



Initial Environmental Examination

Project Number: 40648-034
June 2017

IND: Infrastructure Development Investment Program for Tourism (IDIPT) - Tranche 3

Package : Heritage Conservation and Tourism Development in Gurdaspur district,
Punjab (Package no: PB/IDIPT/T3/11/ 19)

Submitted by:

Program Management Unit, Punjab Heritage and Tourism Board, Chandigarh

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Asian Development Bank



Loan 3223 IND: IDIPT - IEE Report for Package no. PB/IDIPT/T3/11/19 Heritage Conservation and Tourism development in Gurdaspur district, Punjab
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01/06/2017 10:00 AM

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1 Attachment



Lt. No. 552-59 dt 08.05.2017.pdf

Sir,

As discussed with FCS, please find attached corrected covering letter for Package no. PB/IDIPT/T3/11/19 Heritage Conservation and Tourism development in Gurdaspur district, Punjab.

Regards:-

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No. PHTPB/IDIPT/2017/552-59

Dated: 08/5/2017

**Project: Loan 3223-IND: Infrastructure Development Investment Programme for Tourism
(IDIPT) - IEE Report for Package no: PB/IDIPT/T3/11/19 - Heritage Conservation
and Tourism development in Gurdaspur district, Punjab**

Subject: Submission of Initial Environmental Examination (IEE) Report

The Initial Environmental Examination (IEE) Report for the contract Package
PB/IDIPT/T3/11/19 seeking ADB's concurrence is hereby enclosed with this letter for
your approval.


Addl. Project Director

CC:

1. PA to PD, IDIPT-PB
2. PA to APD, IDIPT-PB
3. CGM, PHTPB
4. FCS, IDIPT-PB
5. TL, PMC
6. TL, DSC
7. ESS, IDIPT-PB

Initial Environmental Examination

Project Number: 40648-034
ADB loan Number: 3223-IND
May 2017

Infrastructure Development Investment Program for Tourism (IDIPT) - Punjab

**Subproject –Heritage Conservation and Tourism Development in
Gurdaspur District, Punjab**

(Package no: PB/IDIPT/T3/11/19)

Prepared by the Government of Punjab

This IEE is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff.

ABBREVIATIONS

ADB	–	Asian Development Bank
CTE	–	Consent to Establish
CTO	–	Consent to Operate
DSC	–	Design and Supervision Consultants
DPR	–	Detailed Project Report
EA	–	Executing Agency
EAC	–	Expert Appraisal Committee
EARF	–	Environmental Assessment Review Framework
EIA	–	Environmental Impact Assessment
EMP	–	Environmental Management Plan
GoI	–	Government of India
GoP	–	Government of Punjab
IDIPT	–	Infrastructure Development Investment Program for Tourism
IEE	–	Initial Environmental Examination
Km	–	Kilometre
LGC	–	Local Grievance Committee
MC	–	Municipal Council
MoEF&CC	–	Ministry of Environment, Forest and Climate Change
NGO	–	Non-Governmental Organization
O&M	–	Operations and Management
PIU	–	Project Implementation Unit
PHTPB	–	Punjab Heritage and Tourism Promotion Board
PPCB	–	Punjab Pollution Control Board
PM	–	Particulate Matter
PMC	–	Project Management Consultants
PMU'	–	Project Management Unit
PUC	–	Pollution under Control
REA	–	Rapid Environmental Assessment
SEAC	–	State Expert Appraisal Committee
SPS	–	Safeguards Policy Statement
TMP	–	Traffic Management Plan
TDS	–	Total Dissolved Solids
TSS	–	Total Suspended Solids
UNWTO	–	United Nations World Tourism Organization

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EXECUTIVE SUMMARY

1. **Background.** The Infrastructure Development Investment Program for Tourism Financing Facility (the Facility) will develop and improve basic urban infrastructure and services in the four participating states of Himachal Pradesh, Punjab, Uttarakhand and Tamil Nadu to support the tourism sector as a key driver for economic growth. It will focus on:

- Strengthening connectivity to and among key tourist destinations; and
- Improving basic urban infrastructure and services, such as water supply, road and public transport, solid waste management and environmental improvement, at existing and emerging tourist destinations to ensure urban amenities and safety for the visitors, and protect nature and culture-based attractions.

2. Physical infrastructure investments will be accompanied by capacity building programs for concerned sector agencies and local communities for better management of the tourist destinations and for more active participation in the tourism-related economic activities, respectively.

3. The Gurdaspur district falls in the northern most districts in the state of Punjab and it comes under the Jalandhar division. The geographical extent of the area is 2,610sq.km. The district lies between north-latitude 31°36' and 32°34' and east-longitude 74°56' and 75°24' and shares common boundaries with Pathankot district in the north, Beas River in the northeast, Hoshiarpur district in the south-east, Kapurthala district in the south, Amritsar district in the south west and Pakistan in the north west.

4. **Executing and implementing agencies.** The Executing Agency is the Department of Tourism (DoT), Punjab. The implementing agency is Punjab Heritage and Tourism Promotion Board (PHTPB), Punjab. Project Management Unit (PMU) is set up at Chandigarh to coordinate the overall project execution and is supported by the Project Management Consultant (PMC). Project Implementation Units (PIU) is set up at Amritsar and is supported by Design Supervision Consultant (DSC). The Rattar Chattar mosque and Achaleshwar Dham at Batala are owned by a Mosque Committee and Achaleshwar Mandir Kar Sewa Trust respectively.

5. **Categorization.** The proposed subproject is classified as Environmental Category "B" as per the Safeguard Policy Statement (SPS), 2009 as there are no significant impacts that are envisioned and accordingly this Initial Environmental Examination (IEE) has been prepared. The IEE shall assess the environmental impacts and provide mitigation and monitoring measures to ensure that there are no significant impacts as a result of the proposed subproject implementation.

6. **Subproject Scope.** The major scope of this subproject are:

Sl.no	Sub-Project Location	Proposed Interventions
1.	Rattar Chattar Mosque, Dera Baba Nanak	<ul style="list-style-type: none"> • Structural work • Civil work • Infrastructural up-gradation • Art conservation
2.	Achaleshwar Dham, Batala	<ul style="list-style-type: none"> • Site Planning (including provision of parking space with fencing and lighting) • Provision of toilets.

7. **Description of the Environment.** Subproject components are located at Rattar Chattar village and Batala of Gurdaspur District. Batala is an urban area where as Rattar Chattar is a rural area. Both the subproject sites are located in the settlements/habitations. There are no protected areas, forests, eco sensitive sites within or adjacent to the subproject areas. Due to sparse population and limited commercial activities, the air and

noise quality is observed to be good. However, it shall be cross verified through conducting environmental quality monitoring during the subproject implementation.

8. **Environmental Management.** An Environmental Management Plan (EMP) is prepared as part of this IEE, which includes (i) Mitigation measures for environmental impacts identified during the implementation stage; (ii) An environmental monitoring program and the responsible entities for mitigating, monitoring and reporting; (iii) Public consultation and information disclosure procedure; and (iv) Grievance redress mechanism. The EMP will be included in the civil work bidding and contract documents.

9. The subproject locations are selected based on the screening exercises (to identify the level of environmental and social impacts) conducted in the inception stage of the subproject; therefore the anticipated impacts during the implementation of the subproject will be minimum. Nevertheless, the concepts considered in design of the subproject are:

- Design and material will be compatible to the local architectural, physical, cultural and landscaping elements;
- Preference will be given to the use of local material and labour as far as possible;
- For the conservation work, local construction materials available in the nearby region shall be utilised as far as possible;
- The paints having low volatile organic compounds (VOC's) shall be used for all painting work(interior and exterior);
- Earth backfill (if any) will be done from the site excavated material; and
- Ensuring all planning and design interventions and decisions are made in consultation with local communities and reflecting inputs from public consultation.

10. During the construction phase, the major impacts may arise due to the disturbances caused by the construction activities to the tourists/visitors. These are common construction impacts and can be mitigated through appropriate management measures (by adopting good construction techniques). In the operational phase, all the infrastructure facilities will be operational followed by routine maintenance, which should not affect the environment and tourists.

11. Mitigation measures have been developed to reduce all negative impacts. Mitigation will be assured by a program of environmental monitoring to be conducted during the subproject construction. The environmental monitoring program will ensure that all measures are implemented and will determine whether the environment is protected as intended. It will include on- and off-site observations, document checks and consultation with workers and beneficiaries. Any requirements for corrective action will be reported to the ADB.

12. The tourists and the local communities of Gurdaspur town area will be the major beneficiaries of the project. The most noticeable net environmental benefits to the tourists and population of the town will be positive and large as the proposed subproject will improve access to reliable and adequate tourism facilities and propagate the local traditions and Cultural Heritage of the state. This subproject along with other subprojects proposed in Gurdaspur will also provide a common platform for local traditions and values; provide and improve business opportunities for local communities, linked to the cultural and natural heritage tourism.

13. **Consultation, Disclosure and Grievance Redress.** The Stakeholders and Public Consultations were involved in developing the IEE through discussions, after which views expressed were incorporated into the IEE and in the planning and development of the subproject. The IEE will be made available at public locations in the town and will be disclosed to a wider audience via the ADB and PHTPB websites. The consultation process will be continued and expanded during project implementation to ensure that stakeholders are fully engaged in the project and have the opportunity to participate in its development and implementation. A grievance redress mechanism is described within the IEE to ensure public grievances are addressed quickly.

14. **Monitoring and Reporting.** The PIU and DSC will be responsible for performing environmental monitoring and they will be supervised by the PMU and PMC. The PIU with support from the DSC will submit semi-annual monitoring reports to the PMU. The PMU will consolidate the semi-annual reports in assistance of PMC and will send it to ADB. ADB after approval will post the environmental monitoring reports on its website.

15. **Conclusions and Recommendations.** The proposed subproject is unlikely to cause major environmental impacts. The potential impacts that are associated with design, construction and operation can be mitigated through proper engineering design and the incorporation or application of recommended mitigation measures and procedures. Based on the findings of the IEE, it shall be concluded that there are no significant environmental impacts in implementing this subproject and accordingly the subproject is classified as Category "B" project (as per SPS, 2009) thus further study or detailed Environmental Impact Assessment (EIA) is not required.

I. INTRODUCTION

16. **Background.** The Infrastructure Development Investment Program for Tourism Financing Facility (the Facility) will develop and improve basic urban infrastructure and services in the four participating states of Himachal Pradesh, Punjab, Uttarakhand and Tamil Nadu to support the tourism sector as a key driver for economic growth. It will focus on:

- (i) Strengthening connectivity to and among key tourist destinations; and
- (ii) Improving basic urban infrastructure and services, such as water supply, road and public transport, solid waste management and environmental improvement, at existing and emerging tourist destinations to ensure urban amenities and safety for the visitors, and protect nature and culture-based attractions.

17. Physical infrastructure investments will be accompanied by capacity building programs for concerned sector agencies and local communities for better management of the tourist destinations and for more active participation in the tourism-related economic activities, respectively.

18. The subproject is part of the Western Circuit. The project aims to enhance protection and management of natural and cultural tourism assets at seven tourist sites of Gurdaspur District. The district is part of the Sikh Heritage Trail (*Source: Punjab Tourism Development Master Plan, 2008-2023; United Nations World Tourism Organization (UNWTO)*).

19. The Western Circuit is located in the north-western segment of the state and includes the districts of Amritsar, Gurdaspur and Kapurthala. The area borders Pakistan in the west and the River Beas flows through the eastern portion.

20. **Executing and Implementing Agencies.** The Executing Agency (EA) is Department of Tourism (DoT), Punjab. The implementing agency is the Punjab Heritage and Tourism Promotion Board (PHTPB) Punjab. Project Management Unit (PMU) is set up at Chandigarh to coordinate the overall project execution. Project Management Consultant (PMC) at Chandigarh provides assistance to PMU in the project execution. Project Implementation Unit (PIU) is set up at Amritsar and it is supported by Design Supervision Consultant (DSC). For this subproject, the Rattar Chattar mosque and Achaleshwar Dham at Batala is owned by a Mosque Committee (Masjid-turf Jattan Committee) and Achaleshwar Mandir Kar Sewa Trust, Batala respectively.

21. **Proposed sub-project.** The objective of this subproject is (i) To improve, conserve and manage physical and environmental image of the historical sites/route with planned interventions consistent to its historic status, revitalization of historic city along with sustainable model for citizens and tourists, (ii) To educate visitors about the historical structures, culture and the values of city and (iii) Providing tourist infrastructure facilities along with protecting the heritage value of the property and to enhance tourist attractions with all facilities.

22. The scope of work under this subproject includes:

Table 1 : Proposed Interventions

Sl.no	Sub-Project Location	Proposed Interventions
1	Rattar Chattar Mosque, Dera Baba Nanak	<ul style="list-style-type: none">• Structural work• Civil work• Infrastructural up-gradation• Art conservation
2	Achaleshwar Dham, Batala	<ul style="list-style-type: none">• Site Planning (including provision of parking space with fencing and lighting)• Provision of toilets.

23. **Categorization.** As per the Asian Development Bank's (ADB) Safeguard Policy Statement 2009 and in line with the Environment Assessment & Review Framework (EARF), the proposed sub-project is categorized as 'B' and accordingly an Initial Environmental Examination (IEE) has been prepared. The IEE was based on the review of sub-project site plans, reports, field visits, secondary data (to characterize the environment and identify potential impacts) interviews and discussions with the stakeholders.

24. **Purpose of the IEE.** This report gives an account of the Initial Environmental Examination (IEE) of the subproject as per the Detailed Design/ Detailed Project Report (DPR). The environmental impacts for this contract package are primarily related to construction activities. The proposed construction activities are selected considering the historical and cultural value of the city. There will be construction impacts associated with proposed civil and conservation works but these will be of limited intensity and of short duration. Therefore, as per the Asian Development Bank's (ADB) Environmental Assessment Guidelines (SPS 2009), the subproject components are categorized as 'B' and accordingly an IEE has been carried out. This IEE provides mitigation measures for impacts related to location, design, construction, operation, and maintenance. The REA checklist is attached as **Annexure-1** with this report.

II. DESCRIPTION OF THE SUB PROJECT

A. Existing Condition and Need for the Subproject

Subproject Locations

25. The following table depicts the subproject location and importance's

Subproject	Location
Rattar Chattar Mosque	The mosque is situated at Rattar Chattar village, Dera Baba Nanak Tehsil of Gurdaspur District. It is located 39km towards west from the district headquarters.
Achaleshwar Dham	Achaleshwar Dham is located in Batala Tehsil (adjacent to Gurudwara Achal Sahib). It is a religious site having great significance to Hindu devotees.

Brief History

26. **Rattar Chattar Mosque:** Rattar Chattar is famous for the Tomb of Sufi Saint Syed Iman Ali Shah. The mosque adjoins the Tomb. These structures were built around 325 years ago by the Sufi Saint Syed Iman Ali Shah. It is located on a high altitude and is visible from all sides of the village.



Figure 1: Location map of Rattar Chattar Mosque

27. **Achaleshwar Dham:** The history of temple is dedicated to Kartikeyan, son of Lord Shiva. Kartikeyan halted here when Lord Shiva asked him and his brother Ganesh to have a round of the earth. While Ganesh took a round (Parikarma) of his parents, Kartikeyan flew around the world on his peacock. When he reached this place, he decided to stay here forever. It is believed that 33 crore deities reach here on the 9th and 10th of the Kartik month of the Indian calendar. Devotees arrive here and take a holy dip in the pond on these particular days.



Figure 2: Location map of Achaleshwar Dham, Batala

Existing Conditions

28. **Rattar Chattar Mosque:** Structure is in a very pitiable state, with dilapidated roofs. There is vegetative growth on the structure. There are beautiful paintings and encryptions painted on the roofs and walls. There is a need to strengthen the walls as they are in

precarious state. There is lack of basic tourist amenities and facilities like drinking water, toilets, parking, benches etc. In the open space available between the tomb and mosque, there is a well and a graveyard. Some new works have been done such as paved pathway, plantations and landscaping by personal efforts of villagers.

29. **Achaleshwar Dham:** This temple attracts a lot of pilgrims on daily basis, whereas during special occasions (such as on Monday and during Shivratri festival) thousands of people visit the temple. There are no proper parking facilities available at the site and hence, the visitors are parking their vehicles in the vacant land located in front of the temple. The temple does not have public convenience facilities for the visitors/ tourists and hence the visitors/ tourist are utilising the nearby public convenience belonging to the Gurudwara Achal Sahib. **Annexure 2** shows photo illustration of the project sites.

