matter experts, fiduciary agents, and support staff to be housed within each IA and assist with the preparation, implementation, and supervision of project activities. In addition, training, exposure visits, documentation, and monitoring and evaluation will be financed out of this component.

### **5. Environment and Social Management Framework**

From the project description, project development objectives and project components (Sections 1.1 and 1.2 of this document), it can be seen that the project would largely yield positive and beneficial impacts on the target population. However, some of the project interventions may also result in adverse impacts on the community in terms of loss of private land and structures, impacts (either permanent or temporary) on income and livelihoods and access to resources, etc. Keeping in mind the need for proactive environmental and social (E&S) risk management that follow the national and state E&S

laws and regulations and applicable World Bank Operational Policies on E&S safeguards, the project has developed an Environment and Social Management Framework (ESMF). The ESMF has been disclosed on project website, [www.bapeps.in](http://www.bapeps.in). The ESMF outlines down the principles and procedures for management of environmental and social impacts caused due to project interventions taken up by the Project Management Unit (PMU) and Implementing Agencies (IAs) under BKBDP and applies to all sub-projects activities taken up under BKBDP.

## 6. Need for Annual Environment and Social Audit

The ESMF requires that potential environmental and social risks related to any activity or intervention taken up under the project are identified *before* their commencement and that these risks are proactively managed and mitigated by the PMU and PIUs throughout the project cycle as per the principles and processes outlined in the ESMF. Further, since BKBDP is an environmental category ‘A’ project, as per the project agreement an annual E&S Audit of the sub-projects (to be undertaken by an independent agency) is a key requirement. The E&S Audits are a critical input to project planning, design, implementation and operations & maintenance and is expected to inform the concerned stakeholders – namely, the GOB, the PMU, PIUs and the World Bank – about the following:

- (a) the extent to which the project is compliant with its ESMF,
- (b) opportunities and challenges faced by the PMU and PIUs in managing E&S risks in the project,
- (c) a comprehensive action plan to address non-compliances (if any) with its ESMF and
- (d) a roadmap for more effective and proactive compliance with the ESMF.

BKBDP was approved by the World Bank’s Board of Directors in December 2015 and became effective from March 2016. The expected closing date of the project is March 2023. While, ideally, the annual E&S Audits ought to have begun from March-April 2017, for various reasons, this did not happen. BKBDP wishes to start the annual E&S Audits from 2021-22 and carry out two annual audits – in FY 2021-22 and FY 2022-23. Since the project is commencing the annual E&S Audits well into the 5<sup>th</sup> year of project implementation, *the first* E&S Audit is additionally expected to advise whether the project ESMF (which was developed and approved before the project got the World Bank Board’s approval in 2015) needs to be updated to ensure compliance with changes (if any) with national and / or state environmental, social, labor and health and safety (HS) laws and regulations.

Moreover, this E&S Audit is expected to cover *all activities under each sub-project* that are under implementation as well as those that are under planning for implementation at a future date. The E&S Audits of the project for FY 2021-22 and FY 2022-23 will be based on a selection of a sample activities / interventions under the sub-projects with appropriate changes in the scope of work and timelines for these audits.

## 7. Objectives of ESA

The objectives of the E&S Audit are:

1. To review and verify compliance with ESMF during project planning, design, implementation and post implementation.
2. To review and verify compliance with screening, ESMPs, and all specific safeguard documents of respective subprojects.

3. To review and verify compliance at subproject level with statutory requirements related to social and environmental aspects including clearances.
4. To verify whether the PMU and Project Implementation Units (PIUs) have recruited qualified experienced staff to manage E&S risks in the project and sub-projects and whether these staff have received adequate capacity building support to enable them to perform their duties effectively.
5. To assess the effectiveness of implementation of ESMF as well as safeguard documents specific to the subproject activities and reporting any gaps.
6. To review and verify how well the environmental management systems are performing and how well the social safeguards and social management plans are being implemented.
7. To review and verify integration of social and safeguard recommendations into subproject plans and design as well as in bidding documents.
8. To identify and document best practices in environment and social safeguards compliance.
9. To assess institutional and administrative effectiveness and make recommendations on improving ESMF compliance performance.
10. To make recommendations to improve ESMF implementation.
11. To advise whether the project ESMF needs to be updated or not.
12. To prepare overall summary of ESMF compliance for the project.

