Initial Environmental Examination

Project Number: 40648-034
June 2016

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

Package : Restoration & Improvement of Chamunda Temple & Bajreshwari Temple Precinct and Creation of Cultural Centre for Traditional Arts & Crafts at Nagrota Bagwan, Kangra (Package HPTDB/13/4)

Submitted by:

Program Management Unit, Tourism Development Board, IDIPT-Himachal Pradesh, Shimla

Asian Development Bank

RVS

for copying pls
NK/VV

Tourism Development Board
IDIPT HP (ADB Loan No.2676 IND)
Project Management Unit
US Club, Shimla-171001 (H.P.)
Tel. : 0177-2659926, 2659962
Fax : 0177-2659925
E-mail : projectdirector.adbhp@gmail.com

HIMACHAL TOURISM

Department of Tourism & Civil Aviation
SDA Complex, Block No. 28,
Kasumpti, Shimla-171 009, HP, India.
Tele.: +91-177-2623959, Fax : +91-177-2625456
E-mail : tourismmin-hp@nic.in
Website : www.himachaltourism.gov.in

No. IDIPT-HP/3223-IND/IEE- Tranche 3/2016-1378 **Dated: 23.06.2016.**

Project Director

To

The Country Director,
India Resident Mission,
Asian Development Bank,
4 San Martin Marg, Chanakayapuri,
New Delhi-110021 (India).
(Fax No. 011-26870955)
Tel.: +91-11-24107200

ASIAN DEVELOPMENT BANK
INRM
27 JUN 2016
0352
RECEIVED

Kind Attn: Mr. Leonardus Boenawan Sondjaja (ADB).

Subject: **Submission of Revised IEEs for Kangra, Dharamshala and Naldehra projects under Tranche-3.**

Ref No. **(i) IDIPT-HP/3223-IND/IEE-Tranche 3/2016-98 dated 04.04.2016**
(ii) IDIPT-HP/3223-IND/IEE-Tranche-3/2016-1068 dated 02.06.2016

Madam,

We are in receipt of the observations conveyed vide Email dated 6th June, 2016. The IEEs have been revised for the following sub-projects under Tranche-III:

1. Conserving Prominent Temple Precincts & Upgrading Urban Infrastructure for Tourism in Dharamshala & Mcleodganj (HPTDB/13/2)
2. Restoration and Improvement of Chamunda Temple and Bajreshwari Temple Precinct and Creation of Cultural Centre for Traditional Crafts and Arts at Nagrota Bhagwan, Kangra (HPTDB/13/4)
3. Eco-tourism Park at Naldhera, Shimla (HPTDB/16/4)

The reply of the observations is attached in the matrix form. This is for your information and approval please.

Yours Sincerely,

Project Director,
IDIPT-H.P.

Encl: As Above.

ASIAN DEVELOPMENT BANK
INRM
1991
NK
24 JUN 2016
PA
RECEIVED
Copy rec'd 24.06.16 PA

ADB Observations on Initial Environmental Examination (IEE) Report- Restoration and Improvement of Chamunda Temple and Bajreshwari Temple Precinct and Creation of Cultural Center for Traditional Crafts and Arts at Nagrota Bhagwan, Kangra (HPTDB/13/4)

Sr. No.	ADB Observations, dated 27th April, 2016	Compliance Status, dated 02 June 2016	ADB Observations, dated 06th June, 2016	Compliance Status, dated 06th June, 2016
1.	It is not clear whether the sub-project will be implemented at three (Chamunda temple, Bajreshwari temple, and Nagrota Bhagwan) or five (additionally at Chakrakund temple, and Mata ka bagh) locations. The IEE report in some parts covers three and at other places discusses of five locations. Please revise the IEE report for a consistent scope of works;	The location details are as below; 1) Chamunda Temple (a pond is within temple premises) 2) Bajreshwari Temple includes Chakrakund and Mata ka bagh and is located approx. 1 Km of the temple) 3) Nagrota Bhagwan We considered five locations for the subproject sites.	-	-
2.	We note from the IEE report that detailed designs are yet to be completed, and an updated IEE report including updated environmental management and monitoring plans will be submitted later for ADB's review and approval;	Site layout plan has been incorporated as Figure 2 to 6 under section II of IEE. Further EMP has been updated under section VIII.	-	-
3.	We note that the baseline environmental monitoring for parameters namely ambient air quality, ambient noise levels, and water quality will be carried out by the project management unit or the civil works contractor prior to commencement of civil works. Please ensure to undertake this baseline monitoring works at all five locations and not at three as mentioned in table 8: Indicative	Complied	We note under sub-heading of "frequency of monitoring" (table 8), it had been reported twice in previous IEE report (i) prior to start of civil works; and (ii) during construction (pre-monsoon or post-monsoon), which has been revised to thrice: (i) prior to start of civil works; (ii) during construction; and (iii) post construction (pre-monsoon or post-monsoon). The table has not been updated as per required frequency of	Complied in table 8 and in table 10.

Sr. No.	ADB Observations, dated 27th April, 2016	Compliance Status, dated 02 June 2016	ADB Observations, dated 06th June, 2016	Compliance Status, dated 06th June, 2016
	environmental monitoring program;		environmental monitoring and please update the same as per following suggestions: (i)The monitoring frequency of ambient air quality, ambient noise levels and surface water quality prior to commencement of civil work may be once at all five locations; (ii) The monitoring frequency of ambient air quality, ambient noise levels and surface water quality during construction phase may be quarterly except monsoon period at all construction sites. Hence, during construction phase, the numbers of samples need to be revised considering 24 months construction period; and (iii) The monitoring frequency of ambient air quality, ambient noise levels and surface water quality during post-construction phase may be once except monsoon period at all five locations.	
4.	We also note that the number of samples mentioned in table 8 appears to be very low. Further we observe that the budgets considered for testing of ambient air and surface water qualities are at lower and that for ambient noise levels is at higher side as compared to the current market rates. Please reassess the requirement in terms of the number of samples to be tested over the construction and operation	Number of samples mentioned in table 8 is based on three times testing (prior to commencement of civil work, during construction and during post construction periods). Further, the budgets considered for testing is based on HPPCB rates available at their website.	As suggested above in sr.no.3, please revise table 8 and indicative EMP budget given in table 10. We note from compliance status that the HPPCB is unable to conduct the environmental monitoring. While we have no objection to your proposal for considering transportation and sampling cost based on HPPCB applicable rates, we suggest you to ensure that the	Complied in table 8 and table 10.