B. Proposed Subproject Components

30. Proposed works under this sub project are as follows:

Table 2 : Detail Proposed Interventions

Sl.no	Sub-Project Location	Proposed Interventions
1	Rattar Chattar Mosque	<p>a. Structural work</p> <ul style="list-style-type: none"> • Repair of structural cracks • Repair of mosque's roof <p>b. Civil work</p> <ul style="list-style-type: none"> • Repair of surface cracks, • Removal of cement repairs with suitable methods • Rework in brick and lime mortar masonry • Clearing of lime wash, cement filling with appropriate materials and methods • Construction of plinth protection • Repair of roof drainage and re-plastering, water proofing; • Removal of vegetation • Redesign of railings and parapet walls • Reconstruction of minaret • Construction of boundary walls <p>c. Infrastructural up-gradation</p> <ul style="list-style-type: none"> • Repair of roof drainage • Upgrading electrical infrastructure • Upgrading surface water drainage and sewage • Planning of hard and soft scape areas to prevent further water ingress • Installation of lightening conductors <p>d. Art conservation</p> <ul style="list-style-type: none"> • Conservation of the decorative paint/ fresco on the internal walls of the Dargah
2	Achaleshwar Dham	<p>a. Site Planning</p> <ul style="list-style-type: none"> • Levelling and paving of the parking area and improvement of green patch • Improvement of surroundings • Landscaping • Signage • Beautification with Street Infrastructure • Provision of Two wheeler and Four Wheeler Parking • Provision of Water coolers for clean drinking water facilities <p>b. Toilet block</p> <ul style="list-style-type: none"> • Separate Male , Female and handicapped toilet • Sikh Architecture following the language of Tourism of Punjab Architecture style

Sl.no	Sub-Project Location	Proposed Interventions
		<ul style="list-style-type: none"> • Separate Attendant room • Ramp for Handicapped Toilet • Space for Diaper changing in Ladies Toilet

B. Implementation Schedule

31. The Implementation Schedule for this subproject is worked out to be 18 months from the date of award of the contract.

III. POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK

A. ADB Policy

32. ADB requires the consideration of environmental issues in all aspects of ADB's operations, and the requirements for environmental assessment are described in ADB SPS, 2009. This states that ADB requires environmental assessment of all project loans, program loans, sector loans, sector development program loans, and loans involving financial intermediaries, and private sector loans.

33. **Screening and Categorization.** The nature of the environmental assessment required for a project depends on the significance of its environmental impacts, which are related to the type and location of the project, the sensitivity, scale, nature and magnitude of its potential impacts, and the availability of cost-effective mitigation measures. Projects are screened for their expected environmental impact and are assigned to one of the following four categories:

- **Category A.** Projects could have significant adverse environmental impacts. An EIA is required to address significant impacts.
- **Category B.** Projects could have some adverse environmental impacts, but of lesser degree or significance than those in category A. An IEE is required to determine whether significant environmental impacts warranting an EIA are likely. If an EIA is not needed, the IEE is regarded as the final environmental assessment report.
- **Category C.** Projects are unlikely to have adverse environmental impacts. No EIA or IEE is required, although environmental implications are reviewed.
- **Category FI.** Projects involve a credit line through a financial intermediary or an equity investment in a financial intermediary. The financial intermediary must apply an environmental management system, unless all Projects will result in insignificant impacts.

34. **Environmental Management Plan.** An EMP which addresses the potential impacts and risks identified by the environmental assessment has been prepared. The level of detail and complexity of the EMP and the priority of the identified measures and actions will be commensurate with the Project's impact and risks.

35. **Public Disclosure.** The IEE will be put up in an accessible place (e.g., local government offices, libraries, community centres, etc.), and a summary translated into Hindi/Punjabi for the project affected people and other stakeholders shall also be disclosed. The following safeguard documents will be put up on ADB's website so that the affected people, other stakeholders, and the general public can provide meaningful inputs into the project design and implementation:

- For environmental category A projects, a draft EIA report at least 120 days before Board consideration;
- Final or updated EIA and/or IEE upon receipt; and
- Environmental monitoring reports submitted by the Project Management Unit (PMU) during project implementation upon receipt.

B. National and State Laws

36. Implementation of the subproject will be governed by the national and State of Punjab environmental acts, rules, regulations, and standards. These regulations impose restrictions on activities to minimize/mitigate likely impacts on the environment. It is the responsibility of the project executing and implementing agencies to ensure subprojects are consistent with the legal framework, whether national, state or municipal/local. Compliance is required in all stages of the subproject including design, construction, and operation and maintenance.

37. The realm of environmental regulations and mandatory requirements for the proposed sub-project is shown in **Table 3**. The Environmental Impact Assessment (EIA) notification, 2006 by the Ministry of Environment, Forest and Climate Change (MoEF&CC, GoI) specifies the mandatory environmental clearance requirements. Accordingly, projects and activities are broadly categorized in two categories¹ - Category A and Category B, based on the spatial extent of potential impacts and potential impacts on human health and; natural and man-made resources.

Table 3: Environmental Regulatory Compliance

Sub-Project	Applicability of Acts/Guidelines	Compliance Criteria
Heritage Conservation and Tourism Development in Gurdaspur District, Punjab	The Environment Protection Act, 1986 - under EIA notification, 2006 (and its subsequent amendments in 2009) provides for categorization of projects into category A and B, based on extent of impacts.	The subproject is not covered in the ambit of the EIA notification as they are not covered either under Category A or Category B of the notification. As a result, the categorization, and the subsequent environmental assessment and clearance requirements, either from the State government or the GoI is not triggered.
	ADB's Safeguard Policy Statement 2009	Categorization of sub-project components into A, B or C and developing required level of environmental assessment for each component. The sub-project has been Categorized as B and accordingly this IEE has been prepared.
	The Wildlife Protection Act, 1972, amended in 2003 and 2006, provides for protection and management of Protected Areas.	Not applicable. As there are no wildlife protected areas within or in the vicinity of the sub-project site
	The Forest Conservation Act, 1980 and its subsequent amendments necessitate obtaining clearance from the	Not applicable, the subproject site is not located within or in the vicinity of the forest area.

¹All projects or activities included as Category 'A' in the Schedule, including expansion and modernization of existing projects or activities and change in product mix, will require prior environmental clearance from the Central Government in the Ministry of Environment and Forest & Climate Change (MoEF&CC) on the recommendations of an Expert Appraisal Committee (EAC) to be constituted by the Central Government for the purposes of this notification; All projects or activities included as Category 'B' in the Schedule, including expansion and modernization of existing projects or activities as specified in sub paragraph (ii) of paragraph 2, or change in product mix as specified in sub paragraph (iii) of paragraph 2, but excluding those which fulfil the General Conditions (GC) stipulated in the Schedule, will require prior environmental clearance from the State/Union territory Environment Impact Assessment Authority (SEIAA). The SEIAA shall base its decision on the recommendations of a State or Union territory level Expert Appraisal Committee (SEAC) as to be constituted for in this notification. In addition, General Condition (GC) of the notification specifies that any project or activity specified in Category 'B' will be treated as Category A, if located in whole or in part within 10 km from the boundary of: (i) Protected Areas notified under the Wild Life Protection Act, 1972, (ii) Critically Polluted areas as notified by the Central Pollution Control Board from time to time, (iii) Notified Eco-sensitive areas, (iv) inter-State boundaries and international boundaries.

Sub-Project	Applicability of Acts/Guidelines	Compliance Criteria
	MoEF&CC for diversion of forest land for non-forest purposes.	Felling of trees are not envisaged in this subproject implementation and hence tree felling/ cutting permissions are not required.
	Water (Prevention and control of pollution) Act, 1974 and; Air (prevention and control of pollution) Act, 1981	Consent to Establish (CTE) and Consent to Operate (CTO) has to be obtained by the Contractor from the PPCB for setting up of diesel generators and batching plant (if any), prior to the commencement of construction works. Apart from this the CTE and CTO are also required for stone crushers (if any) and quarry sites if they are being set up exclusively for this project, otherwise it has to be ensured that the construction materials are procured from approved/ licensed quarry sites and stone crushers.
	The Ancient Monuments and Archaeological Sites and Remains Act, 1958, and the rules, 1959 provide guidance for carrying out activities, including conservation, construction and reuse in and around the protected monuments.	Not applicable as these sites and monuments are not under the ambit of this Act.

38. The above table indicates that the proposed subproject does not need to go through a full-scale environmental assessment process; as the scale of impacts and categorization of the sub-project components will not require consent/ clearances from Competent Authorities. Therefore, any further approvals or clearances from the GoI or GoP are not envisaged. The ADB guidelines, stipulate addressing environmental concerns, if any, of a proposed activity in the initial stages of project preparation. For this, the ADB Guidelines categorizes the proposed components into categories (A, B or C) to determine the level of environmental assessment required to address the potential impacts. This sub-project has been categorized as "B". Accordingly this IEE has been prepared to address the potential impacts, in line with the recommended IEE content and structure for Category B projects.

IV. DESCRIPTION OF ENVIRONMENT

A. Physical Environment

Climate

39. There are mainly two seasons i.e. summer and winter. The summer season starts in the months of April to July and the winter season starts in the month of November to March. In the summer season the temperature reaches up to 45°C and sometimes it even exceeds. The month of June is the hottest month and January is the coldest (15°C). The subproject district receives the rainfall in the month of July to September. The winter rains are experienced during January to February. The dust storm occasionally occurs in the month of May and June. Relative humidity is generally high in the mornings (70%) and comparatively less in the afternoons.

40. In the post-monsoon and in the winter season, winds are light and variable indirection in the morning and mostly from the west or north-west in the afternoons. In the month of April and May, winds blow between north-west and north-east in the mornings and between west and north-east in the afternoons. By June, easterlies and south-easterlies also blow

and also during the south-west monsoon season. Winds blow commonly between north-east and south-east directions (*Source: District Disaster Management Plan*).

Geology & Soil

41. The Gurdaspur district forms a part of the Indo-Ganga alluvium, with a north-west-south-east running hilly terrain of the Shiwaliks forming the foot-hills of the Himalayas. The oldest rocks belong to the lower Shiwalik formation comprising of alternating sandstone, silt and shale horizons of grey and maroon colours. To the south-west of the Shiwalik range are exposed gravel, sand and clay beds of the quaternary period. Vertebrate fossils are noticed which are associated with the Shiwalik formations indicating a luxurious growth of animal life which later perished due to severe glaciation during the upper Pleistocene period.

42. The soils are loamy and the clay content is below 10%. They contain small quantities of lime but the magnesia content is high. They are well supplied in potash and phosphoric acid but their quantities are low. Agriculture is dependent to a large extent on the nature of its soils which in turn, are influenced mainly by climatic factors. The soil of the district is quite alluvial and fertile. The district consists of three kinds of soils: Riarki, Bangar and Bet. The area of Dhariwal Ghuman, Qadian, Harchowal and Sri Hargobindpur is called Riarki. The western side of Kahnuwan Lake up to Aliwal canal is called Bangar and the area between the rivers Beas and Ravi is known as Bet. Nearly 300 villages fall within Bet Area.

Surface water

43. Beas and Ravi Rivers account for surface water in the Gurdaspur districts. All through the course of River Beas, a strip of shallow alluvial soil fringes its bank which is subjected to inundation during the rainy season. The main channel of the river is broad, dotted with islands and wide pools. The depth of water varies from about 1.5 metres during the dry season to about 4.5 metres during the rainy season. The Chakki Khad is the chief tributary of the Beas in Gurdaspur district. A number of tributaries join River Ravi from both the sides. On its right bank, River Ravi is joined by the Ujh, the Jalalia, the Shingarwan and the Masto, all of which originates in the Jammu hills. The Kiran and the Naumuni streams, which take their origin from local depression in Gurdaspur district, are its left bank tributaries. The project site does not have natural water bodies in the surroundings.

Groundwater

44. The groundwater in the Gurdaspur district is alkaline in nature with low mineralisation. The pH value ranges from 7.77 to 8.25 indicating a weak base type characteristic. Specific conductance, a measure of total dissolved solids present in water ranges from 235 to 1640 micro mhos/cm at 25°C. Chloride values in the area are directly proportional to the specific conductance of the water samples. The fluoride concentration in the entire district is within the permissible limit of 1.5mg/l of BIS drinking water standards and it ranges from 0.12 to 1.16mg/l. Nitrate values are below the permissible limit with an exception at two villages, i.e. Batala (138mg/l) and Kalanaur (146mg/l). The presence of Iron is below 1.0mg/l in the entire district. The Arsenic concentration is above the prescribed BIS permissible limit of 0.01mg/l in well waters located at Nishayra (0.015mg/l), Behrampur (0.01mg/l) and Galri (0.02mg/l).

Ambient Air and Noise Quality

45. The ambient air quality for the subproject area has been established by using the air quality monitoring information, which is conducted under IDIPT from Keshopur Wetland in Gurdaspur District. The monitored results are shown in the Table 4.

Table 4: Ambient Air and Noise Quality of Gurdaspur (Under IDIPT, Punjab)

A: Ambient Air Quality of Gurdaspur		
Parameters	Keshopur, Gurdaspur District	Standards (as per CPCB notification 18.11.2009)

		Industrial, Residential, rural and other areas (24 hours basis)	Ecologically sensitive areas
PM _{2.5} (µg/m ³)	34	60	60
PM ₁₀ (µg/m ³)	61	100	100
CO mg/m ³	12	2.0 (8 hours basis)	2.0
SO _x (µg/m ³)	15	80	80
NO _x (µg/m ³)	Not Detectable	80	80

B: Ambient Noise Quality of Gurdaspur

Parameters	Keshopur, Gurdaspur District	Standards (as per the Noise Pollution (Regulation and Control) Rules 2000)		
		Residential	Commercial	Industrial
Noise level in day time dBA	64.2	55	65	75

Source: IDIPT, PIU, Amritsar

46. From the observation, it shall be concluded that the recorded ambient air quality is well within the limits in comparison with the NAAQM standards. The recorded noise levels are also within the stipulated limits; however, it is very close as it may exceed the noise levels of the commercial areas. The increase in noise level is due to the movement of traffic in the highways, which is located close to the subproject area.

B. Ecological Environment

31. **Flora.** The subproject area does not have healthy floral population, however, few tree species like Aam (*Mangifera indica*), Amla (*Emblica officinalis*), Anjir (*Ficus carica*), Kala siras (*Albizia lebbbeck*), Kadamb (*Anthocephalus indicus*), Nimbu (*Citrus medica*), Babool (*Accia arabica*), Baheda (*Terminalia belerica*), Peepal (*Ficus religiosa*), Shisham (*Dalbergia sissoo*), Vilayatibabool (*Prosopis juliflora*), Amarbel (*Cuscuta reflexa*), Bans (*Dendrocala musstrictus*), Sugarcane (*Saccharum sp.*), Bel (*Aegle marmelos*), Nashpati (*Pyruscommunis*), Neem (*Azadirachta indica*), Amrood (*Psidium guajava*) and Ashok (*Polyalthia longifolia*) are observed during the reconnaissance study. There is no endangered flora identified in the project area.

47. **Fauna.** Similar to the floral population, the subproject area does not have a healthy faunal population. As per the forest department, the recorded faunal population in the Gurdaspur district includes Nilgai (*Boselaphustragocamelus*), fruit bat (*Cynopterus sphinx*), Five striped palm squirrel (*Funambulus pennanti*), Common mongoose (*Herpestesedwardsii*), Hare (*Lepus nigricollis*), Myna (*Acridotherestrictis*), Bluerock pigeon (*Columba livia*), Woodpecker (*Dinopiumbenghalense*), Parrot (*Psittaculakrameri*), House crow (*Corvus splendens*), Common garden lizard (*Calotesversicolor*), Dog (*Canis lupus*), Goats (*Capra aegagrushircus*), Cat (*Feliscattus*), Buffaloes (*Bubalus bubalis*), Toads (*Bufo malanostictus*) and Bull frog (*Rana tigrina*). There is no endangered fauna identified in the project area.

48. **Protected Areas.** There are no protected areas (national parks, sanctuaries, wetland etc.) in the vicinity of the subproject site. However, the presence of the Keshopur Chumb Wetland is the only protected area available in the Gurdaspur district and it is located nearly 45km (aerial distance) from the sub project area.

