ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

(ESMP)

Developmental Works of Archaeological Site Rehman Dheri District DI Khan of KP

Prepared By

KHYBER PAKHTUNKHWA INTEGRATED TOURISM DEVELOPMENT PROJECT (KITE - PMU DoT)

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ACRONYMS

DoAM	Directorate of Archelogy and Museums
DoT	Department of Tourism
EIA	Environmental Impact Assessment
EA	Executing Agency
EPA	Environmental Protection Agency
ESMP	Environmental & Social Management Plan
GPS	Global Positioning System
GRM	Grievance Redressal Mechanism
IEE	Initial Environmental Examination
KITE	Khyber Pakhtunkhwa Integrated Tourism Development Project
KP	Khyber Pakhtunkhwa
NEQS	National Environmental Quality Standards
PD	Project Director
PKR	Pakistani Rupees
PMU	Project Management Unit
PPE	Personal Protection Equipment
WB	World Bank

EXECUTIVE SUMMARY

1. Khyber Pakhtunkhwa Integrated Tourism Development Project (KITE) is effective in KP since 2019. KITE is an entity financed by World Bank using International Development Association (IDA). The Environmental and Social Management Plan (ESMP) covers all phases of sub-projects i.e., "***Developmental works at Archaeological Site Rehman Dheri District DI Khan***" implementation from preparation through commissioning and operation. ESMP aims to ensure the identification of environmental and social impacts, monitoring of environmental impacts and ensuring implementation of environmental mitigation measures.
2. The name of sub the project is Conservation Preservation and Development of Archaeological Site Rehman Dheri District DI Khan. The proposed project activities under this ESMP are summarized as follows:
   i. Provision of Retaining wall to avoid flood damages to site in future.
3. The KITE PMU DoT will provide training and quality improvement services and supervise the contractor work for implementation of social and environmental components of activities during designing, constructions and will prepare O&M for Directorate of Archaeology and Museums Government of KP for operation stages. The project will also organize stakeholder's consultations at all the proposed site activities. Thus, the contractor will be able to get training and advisory services to enhance the quality of the work, and to ensure and identify the E&S issues and prepare their mitigation plans. Both the civil works and conservation, preservation works are expected to create minor and temporary environmental and social impacts. This Environmental and Social Management Plan (ESMP) has been prepared, which identifies the appropriate mitigation measures to be adopted, describes the legal and safeguard requirements, defines roles and responsibilities of staff and specifies the capacity building needs for effective implementation of the ESMP.
4. The potential key adverse impacts include soil and water contamination, air emissions and dust pollution, noise generation, health and safety issues, child labor, and gender specific requirements for which appropriate mitigation actions have been proposed in this ESMP.
5. A comprehensive mitigation plan has been proposed in this ESMP to cater for various types of negative social and environmental impacts likely to appear

during project implementation stage. For health and safety management particularly during construction operations and fencing/ shed operation, necessary health and safety measures have been incorporated. The mitigation plan will help to minimize and reduce the overall environmental and social impacts from the proposed project activities.

6. Compensatory tree plantation and vegetative measures have been recommended to avoid damage to flora and fauna during project implementation.
7. Health and safety of workers is a major issue of concern in all component activities of the project; however, this problem is more serious in civil work and steel work activities. Therefore, a comprehensive health and safety management plan has been proposed which include mitigation actions such as provision of personal protective equipment (PPE), installation of fire protection equipment, provision of first aid boxes for minimizing health and safety risk for workers during project activities.
8. The construction of proposed site in district DI Khan does not require a large influx of labour from outside the project area. Most of the unskilled workers will be recruited locally in the project area- only specialized staff are expected to be recruited from outside. The specialized staff from outside will make about 20 percent and will not be residing in labour camps. Given that workers under the subcomponent “construction of sub project activities” are expected to be largely recruited locally, the overall social impacts anticipated from the labour influx of workers in the site of district DI Khan are rated to be low. Therefore, the labour influx related mitigation measures are likely to be addressed through this site-specific ESMP.
9. The cost of ESMP implementation including capacity building trainings and monitoring cost is 1.6 million PKR.
10. Appropriate institutional arrangement has been proposed for implementing the ESMP. The Project Director, KITE - PMU DoT will be responsible for the overall implementation of mitigation measures and monitoring at the project level. The Environmental Expert and Social Development Specialist will ensure coordination with all stakeholders, removal of bottlenecks, and maintaining a consolidated database of ESMP progress. They will incorporate the implementation progress of the ESMP in the quarterly reports.
11. In summary, this ESMP lays down principles and procedures for E&S impact

assessment & their mitigations strategies for the proposed site, the institutional arrangements, stakeholder consultation, grievance redress mechanism and monitoring & evaluation; and reporting requirements. The subproject will be in properties held by the government departments and access to the subproject locations is through public rights-of- way and existing roads hence, land acquisition and encroachment on private property will not occur.

12. World Bank Operational Policies triggered for the project include Environmental Assessment (OP/BP 4.01), Natural Habitats (OP/BP 4.04), Physical Cultural Resources (OP/BP 4.11) and Forests (OP/BP 4.36). Therefore, the proposed ESMP is required to meet the standards of the stated World Bank operational policies and comply with national and provincial laws and regulations that are applicable to the project in terms of environmental and social management. The most important of these is KP Environmental Protection Act, 2014. Other important laws include the KP Wildlife & Biodiversity Act 2015 and KP Forest Ordinance 2020. Other important laws and regulations relevant to this ESMP are KP Antiquities Act, 2016, KP Tourism Act, 2019 and KP Industrial and Commercial Employment (Standard Order) Act 2013.

This ESMP has been structured in the following manner: Section 1 provides the introduction to the ESMP, its monitoring and responsibilities for implementation. Section 2 provides the detailed description of the sub project Site along with their coordinates and photographs and describes the activities in each sub-project. Section 3 provides the details on stakeholder's consultations and their outcomes. Section 4 describes various environmental and social impacts and their mitigation measures. It also summarizes the institutional arrangements for the implementation of this ESMP. Section 5 is regarding environment and social monitoring of the ESMP. Section 6 gives the details of capacity building and trainings for the contractor's staff and community awareness on sub project's activities. Section 7 elaborates the grievance redressal mechanism (GRM) at the sub project's Site. Section 8 is about the reporting of ESMP implementation and its frequency of the reporting. Section 9 provides the ESMP implementation costs and Section 10 provides the summary of recommendations of overall ESMP.

1. Introduction to Environmental and Social Management Plan

Khyber Pakhtunkhwa Integrated Tourism Development Project (KITE) is effective in KP since 2019. KITE is an entity financed by the World Bank using International Development Association (IDA) resources. The Environmental and Social Management Plan (ESMP) covers all phases of sub-projects i.e., "Conservation, Preservation and Development of Rehman Dheri" implementation from preparation through commissioning and operation. ESMP aims to ensure the identification of environmental and social impacts, monitoring of environmental impacts and ensuring implementation of environmental mitigation measures.