Sr. No.	ADB Observations, dated 27th April, 2016	Compliance Status, dated 02 June 2016	ADB Observations, dated 06th June, 2016	Compliance Status, dated 06th June, 2016
	phases of the implementation; and the associated budget may be revised accordingly;	However, we are in process of finalization of private party as HPPCB is unable to conduct testing as per EMP requirements.	environmental monitoring may be carried out by NABL or HPPCB approved monitoring agencies.	
5.	The format of environmental monitoring report included as annexure 8 of IEE report (page 95-96), needs to be revised. Please find attached a copy of the format for environmental monitoring report.	Revised as per given format	-	
6.			Refer para 62 (page 21) of previous IEE report and para 65 of revised IEE report (page 28) and annexure 5 (page 92)**:** We note from revised IEE that night work has been introduced for "pathway and drainage improvement works" under Brajeshwari sub-project. As per information provided in updated IEE report, the permissible noise limits of 40 dB(A) during night time shall be adhered by manual working and arrangements for ready construction material. Please give the "methodology of manual working of pathway and drainage improvement works" during night time at paragraph 65. The night work management plan is also provided in Annexure 5. *We note with following observations from night work management plan :* (a) *sr. no. 10 of mitigation measures:* The timing of noisier construction activities between 6 PM	• The methodology of manual working of pathway and drainage improvement works has been incorporated in para 65. • Sr. no. 10 of mitigation measures of Annexure 5 have been deleted. • Sr. no. 11 of mitigation measures (previous IEE) is currently sr. no. 10. The contractor will follow all the instructions and PIU Kangra will take due care off the same. • Table 5: EMP Table during Construction Phase has been revised in respect of night works mitigation measures.

Sr. No.	ADB Observations, dated 27th April, 2016	Compliance Status, dated 02 June 2016	ADB Observations, dated 06th June, 2016	Compliance Status, dated 06th June, 2016
			to 10 PM would reduce construction noise impacts during night. This statement has no meaning with respect to reduction of noise impacts during night. Please delete the same. (b) *sr. no. 11 of mitigation measures:* • We note that the contractor should have hand held sound level meter for measurement of ambient noise levels during night hours construction and the noise levels should not exceed the permissible limits of 40 dB(A). Please ensure to generate and record the noise levels on hourly basis throughout the construction period at night time. • We note from information provided that the ready mix concrete from batching plant to be used, otherwise the concrete should be brought to the site away from temple. As indicated above, only manual work will be done, please revise the management plan with respect to ready mix concrete work. Please ensure all the proposed mitigation measures are implemented during night work for pathway works including drainage at Brajeshwari temple, so that the noise levels should not exceed the permissible limits of 40 dB(A).	

Infrastructure Development Investment Program for Tourism (Project 3)
State of Himachal Pradesh

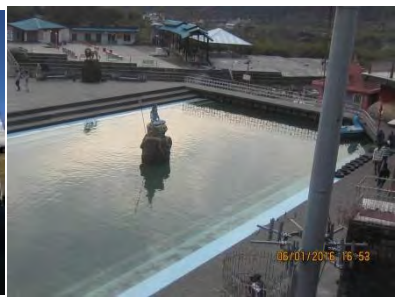
Environmental Assessment Document

Initial Environmental Examination

ADB Loan No. 3223–IND
Project Number: 40648

Tranche 3

Subproject- Restoration & Improvement of Chamunda Temple &Bajreshwari Temple Precinct and Creation of Cultural Centre for Traditional Arts & Crafts at Nagrota Bagwan, Kangra (Package HPTDB/13/4)

June, 2016

Prepared by the Government of Himachal Pradesh

TABLE OF CONTENTS

Annexures

ABBREVIATIONS

ADB	–	Asian Development Bank
BPL	–	Below Poverty Line
DSC	–	Design & Supervision Consultants
EA	–	Executing Agency
EAC	–	Expert Appraisal Committee
EARF	–	Environmental Assessment Review Framework
EIA	–	Environmental Impact Assessment
EMP	–	Environmental Management Plan
GoI	–	Government of India
GoHP	–	Government of Himachal Pradesh
HPPCB	–	Himachal Pradesh Pollution Control Board
HPTDC	–	Himachal Pradesh Tourism Development Board
IDIPT	–	Infrastructure Development Investment Program for Tourism
IEE	–	Initial environmental examination
MC	–	Municipal Corporation
MLD	–	Million Litres per day
MOEF	–	Ministry of Environment and Forests
MSL	–	Mean Sea Level
NGO	–	Non-Governmental Organization
O&M	–	Operations & Management
PFR	–	Periodic Financing Request
PIU	–	Project Implementation Unit
PM	–	Particulate Matter
PMC	–	Project Management Consultants
PMU	–	Project Management Unit
REA	–	Rapid Environmental Assessment
SEAC	–	State Expert Appraisal Committee
SPM	–	Suspended Particulate Matter
SPS	–	Safeguards Policy Statement
TCP	–	Town & Country Planning

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: (i) strengthening connectivity to and among key tourist destinations; (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. Physical infrastructure investments will be accompanied by: (iii) 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.

2. Chamunda Temple in Kangra district is situated at a latitude and longitude of 32'.18" and 76'.45" respectively which is around 10 km (6.2 mi) west of Palampur, is the renowned Chamunda Devi Temple. It is located at a spot where the famous battle described in the Devi Mahatmaya took place. The nearest airport connectivity is at Gaggal (near NH-20), about 7 km from Kangra Town.

3. Bajreshwari Temple is a religious destination and attracts huge no. of pilgrims every year. The destination has adequate access and connectivity within a reasonable access time. The Kangra Town can be accessed within Himachal Pradesh and Punjab through NH-88 (from via Bilaspur- Hamirpur- Jwalaji- Kangra including from Shimla), of NH-20 (Mandi-Pathankot) and from Hoshiarpur/ Jalandhar to Dharamshala highway passing near Chintpurni in Una district now re-designated as Kangra Bye-pass which bifurcates and meets NH-88 further north at Ranital/Jwalaji. Kangra is also connected with a narrow gauge railway line in-route to Joginder Nagar. The nearest airport connectivity is at Gaggal (near NH-20), about 7kmfrom Kangra Town.