C. Socio Cultural and Economic Environment

49. **Demographic profile:** As per 2011 Census, the Punjab population is 2.77 crores, which shows an increase in the population in comparison with the 2001 Census (2.44 crores). Total population of the Gurdaspur District was 22.98 lakh in 2011 which was 21.04 lakh in 2001. However, the district population CAGR shows a down trend in growth rate compared to State Record. As per the census 2011, the total number of Households in the district is 4,43,666. The Average Household (HH) size has reduced from 5.7 (census 2001) to 5.2 (census 2011).

Table 5 : Population Data of Gurdaspur District

Population Distribution	2001		2011	
	Punjab	Gurdaspur	Punjab	Gurdaspur
Area (Sq.km)	50,362	3,551	50,362	3,551
Avg. HH size	5.6	5.7	5.0	5.2
Total Population	24,358,999	2,104,011	27,743,338	2,298,323
AAGR (1991-2001& 2001-2011)	1.8	1.8	1.1	0.9
Total Urban Population	8,262,511	535,223	10,399,146	659,319
Total Rural Population	16,096,488	1,568,788	17,344,192	1,639,004
% of Urban Population	33.92	25.44	37.48	28.69

Source: Compiled from Census Abstract 2001 and 2011

50. **Population density.** Population Density of Punjab is 551 people per sq.km in 2011. Density of Gurdaspur is 647 people per sq.km in 2011, which is higher than the value of 2001 census (593 Sq.km).

51. **Literacy rate.** The average literacy rate for the Gurdaspur district is 79.9% as per 2011 census which is higher in comparison to the Punjab state average of 75.8%. The district itself has a considerable growth in the literacy rate in comparison to the 2001 census (73.8%).

52. **Sex ratio.** As per 2011 census, the sex ratio of the state was 895 females per 1000 males. Whereas it was 874 females per 1000 males in 2001. In the Gurdaspur district there were 895 females per 1000 males, which is slightly higher than the 2001 figures (890 females per 1000 males).

53. **Employment.** Agriculture is the main occupation of people of Gurdaspur in the rural areas of the district. There are some industries in urban areas where workers are employed from nearby villages and towns.

54. **Agriculture.** The principal kharif crops are paddy, cotton, maize and sugarcane; subsidiary crops are kharif vegetables, such as ladyfinger, cauliflower, tomato, brinjal, cucurbits, kharif pulses and fruits. The principal rabi crops are wheat, gram, barley etc. Wheat, Maize, Rice and Bajra are the important cereals of the state. Wheat dominates the production among overall crop pattern, while cotton is the major cash crop that is being produced. Groundnut, Sugarcane and Potatoes are other crops. The principal rabi oilseeds (sarson, toramira, alsi and toria), and winter vegetables such as peas, turnip, radish, carrots, lobia.

55. In terms of natural vegetation, the Shahpur Kandi range lies in the hilly tract which comprises mainly of the miscellaneous hardwood species and the Chil pine. Where water facilities are available, Shisham, mulberry, eucalyptus and poplar are being planted. Besides mango and mulberry, other fruit trees cultivated in the district include orange and Kinnow Lemon tree.

Industrial profile

56. In Gurdaspur district, industries are mainly based on agriculture. Sugar mills, milk and milk products, woollen mills, knitting yarns and cloths, rice mills are the major industries of Gurdaspur. Service sector is also giving major employment to the people.

Physical Infrastructure Services

57. Department of Public Health and Gurdaspur Municipal Council are planning and implementing water supply and sewerage networks. Public Works department is responsible for planning, construction and operation and maintenance of road network; while internal roads are maintained by Gurdaspur Municipal Council. Solid waste management and disposal is also responsibility of the Municipal Council.

V. POTENTIAL ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

58. The assessment of the environmental impacts for the proposed interventions under this package (PB/IDIPT/T3/11/19) has been carried out during the following stages of the project planning and implementation:

Location impacts. Impacts associated with site selection, including impacts on environment and resettlement or livelihood related impacts on communities.

Design impacts. Impacts arising from project design, including the technology used, scale of operations etc.

Construction impacts. Impacts resulting from construction activities including site clearance, earthworks, civil works, etc.

O&M impacts. Impacts associated with the operation and maintenance of the infrastructure built in the project.

59. **Location Impact:** The proposal envisages medium scale construction activities involving restoration works at Rattar Chattar Mosque and provision of parking and toilet facilities at Achaleshwar Dham; the proposed construction works would result in some environmental impacts typical to construction activities. The land for development of proposed facilities is available in the existing premises itself, which is free from any encumbrances and with easy accessibility for the visitors.

- Achaleshwar Dham is located within the urban area. Hence gaining free access and movement of workers, vehicles and other construction related machinery would be an issue that will be dealt by obtaining requisite permission before commencement of construction work on site. Identity cards & vehicle permits shall be provided by the contractor for the construction vehicles used in the site. Whereas, the Rattar Chattar Mosque is located in rural area and it is easily accessible and hence transportation of construction materials and mobility of labour would not have much impacts.
- Other impacts related to construction activities such as generation of dust and noise, removal of construction debris and demolition wastes etc., are envisaged which shall be minimized and addressed by adopting good engineering practices and appropriate building design. Caution will be exercised in planning for safe construction and operations phase to minimize disturbance to the adjoining existing activities.
- Provision for water for construction will be made through municipal water supply or through mobile water tankers.

51. **Land Acquisition and Resettlement and Cultural Impacts.** The Rattar Chattar mosque is owned by a Mosque Committee and the Achaleshwar Dham at Batala is owned by Achaleshwar Mandir Kar Sewa Trust. Therefore NOC/undertaking certificates are required before start of the construction works (refer **Annexure 10**). With respect to land acquisition, the proposed activities in Rattar Chattar mosque are restricted to restoration of existing building structures and hence the need for additional land requirement is not envisaged. However, in order to provide vehicle parking and toilet facilities at Achaleshwar Dham, there is a need for additional land, which has been met with the vacant land available with the Achaleshwar Mandir Kar Sewa Trust itself. This has avoided LA and R&R issues that are likely to arise.

60. **Design impacts- Design Considerations to Avoid Environmental Impacts.** The following are design considerations to avoid environmental impacts:

- Incorporation of adequate drainage provisions
- Adoption of design compatible with the natural environment and suitable selection

of materials to enhance the aesthetic appeal and blend with the natural surroundings.

- Use of subtle colours and simple ornamentation in the structures.
- Natural/ local tree species in the proposed landscape.
- Use of local stone in the proposed walkways and built structures thus maintaining a rustic architectural character

61. The results of interventions are unobtrusive and will be integral part of the ambience of the site.

A. Assessment of Environmental Impacts

62. **Determination of Area of Influence.** The primary impact areas are (i) sites for proposed subproject components; (ii) main routes/intersections which will be traversed by construction vehicles; and (ii) quarries and borrow pits as sources of construction materials. The secondary impact areas are: (i) entire town area outside of the delineated primary impact area; and (ii) entire Gurdaspur district in terms of over-all environmental improvement.

63. The implementation of the subproject components involves minor construction activities which shall have localised impacts, but shall remain for shorter duration and expected only during construction period.

B. Pre-construction Impacts and Mitigation Measures

64. **Consents, Permits, Clearances, No Objection Certificate (NOC), etc.** For the proposed interventions there is a need to obtain appropriate NOC/undertaking certificates from concerned authorities. Failure to obtain necessary consents, permits, NOCs, etc. can result to revision in the design and/or stoppage of works. The following mitigation measures shall be adopted:

- Obtain all necessary consents, permits, clearance, NOCs, etc. prior to start of civil works. NoC from the asset owners (Mosque Committee (Masjid-turf Jattan Committee) for Rattar Chattar mosque and Achaleshwar Mandir Kar Sewa Trust, Batala for Achaleshwar Dham) have to be obtained (refer **Annexure 10**)
- Acknowledge in writing and provide report on compliance all obtained consents, permits, clearance, NOCs, etc.
- Include in detailed design drawings and documents all conditions and provisions if necessary

65. **Utilities** Interruption of services (water supply, electricity, toilets etc.) will be scheduled and intermittently related to localized construction activities. To mitigate impacts, PIU/DSC will:

- Identify and include locations and operators of these utilities in the detailed design documents to prevent unnecessary disruption of services during the construction phase.
- Require Contractors to prepare a contingency plan to include actions to be done in case of unintentional interruption of services.
- Require Contractor to obtain from the PIU and/or DSC the list of affected utilities and operators;
- If relocations are necessary, Contractor along with PIU/DSC will coordinate with the providers/line agencies to relocate the utility.

66. **Sites for construction work camps and areas for stockpile, storage and disposal.** The proposed subproject sites are within or adjacent to the religious places, where there is not enough vacant space to have construction camp including labour camp. Therefore, contractor is required to identify a suitable land near the proposed sites to have

construction camp including labour camp. The contractor will be required to meet the following criteria for selection of the construction sites:

- Will not promote instability and result in destruction of property, vegetation, irrigation, and drinking water supply systems, etc.
- Residential areas will not be considered so as to protect the human environment (i.e., to curb accident risks, health risks due to air and water pollution and dust, and noise, and to prevent social conflicts and shortages of amenities).
- Disposal will not be allowed near sensitive areas which will inconvenience the community
- In the construction camp, fuel and lubricants shall be stored over the impervious layer/ concrete floor to prevent any chances of soil and groundwater contamination due to leaching of the oil and grease. Any construction camp site will be finalized in consultation with DSC and PIU.

67. **Sources of construction materials.** Extraction of materials can disrupt topography/ terrain of the land and vegetation resulting in accelerated erosion, disturbance in natural drainage patterns, ponding, water logging and water pollution. The Contractor will be required to:

- Use approved quarry sites and sources permitted by government.
- Verify suitability of all material sources and obtain approval from PIU/DSC.
- If additional quarries are required after construction has started, obtain written approval from PIU/DSC.
- Submit documentation of sources of materials on monthly basis to PIU/DSC.

68. **Access.** Hauling of construction materials and operation of equipment on-site can cause traffic problems. Construction traffic will access the existing approach roads to reach the subproject sites and in turn can cause temporary traffic problems, which shall be mitigated through the following mitigation measures:

- 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.
- Locate entry and exit points in areas where there is low potential for traffic congestion.
- Keep the site free from all unnecessary obstructions.
- Drive vehicles in a considerate manner.
- Notify affected sensitive receptors by providing sign boards with information about the nature and duration of construction works and contact numbers for concerns/complaints.

69. Details of the pre-construction activities, mitigation measures and frequency of monitoring have been presented in the EMP Table 6. Sample waste/spoils management plan, traffic management plan, etc. are attached in the Annexures 3 & 4.

C. Anticipated Impacts during Construction phase and Mitigation Measures

70. The environmental impacts during the proposed construction works are generic to the construction activities and not expected to be significant. The EMP specifies the necessary mitigation measures to be strictly followed by the Contractor and supervised by the DSC. Key impacts during construction are envisaged on the following aspects: (i) Transportation of materials, (ii) Dust generation, air and noise pollution from construction activities, (iii) Handling of construction materials at site and, (iv) Adoption of safety measures during construction.

71. **Construction Schedule and Method.** It is estimated that the construction activities will cover approximately 18 months from the date of award of the contract.

72. The infrastructures will be constructed manually according to design specifications. Demolished materials will be reused to the extent possible. Materials will be brought to site by trucks or hand/push cart and will be stored in the nearby vacant areas.

73. There is sufficient space available near Achaleshwar Dham, for stockpiling of materials and to park construction equipment's, whereas in Rattar Chattar there is very less space for storage for construction materials. Therefore, the Contractor is required to keep only desired quantity of materials at site and also will need to remove all construction and demolition wastes on a daily basis.

74. The proposed subproject interventions are minor restoration/ conservation work having minimal civil work therefore there will be no major impacts on the environment but it may affect the nearby community and visitors/ tourist causing disturbance and inconvenience. These impacts will be short term, site specific and can be mitigated easily by adopting mitigation measures suggested.

75. **Impacts on Water Quality.** There are no surface water sources near or adjacent to sites, therefore risk of impacts on water quality is very low. Nevertheless, the contractors will be required to:

- Schedule civil works during non-monsoon season, to the maximum extent possible.
- Ensure drainages within the construction zones are kept free of obstructions.
- Keep loose soil material and stockpiles out of drains and flow-lines.
- Avoid stockpiling of excavated and construction materials (sand, gravel, cement, etc.) unless covered by tarpaulins or plastic sheets.
- Re-use/utilize, to maximum extent possible, excavated materials.
- Dispose all the construction debris and refuse at identified disposal site with prior permission from concerned local authority. PIU/DSC will identify and approve disposal sites.
- Dispose waste oil and lubricants generated during construction activities as per provisions of Hazardous Waste (Management and Handling) Rules, 1989

76. **Impacts on Air Quality.** There is potential for increased dust particularly during summer/dry season due to the construction activities including stockpiling of construction materials. Emissions from vehicles transporting construction materials and debris/materials to be disposed may cause increase in air pollutants within the construction zone. These are inherent impacts which are site-specific, low magnitude, short in duration and can be easily mitigated. The Contractor will be required to:

- Conduct regular water spraying on earth piles, trenches and sand piles.
- Keep stockpiles, sand piles covered with tarpaulin sheet to avoid dust blown into the air.
- Conduct regular visual inspection in the subproject sites and construction zones to ensure no excessive dust emissions.
- Maintain construction vehicles and obtain "pollution under control" (PUC) certificate from PPCB.
- Obtain CTE and CTO for hot mix plants, crushers, diesel generators, etc., if to be used in the subproject.
- Ambient Air Quality (AAQ) monitoring has to be performed as per the Environmental Monitoring Program.

77. **Noise and Vibration Impacts.** Most of the construction activities shall be done manually without involving heavy equipment's and hence the chances for noise and vibration impacts are not envisaged. Nevertheless the contractor will be required to:

- Limit construction activities near sensitive areas and other important sites to daytime only.
- Plan activities in consultation with the PIU/DSC so that activities with the greatest

potential to generate noise are conducted during periods of the day which will result in least disturbance.

- Minimize noise from construction equipment by using vehicle silencers and fitting jackhammers with noise-reducing mufflers.
- Require drivers that horns not be used unless it is necessary to warn other road users or animals of the vehicle's approach.
- If specific noise complaints are received during construction, the Contractor may be required to implement the following noise mitigation measures, as directed by the DSC:
- Locate stationary construction equipment as far from nearby noise-sensitive properties as possible.
- Shut off idling equipment.
- Reschedule construction operations to avoid periods of noise annoyance identified in the complaint.
- Notify nearby residents whenever extremely noisy work will be occurring.
- Follow Noise Pollution (Regulation and Control) Rules, day time ambient noise levels should not exceed 65 dB(A) in commercial areas, 55 dB(A) in residential areas, and 50 dB(A) in silence zone²
- Ensure vehicles comply with Government of India noise limits for vehicles. The test method to be followed shall be IS:3028-1998.
- Ambient Noise levels have to be monitored as per the Environmental Monitoring Program.

78. Impacts on Flora and Fauna. Tree cutting is not required for any of the subproject sites. There are no protected areas in the direct impact zones and no wild species of flora and fauna found in these areas. Nevertheless the contractor will be required to:

- Conduct site induction and environmental awareness among all workers.
- Limit activities within the work area.
- Do not remove or harm existing vegetation except required under proposed contract
- Strictly instruct workers not to cut trees for fuel wood.
- Replant trees in the area using minimum ratio of 2 trees for every 1 tree cut, if any.
- Replacement species must be approved by District Forest Department.

79. Impacts on Physical and Cultural Resources. There may be inconvenience to visitors/ tourists, residents, businesses and other road users due to construction activities. This impact is site-specific, short-term and can be mitigated. The Contractor will be required to:

- Ensure no damage to structures/properties near construction zone.
- Provide walkways and metal sheets where required to maintain access of people.
- Provide sign boards to inform nature and duration of construction works and contact numbers for concerns/complaints.
- Implement good housekeeping. Remove wastes immediately. Prohibit stockpiling of materials that may obstruct/slow down pedestrians and/or vehicle movement.
- Ensure workers will not use nearby/adjacent areas as toilet facility.
- Coordinate with DSC for transportation routes and schedule. Schedule transport and hauling activities during non-peak hours. Communicate road detours via visible boards, advertising, pamphlets, etc.
- Ensure heavy vehicles do not use narrow local roads, except in the immediate vicinity of delivery sites.

² Day time shall mean from 6.00 am to 10.00 pm. Silence zone is an area comprising not less than 100 meters around hospitals, educational institutions, courts, religious places or any other area which is declared as such by PPCB. Mixed categories of areas may be declared as one of the above mentioned categories by PPCB.