This ESMP will be incorporated into the construction, operation, and maintenance of sub-project. Environmental protection measures will (i) avoid, and (ii) where avoidance is not possible, mitigate environmental impacts, and (iii) achieve compliance with National Environmental Quality Standards (NEQS) as well as World bank (WB) Safeguard Policies during implementation.

World Bank operational policies triggered for the project include Environmental Assessment (OP/BP 4.01), Natural Habitats (OP/BP 4.04), Physical Cultural Resources (OP/BP 4.11) and Forests (OP/BP 4.36). Therefore, the proposed ESMP is required to meet the standards of the stated World Bank operational policies and comply with national and provincial laws and regulations that are applicable to the project in terms of environmental and social management. The most important of these is KP Environmental Protection Act, 2014, which requires proponents to acquire environmental approvals from the KP EPA before commencing construction activities. Other important laws include the KP Wildlife & Biodiversity Act 2015 and KP Forest Ordinance 2020. Other important laws and regulations relevant to this ESMP are KP Antiquities Act, 2016, KP Tourism Act, 2019 and KP industrial and commercial employment (standard order) Act 2013.

Figure I show the location map for Rehman Dheri Archaeological Site District DI Khan.

Figure I Rehman Dheri Location Map

1.1 Environmental and Social Monitoring of ESMP

Environmental and Social Monitoring will be carried out and the results will be used to evaluate the extent and severity of actual environmental impacts against the predicted impacts and the performance of the environmental and social protection measures.

1.2 Responsibilities for Implementation

Khyber Pakhtunkhwa Integrated Tourism Development Project (KITE) PMU DoT KITE is the executing agency (EA). The Project Director (PD) PMU-DoT will be responsible for the supervision and monitoring of the project-related environmental and social activities during the pre-construction, construction and operation phases as part of their functions. The Environmental Expert and Social Development Expert will be assigned to be do supervision of environmental and social management and for environmental and social monitoring as per the ESMP document.

The major responsibilities of the Environmental Expert and Social Development Specialist will be to ensure that:

1.2.1 Mitigation measures and monitoring of the respective activities as per contract documents are carried out in accordance with the ESMP.

1.2.2 Environmental monitoring comprising of taking samples and analysis are being carried out.

1.2.3 Reporting is performed in compliance with WB requirements.

1.2.4 The main environmental and social guidance for the implementation phase will be provided by the Environment and Social (E&S) expert of supervisory consultant's team to the contractor. The role of E&S expert will be to work as part of the PMU, helping them fulfill their supervision and monitoring responsibilities in the field. The supervisory consultant will also support PMU with preparation of monitoring reports for the WB.

1.3 Contractors will be engaged by the PMU for Construction and Conservation Work:

The PMU will include this ESMP in the bid and contract documents. The bid and contract documents will specify the requirement for contractors to develop Construction Environmental and Social Management Plan (C- ESMP) based on this ESMP. The C-ESMP will be review and approve by Project Director internally. The contractor will be responsible for implementation, mitigation and monitoring measures in the construction phase and their performance will be supervised and monitored by the PMU. The supervisory consultant will provide training to contractor on ESMP requirements and will review and approve the C-ESMP prior to civil works commencing by PMU. The supervisory consultant will also support contractor to develop standard monitoring checklists and reporting template.

2. Description of Subproject

2.1 Project Objective

The sub project development aim is to enhance tourisms enabling infrastructure and tourism assets for sustainable tourism development in KP through rehabilitation works for flood damaged archeological site where conservation, preservation and civil works are planned.

2.2 Project Administrative Jurisdiction

District DI Khan.

2.3 Project Implementation Schedule

The tentative implementation period is twelve (24) months as per PC-1 of the Archaeological Site Rehman Dheri.

2.4 Location and Accessibility of The Project Area

The proposed sub project is located in district DI Khan and will be accessed through a damaged road that connects the site from provincial road. The GPS coordinates of the site, with name of authority owning the land is given below in Table I:

Table I Coordinates of Rehman Dheri site

S. No.	GPS	Name of Site/ Location	Custodian/ Owner
1	31° 56′ 45.13″ N, 70° 53′ 6.32″ E	Rehman Dheri District DI Khan	DoAM

2.5 Description of Archaeological Site

2.5.1 Conservation, Preservation and Development of Archaeological Site Rehman Dheri

Rehman Dheri is one of the earliest planned urban Site found in South Asia to date. Rahman Dheri is a Pre-Harappan Archaeological Site. The site is situated 22 kilometers north of Dera Ismail Khan. The mound is rectangular is shape with a grid-like street network. The walls demarcating individual buildings and avenue frontages are still clearly visible, and it's easy to recognize some small-scale industrial areas; within the site, eroded kilns and scatters of slag have been found. The fortified town shows signs of town planning. Pottery, stone and metal tools were found. The beads were made from lapis lazuli and turquoise. Terracotta figurines were similar to Gumla and Mehrgarh IV forms at the early stages, but later developed their own distinctive style. The rain has badly affected the site and water retain in the area for a couple of weeks. To avoid the effects of flood retaining wall is proposed to the site shown in Figure I.

Figure II Rehman Dheri

3. Sub-project Activities

KITE is contributing towards the planning, conservation, preservation and development of Physical Cultural Resources (PCRs) / archaeological sites throughout KP. KITE intends to undertake conservation, preservation and development works of damaged archaeological site in DI Khan under this ESMP, which are given below in Table II .

Table II Activities at the Proposed Site

S. No	Name of Sub Project	Activities	Type of Work			
			Conservation	Preservation	Restoration	Civil Work
1	Conservation, Preservation and Development of Archaeological Site Rehman Dheri district DI Khan	• Provision of Retaining wall to avoid flood damages to site in future.	√	√	√	Yes

3.1. METHODOLOGY/ PROCEDURES FOR CONSERVATION WORKS

The conservation works shall be carried out as per steps given below with great care, skills and devotion and implemented at Site.

a) **Pre- Conservation**

- Preparing necessary drawings and photographs, highlighting the PCR areas/elements to be conserved, before starting conservation work; and
- Clearing and grubbing of whole site before execution of any activity.

b) **During Conservation Work**

- The public/visitors shall not be allowed to enter the premises during conservation works;
- The labor working shall be counseled about the importance of antiquities, and ensure general safety measures; and
- During conservation and preservation of Archaeological site(s) the premises In-charge shall take all the safety measures and keep his/her staff vigilant to avoid any unforeseen event.

c) **Post Conservation**

- The antiquities shall be transferred back to stupa if any from antiquities store under supervision of DoAM's designated staff and the whole process shall be documented along with photographs. General considerations /protocols / SoPs for conservation works are to be complied with.

