

Environmental and Social Management Plan (ESMP)

Uttar Pradesh Pro-Poor Tourism Development Project – Package 2 –Buddhist Circuit, Kushinagar

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**DEPARTMENT OF TOURISM
GOVERNMENT OF UTTAR PRADESH**

STC

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1. Environmental and Social Management Plan

1.1 Background

Environmental Assessment study was carried out for the proposed works and as an outcome of the study Environmental and Social Management Plan (ESMP) to minimize and mitigate the impact of activities proposed under this sub project. The Environment and Social Management Plan (ESMP) outlines the environmental management system that will be implemented during construction and operational stage of the project. The proposed management plan comprises following components:

1. Environmental and Social Management Plan (ESMP);
2. Environmental Monitoring Plan;
3. Reporting Requirement;
4. Institutional Arrangement;
5. Framework for Monitoring and Evaluation;
6. Grievance Redress Mechanism;
7. Information Disclosure;
8. Capacity Building and Technical support;
9. Budget for the implementation of Safeguard Mitigation Measures

1.2 Environmental and Social Management Plan

An environmental and social management plan (ESMP) has been developed to provide mitigation measures to reduce all negative impacts identified to acceptable levels.

The ESMP will guide the environmentally-sound construction of the subproject and ensure efficient lines of communication between SPCU, TSU, Consultants and contractors. The ESMP will:

- a. Ensure that the activities are undertaken in a responsible non- detrimental manner;
- b. Provide a pro-active, feasible and practical working tool to enable the measurement and monitoring of environmental performance on site;
- c. Guide and control the implementation of findings and recommendations of the environmental assessment conducted for the subproject;
- d. Detail specific actions deemed necessary to assist in mitigating the environmental impact of the subproject; and
- e. Ensure that safety recommendations are complied with.

The ESMP includes a monitoring program to measure the environmental condition and effectiveness of implementation of the mitigation measures. It will include observations

on- and off-site, document checks, and interviews with workers and beneficiaries. SPCU will be overall responsible for monitoring the implementation of the various provisions elaborated in this ESIA in co-ordination with TSU, Consultants and contractors and report on its compliance to WB through submission of periodic environmental monitoring reports.

For civil works, the contractor will be required to (i) carry out all of the mitigation and monitoring measures set forth in the approved ESMP; and (ii) implement any corrective or preventative actions set out in safeguards monitoring reports that the employer will prepare from time to time to monitor implementation of this ESMP and ESIA. The contractor shall allocate budget for compliance with these EMP and ESIA measures, requirements

1.3 Environmental and Social Management Activities

Description of environmental and social mitigation plan for construction and operational activities of the project is provided in this section. Action plan is a list of mitigation/management/avoidance measures against identified potential adverse impacts by ESIA study. For each mitigation measure, the action plan provides operational details like impacted location, cost, time of implementation (phase) and implementation and supervisor responsibilities. Environmental impact classification is a simple, objective and transparent method for classifying impacts due to project activities in terms of magnitude of their impacts on the recipient environment. The environmental and social management activities include the pre-construction activities by SPCU/TSU and the contractor, implementation of mitigation measures for the critical impacts identified during ESIA studies, orientation training program to the contractor's officials and labourers on implementation of ESMP and monitoring and reporting procedures etc.

1.4 Pre-Construction Activities by SPCU/TSU

Prior to the Contractor mobilize the subproject implementation team, the SPCU/TSU will ensure that the subproject sites are available and ready for handing over to the contractor for implementation of the subproject. This include obtaining required statutory clearances/permission such as permission from ASI, Consent to Establish from State Pollution Control Board, No Objection Certificate from Irrigation and Water Resources Department and Forest Department for carrying out the project activities without any hindrance. SPCU/DoT had already initiated action to obtain permission from Forest Department ESIA Consultant in coordination with SPCU/TSU will organize an orientation program for the Contractor and his staff on the ESMP implementation and

the requirement of submission of ESMP. Contractor is required to be oriented with the requirement of ESMP and ESS requirement of WB. This will include;

- Obligations under contract to submit and preparation of Contractor Environmental and Social Management Plan;
- Regulatory compliance requirements;
- Grievance redress mechanism for both environmental and social issues;
- Various plans required under C-ESMP related to Occupations Health and safety, community health and safety, hazardous and non-hazardous waste, camp site management, emergency response, blasting, borrow area, muck disposal, restoration etc.
- Labour management procedures;
- Community health and safety aspects at workplace and
- Reporting requirements etc. under the project;
- Stakeholder Engagement Plan.

1.5 Pre-Construction Activities by Contractor

The activities of the contractor during the pre-construction stage involves mobilization of the Contractor's team for implementation of the project, the activities undertaken by the Contractor pertaining to the planning of logistics and site preparation necessary for commencing construction activities. The activities include;

- a. Modification of Contract documents;
- b. Procurement of construction equipment / machineries
- c. Identification and selection of material sources (quarry and borrow material, water, sand etc.) and debris disposal locations and obtain all statutory clearances;
- d. Appoint/designate one Environmental Officer, one Health and Safety Officer, both of whom shall solely be responsible for implementation of all ESMP provision;
- e. Required vehicles, equipment and machinery to be procured for construction will confirm to the relevant Bureau of India Standard (BIS) norms. The discharge standards promulgated under the Environment Protection Act, 1986 and Motor Vehicles Act, (Amendment) 2019 shall be strictly adhered to;
- f. Identification of site for labour camp and waste disposal site and obtain the permission from the SPCU/TSU
- g. Assist SPCU/TSU in the process of obtaining statutory clearances.

1.6 Construction Stage Environmental and Social Management Activities by Contractor

Construction stage activities require careful implementation of ESMP/ESMP to avoid environmental and social impacts. Activities that trigger the need for environmental and social measures to be followed include:

- Implementation of site-specific mitigation/management measures suggested in the ESMP;
- Monitoring the quality of environment along the construction sites (as air, noise, water and soil);
- Implement the grievance redressal program;
- Up keeping of records and registers as per the ESMP

There are several other environmental issues that have been addressed as part of good engineering practices, the costs for which have been accounted in the engineering costs.