- Provide instructions on event of chance finds for archaeological and/or ethno-botanical resources. Works must be stopped immediately until such time chance finds are cleared by experts.

80. **Impact due to Waste Generation.** Demolished structures will be reused to the maximum extent possible. Construction activities will produce excess excavated soils, excess construction materials, and solid wastes (such as removed concrete, wood, packaging materials, empty containers, oils, lubricants, and other similar items). These impacts are negative but short-term and reversible by mitigation measures. The contractor will need to adopt the following mitigation measures:

- Prepare and implement a waste management plan.
- Manage solid waste according to the following hierarchy: reuse, recycling and disposal. Include in waste management plan designated/approved disposal areas.
- Coordinate with Municipal Authorities for beneficial uses of demolished materials or immediately dispose to designated areas.
- Recover used oil and lubricants and reuse; or remove from the sites.
- Avoid stockpiling and remove immediately all demolished materials, excess construction materials and solid waste (removed concrete, wood, packaging materials, empty containers, oils, lubricants, and other similar items).
- Prohibit disposal of any material or wastes (including human waste) into drainage, nallah or watercourse.

81. **Impacts on Occupational Health and Safety.** Workers need to be mindful of occupational hazards which can arise during the subproject implementation/ execution. The Contractor should comply with IFC EHS Guidelines on Occupational Health and Safety³. The contractor will be required to:

- Disallow worker exposure to noise level greater than 85 dB(A) for duration of more than 8 hours per day without hearing protection. The use of hearing protection shall be enforced actively.
- Develop comprehensive site-specific Health and Safety (H&S) plan. The overall objective is to provide guidance to Contractor on establishing a management strategy and applying practices that are intended to eliminate, or reduce, fatalities, injuries and illnesses for workers performing activities and tasks associated with the project.
- Include in H&S plan measures such as:
 - Type of hazards during excavation works;
 - Corresponding personal protective equipment for each identified hazard;
 - H&S training for all site personnel;
 - Procedures to be followed for all site activities; and
 - Documentation of work-related accidents.
- Provide H&S orientation training to all new workers to ensure that they are apprised of the rules of work at the site, personal protective protection, and preventing injury to fellow workers.
- Ensure that first-aid facility is available at site. Equipped first-aid stations shall be easily accessible throughout the site as well as at construction camps.
- Provide medical insurance coverage for workers.
- Secure construction zone from unauthorized intrusion and accident risks.
- Provide supplies of potable drinking water.
- Provide clean eating areas where workers are not exposed to hazardous or

³(this can be downloaded from <http://www1.ifc.org/wps/wcm/connect/9aef2880488559a983acd36a6515bb18/2%2BOccupational%2BHealth%2Band%2BSafety.pdf?MOD=AJPERES>).

noxious substances.

- Provide visitor orientation if visitors to the site can gain access to areas where hazardous conditions or substances may be present. Ensure also that visitor/s do not enter hazard areas unescorted.
- Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas.
- Ensure moving equipment is outfitted with audible back-up alarms.
- Mark and provide sign boards in the construction zone, and areas for storage and disposal. Signage shall be in accordance with international standards and be well known to, and easily understood by workers, visitors, and the general public as appropriate.

82. **Impacts on Socio-Economic Activities.** Manpower will be required during the 18 months construction phase. This can help generate contractual employment and increase in local revenue. As per detailed design, land acquisition and closure of approach roads are not required. However, construction activities may impede access of residents and devotees to the temple. The potential impacts are negative and moderate but are short-term and temporary. The contractor will need to adopt the following mitigation measures:

- Provide sign boards for visitors/ devotees to inform nature and duration of construction works and contact numbers for concerns/complaints.
- Employ at least 50% of the labour force, or to the maximum extent, local persons within the 20-km immediate area if manpower is available.

83. The detailed mitigation measures, environmental monitoring and reporting requirements, implementation arrangements, capacity development and training measures, implementation schedule, cost estimates and performance indicators are provided in the Environmental Management Plan. The potential impacts that are associated with construction activities can be mitigated through incorporation or application of the recommended mitigation measures and procedures.

D. Post-Construction Impacts and Mitigation Measures

84. Site clean-up is necessary after construction activities. The contractor will be required to:

- Backfill any excavation and trenches, preferably with excess excavation material generated during the construction phase.
- Use removed topsoil to reclaim disturbed areas.
- Re-establish the original grade and drainage pattern to the extent practicable.
- Restore access roads, staging areas and temporary work areas.
- Remove all tools, equipment, barricades, signs, surplus materials, debris, and rubbish. Demolish buildings/structures not required for O&M. Dispose in designated disposal sites.
- Monitor success of re-vegetation and tree re-planting. Replace all plants determined to be in an unhealthy condition.
- Request in writing from PIU/DSC that construction zones have been restored.

E. Anticipated Operations and Maintenance (O&M) Impacts and Mitigation Measures

85. Impacts on environmental conditions associated with the O&M of the subproject components pertain to impacts related to increased tourists in the areas resulting to increased vehicular movement along the roads, increased demands for services and increased solid waste generation. These impacts can be mitigated by:

- Increased vehicular movement along the roads - speed restrictions, provision of appropriate road signage and well located rest points for pedestrians shall minimize impacts on safety of the people.

- Increase demands for services – addressed through the subproject design.
- Increase solid waste generation – Municipal Corporation to put in place solid waste management programs.

VI. INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION

A. ADB Disclosure Policy

86. Public consultation was undertaken as per ADB SPS requirements. All the five principles of information dissemination, information solicitation, integration, coordination and engagement into dialogue were incorporated during the task. A framework of different environmental impacts likely from the subproject was prepared based on opinions of all those consulted, especially at the micro level, by setting up dialogues with the local people and stakeholders from whom information on site, facts and prevailing conditions were collected.

87. As per ADB safeguard requirement, public consultation is to be carried out before and after impact identification. Public consultation was therefore carried out twice, once at the time of start of preliminary design work with the key stakeholders particularly with asset owners or caretakers and NGOs and secondly to discuss mitigating measures and get concurrence of stakeholders.

B. Process for Consultation followed

88. During the project preparation, consultations have been held with the Department of Tourism, tourists of Gurdaspur, District Administration, District Municipal Administration, local community representatives and tourism officers regarding issues pertaining to the selection of subprojects and identification of key issues including addressing the current gaps in provision of basic services and improvement of tourist infrastructure. Records of the consultations are provided in **Annexure-5**.

C. Plan for Continued Public Participation

89. To ensure continued public participation, stakeholder engagement during the project design and implementation is proposed. A grievance redress cell has been set up within the PIU/DSC at field office and PMU, Chandigarh office. To ensure an effective disclosure of the project proposal to the stakeholders and the community living in the vicinity of the sub-project location, information regarding grievance redress mechanism shall be published in local newspapers. This information is also made available on PHTPB website.

90. The Executing Agency (EA) will submit to ADB the following documents for disclosure on ADB's website: (i) the final IEE; (ii) a new or updated IEE and corrective action plan prepared during project implementation, if any; and (iii) the environmental monitoring reports.

91. For the benefit of the community, relevant information in the IEE (Executive Summary) will be translated in Hindi/Punjabi and made available at: (i) Office of the PMU; and, (ii) Office of PIU, Amritsar; (iii) Office of the District Commissioner, Gurdaspur District (iv) District/Public libraries of the Chandigarh/Gurdaspur. These copies will be made available free of cost to any person and accessible to citizens as a means to disclose the document and at the same time creating wider public awareness. On demand, the person seeking information can obtain a hard copy of the complete IEE document at the cost of photocopy from the office of the PMU/PIU, on a written request and payment for the same to the Project Director. Electronic version of the IEE will be placed in the official website of the PHTPB and the website of ADB after approval of the documents by Government and ADB. The PMU will issue notification on the disclosure mechanism in local newspapers, ahead of the initiation of implementation of the project, providing information on the project, as well as

the start date and expected completion dates etc. The notice will be issued by the PMU in local newspapers one month ahead of the implementation works.

VII. GRIEVANCE REDRESS MECHANISM

92. The affected person/aggrieved party can give their grievance verbally or in written to the local grievances committee. Grievances of affected person will first be brought to the attention of the PIU who can resolve the issue at site level. If the matter is not solved within 7 days period by the PIU, it will be brought to the Grievance Redress Committee constituted for the purpose in PIU. This GRC shall discuss the issue in its monthly meeting and resolve the issues within one month of time after receiving the grievance. If the matter is not resolved by GRC at PIU level within stipulated time, it shall be referred to GRC at PMU level by Executive Engineer of PIU.

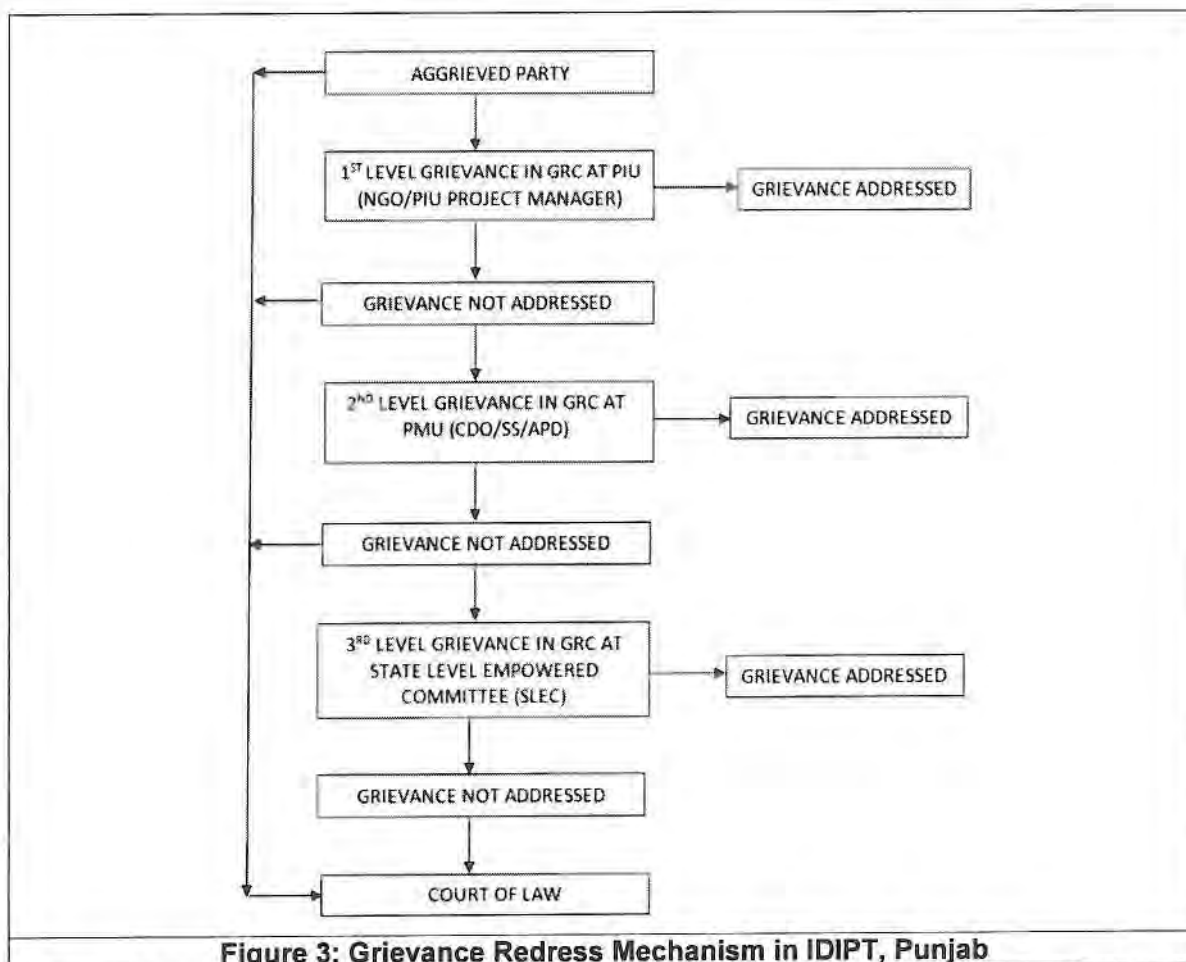
93. GRC at PMU shall discuss the issue and try to resolve it and inform the PIU accordingly. If the matter is not resolved by the GRC at PMU level within one month of time, the aggrieved person/party can bring the matter to The Court of Law. The PIU shall keep records of all grievances received including contact details of complainant, date of receiving the complaint, nature of grievance, agreed corrective actions and the date these were affected and final outcome. The grievance redress process is shown below.

A. Composition and Functions of GRC

94. **Local Grievance Committee (LGC).** In this LGC shall work with NGO, SHG, Line Agency, representative of Gram Panchayat, Special invitee.

95. **First Level Grievance Redress Committee (GRC) at PIU.** In each PIU there shall be one GRC, which will include Project Manager (PIU), District Tourist Officer of Department of Tourism of Govt. of Punjab, Community Development Officer of PIU, nominated representative of District Magistrate and nominated representative committee shall be headed by Project Manager (PIU). PIU can associate NGO as per his decision. The committee will meet at least once in every month. Agenda of meeting shall be circulated to all the members and affected persons/aggrieved party along with venue, date and time; informed in written at least 7 days in advance of meeting. The matters shall remain with GRC at PIU level for one month and if grievance is not resolved within this time period, the matter shall be referred to GRC at PMU.

96. **Second Level Grievance Redress Committee (GRC) at PMU.** There shall be one GRC in PMU. The matters not resolved by the GRC at PIU level within one month shall come under GRC at PMU. GRC at PMU will include Community Development Expert of PMU, Social Safeguard Specialist of PMU and Additional Project Director (APD) of PMU. The Committee shall be headed by APD of PMU. This committee shall look the matters, which are referred to and not resolved by GRC at PIU level. GRC at PMU will resolve the issue within one month.



Note: LGC -NGO, SHG, Line Agency, Representative of Gram Panchayat, Special invitee GRC – PM, CDO, Engineer, DFO, DTO, SDM GRC in Environment and Social Management Cell (ESMC) – PMU (APD, SS, CDS, FS), PMC (EE, CDE)

97. **Third Level Grievance Redress Committee (GRC) at SLEC.** If the matter is not resolved by the GRC at PMU level within one month of time, the aggrieved person/party can bring the matter to The Executive Committee/State Level Empowered Committee (SLEC).

B. Approach to GRC.

98. Affected person/aggrieved party can approach to GRC for redress of his/their grievances through any of the following modes:

- Through Grievance Redress Form: Aggrieved person/party can give their grievance in Grievance Redress Form available at PIU and PMU. Sample Grievance Redress Form is attached as **Annexure 6**
- Web based: A separate corner will be developed at the program website so that public / community/ affected person can register their complaint in the online column.
- Telecom based: A toll free no. will be issued by the PMU/ PIU so that general public can register their complaint through telephone / mobile phone to the PIU/PMU office.

VIII. ENVIRONMENTAL MANAGEMENT PLAN

99. The purpose of the Environmental Management Plan (EMP) is to ensure that the activities are undertaken in a responsible, non-detrimental manner with the objectives of: (i)

providing a proactive, feasible, and practical working tool to enable the measurement and monitoring of environmental performance on-site; (ii) guiding and controlling the implementation of findings and recommendations of the environmental assessment conducted for the project; (iii) detailing specific actions deemed necessary to assist in mitigating the environmental impact of the project; and (iv) ensuring that safety recommendations are complied with.

100. A copy of the EMP must be kept on work sites at all times. This EMP will be included in the bid documents under appropriate contractual clauses and will be further reviewed and updated during implementation. Non-compliance with, or any deviation from, the conditions set out in this document constitutes a failure in compliance.

101. The Contractor will be required to (i) establish an operational system for managing environmental impacts (ii) carry out all of the monitoring and mitigation measures set forth in the EMP; and (iii) implement any corrective or preventative actions set out in safeguards monitoring reports that PMU and PIU will prepare from time to time to monitor implementation of this IEE and EMP. The contractor shall allocate a budget for compliance with these EMP measures, requirements and actions.