3.2. RISKS, IMPACTS AND PROTOCOLS DURING CONSERVATION WOKS

- The officer in charge of the execution of conservation works should never forget that the reparation of any remnant of ancient architecture, however humble, is a work to be done with totally different feeling from a new work. It should be kept in mind that the aim is to preserve not to renew them. Therefore, no effort should be spared to save as many parts of the original as possible. Broken or half decayed original work is of infinitely more value than the smartest and perfect new work;
- The conservation intervention needs to follow a logical procedure. This starts with visual assessment and compilation of relevant historical data/information available including in recent history & information on any previous conservation

interventions. Analytical techniques for investigation may be applied, if necessary, in order to study other aspects of the object;

- A diagnosis as to the state of conservation of the object is required. Is the object sound? Does it suffer from deterioration? If so what are the causes? The results from analysis serves various purposes. The most appropriate method and material need to be determined;
- The Conservation activities shall be carried out by pre-qualified trained Contractor under supervision of technical staff of DoAM. The Contractors shall contain team of skilled labors having past experience in similar works;
- Conservation assistant shall watch the operation and provide necessary guidance to worker. Conservation assistant shall inform Archaeological Engineer/Conservator about the progress of work and if any difficulty arises;
- Before execution of conservation work careful inquiries should be made regarding supplies of sand, bricks, stone, lime and other material etc. in the immediate neighbourhood. Samples of which shall be checked and approval shall be taken from Archaeological Engineer;
- It is important that an archaeologist from the department must be present whenever excavations are carried out in or around the PCRs, in case of discovery of any immovable antiquity during execution of work, he shall take charge and register it to further inform higher ups. Secure the site to prevent any damage or loss to movable objects. In cases of movable antiquities or sensitive remains, a night guard shall be present until the responsible authorities take over;
- All excavations are to be carried out with great care in order that any old masonry or other remains buried in the earth may not be damaged., any such remain should be left untouched when found and if liable to weather decay, it should be covered;
- The conservation assistant should carefully strut up or support any overhanging pieces of masonry, fractured door or window lintel. Decayed arches should be properly centered up, if in an unstable condition. Any wall or tower which are in a dangerous state, and are liable to fall down, must be properly shored up with raking shores, needles, plates etc. as per instruction of Engineer in charge;

- Visitors should not be allowed near those portions of building where work of preservation is in progress, and in some cases the building should be completely closed to the public.
- Conservation assistant shall collect every scrap of evidence existing in the building on which they are working, such as broken corbels, string courses, relieving arches, etc. Any carved stone or bricks or any pieces of tile work that are found lying in the debris on old Site, should be restored. if possible, to their former position, provided that no doubts exist as to what those position were;
- Where it is necessary to introduce new pillar or new masonry in order to support the mass of rock, the archaeological officer must furnish measured plans and drawing showing the precise position and detail of new pillars or masonry, in all such works care must be taken that the new stone work may match in texture and color and may be dressed in the same ways the face of the rock immediately joining;
- Proper provision is to be made for drainage, especially for taking off flood water after heavy rain. Water must not be allowed to stand in pools or ditches near an ancient monument;
- For making lime mortar, kankar lime is mixed in a trough according to the requirements of the day, as much as water being added to make it into a stiff paste;
- As a rule, the lime is soaked in water in trough at evening time and is mixed and used on the day following, but if required for immediate use, it should be passed wet through a mortar mill for at least 2 hours before use;
- Lime mortar of which tensile strength is less than 100lbs. per square inch is not to be used in conservation work. A practical and quick way of testing it on site is to take a handful of mortar from the trough and after minute or two wash it off the hand, if the skin is left rough after washing, the mortar may be considered fit for use;
- When dismantling masonry, previous to re-building, it may be necessary to mark or number the old stones so as to readily replace them in original position. The numbering should be made in such a way that it is removable again;
- The restoration of plaster stucco on walls and ceiling is rarely admissible and is to be carried out only under instruction from archaeological engineer. Broken damaged or lose plaster may be preserved with the help of lime grout or in some

cases of plaster of paris injected into the hollow cavities behind the loose plaster and by applying a neat fillet of lime mortar round the broken edges, care being taken that the cavities and edges are washed clean with water;

- The principles applicable to the conservation of wooden buildings owing to the nature of their material and comparatively short duration of their existence naturally differ from the principles applicable to the structure in the brick or stone;
- Woodwork found in wet soil or water should not be exposed to the air, but should be kept in water or wet sand and follow other procedures as per instructions of the archaeologist chemist. Before being laid in wet sand or sawdust, painted, carved or inscribed, parts should be protected by a layer of cotton wool. These precautions are necessary to prevent shrinkage and distortion of the wood through rapid drying; and

If the wood work is found infected by insects, the pests may be destroyed by means of carbon di-sulphide or hydrocyanic acid, the wood being afterwards protected against further damaged by the application of suitable preservative.

4. Stakeholders Consultation:

The consultation and information disclosure to the local community and other stakeholders during project planning, designing and implementation stages is a key to sustainable development. Likewise, participation of stakeholders at all stages of project preparation is essential to meet the objectives of meaningful consultation. During the preparation of the ESMP, stakeholders from different walks of life were consulted to learn about their concerns and adopt appropriate measures in project design and implementation and disseminate requisite information about subproject's likely impacts on PCRs, environment and social aspects. The summary of the stakeholder participation, their numbers and concerns raised are provided in Table III. The primary stakeholders are the locals of the community both men and women and the secondary stakeholders are from the archaeology department, Police and government schools.

First of all, the participants were informed about the proposed activities and their impacts on the local environmental and social facets of the proposed Site. The following parameters were discussed with the participants.

The temporary impacts on air quality during the construction stage are anticipated as fugitive dust generation associated with all construction works, earth works and waste movements.

Noise impacts will be temporary and localized at construction Site as construction machinery and vehicles generate noise as they operate. Other noise sources include loading and unloading of equipment and materials.

Surface Water will be polluted from human waste, oil spills, paint waste and other hazardous demolished material during construction phase. Short term construction impacts may be seen in terms of increased turbidity, if the drainage is improperly managed by contractor, during rains.

During construction, local cultural Site, and other areas of the community might get disturbed. Within 30 working days, after construction is finished any disturbance/ nuisance will be restored to preconstruction conditions. Occupational risks come from a range of activities including the use of heavy machinery i.e., earth moving machinery, and use of chemicals, this ESMP includes health and safety measures and monitoring requirements.

The community in and around the area will be disturbed by the noise and dust.

The concerns raised by the stakeholders were considered in developing the ESMP document, in order to enhance acceptability among the general public on environmental and social grounds. To hold the meetings, stakeholders including locals were gathered at one place on 23rd May, 2023. During the meetings, locals were briefed on the activities

on the site and potential environmental and social impacts arising thereupon due to the proposed activity.

The Table III presents the summary of consultations held, number of participants from different walks of life and number of females participants..

Table III- Summary of consultations with stakeholders and concerns raised

S.No.	Site's Name	Date of consultation	Venue where consultation conducted	Consultations held with	No. of persons consulted	Name of department	Concerns raised
1.	Rehman Dheri	22-05-2023	On site	Males	04	DoAM	The construction of retaining structures to prevent the site from flooding is necessary. The effort is appreciated.
				Females	0		
		22-05-2023	Community Hujra	Males	08	Locals	The information dissemination on site is missing. The locals must be included in the construction activity.
				Females	04	Visitors and Locals	The site is undeveloped and there are no facilities for women such as washrooms and tuck shop.
		22-05-2023	On site	Males	07	Govt teachers	The debris and earth to be disposed off in consultation with

						and a Policman	locals, there may be a requirement of earth in a school or other buildings for filling the ground. Regular water sprinkling is requested during construction.