The PMU (i.e. BAPEPS) will co-ordinate with the respective PIUs and provide the E&S Auditors all information sought by the auditors to meet the requirements of the E&S Audit. The selected E&S Auditors are expected to prepare and submit an initial document request list to BAPEPS and the BAPEPS will make every effort to provide the necessary information to the E&S Auditors at the start of the assignment. Through the course of the assignment, the E&S Auditors can seek more information and BAPEPS is obligated to provide the same to the auditors in good faith and without prejudice. The E&S Auditor will verify, and if and as required, validate information provided to them by the PMU through analysis of the information provided and primary field surveys, observations and stakeholder consultations. Key stakeholders that must be consulted in the course of the E&S Audits include, but are not restricted to – Project Affected Persons (PAPs), elected members of the Gram Panchayats in which project activities are being (or are planned to be) implemented, the Third Party Quality Assurance (TPQA) consultants, Non-Governmental Organizations (NGOs) and Community Based Organizations (CBOs) that have expressed interest and / or concern about the project, the State Pollution Control Board and other departments / agencies of GOB that are directly or indirectly involved in the implementation of the project.

## **8. Scope of Annual Environment and Social Audit**

The firm selected for the E&S Audit of the project will conduct an independent review of the process and outputs of the Environmental and Social Safeguards management of the project. As mentioned in Section 2.0 of this document, a total of 2 E&S Audits are envisaged till the end of the project. The scope of work of the first E&S Audit (i.e. the E&S Audit for FY 2021-22) will cover all activities / interventions implemented under all the sub-projects of BKBDP. Thereafter, the E&S Audits for FY 2022-23 will need to focus on a sample of activities under the sub-projects. The sampling methodology for the E&S Audits for FY 2022-23 needs to be outlined by the consultants in their technical proposal.

The scope of the E&S Audit includes, but is not limited to:

1. Review and evaluate the methodology followed for environmental and social data collection, screening, categorization, analysis, preparation of mitigation plans and implementation of mitigation plans for sub-projects;
2. Review the adequacy of the procedure followed for consultation and meetings, as laid down in ESMF, with the local community in the project area, affected people and any other stakeholders, and incorporation of suggestions/ feedback received during these consultations in the final design based on technical feasibility;
3. Assess whether and the extents to which ESIA findings are mainstreamed in the relevant project cycle, M&E, Extension Work, reporting, training and Capacity Development etc.
4. Verify whether required safeguard instruments (viz. ARAPs / RAPs (if OP 4.12 is triggered), ESIAs, ESMPs, etc.) have been prepared based on initial E&S screening of sub-projects and whether plans based on these instruments have been implemented as per principles and processes laid out in the ESMF;
5. Provide a status and outcomes of the implementation of E&S risk mitigation plans as per safeguards instruments for each sub-project.
6. If found that sub-projects have not implemented measures as outlined in the ESMF and other sub-project specific safeguards instruments, recommend remedial measures to ensure compliance.
7. To check for compliance with mandatory clearances from the statutory authorities. Verify that Environmental and Social Management Plans (ESMP) and Abbreviated Resettlement Action Plans (ARAPs) or Resettlement Action Plans (RAPs) where applicable, have been incorporated into bidding documents.
8. Review institutional arrangements for implementation, monitoring & reporting of Environmental and Social components/ activities and identify gaps/ areas that need improvement including capacity building requirements.
9. Carry out field visits to sub-projects to assess how environmental and social issues have been addressed on the ground.
10. Identify and document good practices from proactive sub-projects which can be replicated across the state and sector.
11. Prepare an E&S Audit report that clearly specifies (i) the deviations in implementing environmental and social measures, if any, (ii) enhancement and positive measures to be taken at the sub-project level, if any, and (iii) recommendations for further improvement of environmental and social management practices at the sub-project level.
12. Present the findings of the E&S Audit with the Project Management Unit (PMU), Project Implementation Units (PIUs) and the District Executing Agencies as well as to site staffs. Organize workshop to share and discuss findings and recommendations.