A. Responsibilities for EMP Implementation:

102. The following agencies will be responsible for EMP Implementation:

- Department of Tourism, Govt. of Punjab is the Executing Agency (EA) responsible for overall management, coordination, and execution of all activities funded under the loan;
- Punjab Heritage and Tourism Promotion board (PHTPB) including PIUs, will be the Implementing Agency (IA) responsible for coordinating procurement and construction of the project. PIU through its Project Management Unit (PMU) at Chandigarh will be implementing the project;
- The Project Management Consultant (PMC) assists PMU in managing the project including procurement and assures technical quality of design and construction;
- The Design and Supervision Consultant (DSC) will prepare the DPR of the project and will carry out construction supervision during project implementation. Their responsibility will also include EMP implementation/supervision;
- A Project Implementation Unit (PIU) has been established in Amritsar. This PIU will look into progress and coordination of day to day construction works with the assistance of DSC; and
- The Contractor will be responsible for execution of all construction works. The Contractor will work under the guidance of the PIU Amritsar and DSC. The environmental related mitigation measures will also be implemented by the Contractor.

103. The Contractor's conformity with contract procedures and specifications during construction will be carefully monitored by the PIU. Safeguard Specialists are deputed in DSC, PMC and PMU who will monitor the environmental performance of contractors. Terms of References of Safeguards Specialists are given in boxes

Box 1: Terms of Reference of Safeguards Specialist – PMU
<ul style="list-style-type: none"> • Review the IEE document and ensure adequacy under Safeguard Policy Statement, 2009 and identify any areas for improvement. • Ensure that the project design and specification adequately reflect the IEE, co-ordinate the obtaining of requisite environmental clearances for the project • Monitor construction activities to ensure that identified and appropriate control measures are effective and in compliance with the IEE and advise PIU for compliance with statutory requirements. • Develop training programme for the PMU/PIUs staff, the contractors and others involved in the project implementation, in collaboration with the Environmental Specialist of the PMC and DSC • Review and approve the Contractor's Implementation Plan for the environmental measures, as per IEE. • Liaise with the Contractors and Consultants on the implementation of the Environmental

Box 1: Terms of Reference of Safeguards Specialist – PMU

management measures proposed in the IEE

- Liaise with the various Government agencies on environmental and other regulatory matters
- Continuously interact with the NGOs and Community groups to be involved in the project
- Establish dialogue with the affected communities and ensure that the environmental concerns and suggestions are incorporated and implemented in the project
- Review the environmental performance of the project through an assessment of the periodic environmental monitoring reports submitted by the DSC provide a summary of the same to the Project Director and initiate necessary follow-up actions
- Provide support and assistance to the Government Agencies and the Asian Development Bank to supervise the implementation of the IEE during the construction as well as operation stage of the project
- Document the good practices in the project on incorporation and integration of environmental issues into engineering design and on implementing measures in the construction, and dissemination of the same

Box 2: Terms of Reference of Safeguards Specialist (Environment) of DSC

- To prepare the IEE document and ensure the adequacy under ADB SPS, 2009
- Interact on a regular basis with the sector specialists of the DSC and integrate environmentally sound practices into the detailed design of project components
- Advise PMU/PIU for compliance with statutory clearances
- Work out the site specific mitigation measures for components as required and integrate the same into contractual provisions
- Develop, organise and deliver environmental training programmes and workshops for the staff of the PIU and Contractors and in accordance to the Capacity Building Programme as specified in the IEE
- Preparation of Activity Plans as identified in IEE (these include Site Management Plans, Waste Management Plans, Sludge Management and Disposal Plans, Occupational Safety Plans etc)
- Supervise the implementation of the Environmental provisions by the Contractors
- Review and approve site specific environmental enhancement/mitigation designs worked out by the Contractor. Hold regular consultation meetings with the Environmental specialist of the PMU
- Review the Contractors' Environmental Implementation Plans to ensure compliance with the IEE
- Develop good practice construction guidelines to assist the contractors in implementing the provisions of IEE
- Prepare and submit regular environmental monitoring and implementation progress reports
- Assist Environmental Specialist of the PMU to prepare good practice dissemination notes based on the experience gained from site supervision

Box 3: Terms of Reference of Safeguards Specialist (Environment) of PMC

- Support and Advise the PMU and Consultants team in finalizing IEEs as per ADB safeguard requirement
- Best Environmental Practices for responding to environmental issues involved with implementation of the projects on a sustainable basis
- Assistance and advice on institutional strengthening and capacity building at the PMU and PIU levels in regards to environmental practices
- Ensure that baseline surveys, environmental monitoring plans and programs, initial environmental examinations (IEE) as may be required are carried out
- Preparation of ADB procedure compliant environmental safeguard actions including impact assessment if any during the design stage
- Oversight of implementation of environmental standards and safeguards as part of project implementation
- Participate in preparation of Master Plan for additional sites and contribute to the environmental safeguards to the plan and sub components.
- Preparation of performance monitoring reports

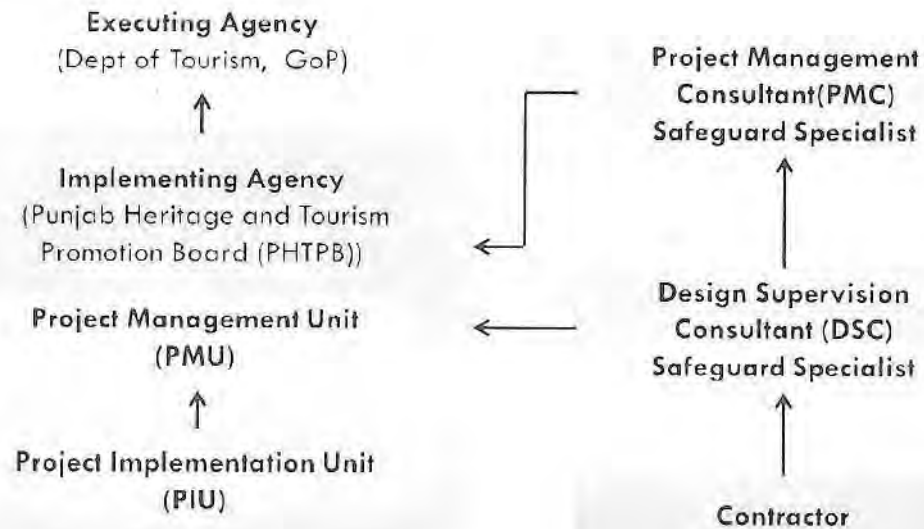


Figure 4: EMP Implementation Arrangement For IDIPT

104 **Responsibility for updating IEE during detailed design** DSC will be responsible for preparation of IEE and updating it from time to time, when required during detailed design and implementation phase.

105 **Responsibility for monitoring** During construction, DSC's Environmental Specialist and the designated representative engineer of the PIU will monitor the contractor's environmental performance on day to day basis while PMC expert will randomly monitor the performance for corrective measures if required. During the operation phase, monitoring will be the responsibility of the Department of Tourism or the assets owners/ caretakers.

106 **Responsibility for Reporting.** PIU in coordination with DSC will submit quarterly and semi-annually monitoring report to PMU. On the basis of it PMU will submit to ADB semi-annual monitoring reports on implementation of the EMP and will permit ADB to field environmental review missions which will review in detail the environmental aspects of the project. Any major accidents having serious environmental consequences will be reported immediately. PMC environmental expert will help in preparation and finalization of quarterly, semi-annual and annual progress reports. The sample environmental monitoring template, summary monitoring table and sample environmental site inspection report format is attached as Annexures 7 to 9.

B. EMP Tables

107 **Table 6 to Table 8** shows the potential environmental impacts, proposed mitigation measures, responsible parties. This EMP will be included in the bid documents and will be further reviewed and updated during implementation.

Table 6 : Pre-Construction EMP Table

Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds
Consents, permits, clearances, no objection certificate (NOC), etc. (If applicable)	<ul style="list-style-type: none"> Obtain all necessary consents, permits, clearance, NOCs, etc. prior to start of civil works. (NoC from the asset owners have been obtained and enclosed in Annexure 10) 	<ul style="list-style-type: none"> Consents, permits, clearance, NOCs, etc. 	PMU	DSC and PIU	As per the conditions of the Consents, permits, clearance and NOCs	PMU
	<ul style="list-style-type: none"> Acknowledge in writing and provide report on compliance all obtained consents, permits, clearance, NOCs, etc. 	<ul style="list-style-type: none"> Records and communications 	PMU	DSC and PIU	Acknowledge upon receipt Submit report as specified in CTE, permits, etc.	PMU
	<ul style="list-style-type: none"> Include in detailed design drawings and documents all conditions and provisions if necessary 	<ul style="list-style-type: none"> Detailed design documents and drawings 	Contractor	PIU and DSC supported by PMU and PMC	Once during detailed design	Contractor
Establishment of baseline environmental conditions prior to start of civil works	<ul style="list-style-type: none"> Conduct documentation of location of components, areas for construction zone (camps, staging, storage, stockpiling, etc.) and surroundings (within direct impact zones), locations of environmental monitoring Include photos and GPS coordinates 	<ul style="list-style-type: none"> Baseline environmental profile including ambient air, noise, water quality as per the standards 	Contractor	PIU and DSC supported by PMU and PMC	Once before start of the construction work	PMU
Utilities	<ul style="list-style-type: none"> Identify and include locations and operators of these utilities in the detailed design documents to prevent unnecessary disruption of services during the construction phase. Require contractors to prepare a contingency plan to include actions to be done in case of unintentional interruption of services. Obtain from the PIU and/or DSC the 	<ul style="list-style-type: none"> List showing utilities to be shifted Contingency plan for services disruption 	<ul style="list-style-type: none"> DSC to prepare preliminary list of utilities to be shifted During detailed design phase, Contractor to prepare list and operators 	PIU and DSC supported by PMU and PMC	Once prior to start of construction work	DSC – preliminary design stage Contractor – implementation stage

Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds
	<ul style="list-style-type: none"> list of affected utilities and operators; If relocations are necessary, contractor will coordinate with the providers to relocate the utility. 		<ul style="list-style-type: none"> of utilities to be shifted; contingency plan 			
Sites for construction work camps, areas for stockpile, storage and disposal	<ul style="list-style-type: none"> Will not promote instability and result in destruction of property, vegetation, irrigation, and drinking water supply systems, etc. Residential areas will not be considered so as to protect the human environment (i.e., to curb accident risks, health risks due to air and water pollution and dust, and noise, and to prevent social conflicts and shortages of amenities). Disposal will not be allowed near sensitive areas which will cause inconvenience to the community. The construction camp, storage of fuel and lubricants should be avoided at sensitive zones. The construction camp site should be finalized in consultation with DSC and PIU. 	<ul style="list-style-type: none"> List of pre-approved sites for construction work camps, areas for stockpile, storage and disposal Waste management plan 	<ul style="list-style-type: none"> DSC to prepare list of potential sites DSC to inspect sites proposed by contractor if not included in pre-approved sites 	PIU and DSC	Once during detailed design by DSC	Contractor
Sources of construction materials	<ul style="list-style-type: none"> Use quarry sites and sources permitted by government. Verify suitability of all material sources and obtain approval from PIU. If additional quarries are required after construction has started, obtain written approval from PIU. Submit to DSC on a monthly basis 	<ul style="list-style-type: none"> Permits issued to quarries/sources of materials 	<ul style="list-style-type: none"> Contractor DSC to verify sources (including permits) if additional is requested by contractor 	PIU and DSC	As per the condition of the permits / clearance issued	Contractor

Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds
	documentation of sources of materials.					
Access	<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 delivery sites. Schedule transport and hauling activities during non-peak hours. Locate entry and exit points in areas where there is low potential for traffic congestion. Keep the site free from all unnecessary obstructions. Drive vehicles in a considerate manner. Notify affected sensitive receptors by providing sign boards with information about the nature and duration of construction works and contact numbers for concerns/complaints. 	<ul style="list-style-type: none"> Contingency plan 	Contractor	PIU and DSC	Once during detailed design by DSC	Contractor
Occupational health and safety	<ul style="list-style-type: none"> Comply with IFC EHS Guidelines on Occupational Health and Safety Develop comprehensive site-specific health and safety (H&S) plan. The overall objective is to provide guidance to contractors on establishing a management strategy and applying practices that are intended to eliminate, or reduce, fatalities, injuries and illnesses for workers performing activities and tasks associated with the project. Include in H&S plan measures such 	<ul style="list-style-type: none"> Health and safety (H&S) plan 	Contractor	PIU and DSC supported by PMU and PMC	As per the provisions given in the H&S Plan	Contractor

Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds
	as: (i) Type of hazards in the construction site; (ii) Corresponding personal protective equipment for each identified hazard; (iii) H&S training for all site personnel; (iv) Procedures to be followed for all site activities; and (v) documentation of work-related accidents. • Provide medical insurance coverage for workers.					
Public consultations	• Continue information dissemination, consultations, and involvement/participation of stakeholders during project implementation.	• Disclosure records • Consultations	PIU and DSC,	PMU and PMC	• During updating of IEE Report • Prior to start of construction	PMU

Table 7 : EMP Table during Construction Phase

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
Impacts on water quality	• Schedule construction activities during non-monsoon season, to the maximum extent possible.	• Work schedule	Contractor	PIU and DSC PIU and DSC to submit EMP monitoring report to PMU	• Daily inspection by contractor supervisor and/or environment specialist • Weekly visual inspection by DSC (more frequent during monsoon season and if corrective action is required) • Random	Contractor on his own expense
	• Ensure drainages within the construction zones are kept free of obstructions.	• Visual inspection				
	• Keep loose soil material and stockpiles out of drains and flow-lines.	• Visual inspection				
	• Avoid stockpiling of excavated and construction materials (sand, gravel, cement, etc.) unless covered by tarpaulins or plastic sheets.	• Visual inspection				

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	<ul style="list-style-type: none"> Re-use/utilize, to maximum extent possible, excavated materials. Dispose any residuals at identified disposal site (PIU/DSC will identify approved sites). Dispose waste oil and lubricants generated as per provisions of Hazardous Waste (Management and Handling) Rules, 1989. Inspect all vehicles daily for fluid leaks before leaving the vehicle staging area, and repair any leaks before the vehicle resumes operation. Strictly prohibit open defecation by workers in nearby areas 	<ul style="list-style-type: none"> condition in waste management plan condition in waste management plan condition in waste management plan Vehicle inspection report condition in waste management plan H&S plan 			inspection by PMU, PIU, PMC and/or DSC	
Impacts on air quality	<ul style="list-style-type: none"> Conduct regular water spraying on stockpiles. Conduct regular visual inspection in the construction zones to ensure no excessive dust emissions. Maintain construction vehicles and obtain "pollution under control" certificate from PPCB. Ambient Air Quality monitoring has to be performed as per the Environmental Monitoring Program Obtain CTE and CTO for hot mix plants, crushers, diesel generators, etc., if to be used in the project. 	<ul style="list-style-type: none"> Visual inspection No complaints from sensitive receptors Records Visual inspection PUC certificates Particulate matter (PM₁₀ & PM_{2.5}), SO_x, NO_x, CO CTE and CTO 	Contractor	PIU and DSC PIU and DSC to submit EMP monitoring report to PMU	<ul style="list-style-type: none"> Daily inspection by contractor supervisor and/or environment specialist Weekly visual inspection by DSC (more frequent during dry season and if corrective action is required) Random inspection by PMU, PIU, PMC and/or DSC 	Contractor
Noise and	<ul style="list-style-type: none"> Limit construction activities to daytime 	<ul style="list-style-type: none"> Work schedule 	Contractor	PIU and DSC to	<ul style="list-style-type: none"> Daily inspection by 	Contractor

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
vibrations impacts	only.			submit EMP monitoring report to PMU	contractor supervisor and/or environment specialist • Weekly visual inspection by DSC (more frequent during noise-generating activities and if corrective action is required) • Random inspection by PMU, PIU, PMC and/or DSC	
	• Plan activities in consultation with PIU/DSC so that activities with the greatest potential to generate noise are conducted during periods of the day which will result in least disturbance.					
	• Minimize noise from construction equipment by using vehicle silencers and fitting jackhammers with noise-reducing mufflers.	• Direct Observation and • feedback from receptors within direct and direct impact zone				
	• Avoid loud random noise from sirens, air compression, etc.	• Direct Observation and • feedback from receptors within direct and direct impact zone				
	• Unnecessary use of sound horns should be prohibited. It shall be used only to warn road users or animals when they approach near the vehicle	• feedback from receptors within direct and direct impact zone				
	• Ambient Noise levels have to be monitored as per the Environmental Monitoring Program	• Day time dB(A)				
	• If specific noise complaints are received during construction, the contractor may be required to implement the following noise mitigation measures, as directed by the project manager: • Locate stationary construction equipment as far from nearby noise-sensitive properties, such as the	• Direct Observation and feedback from receptors within direct and direct impact zone				