Figure III Pictures of Stakeholders Consultation

4.1 Concerns raised During the Consultation Meetings and their Responses

- The Contractor shall dispose of construction debris and earth on regular basis in consultation with the local community.
- The involvement of locals into the labor for construction activity is emphasized.
- The information dissemination on Rehman Dheri site is missing.
- The site needs to be sprinkled with water frequently during construction activities to avoid dust.

5. Potential Environmental Impacts and Mitigation Measures

The screening of potential environmental and social impacts is conducted on the checklist provided for the site as **Annexure I**. Based on which all the sub projects lie in Category C.

6. Institutional Arrangements

This section summarizes the mitigation, monitoring, and institutional measures to be taken during implementation and operation to eliminate adverse environmental and social impacts and responsibilities described in Table IV.

The proposed organizational structure under Project Steering Committee (PSC) for the implementation of the ESMP is presented in Figure IV below:

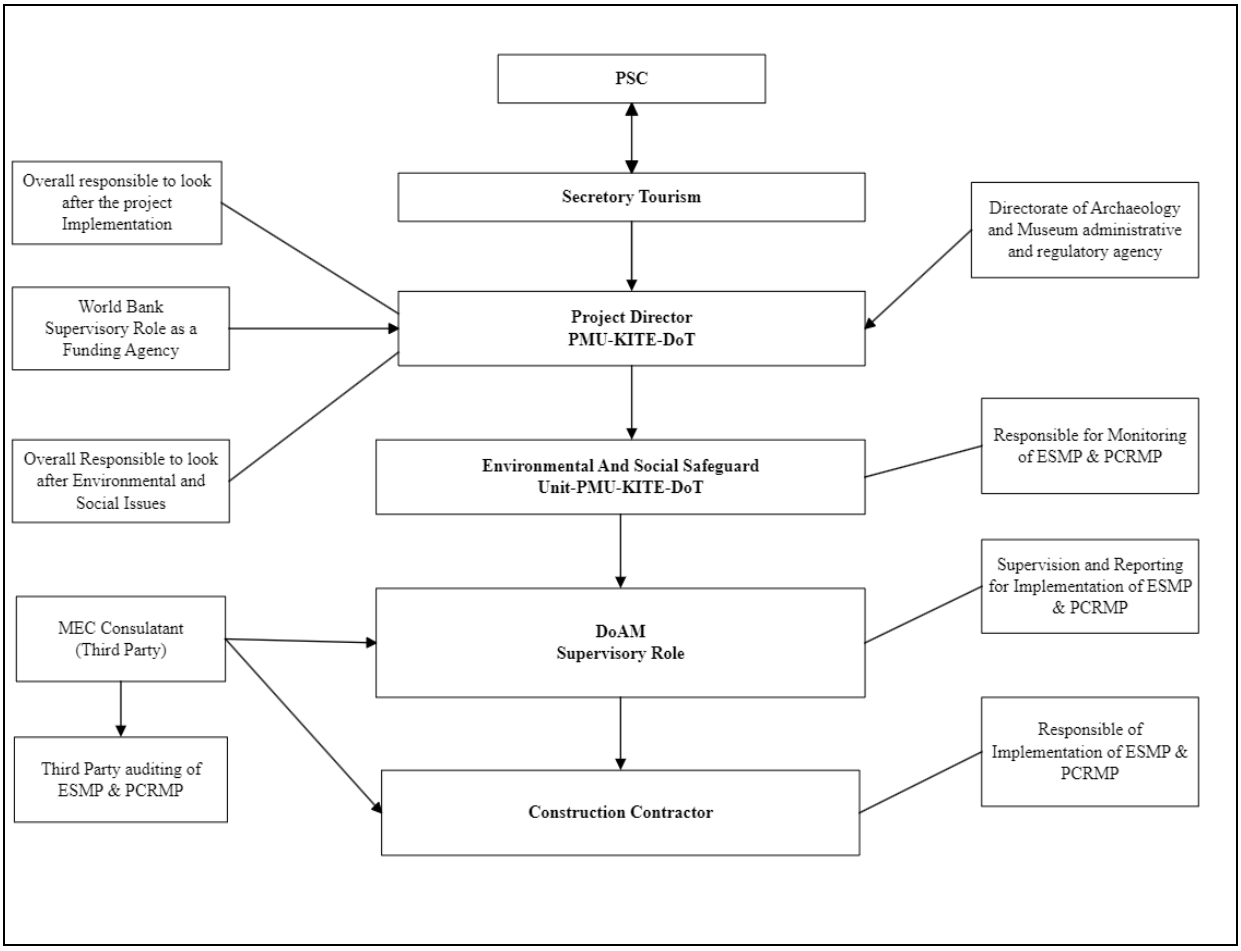

Figure IV Institutional arrangement

Table IV Summary of Potential Impacts and Mitigation Measures (Pre-Construction, Construction, Operation)

Items	Environmental Impacts and Issues	Mitigation Measures and/or Safeguards	Who Implements	Monitoring Location	Monitoring Frequency	Monitoring Indicators	Monitored by		
							PMU KITE-DoT	DoAM	MEC (Third Party)
Design- Pre-Construction Phase									
Technical Design and layout planning stage	Incompatible layout plan, engineering design and improper repair methods of the project's structures can undermine the historical value of PCRs, overall	Technical design of the proposed subproject must incorporate the historical and aesthetic considerations in the design; and The PMU DoT in consultation with DoAM must review and validate all the design and repair works considering the possible impacts (as before the start of conservation, preservation, restoration and allied civil works	Design Consultant	Site Rehman Dheri district DI Khan	Monthly	Confirmation of design Incorporation and audit Checks.	√	√	N/A
	Museums activities planning	Operational plans and operating practices for all	Design Consultant		Monthly	Documentation	√	√	N/A

Items	Environmental Impacts and Issues	Mitigation Measures and/or Safeguards	Who Implements	Monitoring Location	Monitoring Frequency	Monitoring Indicators	Monitored by		
							PMU KITE-DoT	DoAM	MEC (Third Party)
		activities will be documented and approved by the PMU.							
Incorporation of Environmental & Social Management Plan into contract documents	Can adversely impacts on the utilization of Environmental & Social Management Budge	Confirm budgets for the implementation of Environmental & Social management measures and environmental & Social supervisory responsibilities. Assign final budget allocations against each of items in the ESMP. Must reflect in the PC-1.	Design Consultant	Site Rehman Dheri district DI Khan	Monthly	Documentation	√	√	N/A
	Incorporate environmental & Social management into contract documents	Contract documents: Preparation of the environmental and social section in the Terms of Reference for bidders for construction contracts, and environmental &	Design Consultant		Monthly	Documentation	√	√	N/A