1.7 Operation Stage

Monitoring the environmental attributes during the operation stage of the facilities created by the subproject shall be carried out by the DoT as laid down in the monitoring plan.

1.8 Environmental and Social Mitigation Plan

The environmental and Social Management Plans are primarily devised from environmental impact assessment report. The ESIA document specifically discusses the environmental and social impacts during the design, construction, and operational phases of the project. It identifies the positive and negative impacts on environmental receptors identified at all the subproject sites during different phases of project and propose the measures to minimize the impacts. After identification of impacts and proposing mitigation measures it also proposes the monitoring plan to monitor the suitability of implemented mitigation measures during construction and operational phases of project. The Environmental Management Plan (EMP) contains a description of proposed remedial measures and monitoring plan for the construction and operational period of the project. The ESMP developed for the subproject during the ESIA study is summarized and presented in Table below.

The following table 23 shows the potential environmental impacts, proposed mitigation measures and responsible agencies for implementation.

Table 23 Environmental and Social Mitigation Plan

Environmental Issue	Suggested Mitigation Measures	Responsibility	
		Planning and Execution	Supervision/ Monitoring
Air Pollution			
Air pollution caused due to emissions from construction equipment and movement of vehicles	<ul style="list-style-type: none"> All vehicles used should have valid pollution under control certificate All construction equipment should be operated only through CNG. 	Contractor	ESIA Consultants in co-ordination with SPCU/TSU
Dust generated during transport, delivery and during construction activities	<ul style="list-style-type: none"> All construction material should be covered during transportation Stockpiling of construction material should be done at designated and approved places away from residences and water bodies, drains. Regular sprinkling of water Dust curtain around active construction sites Covering of stockpiles to prevent wind-blown dust. Temporary barriers (berms, silt fence or sandbag) should be erected to prevent spreading of construction material 	Contractor	ESIA Consultants in co-ordination with SPCU/TSU
Water Pollution			
Depletion of water resources due to use of water for construction and operation of toilets and alike	<ul style="list-style-type: none"> Authorization/No objection certificate for use of ground water or other sources of water supply for the operational phase of the project should be obtained. In case tanker water is used, the source should have the necessary authorizations. All efforts should be made to reuse/ recycle water during construction. 	Contractor	ESIA Consultants in coordination with SPCU/TSU
Contamination due to leakage of oil/other construction waste/materials, construction	<ul style="list-style-type: none"> No cleaning, washing or maintenance activity should be undertaken in the core area and near any water body. All equipment and vehicles should be serviced /washed only 	Contractor	ESIA Consultants in coordination with SPCU/TSU

Environmental Issue	Suggested Mitigation Measures	Responsibility	
		Planning and Execution	Supervision/ Monitoring
activities	<p>in vehicle workshops.</p> <ul style="list-style-type: none"> • Adequate water supply and sanitation facilities should be provided at construction sites and other facilities. • All waste generated should be managed in compliance with Construction and Demolition Waste Management Rules, 2016 & Solid Waste Management Rules 2016 and guidelines. • All waste should be reused to the extent possible. • Vehicles should be parked at designated place and floor should be made impervious. • Waste and construction activities should be managed, to avoid spillage in the nearby drains water bodies. • Oil and silt trap should be provided on all storm drains leaving the construction site. 		
Impact on the quality of water in river/stream	<ul style="list-style-type: none"> • Ensure that there should not be any direct discharge into any stream/well. • Provide oil/silt trap on all discharges from project site. • Periodic monitoring of the quality of water in the stream/river adjacent to the project site. 	Contractor	ESIA Consultants in coordination with SPCU/TSU
Noise Pollution			
Noise generated during transport, delivery and construction activities	<ul style="list-style-type: none"> • All plant and equipment used in construction should strictly conform with prescribed noise standards of Central Pollution Control Board • Diesel generators used at site shall have Type Approval Certificate • Construction near habitations/ education institutes/hospital/health centers should be carried out with proper sound barriers. 	Contractor	ESIA Consultants in coordination with SPCU/TSU

Environmental Issue	Suggested Mitigation Measures	Responsibility	
		Planning and Execution	Supervision/ Monitoring
	<ul style="list-style-type: none"> All personal engaged at noisy work sites should be provided with ear plugs and other personal protective equipment. 		
Land Pollution			
Soil contamination from spillage of fuel, oils, lubricants from construction equipment and storage areas	<ul style="list-style-type: none"> No fuel / lubricants should be stored in the core area. All oils/lubricants storage should be procured from authorized agencies and suppliers. Construction vehicles should be well maintained with periodic inspection to avoid leakages and spillage. Bitumen waste, scrap (if any) should be disposed in authorized disposal sites with approval from the Engineer-in-charge 	Contractor	ESIA Consultants in coordination with SPCU/TSU
Soil contamination due to discharge of untreated and partially treated wastewater on ground.	<ul style="list-style-type: none"> Adequate facilities for the treatment of wastewater should be provided and no water should be discharged without meeting discharge standards of UPPCB. 	Contractor	ESIA Consultants in coordination with SPCU/TSU
Damage to vegetation due to temporary use of land for construction and material storage	<ul style="list-style-type: none"> Identify and demark the area proposed to store the construction materials and obtain the approval from TSU/SPCU Construction material will be properly stored in designated areas. Top soil from the designated storage area should be removed, stacked and preserved for reuse during site restoration activities Temporary storage of construction material should be done with the consent of the neighboring population, concerned land owner/authority and with adequate barricading and protection <u>No heavy vehicles will access the site, and construction</u> 	Contractor	ESIA Consultants in coordination with SPCU/TSU