## 9. Detailed tasks

The tasks for the E&S Audit of BKBDP must include, but not limited to, the following<sup>1</sup> :

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<sup>1</sup> Please note that the outlining of the tasks is to ensure that interested firms are made aware of and adhere to the *minimum* expectations from them. Interested firms are encouraged to detail out a robust approach and methodology for the E&S Audit of the project and suggest additional tasks that they think will help meet the requirements of the assignment better

## 9.1 Developing a methodology for the E&S Audit

Building on the experiences of the original project, the Consultants will develop a simple and practical methodology to assess compliance with ESMF. This methodology could be a combination of tools for primary data collection (for example, observation checklist to be used on field visit to sub-projects) as well as secondary data on type and distribution (geographical, temporal) of sub-projects. Indicators those are relevant for assessing impacts (both of individual sub-projects and cumulative impacts of sub-projects) for specific types of sub-projects, such as bridges, road construction / protection works, riverbank protection works (including construction of embankments), public buildings, etc. should be identified. This would include but will not be limited to the following tasks.

1. Develop the procedure and processes for conducting the E &S Audit.
2. Determine and outline the sources for data collection and methods for data verification.
3. This methodology should be finalized in close consultation with the environmental and social Experts at the PMU/ PIU.
4. Prepare a detailed sampling plan (with names of specific sub-projects) for field visits based on the indicative guidelines given in this ToR. This sampling plan will be developed in close coordination with Environmental and Social Experts at the PMU/ PIU. Develop audit tools, audit formats and indicators.

S. No	Description	Sampling Size for E&S Audit in FY 2021-22	Sampling Size for E&S Audits in FY 2022-23	Remark
1.	<b>Construction of roads including minor bridges</b> <ul style="list-style-type: none"> <li>• Implementing agency 'Rural Works Department</li> <li>• Total 33 contract packages which includes 86 schemes converging about 286 km road length</li> </ul>	100%	40%	The sample should be geographically distributed across all districts and cover the different types of bridges taken up in the project, and represent different site conditions
2	<b>Construction of bridges</b> <ul style="list-style-type: none"> <li>• Implementing agency is Bihar Rajya Pul Nirman Nigam Limited</li> <li>• Total 41 contract packages which includes 58 bridges</li> </ul>	100%	40%	

S. No	Description	Sampling Size for E&S Audit in FY 2021-22	Sampling Size for E&S Audits in FY 2022-23	Remark
3	<b>Building Works:</b> Implementing agency is WRD <ul style="list-style-type: none"> <li>• Renovation of Existing Building for Mathematical Modeling Centre (MMC) at Jal Sansadhan Bhawan, Anisabad, Patna</li> <li>• Establishment of Physical Modelling Centre (PMC) at Birpur (Work is under tendering)</li> </ul>	100%	100%	
4.	<b>Embankment Protection Work</b> <ul style="list-style-type: none"> <li>• Implementing agency is 'Water Resource Department.</li> <li>• Work is distributed in 4 contract packages for 31 spurs and 18 studs</li> </ul>	100%	60%	
5.	<b>Agriculture/Fisheries</b> <ul style="list-style-type: none"> <li>• Broiler Farming (for 1000 Bird)- 851 nos.</li> <li>• Goat Breeding &amp; Rearing Farm (for 20 goat +1 Buck) -511 nos.</li> <li>• Integrated Fish Farming (500 sq. mts with 300 sq mts water Area) - 142 nos.</li> <li>• Fish Hatchery -3 nos.</li> <li>• Fish Feed Mill -3 nos.</li> <li>• Fish Seed Rearing Farm- 124 nos.</li> </ul>	10%	5%	

S. No	Description	Sampling Size for E&S Audit in FY 2021-22	Sampling Size for E&S Audits in FY 2022-23	Remark
	<ul style="list-style-type: none"> <li>• Low land Development for fish farming -1 Ha/unit- 128 nos.</li> </ul>			

### 9.2 Review of ESMF implementation - Desk review

1. To examine the records and documentation relating to impacts, action taken to manage them and performance in managing. Specifically, to review Detailed Project Reports (DPRs), monthly and quarterly progress reports prepared by the Third Party Quality Assurance (TPQA) consultants, any reports prepared by Environmental and Social Specialists for PIUs, PMU reports, World Bank Aide Memoire, Action Taken Reports (ATRs) on Aide Memoire, any other reports/documents pertaining to the project environmental and social aspects.
2. Review and report on the status of redressal of any environmental and social grievances and the effectiveness of the project's grievance redressal mechanism in so far as E&S matters are concerned.
3. The Consultants will review environmental and social aspects of any relevant technical manuals prepared by PMU and/or implementing agencies, as part of the project and their dissemination.