4. Chakrakund is situated approx. 1Km from Bajreshwari Temple and comprises two sacred ponds and some temples

5. Mata Ka Bagh is vacant government land under notified area committee (NAC) which is demarcated by boundary wall and presently not under any use.

6. Nagrota Bagwan is a town and a Municipal Council in Kangra district in the Indian state of Himachal Pradesh. The Latitude of Nagrota Bagwan is 32'.10". The Longitude of NagrotaBagwan is 76'.37". As of 2011, Nagrota had a population of 19,998. It lies in the centre of two famous temples –Chamunda ji and Bajreshwari. It is located 14 km towards South from the District headquarters Dharamshala. It is a Tehsil headquarter.

7. Executing and implementing agencies. The executing agency is the Dept. of Tourism and Civil Aviation, Himachal Pradesh. Project Management Unit (PMU) is set up at Shimla to coordinate the overall execution. Project Management Consultant (PMC) at Shimla provides assistance to PMU in execution. The implementing agency is Project Implementation Unit (PIU), Kangra to be supported by Design Supervision Consultant

(DSC). The asset owner for Nagrota is Govt. of Himachal Pradesh and for Bajreshwari & Chamunda is Temple Trust. NoC has been procured and MoU has been signed by the respective asset owners.

8. Categorization. The Subproject package HPTDB/13/4, is classified as Environmental Category B as per the SPS 2009 as no significant impacts are envisioned. Accordingly this Initial Environmental Examination (IEE) has been prepared and assesses the environmental impacts and provides mitigation and monitoring measures to ensure no significant impacts as a result of the subproject.

9. Subproject Scope. The major scope of work for this subproject package HPTDB/13/4 as per Detailed Project Report (DPR) are Restoration and Improvement of Chamunda Temple, Bajreshwari Temple and providing new facilities for tourist at Nagrota Bagwan in the context of community- based tourism and livelihood generation. The main work are

i) Chamunda Temple: landscaping, upgrading visitor facilities like toilet and bathing facilities, changing rooms near the sacred pond, drinking water facilities, provision of seating for 150 persons, Restoration of the sacred Temple pond and access improvement, provision of railing, signage and Street lighting

ii) Bajreshwari Temple: Improvement of the access, provision of railing, signage and street lighting, landscaping of the park, Solid Waste Management and upgrading visitor facilities like toilet and bathing facilities, drinking water facilities and provision of proper seating for 100 persons

iii) Nagrota Bagwan: Commercial Outlets-Permanent Outlets, Temporary Outlets - showcasing and selling the products; Food Stalls (25 Temporary stalls), Semi opened Seating (50 in no.); Convention Hall (Capacity 250 people) , Restaurant; & O.A.T; Construction of Parking at the entrance (2 floors); Construction of compound wall and entrance to the Centre and Landscaping garden with seating provision.

iv) Chakrakund Temple: Restoration of existing kunds (ponds), toilets and bathrooms, pathway, area lighting, benches and drainage

v) Mata ka bagh: proposed works are providing visitors facilities like toilet, parking, shops, amphitheatre, benches, lighting, compound wall, signage, dust bin and landscaping etc

10. Description of the Environment. The Subproject is located in Kangra district which lies between 31˚21 ′to 32˚59′ N latitude and 75˚47′55″ to 77˚45′ E longitude. It is situated on the southern escarpment of the Himalayas. The entire area of the district is traversed by the varying altitude of the Shivaliks, Dhauladhar and the Himalayas from north-west to south-east. The altitude varies from 500 metres above mean sea level (amsl) to around 5000 metre. It is encapsulated in the north by the districts of Chamba and Lahaul and Spiti, in the south by Hamirpur and Una, in the east by Mandi and in the west by Gurdaspur district of Punjab. The present Kangra district came into existence on the 1stSeptember,1972 consequent up on there- organisation of districts by the Government of Himachal Pradesh

11. Environmental Management. An Environmental Management Plan (EMP) is included as part of this IEE, which includes (i) mitigation measures for environmental

impacts during implementation; (ii) an environmental monitoring program, and the responsible entities for mitigating, monitoring, and reporting; (iii) public consultation and information disclosure; and (iv) grievance redress mechanism. A number of impacts and their significance have already been reduced by amending the designs. The EMP will be included in civil work bidding and contract documents.

12. Locations and siting of the proposed infrastructures were considered to further reduce impacts. The concepts considered in design of the subproject are (i) design, material and scale will be compatible to the local architectural, physical, cultural and landscaping elements; (ii) preference will be given to the use of local material and labour as best as possible; (iii) for conservation, local construction material available in the nearby region as best as possible suiting to those in existence; (iv) all painting (interior and exterior) will be with environment-friendly low volatile organic compounds paints; (v) for retaining wall repair works, random rubble masonry will be used, with locally available stone to be laid in cement mortar by local skilled labour; (vi) earth backfill, if any will be done from the site excavated material; and (vii) ensuring all planning and design interventions and decisions are made in consultation with local communities and reflecting inputs from public consultation and disclosure for site selection.

13. During the construction phase, impacts mainly arise from the need to dispose of moderate quantities of waste soil. These are common impacts of construction in urban areas, and there are well developed methods for their mitigation. Measures such as conducting work in lean season and minimizing inconvenience by best construction methods will be employed. In the operational phase, all facilities and infrastructure will operate with routine maintenance, which should not affect the environment. Facilities will need to be repaired from time to time, but environmental impacts will be much less than those of the construction period as the work will be infrequent, affecting small areas only.

14. Mitigation measures have been developed to reduce all negative impacts to acceptable levels. Mitigation will be assured by a program of environmental monitoring to be conducted during 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 observations on- and off-site, document checks, and interviews with workers and beneficiaries. Any requirements for corrective action will be reported to the ADB.

15. The stakeholders were involved in developing the IEE through discussions on-site and public consultation, 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 Himachal Pradesh Department of Tourism 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.

16. The tourists, business people and citizens of Kangra District 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 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.

17. Consultation, Disclosure and Grievance Redress. Public consultations were done in the preparation of the project and IEE. On-going consultations will occur throughout the project implementation period. A grievance redress mechanism is described within the IEE to ensure any public grievances are addressed quickly.