Environmental Issue	Suggested Mitigation Measures	Responsibility	
		Planning and Execution	Supervision/ Monitoring
	<p><u>material will be properly stored in designated areas</u></p> <ul style="list-style-type: none"> • Temporary traffic management plan shall be prepared for the movement of vehicle for transportation of construction materials and construction and demolition wastes and submit to TSU/SPCU for approval • Plan transportation routes so that heavy vehicles do not use narrow local roads, except in the immediate vicinity of delivery sites; • Schedule transport and hauling activities during non-peak hours (peak hours 7 to 10 a.m. and 4 to 7 p.m.); 		
Disposal of construction/ demolition wastes	<ul style="list-style-type: none"> • All construction and demolition waste should be disposed as per the Construction and Demolition Waste Management Rules, 2016 of Government of India. • Prepare and implement a Construction and Demolition Waste Management Plan • Efforts should be made to reuse the waste generated during excavation of roads, such as: (i) the sub-grade of the existing pavement may be used as embankment filling material, (ii) the existing sub-base material may be recycled as sub-base of any haul road or access road, and (iii) the existing bitumen surface may be utilized for paving of access roads and of construction sites and campus, temporary traffic diversions, haulage routes etc. • All arrangements for transportation during construction including provision, maintenance, dismantling and clearing debris should be considered incidental to the works and should be planned and implemented by Contactor. • Identify and demark the area proposed to store the construction and demolition wastes temporarily and 	Contractor	ESIA Consultants in coordination with SPCU/TSU

Environmental Issue	Suggested Mitigation Measures	Responsibility	
		Planning and Execution	Supervision/ Monitoring
	<p>obtain the approval from TSU/SPCU</p> <ul style="list-style-type: none"> Plan transportation routes so that heavy vehicles do not use narrow local roads, except in the immediate vicinity of temporary storage/delivery sites; Schedule transport and hauling activities during non-peak hours (peak hours 7 to 10 a.m. and 4 to 7 p.m.); Debris and waste generated from other construction activities should be disposed in a way that it does not spill into water bodies or drains, and should not be stored in the core area for more than 24 hours. Log book should be maintained at the temporary storage sites to record the quantity of wastes handled at the site 		
Impact on natural habitats, such as forests and riverbeds	<ul style="list-style-type: none"> Detailed design of the subproject components should ensure <u>minimum disturbance to forests and riverbeds during construction and the full recovery of any affected area afterwards.</u> New constructions such as toilet blocks, parking area, bathing ghat, benches, lighting, paths, etc shall be located without causing much impact on the forest and river beds. The subproject activities in the forest and river beds will be finalized and implemented in consultation with the line department NOC from Forest Department and Irrigation and Water Resources Department will be obtained prior to the commencement of the civil works. Conditions imposed in the NOCs will be strictly implemented to avoid any impact on natural habitats such as forest and river beds 	Contractor/T SU/SPCU	ESIA Consultants in coordination with SPCU/TSU

Environmental Issue	Suggested Mitigation Measures	Responsibility	
		Planning and Execution	Supervision/ Monitoring
Impact on trees due to construction of mediation platform	<ul style="list-style-type: none"> Review and revise the design of the mediation platform around trees and ensure that the growth of trees should not be affected due to the construction Avoid concrete and use Bricks, (clay coloured and brown coloured)/ Mandana stone for construction of platform. Explore the possibility of providing benches instead of platform. Plant 10 trees for each platform around tree as compensatory afforestation 	Contractor	ESIA Consultants in coordination with SPCU/TSU
Worker and public health and safety	<ul style="list-style-type: none"> All activities should comply with the safety protocols, Building and Other Construction Workers Regulations of Gol & Environment, Health and Safety (EHS) Guidelines of World Bank. Suitable safety barricading should be provided at all construction sites. The use of Personal Protective Equipment such as helmets, mask, boots, gloves, ear plugs etc. should be ensured. All vehicles and equipment should have safety gears. All electrical connections should be provided with an earth link circuit breaker (ELCB) and earthing. Appropriate and adequate safety signage in the local language and English should be provided at all core areas. Health and Safety Officers should be deployed at the construction sites. Facilities for first aid and medical support on call should be provided at construction sites. All safety incidents/accidents should be monitored and 	Contractor	ESIA Consultants in coordination with SPCU/TSU

Environmental Issue	Suggested Mitigation Measures	Responsibility	
		Planning and Execution	Supervision/ Monitoring
	appropriate preventive/ mitigation actions should be taken.		
Impact on cultural heritage/protected monuments	<ul style="list-style-type: none"> Obtain prior permission from ASI/NMA for the works to be conducted within the regulated zone of monument; submit detailed construction drawings clearly indicating the details of proposed excavations and works, use of equipment and machinery, etc., to ASI for their review; incorporate any suggestions/recommendations of ASI in project design and implementation Excavation and construction methodology to be used near the monuments (within the regulated area of 300 m of any monument) shall be in line with the ASI recommendations Dust control measures shall be put in place; all work areas to be barricaded and enclosed with dust screens Conduct air quality and noise monitoring weekly throughout construction phase in the 300 m regulated area 	Contractor	ESIA Consultants in coordination with SPCU/TSU
Chance Finds artifacts, remains or alike of cultural and /or archeological importance during construction	<ul style="list-style-type: none"> Report relevant authorities. Comply with World bank's safeguard on Physical and Cultural Resources, and Monuments and Archeological sites and Remains Act, 1958 and as amended Act 2010 of Gol. Prepare cultural properties management plan. 	Contractor	ESIA Consultants in coordination with SPCU/TSU
Trees existing in the proposed site may be impacted	<ul style="list-style-type: none"> Rehabilitation/relocation of trees to the extent possible Design the structures/parking without affecting the trees If tree cutting, compensatory plantation measures should be adopted Obtain prior sanction from Forest Department for tree 	Contractor	ESIA Consultants in coordination with SPCU/TSU