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	<ul style="list-style-type: none"> hospital, as possible. Shut off idling equipment. Reschedule construction operations to avoid periods of noise annoyance identified in the complaint. Notify nearby residents whenever extremely noisy work will be occurring. 					
Impacts on flora and fauna	<ul style="list-style-type: none"> Conduct site induction and environmental awareness. Strictly instruct workers not to cut trees for fuel wood Do not harm existing vegetation in the area except indicated in site plan Limit activities within the work area. Strictly prohibit poaching of birds and animals in the vicinity of work sites Replant trees in the area using minimum ratio of 2 trees for every 1 tree cut. Replacement species must be approved by district Forest Department. 	<ul style="list-style-type: none"> IEE baseline information for flora and fauna for the subproject area Barricades along excavation works Sign boards for awareness among workers Training records Number and species approved by Punjab State Forest Department 	Contractor	PIU and DSC	<ul style="list-style-type: none"> Daily inspection by contractor supervisor and/or environment specialist Weekly visual inspection by DSC (more frequent if corrective action is required) Random inspection by PMU, PIU, PMC and/or DSC 	Contractor
Impacts on physical cultural resources	<ul style="list-style-type: none"> Ensure no damage to structures/properties adjacent to construction zone. Provide sign boards to inform nature and duration of construction works and contact numbers for concerns/complaints. Implement good housekeeping. 	<ul style="list-style-type: none"> Visual inspection any impact should be addressed by project resettlement plan photo-documentation Visual inspection 	Contractor In coordination with PIU and DSC for any structures within the site and construction zone	PIU and DSC	<ul style="list-style-type: none"> Daily inspection by contractor supervisor and/or environment specialist Weekly visual inspection by DSC (more frequent if corrective action is required) 	Contractor

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	<ul style="list-style-type: none"> Remove wastes immediately. Ensure workers will not use nearby/adjacent areas as toilet facility. Coordinate with PIU/DSC for transportation routes and schedule. Schedule transport and hauling activities during non-peak hours. Communicate road detours via visible boards, advertising, pamphlets, etc. Ensure heavy vehicles do not use narrow local roads, except in the immediate vicinity of delivery sites. Provide instructions on event of chance finds for archaeological and/or ethno-botanical resources. Works must be stopped immediately until such time chance finds are cleared by experts. 	<ul style="list-style-type: none"> No stockpiled/ stored wastes No complaints received Sanitation facilities for use of workers Approved routes in traffic management plan Condition in chance find protocol 			<ul style="list-style-type: none"> Random inspection by PMU, PIU, PMC and/or DSC 	
Impact due to waste generation	<ul style="list-style-type: none"> Prepare and implement a waste management plan. Manage solid waste according to the following hierarchy: reuse, recycling and disposal. Include in waste management plan designated/approved disposal areas. Coordinate with PIU/DSC for beneficial uses of excavated soils or immediately dispose to designated areas. Recover used oil and lubricants and reuse; or remove from the site. Avoid stockpiling and remove 	<ul style="list-style-type: none"> Condition in waste management plan 	Contractor	PIU and DSC	<ul style="list-style-type: none"> Daily inspection by contractor supervisor and/or environment specialist Weekly visual inspection by DSC (more frequent if corrective action is required) Random inspection by PMU, PIU, PMC and/or DSC 	Contractor

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	<p>immediately all excavated soils, excess construction materials, and solid waste (remove concrete, wood, packaging materials, empty containers, oils, lubricants, and other similar items).</p> <ul style="list-style-type: none"> Prohibit disposal of any material or wastes (including human waste) into drainage, nallah, or watercourse. 					
Impacts on occupational health and safety	<ul style="list-style-type: none"> Comply with IFC EHS Guidelines on Occupational Health and Safety Disallow worker exposure to noise level greater than 85 dB(A) for duration of more than 8 hours per day without hearing protection. The use of hearing protection shall be enforced actively. Provide H&S orientation training to all new workers to ensure that they are apprised of the rules of work at the site, personal protective equipment, and preventing injury to fellow workers. Ensure that qualified first-aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the site as well as at construction camps. Provide medical insurance coverage for workers. Secure construction zone from unauthorized intrusion and accident risks. Provide supplies of potable drinking water. 	<ul style="list-style-type: none"> Visual inspection H&S Plan Visual inspection Work schedule Noise level monitoring in work area Condition in H&S plan Visible first aid equipment and medical supplies Condition in H&S plan As per health Insurance Plan Area secured Trenches barricaded Supply of water 	Contractor	PIU and DSC	<ul style="list-style-type: none"> Daily inspection by contractor supervisor and/or environment specialist Weekly visual inspection by DSC (more frequent if corrective action is required) Random inspection by PMU, PIU, PMC and/or DSC 	Contractor

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	<ul style="list-style-type: none"> Provide clean eating areas where workers are not exposed to hazardous or noxious substances. Provide visitor orientation if visitors to the site can gain access to areas where hazardous conditions or substances may be present. Ensure also that visitor/s do not enter hazard areas unescorted. Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas. Ensure moving equipment is outfitted with audible back-up alarms. Mark and provide sign boards in the construction zone, and areas for storage and disposal. Signage shall be in accordance with international standards and be well known to, and easily understood by workers, visitors, and the general public as appropriate. 	<ul style="list-style-type: none"> Workers area Condition in H&S plan Visual inspection Visual inspection Condition in H&S plan Construction vehicles Condition in H&S plan Visible and understandable sign boards in construction zone H&S plan includes appropriate signs for each hazard present 				
Impacts on socio-economic activities	<ul style="list-style-type: none"> Provide sign boards for pedestrians to inform nature and duration of construction works and contact numbers for concerns/complaints. Employ at least 50% of the labour force, or to the maximum extent, local persons within the 20-km immediate area if manpower is available. 	<ul style="list-style-type: none"> Visible and understandable sign boards in construction zone Employment records 	Contractor	PIU and DSC	<ul style="list-style-type: none"> Daily inspection by contractor supervisor Weekly visual inspection by DSC (more frequent if corrective action is required) Random 	Contractor

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
					inspection by PMU, PIU, PMC	

Table 8 : EMP Table during Post-Construction Phase

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
Solid waste (debris, excavated soils, etc.)	<ul style="list-style-type: none"> Backfill any excavation and trenches, preferably with excess excavation material generated during the construction phase. Use removed topsoil to reclaim disturbed areas. Re-establish the original grade and drainage pattern to the extent practicable. Stabilize all areas of disturbed vegetation using weed-free native shrubs, grasses, and trees. Restore access roads, staging areas, and temporary work areas. Remove all tools, equipment, barricades, signs, surplus materials, debris, and rubbish. Demolish buildings/structures not required for O&M. Dispose in designated disposal sites. Monitor success of re-vegetation and tree re-planting. Request in writing from PIU/DSC that construction zones have been restored. 	<ul style="list-style-type: none"> Pre-existing condition Construction zone has been restored 	Contractor	PIU and DSC PIU and DSC to submit EMP monitoring report to PMU	<ul style="list-style-type: none"> Visual inspection by contractor supervisor and/or environment specialist 	Contractor

C. Summary of Site and Activity-Specific Plans as per EMP

108. **Table 9** summarizes site and activity-specific plans to be prepared as per EMP tables.

Table 9 : Site- and Activity-Specific Plans/Programs as per EMP

To be Prepared During	Specific Plan/Program	Purpose	Responsible for Preparation	Responsible for Implementation
Detailed Design Phase	Environmental monitoring program as per detailed design	Indicate sampling locations methodology and parameters	DSC	Contractor under the supervision of the DSC
Detailed Design Phase	List showing utilities to be shifted	Utilities shifting	PIU/DSC during preliminary stage Contractor as per detailed design	Contractor under the supervision of the DSC
Detailed Design Phase	Contingency plan	Mitigate impacts due to interruption of services during utilities shifting	Contractor	Contractor under the supervision of the DSC
Detailed Design Phase	Chance find protocol	Address archaeological or historical finds	PIU and DSC	Contractor under the supervision of the DSC
Detailed Design Phase	List of pre-approved sites	Location/s for work camps, areas for stockpile, storage and disposal	PIU and DSC	Contractor under the supervision of the DSC
Detailed Design Phase	Waste management plan	Mitigate impacts due to waste generation	Contractor	Contractor under the supervision of the DSC
Detailed Design Phase	Traffic management plan	Mitigate impacts due to transport of materials and pipe laying works	Contractor	Contractor under the supervision of the DSC
Detailed Design Phase	H&S plan	Occupational health and safety	Contractor to prepare or follow the EMP in IEE	Contractor under the supervision of the DSC

IX. ENVIRONMENTAL MONITORING PROGRAM

109. Through integration of mitigation measures in project design, the anticipated impacts are mostly insignificant, temporary in nature and can be avoided or mitigated by following proposed mitigation measures given in the EMP

110. **Table 10** provides the indicative environmental monitoring program which includes relevant environmental parameters, with a description of the sampling stations, frequency of monitoring, applicable standards, and responsibility. This will be updated during detailed design to ensure EMP and monitoring program is commensurate to the impacts of the subproject.

Table 10: Indicative Environmental Monitoring Program

Sl.no	Field	Phase	Parameters	Locations	Frequency	Responsibility
1.	Air quality	Pre-construction (before commencement of civil works)	Particulate matter (PM ₁₀ & PM _{2.5}), SO _x , NO _x , CO	<ul style="list-style-type: none"> Rattar Chattar Achaleshwar Dham 	24 hours	PIU

Sl.no	Field	Phase	Parameters	Locations	Frequency	Responsibility
		Construction	Particulate matter (PM ₁₀ & PM _{2.5}), SO _x , NO _x , CO	Two monitoring stations (one at each sub project location) <ul style="list-style-type: none"> • Rattar Chattar • Achaleshwar Dham 	24 hours (Quarterly monitoring except monsoon season)	Contractor
2.	Noise	Pre-construction (before commencement of civil works)	Day time dB(A)	<ul style="list-style-type: none"> • Rattar Chattar • Achaleshwar Dham 	As per CPCB ambient level noise monitoring protocol	PIU
		Construction	Day time dB(A)	Two monitoring stations (one at each sub project location) <ul style="list-style-type: none"> • Rattar Chattar • Achaleshwar Dham 	As per CPCB ambient level noise monitoring protocol (Quarterly monitoring except monsoon season)	Contractor

X. CAPACITY BUILDING

111. The Environmental Specialist of the DSC will provide the basic training required for environmental awareness followed by specific aspects of Infrastructure Improvement Projects along with Environmental implications for projects. Specific modules customized for the available skill set will be devised after assessing the capabilities of the members of the Training Programme and the requirements of the project. The entire training would cover basic principles of environmental assessment and management; mitigation plans and programmes, implementation techniques, monitoring methods and tools. The proposed training program along with the frequency of sessions is presented in Table 11. This training program is intended for the entire destination and is not just specific to this package.

Table 11: Training Modules for Environmental Management (common for entire project)

workshop	Description	Participants	Form of Training	Duration / Location	Training Conducting Agency
A. Pre-Construction Stage					
Sensitization Workshop	Introduction to Environment: Basic Concept of environment Environmental Regulations and Statutory requirements as per Government of India and ADB	Tourism / Forest / Roads / Culture Department Officials, Project Director (PD) and Environmental Specialist (ES) of the PMU/PIU	Workshop	½ Working Day	Safeguard Specialist of the PMC
Session I					

workshop	Description	Participants	Form of Training	Duration / Location	Training Conducting Agency
Module I	Introduction to Environment: Basic Concept of environment Safeguards Regulations and Statutory requirements as per Government of India and ADB Guidelines on cultural resources, Environmental considerations in planning, design and implementing projects	PMU/PIU (including the ES) and Engineering staff of the implementing agencies	Lecture	1 Working Day	Safeguards Specialist of the PMC
Module II	Environmental components impacted in construction and operation stages Activities causing pollution during construction and operation stages Environmental Management Environmental Provisions Implementation Arrangements Methodology of Assessment Good engineering practices to be integrated into contract documents	PMU/PIU (including the ES) and Engineering staff of Tourism dept.	Workshop	¼ Working Day	Safeguards Specialist of the PMC
Module III	Environmental considerations in planning, designing and implementing heritage buildings and conservation projects	PMU/PIU (including the ES) and Engineering staff of Tourism dept.	Lecture / Interactive Sessions and site visits	2 working days	Safeguards specialist of the PMC with support from the International Conservation specialist of the PMC
Module IV	Improved Co-ordination with other Departments: Statutory Permissions – Procedural Requirements Co-operation & Co-ordination with other Departments.	PMU/PIU (including the ES) and Engineering staff of Tourism dept.	Lecture / Interactive Sessions	1 Working Day	Safeguards Specialist of the PMC
B. Construction Stage					
Session II					
Module V	Role during Construction Roles and Responsibilities of officials/ contractors/ consultants towards protection of environment Implementation Arrangements Monitoring mechanisms	Engineers and staff of line depts. of GoP, and PMU/PIU (including the ES)	Lecture / Interactive Sessions	½ Working Day	Safeguards Specialist of the PMC
Module VI	Monitoring and Reporting System	Engineers and staff of implementing	Lecture / Interactive	½ Working	Safeguards Specialist of

workshop	Description	Participants	Form of Training	Duration / Location	Training Conducting Agency
		agencies, and PMU/PIU (including the ES)	Sessions	Day	the PMC

XI. EMP IMPLEMENTATION COST

112 As part of good engineering practices in the project, there have been several measures as safety, signage, dust suppression, procurement of personal protective equipment, provision of drains, etc. and the costs for which will be included in the design costs of specific subprojects. Therefore, these items of costs have not been included in the IEE budget. Only those items not covered under budgets for construction are considered in the IEE budget.

113 From the construction activities point of view, it is relatively a minor construction project and hence it is not expected to cause significant air, water and noise pollution. However as per the environmental monitoring plan suggested for this subproject area, provisions had been given in the EMP budget for conducting ambient air and noise quality monitoring.

114 The costs of water sprinkling for dust suppression and providing personal protective equipment's to construction workers shall be borne by the contractor as part of conditions of contract. In addition the sources of funds for mitigation measures during construction stage including monitoring during construction stage are also to be borne by the contractor. These are deemed to be included as part of the contract price amount quoted by the contractor for the works. The costs of components for monitoring in operation stage and the capacity building costs are to be funded by the PMU. The EMP cost is given in the **Table 12**.

Table 12: Indicative EMP Budget

S.N.	Particulars	Stages	Unit	Total number	Rate (INR)	Cost (INR)	Source of fund
A. Monitoring Measures							
1	Ambient Air Quality	Pre-Construction	Per sample	2	10,000.00	20,000.00	PIU
2	Noise Monitoring	Pre-Construction	Per sample	2	4,000.00	8,000.00	PIU
3	Ambient Air Quality	Construction	Per sample	10	10,000.00	100,000.00	Contractor budget
4	Noise Monitoring	Construction	Per sample	10	4,000.00	40,000.00	Contractor budget
Sub- Total (A)						168,000.00	
B.	Capacity Building – Training cost (includes cost estimates for the entire circuit, and not included in the package costs)						
1	Sensitization Workshop	Pre-Construction	Lump sum			1,50,000.00	PMU
2	Training Session I	Construction	Lump sum			1,50,000.00	PMU
3	Training Session II	Construction	Lump sum			1,50,000.00	PMU
Sub -Total (B)						4,50,000.00	
Total (A+B) INR						6,18,000.00	

XII. FINDINGS AND RECOMMENDATIONS

115. The proposed components as part of the package are in line with the sub-project selection criteria for the program. The subproject conforms to all GoI and ADB regulations, policies and standards including all necessary government permits and clearances.

116. The specific management measures laid down in the IEE will effectively address any likely environmental impacts due to the sub-project. The effective implementation of the measures proposed will be ensured through the building up of capacity towards environmental management within the PMU supplemented with the technical expertise of a Safeguards Specialist as part of the DSC Consultants. Further, the environmental monitoring plans provide adequate opportunity towards course correction to address any residual impacts during construction or operation stages.

XIII. CONCLUSIONS

117. The IEE carried out for the sub-project show that the proposed -components/ interventions will result in net environmental benefits and that any likely environmental impact can be addressed through proper location, planning and design of the proposed sub-project, control of construction activity and mitigation measures. The EMP provides mitigation of all identified impacts and the Contract clauses for the environmental provisions will be part of the civil works contracts. Further, the proposed designs have been consulted with the stakeholders and no significant issues requiring redress in terms of environmental safeguards are known to exist at present.