### 9.3 Conduct Field Verification - accompanied by one or more project personnel

1. Undertake field visits to all sub-project sites, especially designated sites for debris disposal.
2. Field verification at locations where construction activities are underway and interviews with BKBDP, TPQA field staff, consultants and contractors environmental and social staff.
3. Field verification of labor camps, to review environment and social aspects being addressed at the camp including facilities provided to the laborers at the camp site. Audit should also cover the specific arrangements (if any) made at camp sites for women and children.
4. Interviews with various key stakeholders at field level from Public Works Department, Irrigation Department, Home Department, residents and communities directly or indirectly impacted (due to loss of land, income, livelihoods, etc. or any other social impacts) by the project especially people who have given consent for temporary usage of their land.

5. Examine and seek views on health and safety issues from the project employees, and the feedback on the activities from the local and other potentially affected communities, especially vulnerable groups
6. Clearly document (including photographic evidence) of good and bad practices identified in sample sites

#### **9.4 Analysis and Reporting - Draft report**

1. Identify gaps between information contained in project documents and information collected and analyzed through primary surveys and field observations.
2. Assess whether principles and procedures outlined in the ESMF were complied with in identifying and mitigating E&S risks of sub-projects
3. The effectiveness of implementation of the mitigation measures
4. Provide recommendations on how to make good where non-compliance with ESMF has resulted in continued adverse environmental and social impacts
5. Review the monitoring, reporting and feedback system in place between the PIU/DEA and the PMU with respect to ESMF compliance.
6. Make recommendations on strengthening the implementation of environmental and social safeguards by the PIUs/IAs – including strengthening of training, monitoring, etc.
7. Make concrete recommendations for improving effectiveness of ESMF and its implementation.
8. Presentation on Draft Report findings to BKBDP - extent of conformance, areas of excellence, areas requiring improvements, extent of resource utilization compared to ESMF stipulations.

#### **9.5 Presentation and Submission of Final Report**

Based on the comments given and observations made on the Draft Report and on the presentation by Environmental and Social experts and other concerned officers at BKBDP and the World Bank, make revisions and submit the audit report.

*Workshop at the end of the E&S Audit.* The Consultants shall organize a workshop to share and discuss findings and recommendations of the Environmental and Social Audit Report. The findings of the E&S Audit will be attended by the Project Management Unit (PMU), Project Implementation Units (PIUs) as well as site staffs.

### **10. Schedule**

The E&S Audit for FY 2021-22 is expected to be completed in 4 calendar months from the date of commencement. Thereafter the E&S Audits for FY 2022-23 will need to be completed within 4 months from the date of commencement. The table below outlines the schedule for the E&S Audit for 2021-22.

S. No	Activity	Duration - by the end of
1.	Inception report including sampling plan and audit	2 <sup>nd</sup> Week
2.	Desk review	4 <sup>th</sup> week
3.	Field verification	10 <sup>th</sup> week
4.	Submission of draft report	12 <sup>th</sup> week
5.	Presentation	14 <sup>th</sup> week
6.	Final Report	16 <sup>th</sup> week

## 11. Data services and facilities provided by the client

The Environmental and Social Experts at the BKBDP will jointly, coordinate the whole study. Following facilities/services would be provided to the E&S Audit by the PIU/PMU.

1. Office space at Patna and in the Field
2. All relevant documents pertaining to the project and progress
3. Assign relevant field staff responsible for ESMF implementation to be present during field verification process.

## 12. Review committee for consultant's reports.

A review committee consisting of Program Director, BKBDP as the chairperson, Program Managers and Environment and Social experts, in the PMU and PIUs as members will be constituted. This committee will be responsible for reviewing all deliverables submitted by the E&S Audit firm and providing timely approvals bearing in mind the schedule specified.

## 13. Deliverables and Schedule of payment

S. No	Deliverable	E&S Audit in FY 2021-22		Timeline for E&S Audit in FY 2022-23		Timeline for approval by client
		Timeline	Portion of Payment	Timeline	Portion of Payment	
1.	Inception report	By the end of the 2 <sup>nd</sup> week from date of contract signing	10% of agreement value	By the end of the 2 <sup>nd</sup> week from order to commence audit	5% of agreement value	Within 1 week of submission
2.	Draft report	By the end of the 12 <sup>th</sup> week from date of contract signing	30% of agreement value	By the end of the 10 <sup>th</sup> week from order to commence audit	20% of agreement value	Within 2 weeks of submission
3.	Final Report	By the end of the 16 <sup>th</sup> week from date of contract signing	20% of agreement value	By the end of the 12 <sup>th</sup> week from order to commence audit	15% of agreement value	Within 2 week of submission

All reports should be delivered in soft and five hard copies. Indicative format for each report is given in the following sections. Along with the final report, the consultant shall submit all documents, data, photographs, etc. collected during assignment.