Environmental Issue	Suggested Mitigation Measures	Responsibility	
		Planning and Execution	Supervision/ Monitoring
	cutting		
Environmental issues due to the establishment of labour camps	<ul style="list-style-type: none"> • As far as possible located the camp site within the work sites; if any camp to be established outside these, then select a camp site away from residential areas (at least 100 m buffer shall be maintained) • Avoid tree cutting for setting up camp facilities • Ensure that a proper compound wall is provided, and erect a wind/dust screen around • Camp site shall not be located near (100 water bodies, flood plains flood prone/low lying areas, or any ecologically, socially, archeologically sensitive areas • Separate the workers living areas and material storage areas clearly with a fencing and separate entry and exit • Provide proper temporary accommodation with proper materials, adequate lighting and ventilation, appropriate facilities for winters and summers; ensure conditions of livability at work camps are maintained at the highest standards possible at all times; • Consult PIU before locating project offices, sheds, and construction plants; • Minimize removal of vegetation and disallow cutting of trees • Ensure conditions of livability at work camps are maintained at the highest standards possible at all times; living quarters and construction camps shall be provided with standard materials (as far as possible to use portable ready to fit-in reusable cabins with proper ventilation); thatched huts, and facilities constructed with materials like GI sheets, tarpaulins, etc., shall not be 	Contractor	ESIA Consultants in coordination with SPCU/TSU

Environmental Issue	Suggested Mitigation Measures	Responsibility	
		Planning and Execution	Supervision/ Monitoring
	<p>allowed as accommodation for workers</p> <ul style="list-style-type: none"> • Camp shall be provided with proper drainage, there shall not be any water accumulation • Provide drinking water, water for other uses, and sanitation facilities for employees • Prohibit employees from cutting of trees for firewood; contractor should be providing proper facilities including cooking fuel (oil or gas; fire wood not allowed) • Train employees in the storage and handling of materials which can potentially cause soil contamination • Recover used oil and lubricants and reuse or remove from the site • Manage solid waste according to the following preference hierarchy: reuse, recycling and disposal to designated areas; provide a compost pit for biodegradable waste, and non- biodegradable / recyclable waste shall be collected and sold in local market • Remove all wreckage, rubbish, or temporary structures which are no longer required • At the completion of work, camp area shall be cleaned and restored to pre-project conditions, and submit report to SPCU; 		
Sourcing materials of construction	<ul style="list-style-type: none"> • Obtain construction materials only from the existing government approved quarries with prior approval of SPCU • SPCU to review, and ensure that proposed quarry sources have all necessary clearances/ permissions in place prior to approval • Contractor to submit to SPCU on a monthly basis 	Contractor	ESIA Consultants in coordination with SPCU/TSU

Environmental Issue	Suggested Mitigation Measures	Responsibility	
		Planning and Execution	Supervision/ Monitoring
	<p>documentation on material obtained from each sources (quarry/ borrow pit)</p> <ul style="list-style-type: none"> No new borrow areas, quarries etc., shall be developed for the project 		
Compliance with environmental regulations/statutory requirements	<ul style="list-style-type: none"> Obtain all necessary consents, permits, clearance, NOCs, etc. prior to award of civil works. Ensure that all necessary approvals for construction to be obtained by contractor are in place before start of construction Acknowledge in writing and provide report on compliance all obtained consents, permits, clearance, NOCs, etc 	Contractor	ESIA Consultants in coordination with SPCU/TSU
COVID response	<ul style="list-style-type: none"> Taking cognizance of situation at time of mobilization, the Contractor shall undertake a COVID risk assessment of project area and prepare a COVID Response and Management Plan (C-R&MP) and submit to TSU/SPCU for approval. The preparation of C-R&MP shall consider guidance of Government of India, World Health Organization, International Labour Organization, International Financial Corporation and World Bank's interim guidance note etc. The contractor shall submit monthly report on implementation of C-R&MP along with monthly environmental and social monitoring report to TSU/SPCU. 	Contractor	ESIA Consultants in coordination with SPCU/TSU
Impacts on Infrastructure Status and Social Services	<ul style="list-style-type: none"> The construction phase can have an abrasive effect on roads. In order to prevent such effects from affecting daily and economic life negatively, it is recommended that complaints about the issue are taken into consideration and necessary maintenance and repair 	Contractor	ESIA Consultants in coordination with SPCU/TSU

Environmental Issue	Suggested Mitigation Measures	Responsibility	
		Planning and Execution	Supervision/ Monitoring
	<p>works are carried out.</p> <ul style="list-style-type: none"> • Construction vehicles can also cause physical damage due to various accidents. Fences, walls, trees, etc. can be damaged due to construction activities. Damaged assets should also be compensated. These situations should be stipulated in contractor contracts. • 		
Impacts on Labor and Working Conditions	<ul style="list-style-type: none"> • Ensure compliance with Workers' accommodation: processes and standards for accommodation; including clean and safe areas that ensure the minimum space requirements, and ventilation that is appropriate for the existing climatic conditions, gender based accommodation facilities, etc.). Processes and standards for onsite facilities (canteen, sanitary facilities, adequate amenities for socialization and resting, etc.). • Ensure drinking and utility water to be supplied • Provide all accommodation sites with sufficient emergency response equipment such as first aid kits and fire-fighting equipment and conduct periodic checks to ensure they are in working condition. • Provide trainings to personnel on general waste management, housekeeping, first aid practices and communicable diseases. • Conduct visual checks on site to ensure proper housekeeping. • Ensure proper first aid equipment is kept on site, at various related locations. • Conduct periodic medical checks for personnel and provide vaccination and/or other mitigating measures when required. 	Contractor	ESIA Consultants in coordination with SPCU/TSU
Impact due to Labour Influx	<ul style="list-style-type: none"> • Effort will be made to use local labors in work force as much as possible. 	Contractor	ESIA Consultants in coordination