118. Based on the findings of the IEE, there are no significant impacts and the classification of the subproject as Category "B" is confirmed. No further study or detailed environmental impact assessment (EIA) needs to be undertaken to comply with ADB SPS (2009)

Annexure 1

Rapid Environmental Assessment (REA) Checklist

URBAN DEVELOPMENT

Instructions:

- (i) The project team completes this checklist to support the environmental classification of a project. It is to be attached to the environmental categorization form and submitted to the Environment and Safeguards Division (RSES), for endorsement by Director, RSES and for approval by the Chief Compliance Officer.
- (ii) This checklist focuses on environmental issues and concerns. To ensure that social dimensions are adequately considered, refer also to ADB's (a) checklists on involuntary resettlement and Indigenous Peoples; (b) poverty reduction handbook; (c) staff guide to consultation and participation; and (d) gender checklists.
- (iii) Answer the questions assuming the "without mitigation" case. The purpose is to identify potential impacts. Use the "remarks" section to discuss any anticipated mitigation measures.

Subproject: Heritage Conservation and Tourism Development in Gurdaspur District

Country/Project Title: India/Infrastructure development Investment program (IDIPT-Punjab)

Sector Division: Urban Development.

Screening Questions	Yes	No	Remarks
A. Project Siting			
It is Project area adjacent to or within any of the following environmentally sensitive areas?			
▪ Cultural heritage site	✓		The proposed sites of Rattar Chattar and Achaleshwar Dham are cultural heritage sites
▪ Protected Area		✓	Not applicable
▪ Wetland		✓	Not applicable
▪ Mangrove		✓	Not applicable
▪ Estuarine		✓	Not applicable
▪ Buffer zone of protected area		✓	Not applicable
▪ Special area for protecting biodiversity		✓	Not applicable
B. Potential Environmental Impacts			
Will the Project cause...			
▪ Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		✓	No such impacts envisaged
▪ Encroachment on precious ecology (e.g. sensitive or protected areas)?		✓	Not envisaged as there are no protected or sensitive areas within or near the proposed sites
▪ Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?		✓	Not envisaged as there are no surface water source near the proposed sites
▪ Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?		✓	Not envisaged as there are no surface water source near the proposed sites
▪ Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?		✓	No such works are proposed
▪ Risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during project construction and operation?		✓	Not envisaged
▪ Noise and vibration due to blasting and other civil works?		✓	blasting operations are not required

Screening Questions	Yes	No	Remarks
▪ Dislocation or involuntary resettlement of people?		✓	Not envisaged
▪ Dislocation and compulsory resettlement of people living in right-of-way?		✓	Not envisaged
▪ Disproportionate impacts on the poor, women and children indigenous peoples or other vulnerable groups?		✓	No such impacts may arise
▪ Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?		✓	No such impacts may arise
▪ Hazardous driving condition where construction interferes with pre-existing roads?	✓		During transportation of construction materials hazards may arise due to unsafe driving
▪ Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases (such as STI's and HIV/AIDS) from workers to local populations?	✓		Poor sanitation and solid waste disposal in construction camps and work sites may cause health risks
▪ Creation of temporary breeding habitats for disease such as those transmitted by mosquitoes and rodents?		✓	No such impacts may arise
▪ Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials?	✓		Accident risks may arise during transportation of construction materials
▪ Increase noise and air pollution resulting from traffic volume?		✓	Not envisaged
▪ Increase risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		✓	Not envisaged
▪ Social conflicts if workers from other region of countries are hired?		✓	No such impacts may arise it is proposed to engage local labours for construction works.
▪ Large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?		✓	No such impacts may arise as the labour requirement is minimal
▪ Risks to community health and safety due to the transport, storage, and use and /or disposal of materials such as explosives, fuel and other chemicals during construction and operation?	✓		Risks to community health and safety may arise due to the transport, storage, and use and /or disposal of materials
▪ Community safety risks due to both accidental and natural causes, especially where the structural elements or components of the project are accessible to members of the affected community or where the failure could result in injury to the community throughout project construction, operation and decommissioning.		✓	No such impacts may arise

PRELIMINARY CLIMATE RISK SCREENING CHECKLIST FOR SAMPLE SUBPROJECT TOWNS

Screening Questions		Score	Remarks ⁴
Location and Design of project	Is siting and/or routing of the project (or its components) likely to be affected by climate conditions including extreme weather related events such as floods, droughts, storms, landslides?	0	No such impacts are envisaged
	Will the project design (e.g. the clearance for bridges) need to consider any hydro-meteorological parameters (e.g., sea-level, peak river flow, reliable water level, peak wind speed etc)?	0	No such impacts are envisaged
Materials and Maintenance	Will weather, current and likely future climate conditions (e.g. prevailing humidity level, temperature contrast between hot summer days and cold winter days, exposure to wind and humidity, and hydro-meteorological parameters) affect the selection of project inputs over the life of project outputs (e.g. construction material)?	0	No such issue may affect the project
	Will weather, current and likely future climate conditions, and related extreme events likely affect the maintenance (scheduling and cost) of project output(s)?	0	No such issue may affect the project
Performance of project outputs	Will weather/climate conditions and related extreme events likely affect the performance (e.g. annual power production) of project output(s) (e.g. hydro-power generation facilities) throughout their design life time?	0	No problem will envisaged in future which likely affect the performance of project output

Options for answers and corresponding score are provided below:

Response	Score
Not Likely	0
Likely	1
Very Likely	2

Responses when added that provide a score of 0 will be considered low risk project. If adding all responses will result to a score of 1-4 and that no score of 2 was given to any single response, the project will be assigned a medium risk category. A total score of 5 or more (which include providing a score of 1 in all responses) or a 2 in any single response will be categorized as high risk project.

Result of Initial Screening (Low, Medium, High): Low

Other Comments: The proposed subproject activity involves renovation works which includes restoration of existing structures, fixing of furniture's, vehicle parking area, pathway flooring works, lighting, sitting arrangement, landscaping etc., hence the anticipated environmental impacts is very marginal and the construction activities does not impose any threat to the existing climatic conditions.

⁴ If possible, provide details on the sensitivity of project components to climate conditions, such as how climate parameters are considered in design standards for infrastructure components, how changes in key climate parameters and sea level might affect the siting/routing of project, the selection of construction material and/or scheduling, performances and/or the maintenance cost/scheduling of project outputs.

Photo Illustration



Tomb of Iman shah adjacent to RattarChattar Mosque



Graveyard in the campus of RattarChattar Tomb



Encryptions and paintings on the walls of RattarChattar mosque



Deteriorating walls and paintings inside the RattarChattar mosque



Deteriorated conditions of RattarChattar mosque



Deteriorated conditions of RattarChattar mosque



AchaleshwarDham temple



Vacant area in front of Achaleshwar Temple



Vendors near Achaleshwar Dham temple



Inside view of Achaleshwar Dham temple

Sample Outline of Spoil Management Plan (SMP)

1.0 Purpose and application:

SMP is to describe how the project will manage the spoil generated and reuse related to design and construction works. This is an integral part of EMP. The objective of SMP is to reuse of spoil from works in accordance with the spoil management hierarchy outlined in this document.

2.0 Objectives of SMP:

The objectives of SMP are:

- To minimize spoil generation where possible
- Maximize beneficial reuse of spoil from construction works in accordance with spoil management hierarchy
- Manage onsite spoil handling to minimize environmental impacts on resident and other receivers
- Minimize any further site contamination of land, water, soil
- Manage the transportation of spoil with consideration of traffic impacts and transport related emissions

3.0 Structure of SMP:

Section 1: Introduction of SMP

Section 2: Legal and other requirements

Section 3: Roles and responsibilities

Section 4: Identification and assessment of spoil aspects and impacts

Section 5: Spoil volumes, characteristics and minimization

Section 6: Spoil reuses opportunities, identification and assessment

Section 7: On site spoil management approach

Section 8: Spoil transportation methodology

Section 9: Monitoring, Reporting, Review, and Improvements

4.0 Aspects and Potential Impacts

The key aspects of potential impacts in relation to SMP are listed in table below

Aspects	Potential Impacts
Air Quality	Potential for high winds generating airborne dust from the stock piles
Sedimentation	Potential for sediment laden site runoff from spoil stockpiles and potential for spillage of spoil from truck on roads
Surface and Groundwater	Contamination of water (surface and ground water)
Noise	Associated with spoil handling and haulage and storage
Traffic	Impacts associated with spoil haulage
Land Use	Potential for spoil to be transported to a receivable site that doesn't have permission for storage/disposal
Design specifications	Limitations on opportunities to minimize spoil generation
Sustainability	Limited sites for storage, reuse opportunities

5.0 Spoil volumes, characteristics and minimization

5.1 Spoil volume calculations: Estimate the volumes of spoils produced from each of the construction sites.

5.2 Characterization of spoil: Based on the type of spoil; characterization is done (sand stone, mud mix materials, reusable materials)

5.3 Adopt Spoil Reduce, Reuse Opportunities

An overview of the assessment methodology to be used is mentioned below.

- Consideration of likely spoil characteristics
- Identification of possible reuse sites
- Screening of possible reuse opportunities

5.4 Identification of possible safe disposal sites for spoil: Those spoils which can't be reuse shall be properly disposed in designated areas, such disposal areas should be identified in project locations. Such disposal areas should be safe from environmental aspects and there should be any legal and resettlement related issues. Such areas need to be identified and prior cliental approval should be obtained to use it as spoil disposal area. The local administration must be consulted and if required permission should be obtained from them.

5.5 Storage and stock piling

5.6 Transportation and haulage route

6.0 Based on the above, the contractor will prepare a SMP as an integral part of EMP and submit it to the PIU/DSC for their review and approval.

Sample Traffic Management Plan (TMP)

A. Principles

1. One of the prime objectives of this TMP is to ensure the safety of all the road users along the work zone, and to address the following issues:

- the safety of pedestrians, bicyclists, and motorists travelling through the construction zone;
- protection of work crews from hazards associated with moving traffic;
- mitigation of the adverse impact on road capacity and delays to the road users;
- maintenance of access to adjoining properties
- Avoid hazards in addressing issues that may delay the project.

B. Operating Policies for TMP

2. The following principles will help promote safe and efficient movement for all road users (motorists, bicyclists, and pedestrians, including persons with disabilities) through and around work zones while reasonably protecting workers and equipment.

- Make traffic safety and temporary traffic control an integral and high-priority element of every project from planning through design, construction, and maintenance.
- Inhibit traffic movement as little as possible.
- Provide clear and positive guidance to drivers, bicyclists, and pedestrians as they approach and travel through the temporary traffic control zone.
- Inspect traffic control elements routinely, both day and night, and make modifications when necessary.
- Pay increased attention to roadside safety in the vicinity of temporary traffic control zones.
- Train all persons that select, place, and maintain temporary traffic control devices.
- Keep the public well informed.
- Make appropriate accommodation for abutting property owners, residents, businesses, emergency services, railroads, commercial vehicles, and transit operations.

C. Analyze the impact due to street closure, if required

3. Apart from the capacity analysis, a final decision to close a particular street and divert the traffic should involve the following steps:

- approval from the PIU, local administration to use the local streets as detours;
- consultation with businesses, community members, traffic police, PWD, etc, regarding the mitigation measures necessary at the detours where the road is diverted during the construction;
- determining of the maximum number of days allowed for road closure, and incorporation of such provisions into the contract documents;
- determining if additional traffic control or temporary improvements are needed along the detour route;
- considering how access will be provided to the worksite;
- contacting emergency service, school officials, and transit authorities to determine if there are impacts to their operations; and
- developing a notification program to the public so that the closure is not a surprise. As part of this program, the public should be advised of alternate routes that commuters can take or will have to take as result of the traffic diversion.

4. If full road-closure of certain streets within the area is not feasible due to inadequate capacity of the Detour Street or public opposition, the full closure can be restricted to weekends with the construction commencing on Saturday night and ending on Monday morning prior to the morning peak period.

Figure A1: Policy Steps for the TMP

Review	<ul style="list-style-type: none"> • Review construction schedule and methods
Traffic Re-Circulation	<ul style="list-style-type: none"> • Identify initial traffic recirculation and control policy
Traffic Diversions	<ul style="list-style-type: none"> • Identify routes for traffic diversions • Analyse adverse impact & mitigation at the detours
Full Road Closures	<ul style="list-style-type: none"> • Begin community consultation for consensus • Finalise or determine alternate detours
Temporary parking	<ul style="list-style-type: none"> • Identify temporary parking (on and off -street) • Discuss with CMC, owner, community for use
Police Coordination	<ul style="list-style-type: none"> • Coordinate with the Traffic Police to enforce traffic and diversions
Install control devices	<ul style="list-style-type: none"> • Install traffic control devices (traffic cones, signs, lightings, etc.)
Awareness	<ul style="list-style-type: none"> • Conduct campaigns, publicity, and notify public about street closure
Public Redress	<ul style="list-style-type: none"> • Develop a mechanism to address public grievances regarding disruptions (traffic, utilities, and diversions)

D. Public awareness and notifications

5. As per discussions in the previous sections, there will be travel delays during the constructions, as is the case with most construction projects, albeit on a reduced scale if utilities and traffic management are properly coordinated. There are additional grounds for travel delays in the area, as most of the streets lack sufficient capacity to accommodate additional traffic from diverted traffic as a result of street closures to accommodate the works.

6. The awareness campaign and the prior notification for the public will be a continuous activity which the project will carry out to compensate for the above delays and minimize public claims as result of these problems. These activities will take place sufficiently in advance of the time when the roadblocks or traffic diversions take place at the particular streets. The reason for this is to allow sufficient time for the public and residents to understand the changes to their travel plans. The project will notify the public about the roadblocks and traffic diversion through public notices, ward level meetings and city level meeting with the elected representatives.

7. The PIU will also conduct an awareness campaign to educate the public about the following issues:

- (i) Traffic control devices in place at the work zones (signs, traffic cones, barriers, etc.);
- (ii) defensive driving behaviour along the work zones; and
- (iii) reduced speeds enforced at the work zones and traffic diversions.

8. It may be necessary to conduct the awareness programs/campaigns on road safety during construction.

9. The campaign will cater to all types of target groups i.e. children, adults, and drivers. Therefore, these campaigns will be conducted in schools and community centers. In addition, the project will publish a brochure for public information. These brochures will be widely circulated around the area and will also be available at the PIU, and the contractor's site office. The text of the brochure should be concise to be effective, with a lot of graphics. It will serve the following purpose:

- (i) explain why the brochure was prepared, along with a brief description of the project;
- (ii) advise the public to expect the unexpected;
- (iii) educate the public about the various traffic control devices and safety measures adopted at the work zones;
- (iv) educate the public about the safe road user behaviour to emulate at the work zones;
- (v) tell the public how to stay informed or where to inquire about road safety issues at the work zones (name, telephone, mobile number of the contact person; and
- (vi) indicate the office hours of relevant offices.

E. Vehicle Maintenance and Safety

10. A vehicle maintenance and safety program shall be implemented by the construction contractor. The contractor should ensure that all the vehicles are in proper running condition and it comply with roadworthy and meet certification standards of GoP. All vehicles to be used at IDIPT shall be in perfect condition meeting pollution standards of PPCB. The vehicle operator requires a pre state of shift checklist. Additional safety precautions will include the requirement for:

- Driver will follow the special code of conduct and road safety rules of Government of Nepal.
- Drivers to ensure that all loads are covered and secured drivers to ensure operation equipment can't leak materials hauled
- Vehicles will be cleaned and maintained in designed places.

F. Install traffic control devices at the work zones and traffic diversion routes

10. The purpose of installing traffic control devices at the work zones is to delineate these areas to warn, inform, and direct the road users about a hazard ahead, and to protect them as well as the workers. As proper delineation is a key to achieve the above objective, it is important to install good traffic signs at the work zones. The following traffic control devices are used in work zones:

- Signs
- Pavement Markings
- Channelizing Devices
- Arrow Panels
- Warning Lights

11. Procedures for installing traffic control devices at any work zone vary, depending on road configuration, location of the work, construction activity, duration, traffic speed and volume, and pedestrian traffic. Work will take place along major roads, and the minor internal roads. As such, the traffic volume and road geometry vary. The main roads carry considerable traffic; internal roads in the new city areas are wide but in old city roads very narrow and carry considerable traffic. However, regardless of where the construction takes place, all the work zones should be cordoned off, and traffic shifted away at least with traffic cones, barricades, and temporary signs (temporary "STOP" and "GO").