## 14. Format for Inception Report

The inception report will include but not be limited to the following:

- Criteria for selection of sub-projects for the desk review and for the field review
- Approach and methodology
- Performance indicators for verifying effectiveness of the ESMF implementation
- Detailed methodology for field work and stakeholder consultation

- Tools for Field Verification and Audit
- List of materials collected including details of the data (MIS) on sub-projects
- Draft Table of Contents of the Draft Report

## 15. Format for Draft Report

The Draft Report should document the Environment and Social Audit findings, Analysis and Recommendations for more effective environmental and social management in the UDRP AF. The draft report should focus on practical recommendations for application into the future phase of the project with supporting rationale. For instance, the report should include but not be limited to the following:

- Qualitative and quantitative strengths and gaps in existing environmental and social monitoring criteria used for sub-projects in the project
- Recommendations for environmental and social criteria required to assess cumulative impacts as part of the overall project reform objectives
- Recommendations for improving performance in ESMF compliance including capacity building requirements
- Lessons learnt as part of this audit
- Case studies with photo documentation highlighting (a) key issues, (b) best practices and (c) bad practices with respect to environmental and social management compliance with ESMF in sub-projects.

## 16. Consultant's profile

The E&S Audit shall be conducted by professionals qualified and experienced in carrying out similar tasks. The E&S Audit team members will work under the supervision of PMU and the assignment will be carried out in close coordination with the State Project Expert (Environment) of BKBDP who will have responsibility of overall contract administration of this consultancy. The E&S Audit team should include, at the minimum, the following key team members:

S. No.	Position	Educational Qualifications	Professional Experience
1	Senior Environmental Specialist – 1 (3 person months in FY 2021-22 and 3 person months for FY 2022-23)	Masters in Environment Sciences/ or Civil/ Environmental Engineering	Demonstrated similar experience of minimum 10 years in conducting environmental impact assessments, evaluations, audits in the public or non- profit sector in India. In depth knowledge of environmental impacts and mitigation in infrastructure and development projects in India.

S. No.	Position	Educational Qualifications	Professional Experience
2	Senior Social Specialist – 1 (3 person months in FY 2021-22 and 3 person months for FY 2022-23)	Master's in social sciences or equivalent	Demonstrated similar experience of minimum 10 years in conducting social impact assessments, evaluations, audits in the public or non-profit sector in India. In depth knowledge of social impacts and mitigation in infrastructure and development projects in India.
3	Environmental Experts – 2 (2 person months in FY 2021-22 and 2 person months for FY 2022-23)	Graduation in Environmental/ General Sciences/ Engineering	Demonstrated similar experience of minimum 5 years in conducting environmental impact assessments, evaluations, audits in the public or non-profit sector in India. In depth knowledge of environmental impacts and mitigation in infrastructure and development projects in India.
4	Social Experts – 2 (2 person months in FY 2021-22 and 2 person months for FY 2022-23)	Graduation in Social Sciences	Demonstrated similar experience of minimum 5 years in conducting social impact assessments, evaluations, audits in the public or non-profit sector in India. In depth knowledge of social impacts and mitigation in infrastructure and redevelopment projects in India.

- Note:**
1. From the above table, either the Sr. Environmental Specialist or the Sr. Social Specialist must be designated as the Team Leader for the project and will be primary contact person from the auditor's team for any communication with the client.
  2. Based on the assessment of the scope of work for the annual E&S Audits and the timelines for completion of the same, consultants may suggest additional team members. Profiles and CVs of all team members must be included in the technical proposal. Changes in team composition are not allowed without informing and seeking BAPEPS's consent. In case team members need to be replaced, the consultants are expected to ensure that the new team members who will replace the proposed team members have higher qualifications and a greater number of years of experience than the original team members. BAPEPS reserves the right to recommend replacement of consultant's team members if their performance is found wanting. In such an event, the consultant is obligated to provide suitable replacements ensuring that the new team members have higher qualifications and more numbers of years of experience than the team member who is required to be replaced. Besides the above, the Consultant team should have demonstrated ability in conducting environmental and social audits and preparing high quality audit reports.