Environmental Issue	Suggested Mitigation Measures	Responsibility	
		Planning and Execution	Supervision/ Monitoring
	<ul style="list-style-type: none"> • Orientation of migrant labors before mobilizing in project sites about the religious, cultural and ethnic characteristics of the project town and code of conduct to be followed in project. • Provide all the basic facilities in the labour camps as well as at work sites to decrease chances of conflicts of workers with nearby villagers for use of resources. Arrangement of recreation facilities at worker's camps such as radio, television, etc. for recreation of labors • Periodical public consultations with locals to find out any issue between locals and project workers. • Conduct screening of migrant and local labors before deployment at site, verify their previous records and police verification of labors before deployment at site. • Orientation of labors about code of conduct. • Strict action against labors who are found guilty of illicit behavior during works at sites. • Orientation of labors about code of conduct and strictly follow up: • Provide all the basic facilities in worker's camp. • Provide periodical leaves to migrant labors to visit their homes and meet their families so that they may not search sex workers for their sexual needs in nearby areas. • Prohibit any temporary shops and vending activities near the permanent project sites 		with SPCU/TSU
Risk on traffic and pedestrian safety due to construction traffic	<ul style="list-style-type: none"> • Investigate all construction areas and construction access routes for potential community interaction (with a particular attention to schools, children parks, etc.) with Project construction phase traffic. Based on results, develop and implement site specific measures (i.e. improve signage, visibility) and driver/operator trainings prior to initiation of any construction work. • Implement access restriction at construction areas and 	Contractor	ESIA Consultants in coordination with SPCU/TSU

Environmental Issue	Suggested Mitigation Measures	Responsibility	
		Planning and Execution	Supervision/ Monitoring
	<p>access routes, by specifying restricted zones, (i.e. dangerous routes), fencing, barriers, etc.</p> <ul style="list-style-type: none"> • Install signs, signals, markings and other appropriate traffic regulation devices, including reflective and flashing signage for nighttime traffic safety, at all required sites. • Where passage through existing settlements is unavoidable, take all necessary measures (i.e. speed limits, traffic signs, driver trainings) to prevent safety risks on local communities, engage with community representatives to plan the traffic by taking the daily life of the communities into account (i.e. selection of routes, school transportation hours, market days, etc.) and inform the communities about the construction schedule, activities to be conducted and safety measures taken, through appropriate means such as meetings and leaflets, notices, signs, etc. • Allow only drivers/operators with valid licenses specific to each construction phase vehicle to drive/operate vehicles. 		
Impacts on gender equality and children	<ul style="list-style-type: none"> • Continue to promote communication to raise awareness about gender equality and HIV / AIDS to all levels of people and women themselves. Develop and implement communication activities, models of gender equality in accordance with the subproject area. At the construction site area, there should be propaganda materials on gender, HIV / AIDS. • Manage labor flow, especially women. Coordinate with the locality to have good management measures. To promote the responsibility of the local government, the contractor is to promote the role of the heads of agencies, localities, supervision consultants and site leaders in implementing gender equality objectives; 	Contractor	ESIA Consultants in coordination with SPCU/TSU

Environmental Issue	Suggested Mitigation Measures	Responsibility	
		Planning and Execution	Supervision/ Monitoring
	<p>arrange and assign work to women.</p> <ul style="list-style-type: none"> • In the process of construction, it is necessary to take measures to prevent prostitution, sexual assault on women and children. • Construction site should have signs and lights at night to ensure that women and children are not affected when passing through the construction site at night. • Children are strictly prohibited from entering the construction site • Orientation of labors about code of conduct and strictly follow up. • Educate labors about various privileges given to women through various acts and other laws/acts which protect women from violence and harassment. • Engage local NGOs working in such fields to educate labors on gender based issues including gender based violence. • Take strict action who is found guilty of any type of gender based violence 		

1.9 Environmental Monitoring Plan

The ESIA Consultants in coordination with SPCU/TSU will monitor all the subprojects to ensure conformity to the requirements of the ESMF and ESMP. The monitoring will cover all stages of planning and implementation. The monitoring will be carried out through the environmental, social and cultural heritage safeguard compliance reports that will form a part of Quarterly Progress Reports (QPR) for all subproject. Now, ESIA Consultants will ensure regular and full time monitoring of all the safeguards. In addition to the above, the SPCU will undertake an annual assessment of the applicable management plans on sample basis and will review their status compliance.

An independent environmental management firm or specialists should be hired for the monitoring and evaluation of the DPR implementation from an environmental viewpoint. This is particularly important given the specificities involved in environmental monitoring.

The broad objectives of environment monitoring are:

- To ensure compliance with the requirements of environmental regulatory framework;
- To monitor impacts on the surrounding environment and the effectiveness of mitigation measures during the construction stage;
- To suggest ongoing improvements in the EMP, if required.

The environmental monitoring cost is estimated based on an 18 months' implementation period and existing environmental issues addressed by the proposed DPR activities, totaling Rs.3,62,000, as detailed in Table 24 below:

Table 24: Environmental monitoring estimated costs

Attribute	Location and frequency	Quantity	Unit Rate (INR)	Total Cost (INR)
Ambient and Indoor Air Monitoring (PM10, PM2.5, SO2, NO2, CO)	4 locations once prior to start of construction	2	6,000	1,68,000
	4locationseveryquarteruntil the end of construction period	8		
	Once in 4 locations after activity completion	4	6,000	24,000
Water Quality Monitoring (Parameters as per IS 10500;2012)	U/s and D/s of Kukutha River and Hiranyavati river. Once before start of Construction. Half yearly	16	4,500	72,000
	During construction (18 months construction period considered)			
	U/s and D/s of Kukutha River and Hiranyavati	4	4,500	18,000

	river. Once after construction			
Noise Monitoring, dB(A) Leq, day time and night time	4 locations once prior to start of construction 4 locations every month until the end of period	76	1,000	76,000
	Twice in 4 locations after activity completion	8	1,000	8,000
Total				3,62,000

1.10 Integrating ESMP into Work Contracts

The Environmental and Social Management Plan (ESMP) is the main output of the Environmental and Social Impact Assessment (ESIA) process and documents project's risk management strategy to provide inputs into the design of the subproject in accordance with the World Bank Operational Guidelines. The study helps to develop an ESMP detailing the measures that have been identified for avoiding adverse environmental and social impacts, for minimizing them to acceptable levels or to compensate for them. The ESMP will become an integral part of the project proposal and contractor tender documents. Article 3-1-12 and 11-18&19 of the Engineering, Procurement and Construction (EPC) agreement signed with the Contractor requires the contractor to implement the ESMP and ensured the implementation of ESMP during execution.