18. Monitoring and Reporting. The PMU, PIU, PMC and DSC will be responsible for environmental monitoring. PIU in coordination with DSC will submit monthly monitoring report to PMU on the basis PMU will submit to ADB semi-annual 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. ADB will post the environmental monitoring reports on its website. Any major accidents having serious environmental consequences will be reported immediately. PMC environmental expert will help in preparing quarterly, semi-annual and annual progress reports including environmental closure report.

19. Conclusions and Recommendations. The proposed subproject is unlikely to cause significant adverse impacts. The potential impacts that are associated with design, construction and operation can be mitigated to standard levels without difficulty through proper engineering design and the incorporation or application of recommended mitigation measures and procedures. 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 special study or detailed environmental impact assessment (EIA) needs to be undertaken to comply with ADB SPS -2009 or Government of India EIA Notification, 2006.

I. INTRODUCTION

1. 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 Naduto support the tourism sector as a key driver for economic growth. It will focus on: (i) strengthening connectivity to and among key tourist destinations; (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. Physical infrastructure investments will be accompanied by: (iii) 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.

2. The proposed components of subproject for Ancient Temples and surrounding areas are located in Kangra which lies between 31˚21′ to 32˚59′ N latitude and 75˚47′55″ to77˚45′ E longitude. It is situated on the southern escarpment of the Himalayas. The entire area of the district is traversed by the varying altitude of the Shivaliks, Dhauladhar and the Himalayas from north-west to south-east. The altitude varies from 500 metres above mean sea level (amsl) to around 5000 metre small. It is encapsulated in the north by the districts of Chamba and Lahaul and Spiti, in the south by Hamirpur and Una, in the east by Mandi and in the west by Gurdaspur district of Punjab. The present Kangra district came into existence on the 1st September, 1972 consequent upon there-organisation of districts by the Government of Himachal Pradesh.

3. **Executing and implementing agencies.** The executing agency is the Dept. of Tourism and Civil Aviation, HP. Project Management Unit (PMU) is set up at Shimla to coordinate the overall execution. Project Management Consultant (PMC) at Shimla provides assistance to PMU in execution. The implementing agency is Project Implementation Unit (PIU), Kangra to be supported by Design Supervision Consultant (DSC). The asset owner for Nagrota is Govt. of Himachal Pradesh and for Bajreshwari & Chamunda is Temple Trust. NoC has been procured and MoU has been signed by the asset owners and is attached at **Annexure 11 and 12** respectively. A team of technical, administrative and financial officials, including safeguards specialists, is provided at the PMU to implement, manage and monitor project implementation activities. The PIUs are staffed by qualified and experienced officers and responsible for the day-to-day activities of subproject implementation in the field, and will be under the direct administrative control of the PMU. Consultant teams are responsible for subproject planning and management and assuring technical quality of design and construction; and designing the infrastructure and supervising construction; and safeguards preparation.

4. **Proposed subproject.** The major subproject scope of work as per detailed project report (DPR) package No. HPTDB/13/4) are Restoration and Improvement of Chamunda Temple, Bajreshwari Temple and providing cultural centre for tourist at Nagrota Bagwan in the context of community- based tourism and livelihood generation.The major scope of the

project, among other things, include:

a. Chamunda Temple:

i. Site planning and landscaping of the temple precinct – upgrading in terms of visitor facilities like toilet and bathing facilities, drinking water facilities and provision of seating for 150 persons.
ii. Improvement of the access to the temple precinct in terms of surface improvement, provision of railing, signage and Street lighting.

b. Bajreshwari Temple:

i. Improvement of the access to the temple precinct in terms of surface improvement, provision of railing, signage and street lighting.
ii. Landscaping of the Park near the temple.
iii. Proposals for proper Solid Waste Management.
iv. Upgrading the precinct in terms of visitor facilities like toilet and bathing facilities, changing rooms near the sacred pond, drinking water facilities and provision of proper seating for 100 persons.

c. Nagrota Bagwan:

Commercial Components:

i. Commercial Outlets-Permanent Outlets, Temporary Outlets - showcasing and selling the products generated by the master craftsmen of the area in addition to other traditional artifacts, music and food products.
ii. Food stalls (25 Temporary stalls), Semi opened Seating (50 in no.).
iii. Convention Hall (Capacity 250 people) , Restaurant
iv. O.A.T (Open Air Theatre) – Exhibitions, Cultural activities like concerts for Folk music, Traditional dance forms and Folk theatre.

Other facilities:

i. Construction of Parking at the entrance (2 floors).
ii. Construction of compound wall and entrance to the Centre.
iii. Landscaping garden with seating provision.

d. Chakrakund Temple: Restoration of existing kunds, toilets and bathrooms, pathway, area lighting, benches and drainage

e. Mata ka bagh: proposed works are providing visitors facilities like toilet, parking, shops, amphitheatre, benches, lighting, compound wall, signage, dust bin and landscaping etc

5. **Categorization.** An environmental assessment using ADB's Rapid Environmental Assessment (REA) checklist for Urban Development (**Annexure 1**) was conducted.

Results of the assessment as per detailed project report (DPR) and preliminary design of subproject package no. HPTDB/13/4 is unlikely to cause any significant adverse impacts. Thus it is classified as Environmental Category B as per ADB's SPS 2009 as no significant impacts are envisioned.

6. **Purpose of the IEE.** This report gives an account of the initial environmental examination (IEE) of subproject package no. HPTDB/13/4 as per SAR and preliminary design. It has been prepared in accordance with ADB SPS's requirements for environment Category B projects and provides measures to (i) ensure the environmental sustainability of subproject: Restoration and improvement of Chamunda Temple and Bajreshwari Temple Precinct and Creation of Cultural Centre for Traditional Arts and Crafts at NagrotaBagwan, Kangra; (ii) integrate environmental considerations into the project preparation process; and (iii) provide for environmental management during project implementation.