12. The work zone should take into consideration the space required for a buffer zone between the workers and the traffic (lateral and longitudinal) and the transition space required for delineation, as applicable. For the works, a 30 cm clearance between the traffic and the temporary STOP and GO signs should be provided. In addition, at least 60 cm is necessary to install the temporary traffic signs and cones.

13. Traffic police should regulate traffic away from the work zone and enforce the traffic diversion result from full street closure in certain areas during construction. Flaggers/ personnel should be equipped with reflective jackets at all times and have traffic control batons (preferably the LED type) for regulating the traffic during night time.

14 In addition to the delineation devices, all the construction workers should wear fluorescent safety vests and helmets in order to be visible to the motorists at all times. There should be provision for lighting beacons and illumination for night constructions.

15. The PIU and contractor will coordinate with the local administration and traffic police regarding the traffic signs, detour, and any other matters related to traffic. The contractor will prepare the traffic management plan in detail and submit it along with the EMP for the final approval.

Stakeholders and Public Consultations

Consultations were done with the stakeholders during site visit of proposed works in Gurdaspur. Various issues regarding ownership of assets, maintenance, existing conditions etc. were discussed. The outcomes of consultations are discussed below.

1. Place of consultation: Village Rattar Chattar, Gurdaspur

Date: 15.09.2016

Name and address of persons consulted: Amrit Pal Singh, Gurcharan Singh, Dattar Singh (S/O Gurcharan Singh), Harbhajan Singh, villagers of village Rattar Chattar

Issue discussed: Ownership status, existing conditions and maintenance, facilities available for visitors etc.

Outcome of consultations: People informed that the old mosque is about 600 years old and tomb is about 300 years old. The village was known as Makan Sharif. Earlier (25 years back) the mosque was being used as Gurudwara but after shifting in new building the old mosque was vacated and started deteriorating due to negligence. Now roof of old mosque is totally collapsed and walls and old paintings and encryptions are also being deteriorated due to lack of maintenance. Villagers are having a good faith on the tomb of Iman shah and villagers and family of Sarpanch (Mrs. Pritam Kaur, W/o Mr. Gurcharan Singh) are maintaining the tomb and premises through their own expenses. They informed that this place is under possession of waqf board. Some old graves are situated in the premises of tomb. The open space is also maintained with grass, paved pathways and plantations. There are no visitors facilities at premises such as parking, benches, drinking water, etc. which are required on site to facilitate the visitors coming to site. No wild species are found near the site. Villagers are enthusiastic for the development of the site and ready to give their full support during implementation of the project.

2. Place of consultation: Achaleshwar Dham Temple, Batala, Gurdaspur

Date: 15.09.2016

Name and address of persons consulted: Mr. Diwan (S/o Mr. Sangharsh), shopkeeper, Rashmi (D/O Mr. Sonu), Shopkeeper, Gyanendra Prasad Pandey (Pujari, Achaleshwar Dham Temple)

Issue discussed: Existing conditions and maintenance, facilities available for visitors etc.

Outcome of consultations: The temple observes annual festival on the occasion of Mahashivratri and monthly gathering on Amavasya (full moon). Temple is visited by 800-1000 devotees per day on an average and during special occasions this number increases upto 8-10 thousands. People informed that there is no systematic parking facility for vehicles and no toilets available for the devotees visiting the temple. People use toilet facilities of nearby Gurudwara. No wild species are found near the site.

Photographs of consultations



Consultations at Rattar Chattar



Consultations at Rattar Chattar



Consultations at Achaleshwar Dham



Consultations at Achaleshwar Dham



Consultations at Achaleshwar Dham

Attendance Sheet

Stakeholders Consultation held on 15th September 2016



Infrastructure Development Investment Program for Tourism, Govt. of Punjab

Participation

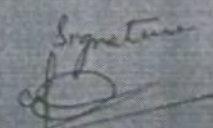

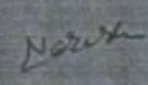
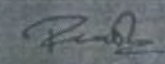
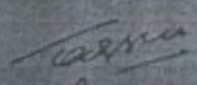


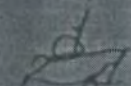
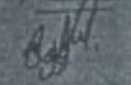

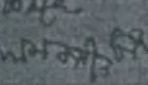





Date: 15.9.16

Venue:

For NOC - Jhelum-Dhoke

Sl No	Name	Occupation	Contact no.	Signature
1	Bharat Sharma	Business	98161-36721	Peter
2	Davidar Kumar	Ac.H.	98559-51661	Davidar
3	Harpreet Singh Bhullar	CDS (PMU)	9646139200	Bhullar
4	Vijay Sharma	ESS (PIU)	842285211	V. Singh
5	Rajesh Singh	SSS (PMU)	7687151977	Rajesh
6	Heera Bhatia	SSS DSC	9928766475	Heera
7	Jaswinder Singh	S/E (BSC)	9876281711	Jaswinder
8	Rajit Sharma	SE (PIU)	763158852	Rajit
9	Vipin Aggarwal	Business	9816150222	Vipin
10	Jasbir Kumar	Service	9828666496	Jasbir
11	Vijay Aggarwal	Business	9855816050	Vijay
12	Puran Chand	Chap keeper	9061355142	Puran
13	Sandeep Khanda	C.D.S	9211181113	Sandeep
14	Tardeep Singh	Business	9755885211	Tardeep
15	Narinder Kumar	"	9816155009	Narinder
16	Rajesh Kumar	"	9916271200	Rajesh

Stakeholders Consultation held on 15th September 2016

S. No.	Name	Designation	Signature
1.	A.R. Mishra	Principal	
2.	Bharat Bhanu Kumar 98141-38721	Teacher	
3.	Nareesh Luthra 9814653504	Teacher	
4.	RASOBI KUMAR	Teacher (Secondary)	
5.	JARSEN SIKHA	Teacher	
6.	MANJIT SINGH	CE, P.U.	
7.	Songram Singh	SEC, P.M.C.	
8.	Sabina Kaur	Member	
9.	Purnot Bhaskar	Princ. Lab	
10.	Balbir Singh	SE, OSC	
11.	Meera Mahesh	SSS, REM OSC	
12.	Ajay Kumar	Princ.	
13.	Manoj Singh	Princ.	
14.	Manoj Singh 98141-38721 Bharat Bhanu Kumar	Princ. Princ. Princ.	  

Sample Grievance Redress Form

(To be available in Local Language and English)

The _____ Project welcomes complaints, suggestions, queries and comments regarding project implementation. We encourage persons with grievance to provide their name and contact information to enable us to get in touch with you for clarification and feedback. Should you choose to include your personal details but want that information to remain confidential, please inform us by writing/typing ***(CONFIDENTIAL)*** above your name. Thank you.

Date		Place of registration			
Contact Information/Personal Details					
Name		Gender	* Male * Female	Age	
Home Address					
Place					
Phone no.					
E-mail					
Complaint/Suggestion/Comment/Question Please provide the details (who, what, where and how) of your grievance below:					
If included as attachment/note/letter, please tick here:					
How do you want us to reach you for feedback or update on your comment/grievance?					

FOR OFFICIAL USE ONLY

Registered by: (Name of Official registering grievance)	
Mode of communication: Note/Letter E-mail Verbal/Telephonic	
Reviewed by: (Names/Positions of Official(s) reviewing grievance)	
Action Taken:	
Whether Action Taken Disclosed:	Yes No
Means of Disclosure:	

Annexure-7

Sample Quarterly Environmental Monitoring Report Template

This template must be included as an Annex in the EIA/IEE that will be prepared for the project. It can be adapted to the specific project as necessary.

INTRODUCTION

- Overall project description and objectives
- Description of sub-projects
- Environmental category of the sub-projects
- Details of site personnel and/or consultants responsible for environmental monitoring
- Overall project and sub-project progress and status

No.	Sub-Project Name	Status of Sub-Project				List of Works	Progress of Works
		Design	Pre-Construction	Construction	Operational		
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

COMPLIANCE STATUS WITH NATIONAL/STATE/LOCAL STATUTORY ENVIRONMENTAL REQUIREMENTS

No.	Sub-Project Name	Statutory Environmental Requirements	Status of Compliance	Action Required

COMPLIANCE STATUS WITH ENVIRONMENTAL LOAN COVENANTS

No. (List schedule and paragraph number of Loan Agreement)	Covenant	Status of Compliance	Action Required

COMPLIANCE STATUS WITH THE ENVIRONMENTAL MANAGEMENT AND MONITORING PLAN

- Provide the monitoring results as per the parameters outlined in the EMP. Append supporting documents where applicable, including Environmental Site Inspection Reports.
- There should be Reporting on the following items which can be incorporated in the checklist of routine Environmental Site Inspection Report followed with a summary in the semi-annual Report send to ADB. Visual assessment and review of relevant site documentation during routine site inspection needs to note and record the following:
 - What are the dust suppression techniques followed for site and if any dust was noted to escape the site boundaries;
 - If muddy water was escaping site boundaries or muddy tracks were seen on adjacent roads;
 - adequacy of type of erosion and sediment control measures installed on site, condition of erosion and sediment control measures including if these were intact following heavy rain;
 - Are their designated areas for concrete works, and refuelling;
 - Are their spill kits on site and if there are site procedure for handling emergencies;
 - Is there any chemical stored on site and what is the storage condition?
 - Is there any dewatering activities if yes, where is the water being discharged;
 - How are the stockpiles being managed;
 - How is solid and liquid waste being handled on site;
 - Review of the complaint management system;
 - Checking if there are any activities being under taken out of working hours and how that is being managed.

Annexure-8

Summary Monitoring Table

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
Design Phase						
Pre-Construction Phase						
Construction Phase						
Operational Phase						

Overall Compliance with CEMP/EMP

No.	Sub-Project Name	EMP/CEMP Part of Contract Documents (Y/N)	CEMP/EMP Being Implemented (Y/N)	Status of Implementation (Excellent/ Satisfactory/ Partially Satisfactory/ Below Satisfactory)	Action Proposed & Additional Measures Required

APPROACH AND METHODOLOGY FOR ENVIRONMENTAL MONITORING OF THE PROJECT

- Brief description on the approach and methodology used for environmental monitoring of each sub-project

MONITORING OF ENVIRONMENTAL IMPACTS ON PROJECT SURROUNDINGS (AMBIENT AIR, WATER QUALITY AND NOISE LEVELS)

- Brief discussion on the basis for monitoring
- Indicate type and location of environmental parameters to be monitored
- Indicate the method of monitoring and equipment to be used
- Provide monitoring results and an analysis of results in relation to baseline data and statutory requirements

As a minimum the results should be presented as per the tables below.

Air Quality Results

Site No.	Date of Testing	Site Location	Parameters (Government Standards)		
			PM ₁₀ (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)

Site No.	Date of Testing	Site Location	Parameters (Monitoring Results)		
			PM ₁₀ (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)

Water Quality Results

Site No.	Date of Sampling	Site Location	Parameters (Government Standards)					
			pH	Conductivity (µS/cm)	BOD (mg/L)	TSS (mg/L)	TN (mg/L)	TP (mg/L)

Site No.	Date of Sampling	Site Location	Parameters (Government Standards)					
			pH	Conductivity (µS/cm)	BOD (mg/L)	TSS (mg/L)	TN (mg/L)	TP (mg/L)

Noise Quality Results

Site No.	Date of Testing	Site Location	LA _{eq} (dBA) (Government Standard)	
			Day Time	Night Time

Site No.	Date of Testing	Site Location	LA _{eq} (dBA) (Government Standard)	
			Day Time	Night Time

SUMMARY OF KEY ISSUES AND REMEDIAL ACTIONS

- Summary of follow up time-bound actions to be taken within a set timeframe.

Annexes

- Photos
- Summary of consultations
- Copies of environmental clearances and permits
- Sample of environmental site inspection Report
- Other

Sample Environmental Site Inspection Report

Project Name

Contract Number

NAME: _____ DATE: _____

TITLE: _____ DMA: _____

LOCATION: _____ GROUP: _____

WEATHER CONDITION:

INITIAL SITE CONDITION:

CONCLUDING SITE CONDITION:

Satisfactory _____ Unsatisfactory _____ Incident _____ Resolved _____ Unresolved _____

INCIDENT:

Nature of incident:

Intervention Steps:

Incident Issues

Resolution

Project Activity Stage	Survey	
	Design	
	Implementation	
	Pre-Commissioning	
	Guarantee Period	

Inspection

Emissions	Waste Minimization
Air Quality	Reuse and Recycling
Noise pollution	Dust and Litter Control
Hazardous Substances	Trees and Vegetation
Site Restored to Original Condition	Yes No <input type="checkbox"/> <input type="checkbox"/>

Signature

Name _____

Position

NO OBJECTION CERTIFICATES AND UNDERTAKING FOR OPERATION AND MAINTENANCE

7

NO OBJECTION CERTIFICATE

It is certified that there is no objection if the proposed project Restoration
Conservation of Nazim and Patten chahar
 (name of the project)

Is executed by PHTPB of the Tourism Department (Punjab) as per the guide lines of
 Govt. of India and ADB loan funded projects under IDIPT at Patten chahar
Block Dera Beha Nandla
 (details of land/area/building)

Place:

Signature

Department/owner

Date:

(Official Stamp)

Counter Signed

Executive Engineer,
 Provincial Division, PWD (M&R),
 Gurdaspur

Deputy Commissioner

(Official Stamp)

10/10/2018 10:30 AM
 10/10/2018 10:30 AM
 10/10/2018 10:30 AM

CERTIFICATE AND UNDERTAKING

It is certified that:-

1. The Conservation / Restoration of Hazrat Ali Rattriala
(details of land/area/building)

Rattriala, Block Dera Gharbi, District

the

(name of the project)

Restoration of Rattriala No 320 project is proposed, for
execution by PHTPB of the Tourism Department (Punjab), is under the ownership of

and is

Under the possession of Gurm Panchyot

(Details of possessor)

2. There is No encroachment and NO resettlement/displacement/rehabilitation of
people involved in the above Proposed Project area/building/land.

3. The proposed Project is not Partially/Fully part of any other project funded under
any other scheme/programme of the State/Central Govt. or any external funding.

4. The assets created as a result of the execution of above stated project will be
taken over for operation and maintenance by Gurm Panchyot

(Name of the department/organization)

Gurm Panchyot

2030/01/21

Place:

Signature

Department/owner

Date:

(Official Stamp)

Executive Engineer
Provincial Division, PWD (I&D),
Gurdaspur

Counter Signed

Deputy Commissioner

(Official Stamp)

2030/01/21
2030/01/21
2030/01/21

RATTAR CHHATTAR

NO OBJECTION CERTIFICATE

It is certified that there is no objection if the proposed project Development
of fasting site at Achleahwa Temple, Achar Sahib Bte.
(name of the project)
is executed by PHTPB of the Tourism Department (Punjab) as per the guide lines of
Govt. of India and ADB loan funded projects under IDIPT at Achar Sahib
Batala Batala
(details of land/area/ building)

Place:

Date:

Signature

Department /owner

(Official Stamp)

M. Singh
Executive Engineer,
Construction Division, P.W.D. B&R Br. Counter Signed
BATALA

Deputy Commissioner

(Official Stamp)

CERTIFICATE AND UNDERTAKING

It is certified that:-

1. The Achleshwar Temple
(details of land/area/ building)
Basant Bahala Where
the Development of existing site
(name of the project)

project is proposed, for
execution by PHTPB of the Tourism Department (Punjab), is under the ownership of
Achleshwar Temple Committee, Achleshwar and is
(Details of the owner)
under the possession of Achleshwar Temple Committee
(Details of possessor)
Sri Achleshwar Temple, Basant Bahala, District Hoshiarpur

2. There is NO encroachment and NO resettlement/displacement/rehabilitation of
people involved in the above Proposed Project area/building/land. 537.

3. The proposed Project is not Partially/Fully part of any other project funded under any
other scheme/programme of the State/Central Govt. or any external funding.

4. The assets created as a result of the execution of above stated project will be handed
over for operation and maintenance by Achleshwar Temple Committee
(Name of the department/organization)
At Achleshwar Sahib, Basant Bahala

Place: Basant Bahala

Date: _____

Signature [Signature]
Department/Organisation/Owner

(Official Stamp)

Counter Signed

[Signature]
Executive Engineer,
Construction Division, P.W.D. 83rd Gr.
ATALA

Deputy Commissioner
(Official Stamp)

ACHALESHWAR DHAM