Items	Environmental Impacts and Issues	Mitigation Measures and/or Safeguards	Who Implements	Monitoring Location	Monitoring Frequency	Monitoring Indicators	Monitored by		
							PMU KITE-DoT	DoAM	MEC (Third Party)
		Social contract clauses for contractors, namely the conditions for the protection of the water, soil and air							
Construction Phase									
Site planning/ Contractor Environmental & Social Management Plan (C-ESMP)	Can adversely impact the implementation of this ESMP document.	Prepare a construction environmental & Social management plan, including an emergency preparedness and response guideline for construction emergencies and site health and safety guidelines.	Contractor	Site Rehman Dheri district DI Khan	Once	Documentation	√	√	√
Soil Erosion and Contamination	During the rain, the eroded soil mix with stagnant water to transform into slush, which can affect movement of vehicles and	Soil contamination will be minimized by placing all containers having materials in a bounded area away from water courses. Provision of	Contractor	Site Rehman Dheri district DI Khan	Daily	Documentation	√	√	√

Items	Environmental Impacts and Issues	Mitigation Measures and/or Safeguards	Who Implements	Monitoring Location	Monitoring Frequency	Monitoring Indicators	Monitored by		
							PMU KITE-DoT	DoAM	MEC (Third Party)
	machinery and construction work as well as limit the movements of local people.	impervious platform with oil and grease trap for collection of spillages during equipment and vehicle maintenance.							
Excavation of Earth	There is a chance of finding PCRs remains. Mismanagement of the PCRs remains may result loss of a valuable asset.	Immediate reporting through Supervision Consultant to Directorate of Archaeology and Museums, KP to take further suitable action to preserve those PCRs or sensitive remains; Follow all procedures for preservation and protection of Site and articles of paleontological, archaeological, and historical PCR as specified by the Antiquities Act.	Contractor	Site Rehman Dheri district DI Khan	Daily	Documentation	√	√	√
Minor Demolition	Knocking down of original floor and	Inventory of PCRs close to the	Contractor	Site Rehman	Daily	Documentation	√	√	√

Items	Environmental Impacts and Issues	Mitigation Measures and/or Safeguards	Who Implements	Monitoring Location	Monitoring Frequency	Monitoring Indicators	Monitored by		
							PMU KITE-DoT	DoAM	MEC (Third Party)
	other minor demolition activities might be harmful for other parts of the building by its vibration and causing noise disturbance.	subproject area of influence, to be at risk of damage or disturbance should be prepared, avoid extensive demolition works near or within the PCRs;		Dheri district DI Khan					
Borrow Pit	Dust due to excavation works, loading of trucks which could be caused to air quality.	Regular water spray in the dusty areas and cover of soil	Contractor	Site Rehman Dheri district DI Khan	Daily	Visual checks And photographic Record, Check and audits	√	√	√
Re-plaster / Repainting	New plaster and color scheme might not match the original and causing damage to the original wall or entirely building perception.	Ensure laboratory tests of the original plaster and color will support the suitable choice in conservation, Ensure the conservation, preservation, restoration and allied civil works of PCRs accordance with the authenticity of the material,	Contractor	Site Rehman Dheri district DI Khan	Daily	Visual checks And photographic Record, Check and audits	√	√	√

Items	Environmental Impacts and Issues	Mitigation Measures and/or Safeguards	Who Implements	Monitoring Location	Monitoring Frequency	Monitoring Indicators	Monitored by		
							PMU KITE-DoT	DoAM	MEC (Third Party)
		shape, layout, and/or workmanship techniques and Some cracks might be left exposing (as per advice of (DoAM) to the public but with appropriate and technical treatment, they will reduce the risk while also revealing traces of the past.							
Implementation of Environment, Health and Safety Guideline	Labor will be required during construction, these will include skill or non-skill workers, operators, surveyors, and construction supervisors.	Contractor's E&S to implement and monitor C-ESMP and health and safety guidelines. To orient/train workers regularly to ensure they know C-ESMP and health and safety requirements. Training will be conducted by responsible person	Contractor	Site Rehman Dheri district DI Khan	Once	Documents records	√	√	√

Items	Environmental Impacts and Issues	Mitigation Measures and/or Safeguards	Who Implements	Monitoring Location	Monitoring Frequency	Monitoring Indicators	Monitored by		
							PMU KITE-DoT	DoAM	MEC (Third Party)
		who are working on Environment, Health and Safety and report to PMU.							
Water pollution from oil contamination, and other hazardous Material.	Hazardous materials such as fuels, oil, cement paints and chemicals	Storage facilities for fuels, oil, cement, and chemicals will be within secured areas on impermeable surfaces, Vehicle, machinery, and equipment maintenance and re-fueling will be carried out in such a way that spilled materials do not seep into the soil, Oil traps will be provided for service areas and parking areas	Contractor	Site Rehman Dheri district DI Khan	Daily	Visual checks And photographic Record, Check and audits	√	√	√
Air Emissions	Impacts on human being	Equipment will be maintained to a high standard to Ensure efficient running and fuel-burning, All vehicle emission will	Contractor	Site Rehman Dheri district DI Khan	Daily	Visual checks And photographic Record, Check and audits	√	√	√

Items	Environmental Impacts and Issues	Mitigation Measures and/or Safeguards	Who Implements	Monitoring Location	Monitoring Frequency	Monitoring Indicators	Monitored by		
							PMU KITE-DoT	DoAM	MEC (Third Party)
		be in compliance with national Emission standards.							
Dust	Impacts on human being	Material stocking and concrete mixing, Paints equipment will be equipped with dust shrouds, Vehicles carrying soil, sand, or other fine materials to and from the construction Site will be covered.	Contractor	Site Rehman Dheri district DI Khan	Daily	Visual checks And photographic Record, Check and audits	√	√	√
Noise and Vibration	Noise impacts on labor and nearby communities	Provide ear plugs to labor	Contractor	Site Rehman Dheri district DI Khan	Daily	Visual checks And photographic Record, Check and audits	√	√	√
Solid wastes	Demolition or construction waste can cause bad nuisance	Any waste from the demolition of structures will be either sold to building materials recyclers or	Contractor	Site Rehman Dheri district DI Khan	Daily	Visual checks And photographic Record, Check and audits	√	√	√

Items	Environmental Impacts and Issues	Mitigation Measures and/or Safeguards	Who Implements	Monitoring Location	Monitoring Frequency	Monitoring Indicators	Monitored by		
							PMU KITE-DoT	DoAM	MEC (Third Party)
		collected and transported to official landfill Site.							
Flora	If cut one no of tree	Re- vegetate 10 no of tree sapling against falling of one tree	Contractor	Site Rehman Dheri district DI Khan	Once	Visual checks And photographic Record, Check and audits	√	√	√
Operation									
O&M	Poor O&M could cause unintended adverse environmental impacts.	Once handover the project to DOAM PMU shall take an undertaking on stamp paper from management of DOAM, that they will look after and PMU will keep this undertaking in social records.	DoAM	Site Rehman Dheri district DI Khan	Daily	Visual checks And photographic Record, Check and audits	√	√	√

7. Environmental and Social Monitoring Plan

E&S Monitoring Plan is also associated with mitigation plan during the different phases of the subproject's activities. It ensures that mitigation measures are being effectively implemented. The E&S monitoring of the subproject is imperative for implementation of the ESMP. The KITE E&S team will carry out the monitoring at the field level on a continuous basis.