II. DESCRIPTION OF THE SUBPROJECT

A. Location, Existing Condition and Need of the Subproject

7. **Chamunda Temple** in Kangra district is situated at 32'.18" and 76'.45" respectively which is around 10 km (6.2 mi) west of Palampur, is the renowned Chamunda Devi Temple. It is located at a spot where the famous battle described in the Devi Mahatmaya took place. The nearest airport connectivity is at Gaggal (near NH-20), about 7 km from Kangra Town

8. **Bajreshwari Temple** is a religious destination and attracts huge no. of pilgrims every year. The destination has adequate access and connectivity within a reasonable access time. The Kangra Town can be accessed within Himachal Pradesh and Punjab through NH-88 (from via Bilaspur- Hamirpur- Jwalaji- Kangra including from Shimla), of NH-20 (Mandi-Pathankot) and from Hoshiarpur/ Jalandhar to Dharamshala highway passing near Chintpurni in Una district now re-designated as Kangra Bye-pass which bifurcates and meets NH-88 further north at Ranital/ Jwalaji. Kangra is also connected with a narrow gauge railway line in-route to Joginder Nagar. The nearest airport connectivity is at Gaggal (near NH-20), about 7kmfrom Kangra Town

9. **Nagrota Bhagwan** is a town and a Municipal Council in Kangra district in the Indian state of Himachal Pradesh. The Latitude of NagrotaBagwan is 32'.10". The Longitude of NagrotaBagwan is 76'.37". As of 2011, Nagrota had a population of 19,998. It lies in the center of two famous temples –Chamunda ji and Bajreshwari. It is located 14 km towards South from the District headquarters Dharamshala. It is a Tehsil headquarter.

10. **Chakrakund** is situated approx. 1 Km from Brajeshwari Temple and comprises two sacred ponds and some temples

11. **Mata Ka Bagh** is vacant government land under notified area committee (NAC) which is demarcated by boundary wall and presently not under any use.

Existing Conditions and Need of the Subproject:

12. **Chamunda & Bajreshwari Temples**: There is acute shortage of basic amenities in the precincts of both the temples. This has called for proper site planning and landscaping of the Temple precincts. There is also need for landscaping of the park near the Bajreshwari Temple. Visitor's facilities are severely short in supply, necessitating urgent attention and remedial measures, such as provision of visitor facilities like toilet and bath facilities, changing rooms near the sacred pond, drinking water and proper seating at Chamunda Devi and Bajreshwari Temples. Improvement of access to the temple precincts in terms of surface improvement, railing, signage and street lights (for the safety of women and children in the nights) at Chamunda Devi and Bajreshwari Temples. There is acute shortage of facilities for solid waste management at Bajreshwari Temple. Unless this issue is attended to, the environment of the area cannot be improved.

13. **In Chakrakund** there are sacred Temple ponds, which have religious importance. Thus, there is an imperative for rejuvenation of the sacred ponds. Approach-steps to the sacred pond at Chakrakund need to be improved on priority. **Mata ka Bagh** is vacant government land.

14. **Nagrota Bhagwan:** It is disheartening to see the local and traditional art forms and techniques heading towards obscurity. Consequently, this project has been visualized to promote the traditional skills, on the one hand and empower the local population, on the other. It will not only provide a platform for endurance of traditions but also will bring the local people closer to their dying heritage. It will also propagate the value of local culture by providing facilities for tourists to visit and experience the Himachali culture. A project like this is in dire need, especially in today's time when the youth is running blindly towards the global culture leaving their roots and traditions far behind.

15. It is necessary to promote the traditional practices such as building traditions, food products and cuisine, traditional arts & crafts and performing arts of Himachal Pradesh in such a way that it should be beneficial for the local communities as well as for tourism promotion in the state

B. Proposed Subproject

16. The scope of the sub-projects is as under:

DETAILS OF PROPOSED WORKS

Area	**Scope of Works proposed**
Bajreshwari Temple	i. Entrance Gate 2 nos. – Demolish and reconstruct ii. Covered Canopy Near Main Mandir Entry – Demolish and reconstruct

Area	**Scope of Works proposed**
	iii. Resurfacing of Pathway iv. Open Parking v. 3 Nos Toilets Blocks vi. Signages vii. Foot Bridge viii. Dustbin - Proposed ix. Repairing of Drains x. Rain Shelters xi. Benches xii. Ticket Cabin xiii. Light Poles xiv. Compound Wall
Chakrakund Temple Complex	i. Renovation of Female and Male Kund Area ii. Toilets Blocks – Demolish and reconstruct iii. Resurfacing of Pathways iv. Benches v. Repairing of Drains vi. Light Poles vii. Dustbins
Mata ka bag	i. 3 No's Haats ii. 2 nos Toilets Blocks iii. Coffee Shop iv. Outdoor and Indoor Seating Area v. Open Parking vi. Amphitheatre vii. Musical Fountain and Water Body viii. Light Poles ix. Compound Wall x. Signages xi. Dustbins xii. Landscaping Area
Art and Craft Centre Nagrota Bagwan	Two storied RCC framed structural building with amenities such as Stores, Dormitory Male Attached Toilet, Dormitory Female Attached Toilet, Common Toilet Female, Janitor Room, Kitchen and Cafeteria, Open Court, Bed Rooms with Attached Toilets, Office, Shops, Exhibition and Community Hall, etc.

Area	**Scope of Works proposed**
Chamunda Temple Complex	i. Mandir Compound – Demolish and reconstruct ii. Waiting Hall iii. Covered Passage iv. Main Dwar Gate v. Landscape Area with Viewing Gallery and Resting Area vi. Kiosks vii. Toilet Block viii. Surface Parking ix. Signages x. Light Poles xi. Resurfacing of Pathways xii. Dustbins xiii. Benches

16. All sites for subproject are owned by HP Government (The District Administration/ Temple Trust) thus no land acquisition is required. The sites are located in Kangra district. The sites are not within or adjacent to any protected area, area of subproject is already used as tourism site.

17. The design, material and scale will be compatible to the local architectural, physical, cultural and landscaping elements. Preference will also be given to the use of local material and labour as best as possible. For the conservation, local construction material available in the nearby region as best as possible suiting to those in existence. All painting (interior and exterior) will be with environment-friendly low volatile organic compound paints.

18. For retaining wall repair works, random rubble masonry will be used, with locally available stone to be laid in cement mortar by local skilled labour. The earth backfill, if any will be done from the site excavated material. Stone aggregate and sand are available within 40 km radius from sites. Also formwork and skilled labour is locally available. For brick wall construction, bricks are also available within 40 km radius from the proposed site/region.