1.11 Environmental and Social Monitoring

Monitoring will be an integral part of each subproject supervisory work in the course of the project implementation. The Department of Tourism is responsible that on-site managers of works contractors are familiar with the management plans and instruct workers/personnel on the compliance with them. The Department's in-house capacity to carry out the supervisory functions may be supplemented by a project management firm, as required.

1.12 Pre-Construction Phase

The environmental monitoring programme helps in signaling the potential problems resulting from the proposed project activities and will allow for prompt implementation of corrective measures. Pre-construction phase monitoring has been done for the proposed project for air, noise, water, and soil quality.

1.13 Construction Phase

Monitoring schedule for the entire period of construction is summarized in Table 27. The number of locations could be modified based on need when the construction commences. Monitoring should be carried out by NABL Accredited/ MoEFCC recognized private or Government agency. The contractor will be responsible for carrying out monitoring during construction under the supervision of TSU. The results of air quality, water quality, noise, monitoring will be submitted to TSU along with the monthly environmental monitoring report.

Table 25: Construction Stage Monitoring Schedule

Parameter	Locations and Frequency	Reference/Standard	Implementation by / Approval by
Air	One day monitoring for once in 3 month at four locations	<ul style="list-style-type: none"> ▪ Guidelines for Ambient Air Quality Monitoring, CPCB, 2003 ▪ National Ambient Air Quality, 2009 	Contractor/ESIA Consultant
Noise	One day monitoring for once in 3 month at four locations	<ul style="list-style-type: none"> ▪ Protocol for Ambient Level Noise Monitoring, CPCB, May 2015 	Contractor/ESIA Consultant
Surface water	U/s and D/s of the subproject sites at Kukutha River and Hiranyavati River	<ul style="list-style-type: none"> ▪ Guide Manual – Water and wastewater analysis, CPCB ▪ Drinking water – Specifications IS 10500:2012 and CPHEEO Manual 2012 	Contractor/ESIA Consultant
Soil	Spot sample once in three month at four locations	<ul style="list-style-type: none"> • US EPA test protocols 	Contractor/ESIA Consultant

1.14 Reporting Requirement

Monthly compliance report of the above environmental management plan and monitoring plan shall be submitted by the contractor to GDA/TSU/ESIA Consultants. On the basis of monthly compliance report from contractor and regular monitoring and supervision on site, ESIA Consultant will prepare monthly progress report and submit to SPCU. SPCU will prepare based on the monthly reports from ESIA Consultants and the findings of its inspections Semi-annual Reports for onward transmission to DoT and WB.

Table 26: Reporting System

Item	Contractor	ESIA Consultant		SPCU		World Bank
	Implementation and Reporting to TSU/ESIA Consultant	Supervision	Reporting to SPCU	Oversee Compliance Monitoring	Report to DoT and WB	Desired Supervision
Construction Stage						
Monitoring of Construction Site and Construction Camp	Before start of work	Regular	Monthly		Half yearly	Half yearly
Environmental quality Monitoring	Once in 3 months	As required	Quarterly	Half yearly	Half yearly	Half Yearly
Debris Disposal Area	Weekly	As required	Quarterly	Half yearly	Half yearly	Yearly
ESMP implementation	Daily	Weekly	monthly	Quarterly	Half yearly	Half yearly
Tree Cutting	As required	As required	Quarterly	Half yearly	Half yearly	Yearly
Operation Phase						
Environmental quality monitoring				As per monitoring plan		

1.15 Institutional Arrangements for Safeguard Monitoring

The State Project Coordination Unit (SPCU) in Lucknow, located in the Department of Tourism, will be responsible for addressing social safeguard measures. The Directorate of Tourism, Government of Uttar Pradesh, has engaged Shah Technical Consultants Private Limited, Mumbai for Consulting Services for Preparation of Environmental & Social Safeguards Documents and Monitoring of Compliances of proposed subprojects in Kushinagar (District Kushinagar) of Uttar Pradesh (ESIA Consultant). The ESIA Consultant is responsible for conducting monitoring and giving regular supports of project activities. They will assess the compliance with the safeguard policies and the implementation of the tools in practice. For this Subproject, the ESIA Consultant is responsible for the supervision and monitoring the implementation of ESMP and ensuring that tenders and contracts include environmental covenants for Contractors' compliance. The Contractor will carry out construction activities and comply with environmental covenants in the contracts. The ESIA Consultant will monitor the compliance with the mitigation measures agreed with the Contractor and submit monthly report to SPCU. In addition, SPCU/TSU will monitor the implementation of ESMP by the Contractor periodically and ascertain the compliance with the environmental and social mitigation measures by the contractor.

1.16 Framework for Monitoring & Evaluation

The ESIA Consultant in coordination with SPCU/TSU will be responsible for carrying out monitoring and evaluation. Internal monitoring by regular field visits and interaction with stakeholders will be carried out by the Environmental and Social Experts of ESIA Consultant. This will help monitor project activities closely. Regular monitoring by undertaking site visits will help identify potential difficulties and problems faced in the ESMP implementation and subsequently help to take timely corrective measures including deviations, if needed. Monitoring will start as soon as the project implementation begins and ESIA Consultants mobilise its safeguard specialists. Components of monitoring will include performance monitoring i.e., physical progress of the work and impact monitoring.