7.1 Monitoring Mechanism

E&S Safeguard monitoring is an essential tool for assessing whether the adopted environmental and social management measures are meeting their stated objectives. Two complementary methodology approaches are being applied to monitor the proposed actions under this ESMP.

- Compliance monitoring; Checks whether the actions proposed in the ESMP have been carried out by visual observation, photographic documentation and the use of checklists prepared for the ESMP; and
- Effects monitoring; Records the consequences of program activities on the biophysical and social environment; as applicable, these effects are repeatedly measured by applying selected indicators.

Monitoring will be carried out to ensure that the mitigation plans are regularly and effectively implemented. It will be performed at three levels. At the PMU level, the E&S team will do ESMP monitoring to ensure that the mitigation plans are being effectively implemented. At Contractor's level, the environmental monitoring checklist will be filled on daily basis by their environmental expert and countersigned by the representative of Supervisory Consultant/ or PMU.

7.2 Monitoring Plan

Proposed monitoring plan to be carried out during pre-construction, construction and operation phases of the project to establish the baseline condition and ensure Contractor(s) compliance with the mitigation measures and evaluation of the subproject impact on post-completion is given in Table V along with the monitoring indicators and frequency.

Table V Environmental and Social Monitoring Plan

Activity	Mitigation Measures	Monitoring Frequency and Parameters	Responsibility of Implementation	Responsibility of Monitoring
Air Quality	• Contractor shall spray water on the dusty areas at least 2 times a day. • Dust masks will be provided to site workers.	Preconstruction During construction & Post construction	Contractor	KITE PMU DoT
Washroom and Sewerage system provision for construction workers	• In the subproject Site wash rooms are present. These washrooms will be utilized by the site workers. • The washrooms will be washed at least twice a day by the Contractor staff. • One person will be assigned by contractor for ensuring the cleanliness and hygiene.	Daily Basis through physical monitoring	Contractor	KITE PMU DoT
Noise Levels	Ear plugs shall be provided to the workers.	Preconstruction During Construction	Contractor	KITE PMU DoT
Socio-Economic - Employment	• Employ local persons within the 25 KM surrounding area (if required skilled manpower is available). • Secure construction material from local market (if available).	During Construction	Contractor	KITE PMU DoT
Covid SOPs	• Covid SOPs will be strictly adhered during work i.e., hand sanitizers face mask. • Ensure vaccination of the staff	During construction	Contractor	KITE PMU DoT
Grievance Redressal	• Maintain a complaint register, complaint box, and signage about GRM intake mechanism on site. • Identify and appropriately respond	Preconstruction During construction	Contractor	KITE PMU DoT

Activity	Mitigation Measures	Monitoring Frequency and Parameters	Responsibility of Implementation	Responsibility of Monitoring
	to impacts to ensure legal compliance and meet moral / ethical obligations. • Distribute GRM awareness leaflets to the local residents.			
Waste Management	• Implement resource conservation and encourage employees to reduce, reuse, and recycle waste whenever possible.	During construction	Contractor	KITE PMU DoT
Health and Safety Measures	• Providing basic medical service on-site First Aid Boxes. • Provision of proper and high-quality PPEs to workers such as gloves, vests, hard-hats, masks etc.	During construction	Contractor	KITE PMU DoT

8. Capacity Building & Trainings

Environmental and social safeguard trainings will help to ensure that the requirements of the ESMP are clearly understood and followed by all subproject's personnel. The primary responsibility of providing these trainings to subprojects personnel will be that of the contractor and PMU-KITE. The trainings will be provided to different professional groups separately such as managers, skilled personnel, unskilled labors, and camp staff. Capacity building will be aimed at strengthening the PMU-KITE, and operational staff in the field of environmental management and social development. Members of the E&S team PMU-KITE responsible for supervision of environmental and social mitigation measures would be trained in environmental management, environmental quality control, ecology, environmental awareness, participatory approach and social development. The contractor will also be required to provide environmental and social trainings to its staff, to ensure effective implementation of the ESMP. The training plan shall include a program for the delivery of intermittent training, to cover the subjects included in Table VI.

Table VI Training Subjects for Inclusion in Contractors Training Plan

Training Activity	Participant	Type of training	Contents	Frequency
Construction Phase (02 years)				
ESMP/C-ESMP	Contractor and consultant	Orientation/sessions	Awareness on safeguard policies KP- Act	Quarterly
Pollution prevention practices	Contractor and consultant	Presentation	Awareness and importance of Practices to be adopted for pollution preventions	Quarterly
Occupational health and safety	Contractor and consultant	Orientation/sessions	WB EHS Guidelines	Quarterly
GRM	Contractor and local community	Orientation/session	KITE GRM Policy	Quarterly

9. Grievance Redress Mechanism

The Grievance Redress Mechanism (GRM) is an institutional arrangement, which provides the project's stakeholders an opportunity and a structured mechanism to submit their concerns. The grievance redress mechanism will focus on the following during the implementation process:

- Record grievances, both written and oral, categorizing and prioritizing them, and providing solutions within an agreed timeframe;
- Reporting to the aggrieved parties about the resolutions regarding their grievances and the decision;
- Dissemination of various reporting channels such as complaint boxes, help desk with phone numbers, online complaint registration and proformas for complaints.
- All information about grievance procedures, grievance forms, and responses will be available in languages readily understandable to the locals.
- It is imperative to counsel the contractor's labor regarding GRM for them as well. All the labor shall have the access to the GRM boxes where they can submit their concerns if any.
- GRM dissemination will be carried out on all sub-project sites frequently.

9.1 Composition of GRC

The KITE PMU has developed a Grievance Redress Mechanism (GRM) at its PMU level and a Grievance redressal committee (GRC) has been formed. This GRC is accessible to project affected persons and tourists and comprises the following members:

- Project Director PMU DoT — Chairman
- Social safeguard specialist PMU DoT — Secretary
- Co-opted Member/s of Relevant Government Departments — Member
- Invited Members (e.g., Complainant, concerned local citizen) — Member

9.2 Working Arrangements

GRC meeting will be held at the PMU or any other location agreed by the Committee. If needed GRC members may undertake field visits to verify and review the issues of dispute.

If the affected person is not satisfied with the decision of GRC at PMU, then it can be referred to the Project Steering Committee for resolution. If the complainant does not

accept or accept will be stated in writing. The complainant may also seek redress through courts or other mechanisms available in case of non-acceptance.

10. Reporting

The E&S team KITE will receive monthly reports covering various aspects of the ESMP implementation including compliance and effects monitoring, capacity building, and grievance redressal during subproject implementation through the consultant.

10.1 Reporting during Implementation and Operation Phases

Table VII describes the reporting and implementation by the consultant hired on the project during operation phase.