19. Water supply during construction will be provided by HP Irrigation and Public Health (IPH) Department from their existing system or will be transported through mobile water tankers, if required. Solid waste generated at sites will be disposed at designated areas of MC.

C. Implementation Schedule

20. Detail design of the subproject has been done by the Design and Supervision Consultant (DSC) team. It is estimated that construction period will cover 24 months.

21. Index map of the site is given as **Figure-1** and site layout plan is given as **Figure 2to 6** and photo illustration is given as **Annexure-2**

Figure1: Index Map Subproject site

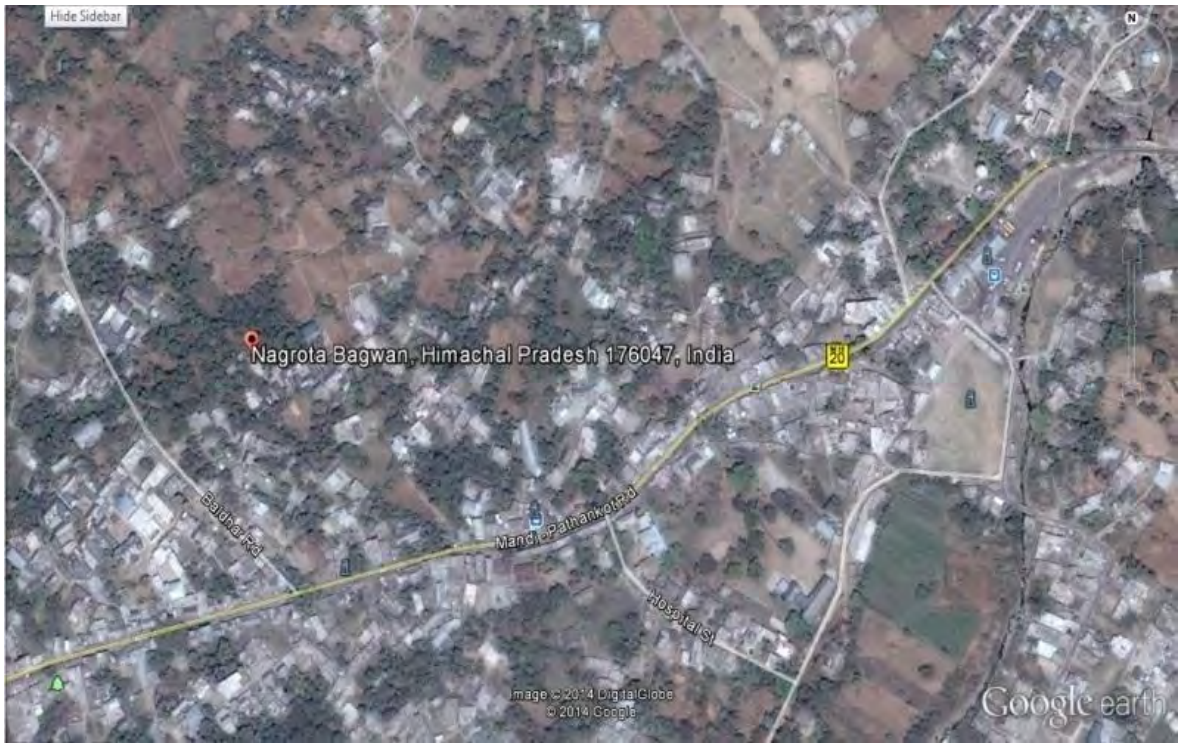


Figure 2: Project layout Of Kangra Site

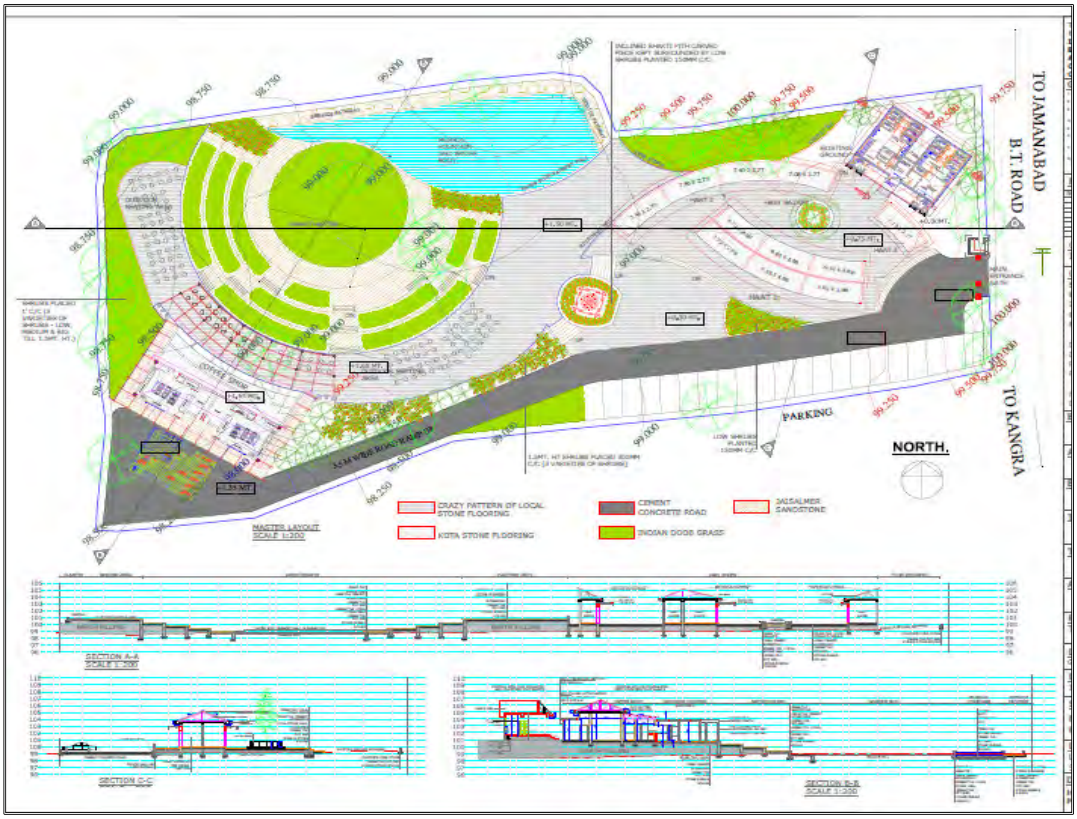


Figure 3: Project layout Of Kangra (Chakrakund) Site

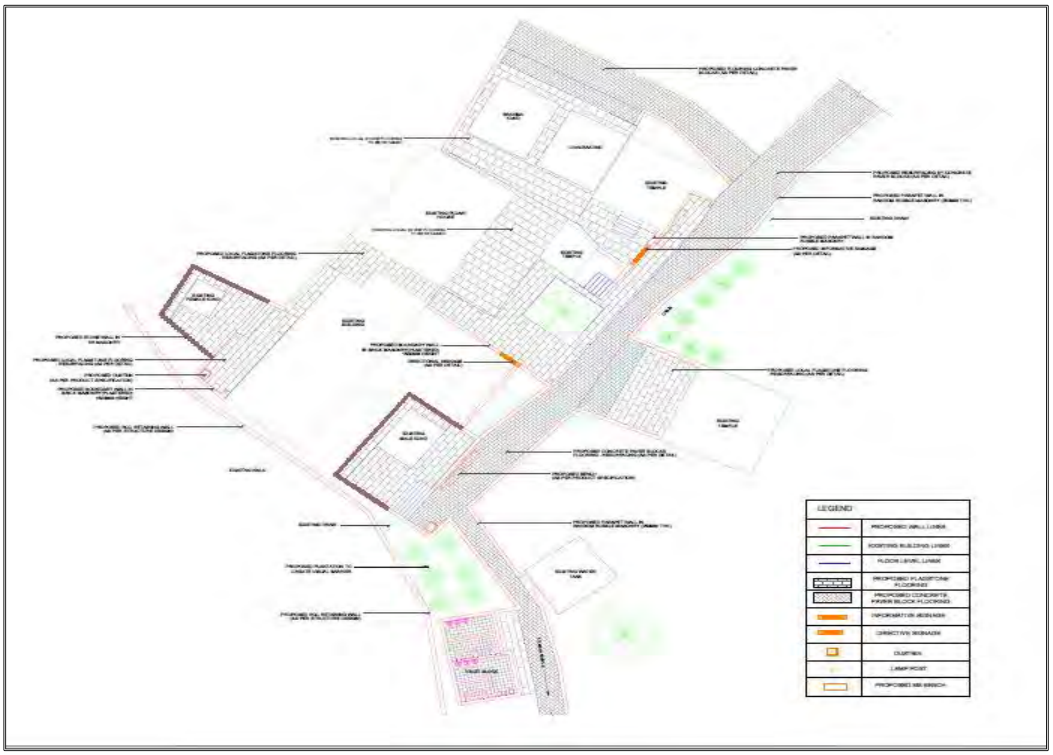


Figure 4: Project layout of Kangra (Chamunda temple) site

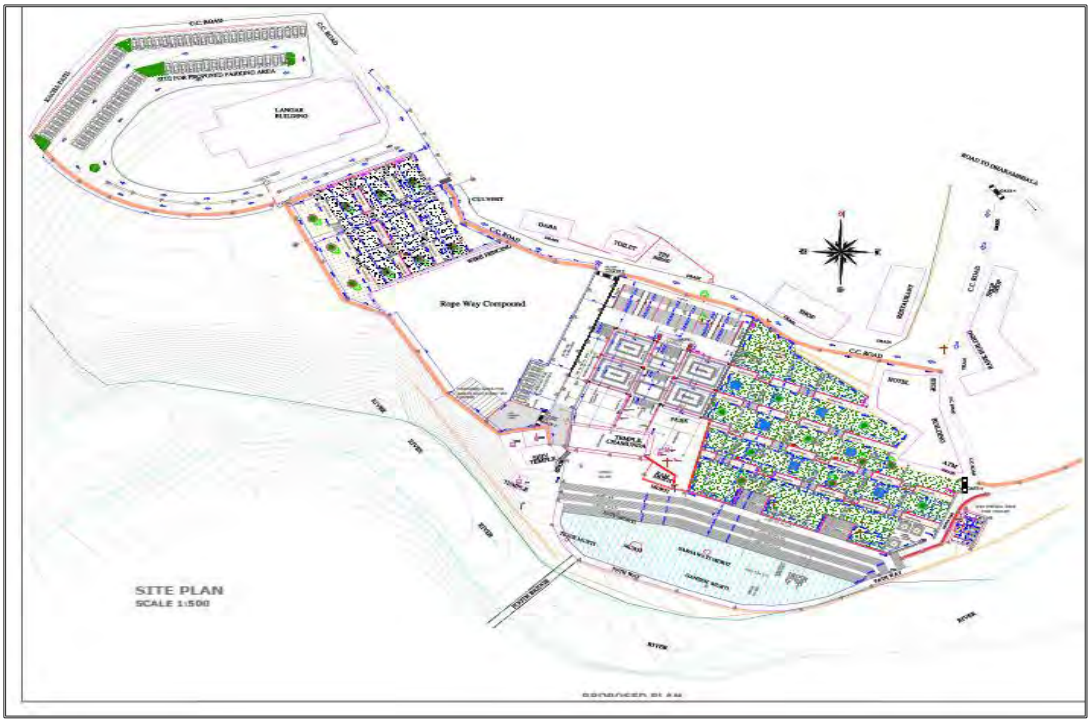


Figure 5: Project Layout of Kangra (Nagrota Bagwan) Site

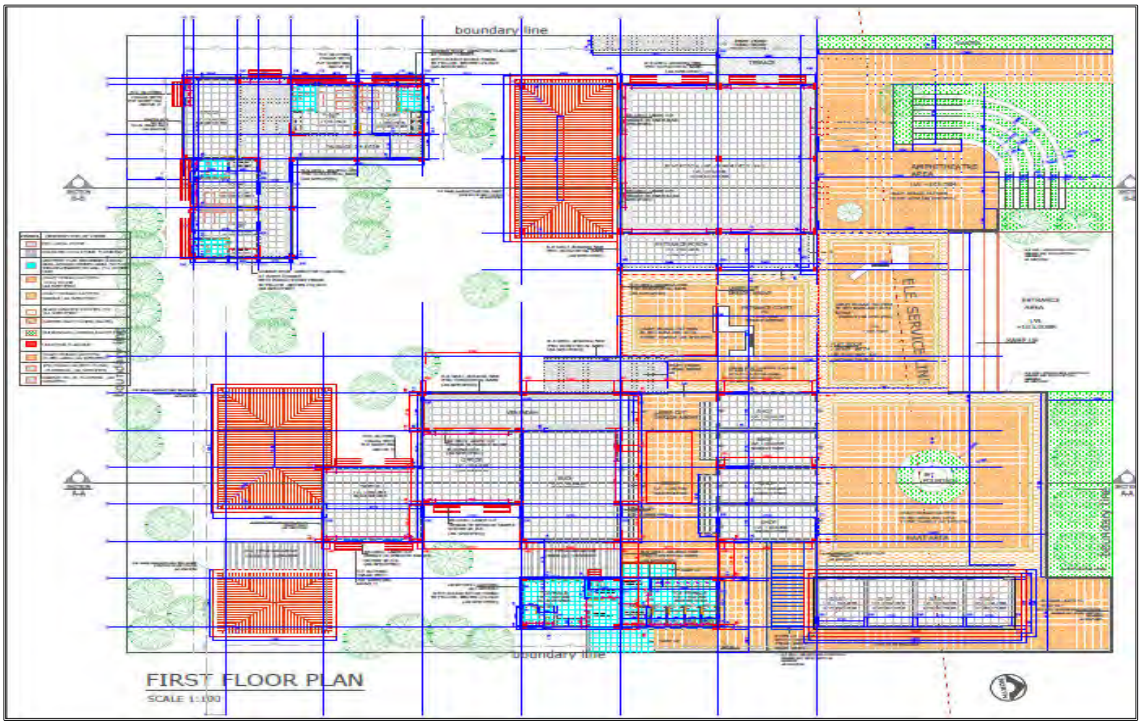
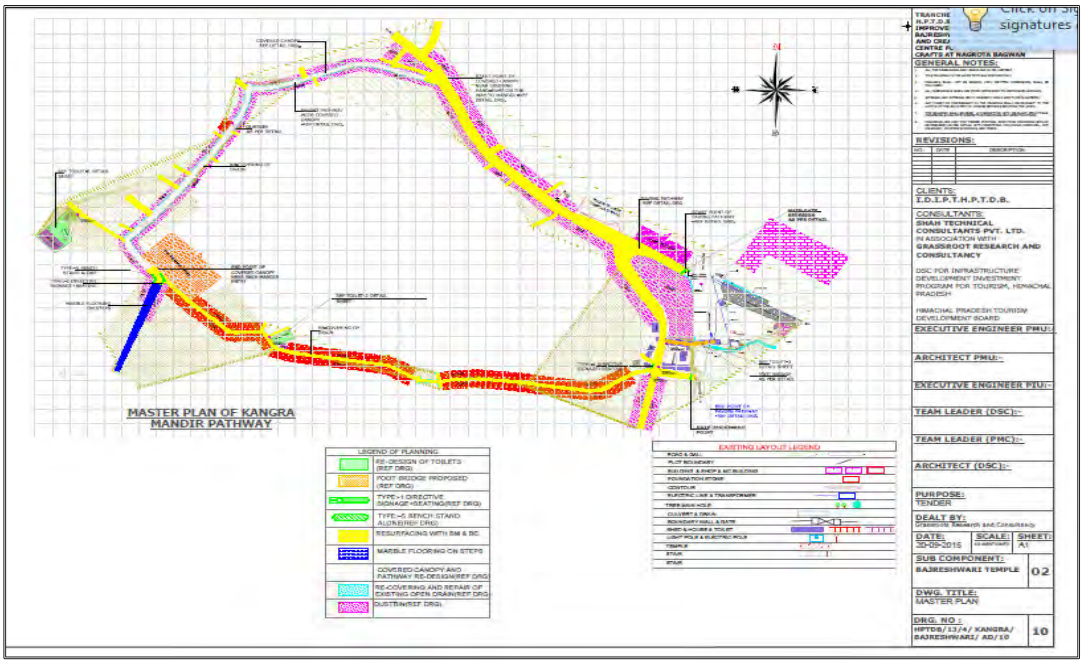


Figure 6: Project layout Of Kangra (Brajeshwari Temple) Site



III. POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK

A. ADB Policy

22. 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.