Immediately after mobilization and prior to commencement of the works, the contractor will submit a compliance report to ESIA Consultant that all identified pre-construction mitigation measures as detailed in the ESMP such as obtaining statutory clearance/approvals, establishing labour camp, mobilizing of required staff for implementation of ESMP etc are undertaken. Contractor should confirm that the staff for EMP implementation (EHS supervisor) is mobilized. The ESIA Consultants, after verification and review, will submit the contractor's compliance report to SPCU for review, and approval. SPCU will review, and if found satisfactory, will approve the report and permit the contractor for the commencement of works.

During construction, the contractor should submit monthly ESMP implementation reports reflecting the internal monitoring conducted through its EHS Officer to EIA Specialist. Based on the monthly report from the contractor and the internal monitoring done by the

Environmental and Social Experts of ESIA Consultants, a Monthly Environmental and Social Monitoring Report will be prepared by ESIA Consultant and submit to SPCU. The monitoring will also provide feedback on community concerns, grievances and requests.

Framework of monitoring is summarized in Table 27.

1.17 Grievance Redressal Mechanism

As per project ESMF an Integrated Grievance Redressal Mechanism (IGRM) based on use of ICT shall be established, with necessary officials and systems, at the state as well as subproject level. The GRM described below has been developed in consultation with stakeholders. ESIA Consultant will be responsible for information dissemination to affected persons and general public in the project area on grievance redress mechanism. Public awareness campaign will be conducted to ensure that awareness on the project and its grievance redress procedures is generated. The campaign will ensure that the poor, vulnerable and others are made aware of grievance redress procedures and entitlements per project entitlement matrix. Grievances, if any, may be submitted through various mediums, including in person, in written form to a noted address, through a toll free phone line or through direct calls to concerned officials, and online. All local contact information and options for complaint submission will be available on site on local information boards. In addition, they will be available to the Public Information Officers to be appointed under the Right to Information (RTI) Act. Grievances received and responses provided will be documented by ESIA Consultant and reported back to the affected persons. The number of grievances recorded and resolved and the outcomes will be displayed/disclosed in the SPCU office notice board and on the web, as well as reported in the semi-annual environmental and social monitoring report to be submitted to WB.

Table 27: Framework of Monitoring

Type	Indicators	Issues	Procedure	Periodicity	Responsibility
Process Level Monitoring	Project/ESMP Implementation	Employment of local labour including women	Site observation, attendance record, interaction with labourers and contractor	Monthly	Social Expert of ESIA Consultant in coordination with TSU
		Camp site management including lodging arrangement and camp site facilities	Site observation, interaction with labourers and contractor	Monthly	Social Expert of ESIA Consultant in coordination with TSU
		ESMP implementation	Regular field visits and interaction with the contractor, labourers and local people	Daily throughout the construction period	Environmental/Social Expert of ESIA Consultant in coordination with TSU
		Use of health and safety measures	Site observation, interaction with labourers and contractor	Daily throughout the construction period	Environmental/Social Expert of ESIA Consultant in coordination with TSU
		Temporary leasing of land and house, if any	Site observation, interaction with contractor and check contract agreement	Monthly	Social Expert of ESIA Consultant in coordination with TSU
		Discrimination of wages rate between male and female workers	Interaction with labourers, labour survey and check record of wage payment	Monthly	Social Expert of ESIA Consultant in coordination with TSU
		Incidence of communicable diseases	Interaction with local people, health workers, check the health centre records	Monthly	Social Expert of ESIA Consultant in coordination with TSU

Impact level	Change in forest cover/vegetation type, if any	Change in vegetation	Consultation with forest department /local representatives	Annually	GDA/SPCU
monitoring	Social safety	State of social harmony and social security	Check Police records, consultation with stakeholders	Annually	GDA/SPCU

Note: No type of change in forest cover /vegetation is proposed under this DPR

A Grievance Redress Cell (GRC) will be set up at the state level and at subproject level where investments have been or will be planned. The staffing of GRC at Subproject Level will include representatives from implementing entities; subproject-level environmental and social officer; and two representatives from the community/affected persons. The head of the cell will be the Team Leader of ESIA Consultant. The GRC will have its own bylaws. The functions of the GRC will include: (i) to redress grievances of community/beneficiaries/project affected persons (PAPs) in all respects; (ii) rehabilitation and resettlement assistance and related activities; (iii) GRC will give its decision/verdict within 15 days after hearing the aggrieved person; (iv) final verdict of the GRC will be given by the Chairman/Head of GRC in consultation with other members of the GRC and will be binding to all other members.

GRM aims to provide a time-bound and transparent mechanism to voice and resolve social and environmental concerns linked to the project. All grievances – major or minor, will be registered. Documentation of the name of the complainant, date of receipt of the complaint, address/contact details of the person, location of the problem area, and how the problem was resolved will be undertaken. ESIA Consultant will be responsible for follow-through for each grievance, periodic information dissemination to complainants on the status of their grievance and recording their feedback (satisfaction/dissatisfaction and suggestions).

In case of grievances that are immediate and urgent in the perception of the complainant, the contractor, and ESIA Consultant will resolve the issue on site, and any issue that is not resolved at this level will be dealt at Subproject level GRC for immediate resolution. In the event that certain grievances cannot be resolved even at Subproject GRC level, particularly in matters related to land purchase/acquisition, payment of compensation, environmental pollution etc., they will be referred to the SPCU for bringing before the State level GRC.

Records of all grievances received, including contact details of complainant, date the complaint was received, nature of grievance, agreed corrective actions and the date these were effected and final outcome will be kept by EIA Consultant and submitted to SPCU. The SPCU will periodically review the functioning of the GRM and record information on the effectiveness of the mechanism, especially on the ESIA Consultant's ability to prevent and address grievances.

An aggrieved person shall have access to the country's legal system at any stage, and accessing the country's legal system can run parallel to accessing the GRM.

1.18 Information Disclosure

Public information campaigns to explain the project details to a wider population will be conducted. Public disclosure meetings will be conducted at key project stages to inform the public of progress and future plans. Prior to start of construction, the TSU will issue Notification on the start date of implementation in local newspapers. A board showing the details of the project will be displayed at GDA/TSU and the construction sites for the information of general public.