Table VII Reporting during implementation and Operation Phase

Report	Contents	Prepared by	Submitted to
Monthly Progress Report	Action taken	Contractor	Consultant/ PMU KITE
Monthly Progress Report	Non compliances observed on site	Supervision consultant	PMU KITE
Quarterly Progress Report	Non compliances observed on site/ Implementation of ESMP components	E&S PMU	World Bank

11. Cost of Implementation of ESMP

11.1 Cost for Testing of Noise and Water Quality

Testing and analysis for noise and drinking/ ground and surface water will be undertaken during pre-construction, construction and operational phases to ensure the effectiveness of the proposed mitigation measures. Environmental parameters prescribed in NEQS will be selected and quantitative analysis will be carried out. The results of analysis will be compared with the guidelines; standards and pre-project conditions to investigate whether the ESMP and its implementation are effective for the mitigation of impacts or not. Parameters to be analyzed during pre- construction, construction and operation phase of the project and estimated costs are presented in Table VIII.

Table VIII Environmental Monitoring and Testing Cost Estimate

S. No.	Parameter	Mechanism	Freq.	Unit rate	Quantity	Cost (PKR)	Remarks
A	**Pre- Construction Phase**						
1	Surface	Sampling	Once	30,000	1	30,000	

	Water Quality advised by environmental Expert/ Specialist	and analysis from EPA approved laboratory					
2	Drinking water	Sampling and analysis from EPA approved laboratory	Once	30,000	1	30,000	
3	Air Quality / Noise level	Sampling and analysis from EPA approved laboratory	Once	60,000	1	60,000	
B	**Construction Phase**						
	Surface Water Quality advised by environmental Expert/ Specialist	Sampling and analysis from EPA approved laboratory	Once	30,000	1	30,000	
	Drinking water	Sampling and analysis from EPA approved laboratory	Once	30,000	1	30,000	
	Air Quality / Noise level	Sampling and analysis from EPA approved laboratory	Once	60,000	1	60,000	
Total						**240,000**	

11.2 Cost of Training and Capacity Building/Strengthening

In order to ensure that the ESMP provisions are implemented efficiently and effectively, training and capacity building and strengthening are required for PMU staff, contractors' staff/workers. Therefore, based on the assessment of the institutional capacities that will be involved in the implementation of the ESMP, the following broad areas of capacity building/strengthening have been identified

Cost for Institutional Strengthening by PMU

Table IX shows the positions proposed for institutional strengthening for an effective implementation of environmental and social mitigation measures and its associated costs.

Table IX Positions/Staff for Institutional Strengthening by PMU

Institution's	Position	Schedule	Cost	Remarks

staff		months	estimates	
Occupational Health and Safety personnel	1	12	40000 x 12 = 480,000	This staff will inspect damaged archaeological at Rehman Dheri site.
Conservation Assistant designated by DoAM	1	12	30000 x 12 = 360,000	The assistant will oversee the conservation and preservation activities at Rehman Dheri site.
Sub- Total			**840,000**	

11.3 Training to be conducted by contractor

Table X provides the training details to be conducted by the contractor.

Table X Training to be conducted by contractor

Training Activity	Participant	Type of training	Contents	Frequency	Cost (PKR)
Construction Phase (02 years)					
ESMP	Contractor and consultant	Orientation sessions	Awareness on safeguard policies KP- Act	Quarterly	33,000
Solid waste management and proper drainage of wastewater	Contractor and consultant	Presentation	Awareness and importance of Practices to be adopted for pollution preventions	Quarterly	33,000
Occupational health and safety	Contractor and consultant	Presentation	WB EHS Guidelines	Quarterly	33000
Sub- total					**99,000**

11.4 Cost for Personal Protective Equipment (PPEs) for Contractor

The cost required for PPEs for staff including skilled and unskilled during the whole construction period of twelve (12) months is given in the Table XI.

Table XI Break-up for Personal Protective Equipment Cost

Items	Quantity	Cost / Item (Rs.)	Total Cost (PKR)
Dust / Surgical masks	10	150	1500
Safety Shoes	10	5000	50000
First Aid Box	1	5000	5000
Gloves	10	2000	20000

Ear Plugs	10	150	1500
Safety Helmets	10	1500	15000
Safety Jackets	10	1500	15000
Cost for Tree Plantation	35 plants	1000	35000
Sub- total			**143,000**

11.5 Total Implementation Cost

The total implementation cost is given in the Table XII below

Table XII Total Implementation Cost

Items	Cost (PKR)
Personal Protective Equipment cost	143,000
Environmental Monitoring and Testing Cost	240,000
Institutional Strengthening Cost	840,000
Training Cost	99,000
Tree Plantation Cost	300,000
Contingencies @10%	144,140
Total Cost	**1,766,140**

12. Recommendations

The key recommendations for the proposed subprojects are as follows:

- Conservation, preservation, restoration and civil works for PCRs structure should be in accordance with measures mentioned in ESMP and this ESMP should be part of the bidding document;
- Ensure the works are awarded to DoAM's approved/pre-qualified Contractors only and employing skilled labour with past experience of similar projects/conservation works;
- The Bidding documents shall clearly state that the Contractor will be responsible for the implementation of the requirements of the ESMP.
- The ESMP and all its requirements should be added to the Contractor's Contract thereby making implementation of the ESMP a legal requirement according to the Contract;
- To mitigate the adverse impacts related to PCRs, environmental and social aspects, mitigation measures mentioned in ESMP should be followed;
- Stakeholder consultations should be carried out as and when required;

- During the excavation process PCRs may expose, it should immediately be reported to designated person of Directorate of Archaeology and Museum, so that an investigation and evaluation of the finds can be made; and
- The Contractor will submit the monitoring reports on (daily, weekly and monthly as per advice of E&S).

Annexure- I E&S Screening Rehman Dheri Site

S/No	ISSUES	None	Minor/ Small	Moderate/ Medium	Significant & Large	Remarks
A	**Zoning and Land Use Planning**					
1.	Will the subproject affect land use zoning and planning or conflict with prevalent land use patterns?	X				
2.	Will the subproject involve significant land disturbance or site clearance?	X				
3.	Will the subproject land be subject to potential encroachment by urban or industrial use or located in an area intended for urban or industrial development?	X				
B	**Utilities and Facilities**					
1.	Will the subproject require the setting up of ancillary facilities?		X			
2.	Will the subproject make significant demands on utilities and services?		X			
3.	Will the subproject require significant levels of accommodation or service amenities to support the workforce during construction		X			This is close to city area where no need to establish a camp.
C	**Water and Soil Contamination**					
1.	Will the subproject require large amounts of raw materials or construction materials?		X			
2.	Will the subproject generate large amounts of residual wastes, construction material waste or cause soil erosion?		X			
3.	Will the subproject result in potential soil or water contamination (e.g., from oil, grease and fuel from equipment yards)?		X			

S/No	ISSUES	None	Minor/ Small	Moderate/ Medium	Significant & Large	Remarks
4.	Will the subproject lead to an increase in suspended sediments in streams affected by road cut erosion, decline in water quality and increased sedimentation downstream?		X			
5.	Will the subproject involve the use of chemicals or solvents?	X				
6.	Will the subproject lead to the destruction of vegetation and soil in the right-of-way, borrow pits, waste dumps, and equipment yards?	X				
7.	Will the subproject lead to the creation of stagnant water bodies in borrow pits, quarries, etc., encouraging for mosquito breeding and other disease vectors?	X				
D	**Noise and Air Pollution Hazardous Substances**					
1.	Will the subproject increase the levels of harmful air emissions?	X				
2.	Will the subproject increase ambient noise levels?	X				
3.	Will the subproject involve the storage, handling or transport of hazardous substances?	X				
E	**Fauna and Flora**					
1.	Will the subproject involve the disturbance or modification of existing drainage channels (rivers, canals) or surface water bodies (wetlands, marshes)?	X				
2.	Will the subproject lead to the destruction or	X				

S/No	ISSUES	None	Minor/ Small	Moderate/ Medium	Significant & Large	Remarks
	damage of terrestrial or aquatic ecosystems or endangered species directly or by induced development?					
3.	Will the subproject lead to the disruption/destruction of wildlife through interruption of migratory routes,	X				
4.	Disturbance of wildlife habitats, and noise-related problems?	X				
F	**Destruction/Disruption of Land and Vegetation**					
1.	Will the subproject lead to unplanned use of the infrastructure being developed?	X				
2.	Will the subproject lead to long-term or semi-permanent destruction of soils in cleared areas not suited for agriculture?	X				
3.	Will the subproject lead to the interruption of subsoil and overland drainage patterns (in areas of cuts and fills)?	X				
4.	Will the subproject lead to landslides, slumps, slips and other mass movements in road cuts?	X				
5.	Will the subproject lead to erosion of lands receiving concentrated outflow carried by covered or open drains?	X				
6.	Will the subproject lead to health hazards and interference of plant growth adjacent to roads by dust raised and blown by vehicles?	X				
G	**Cultural Property**					

S/No	ISSUES	None	Minor/ Small	Moderate/ Medium	Significant & Large	Remarks
1.	Will the subproject have an impact on archaeological or historical Site, including historic urban areas?			X		Protect the site.
2.	Will the subproject have an impact on religious monuments, structures and/or cemeteries?			X		It is considered as the birth place of Hindu God. So it will create good impact on their followers.
H	**Expropriation and Social Disturbance**					
1.	Will the subproject involve land expropriation or demolition of existing structures?	X				
2.	Will the subproject lead to induced settlements by workers and others causing social and economic disruption?	X				
3.	Will the subproject lead to environmental and social disturbance by construction camps?	X				
4.	Will the sub- project require of tree cutting, if yes how many, location, pictures?	X				Will grow some trees in the vicinity

Annexure-II Khyber Pakhtunkhwa Integrated Tourism Development Project Template Form for Environmental and Social Monitoring

Title of Subproject

Proponent

Contractor's Name Monitoring Date & Time

S/No	Receptor	Monitoring Parameter	Location	Monitoring Mechanism	Monitoring and Reporting Frequency				Compliance Status (Yes/No)	Reason for Non Compliance	Remarks
					Daily	Monthly	Bi-annual	Annual			
1.	Accidental Damages of PCRs										
2.	Chance Finds										
3.	Water Quality										
4.	Soil Contamination										
5.	Land Resources										
6.	Dust Emissions										
7.	Noise & Vibration issues										
8.	Fumes and Gases										
9.	Ecological Resources										
10.	Public Utilities										
11.	Labour Management										
12.	Grievances Redressal										
13.	Community/Occupational HS										

14.	Trainings										

Annexure -III Photo Documentation of Issue Identified Above

S/N	Date of Photograph	Photograph Depicting Issue	Remarks

Name of Monitoring Person: _____ **Designation:** _____

Signature:

_____

Annexure-IV Name and Address of the Participants Conservation, Preservation and Development of Archaeological Site Rehman Dheri

S. No.	Name of participant	Designation
1.	Mr. Alam Nawaz Wazir	Incharge Site
2.	Mr. Amjad Khan	PA to Minister
3.	Mr. Arsalan Asad	Site Engineer
4.	Mr. Iftikhar	Locals
5.	Mr. Gul Muhammad	Caretaker
6.	Mr. Shoaib Ahmad	Farmer Visitor
7.	Mr. Mujeeb Husain	Police
8.	Mr. Sana Ullah	Site Attendant
9.	Mr. Nawab Khan	Locals
10.	Mr. Abdul Hamid	Locals
11.	Mr. Humayun	Locals
12.	Mr. Ilahi Baksh	Locals
13.	Mr. Umar Wajid	Locals
14.	Mr. Dildar Hussain	Locals
15.	Mr. Muhammad Tayyab	Public servant
16.	Mr. Najeeb Ullah	Shopkeeper
17.	Mr. Bakhtiyar Khan	Farmer
18.	Mr. Amjad Ali	Public servant
19.	Mr. Rashid Khan	Public servant

20.	Mst. Uzma bibi	Visitor
21.	Mst. Sofia bibi	House wife
22.	Mst. Surayya bibi	House wife
23.	Mst. Hameeda bibi	House wife

Annexure-V Tree Plantation Plan

For tree plantation, the contractor will develop the list of the damaged trees/shrubs and will re- plant ten (10) plants per damaged/cut tree.

The contractor will obtain quotation from nurseries, forest department or agriculture department, and will discuss with project director (PD), E&S Environmental and Social Expert/ Specialist and will prepare a tree plantation plan, and this will be approved from PMU.

Annexure-VI Chance Find Procedures

Project may involve deep excavations. Therefore, the possibility of chance find cannot be ruled out. In case of any chance find, the contractor will immediately report through Supervision Consultant to Directorate of Archaeology & Museums Department, KP, to take further suitable action to preserve those antique or sensitive remains. Representative of the Directorate will visit the site and observe the significance of the antique, artefact and Cultural (religious) properties and significance of the project. The report will be prepared by representative and will be given to the Director. The documentation will be completed and if required suitable action will be taken to preserve those antiques and sensitive remains.

In case any artefact, antiques and sensitive remains are discovered, chance find procedures should be adopted by contractor workers as follows:

- Stop the construction activities in the areas of chance find;
- After stopping work, the contractor must immediately report the discovery to the Supervision Consultant;
- The Director decides to take over the antiquity for purposes of custody, preservation and protection, the person discovering or finding it shall hand it over to the Director or a person authorized by him in writing;
- Delineate the discovered site or area;
- Consult with the local community and provincial Archaeological Department;
- The Director shall, constitute a team of archaeologists for undertaking preliminary investigation and will decide about further course of action in light of findings of the team;
- The suggestion of the local communities and the concerned authorities will be suitably incorporated during taking the preventive measures to conserve the antique, artefact and cultural (religious) properties; and

- Secure the site to prevent any damage or loss of removable objects. In case of removable antiquities or sensitive remain, a night guard shall be arranged until the responsible local authorities take over.
- The contact Address of Archaeology Department is given below:
  Directorate of Archeology & Museums,
  Saddar Road opposite Governor House,
  Peshawar. Tel: 091-9210985