Local communities will be continuously consulted regarding location of construction camps, access and hauling routes and other likely disturbances during construction as required.

1.19 Capacity Building and Technical Support by ESIA Consultants

As part of the capacity building program, the Department of Tourism would also aim to develop decentralized local capacity on managing environmental, social and cultural properties issues associated with various investments. In order to achieve this objective, the ESIA Consultant has drawn up a capacity building Plan (Table 28) which will be implemented during the period of implementation of the project. The Experts from ESIA Consultants will organize the program. All TSU staff, contractor staff and consultants involved in the subproject will be trained during the course of the project, so that they can provide support to the project agencies in conducting the required impact assessments and later in implementing all applicable management plans (including Resettlement Action Plan, Gender Action Plan, as relevant) and also offer support on an on-going basis. The capacity building at the local level for ESMP implementation agency as well as for the monitoring and redressal committee would also be done through this program.

Proposed capacity building plan is given in Table No. 28.

Table 28: Capacity Building Plan

MODULES	CONTENT	Responsibility	DURATION
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<p>Environment and Social Management Framework (ESMF)</p>	<ul style="list-style-type: none"> ▪ Project Concept ▪ ESMF Concept ▪ Regulatory Requirements ▪ E and S Priority Issues ▪ Subproject types ▪ ESIA ▪ ESMP ▪ Process Outline ▪ Public consultation ▪ Monitoring and Reporting 	<p>Organized by ESIA Consultant in association with TSU</p>	<p>Half a day. To be repeated every alternative year</p>
<p>Environmental Assessment Process</p>	<ul style="list-style-type: none"> ▪ Environmental Laws & Regulations ▪ EIA process ▪ Identification of Environmental Impacts ▪ Impact Identification Methods ▪ Identification Mitigation Measures ▪ Formulation of Environmental Management Plan ▪ Implementation and Monitoring ▪ Institutional Mechanism 	<p>Organised by ESIA Consultant with the support of SPCU</p>	<p>Half a day class room training.</p> <p>Half a day field training</p>
<p>Social Assessment Process</p>	<ul style="list-style-type: none"> ▪ Social Assessment process ▪ Need for conducting socio-economic survey ▪ Description of project; RPF, gender frameworks; and National regulatory frameworks ▪ LA process ▪ Necessity for RAP/ARAP, Gender plan and its preparation process ▪ Implementation and Monitoring ▪ Institutional Mechanism 	<p>Organised by ESIA Consultant with the support of SPCU</p>	<p>Half a day class room training.</p> <p>Half a day field training.</p>

	▪ Grievance Mechanism		
Cultural Properties Assessment Process	Cultural Properties Assessment process • Description of project and national regulatory frameworks • Necessity for PCRMP and its preparation process • Implementation and Monitoring • Institutional Mechanism	Organised by ESIA Consultant with the support of SPCU	Half a day class room training. Half a day field training

1.20 Budget for the implementation of Safeguard Mitigation Measures

Most of the mitigation measures require the contractors to adopt good site practices, which should be part of their normal procedures already, so there are unlikely to be major costs associated with compliance. The costs which are specific to EMP implementation and are not covered elsewhere in the projects are given Table 29 below:

Table 29: Estimated Budget for EMP implementation

Activity	Quantity	Unit	Rate (Rs.)	Cost (Rs.)	Remarks
Consent for establish and consent for operate from UP Pollution Control Board (UPPCB)	2	No	2,00,000	4,00,000	Consent to Establish and Consent to Operate for Hotel Rahi Pathik Niwas and Food Plaza including statutory fee
Relocation/plantation of tress, protection measures, watering. Tree cutting and compensatory plantation measures	LS			1,00,000	Few trees are there in Parking area, which are to be relocated and preserved. In case of tree cutting, compensatory afforestation as per rules has to be done
Removing the topsoil and preserving it at suitable location and reapply after work	LS			2,00,000	50,000/- each for all the site
Safety barricading the construction sites	LS			2,00,000	50,000/- each for all the site
Sprinkling water for suppression of dust At all construction and rehabilitation points every 2hr interval during	288	KL	500	1,44,000	4tanks of 1KL capacity per week x 18 months construction

Activity	Quantity	Unit	Rate (Rs.)	Cost (Rs.)	Remarks
construction. Rate include labour cost, transportation, materials, equipment and workers required					
Separate storage areas with three side cover (2m high) for course and fine aggregates. Base protected with high thickness plastic sheets. Loose course and fine aggregates covered with high thickness plastic sheets.	4	No	1,00,000	4,00,000	! storage area at each site
Provision of Sanitation Facilities in Labour Camps					2 labour camp proposed
• Water Supply	288	KL	500	1,44,000	4 tanks of 1KL capacity per week x 18 months construction
• Solid waste management	15	No	1500	22,500	Bins of 100 Litres capacity at 10 points 1 bin each has to be provided in each work site
• Mobile toilet with anaerobic treatment facility	36	each	10,000	3,60,000	2 labour camp proposed
Noise control measures	80	Sheets	3000	2,40,000	Acoustic barriers or sheets
Provision of Personal Protective Equipment					
25Sets of PPE	25	No	4,000	1,00,000	
6Sets of First Aidkits for 25 people each	6	No	10,000	60,000	Includes First Aid box at each work sites
Safety signage for construction sites, diversion and other					
▪ Small 3X2	16	each	5,000	80,000	
▪ Medium 5X3	8	each	8,000	64,000	
▪ Large 7X4	4	each	15,000	60,000	
Environmental Monitoring	As per			3,62,000	As per Table

Activity	Quantity	Unit	Rate (Rs.)	Cost (Rs.)	Remarks
	Table above				
Training & Capacity Building - Training inEMP	LS	-	-	4,46,500	Market Rate
External Evaluation of EMP Implementation - Hire of independent agency	LS			6,00,000	Cost of ToR preparation Rs.1,00,000andRs.5 Lakhs for evaluation
Estimated Total Amount				39,83,000	