23. **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.

24. **Environmental Management Plan.** An EMP which addresses the potential impacts and risks identified by the environmental assessment is 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.

25. **Public Disclosure.** The IEE will be put in an accessible place (e.g., local government offices, libraries, community centres, etc.), and an executive summary translated into Hindi for other stakeholders. The following safeguard documents will be put up in 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

26. Implementation of the subproject will be governed by the national and State of Himachal Pradesh 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.

27. The realm of environmental regulations and mandatory requirements for the proposed sub-project is shown in **Table 1**. The Environmental Impact Assessment (EIA) notification, 2006 by the Ministry of Environment and Forests (MoEF, GoI) specifies the mandatory environmental clearance requirements. Accordingly, projects and activities are broadly categorized in two categories[1] - 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.

Table1: Environmental Regulatory Compliance

Sub-Project	Applicability of Acts/Guidelines	Compliance criteria
Restoration & Improvement of Chamunda Temple &Bajreshwari Temple Precinct and creation of Cultural Centre for Traditional Arts & Crafts at	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 sub-project 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. Hence, the categorization, subsequent environmental assessment and clearance requirements either from the State

[1]All 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 Forests (MoEF) 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
NagrotaBagwan, Kangra.		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. Categorized as B and IEE prepared
	The Wildlife Conservation Act, 1972, amended in 2003 and 2006, provides for protection and management of Protected Areas.	There are no wildlife reserve or sanctuary near to proposed sites
	The Forest Conservation Act, 1980 and its subsequent amendments necessitate obtaining clearance from the MoEF for diversion of forest land for non-forest purposes.	The project does not evolve any land diversion or tree cutting therefore, no clearance required. However, the whole area and its surroundings are interspersed with designated protected or reserved forests which have an associated eco-system value that plays a vital role in its unique natural heritage.
	Water (Prevention and control of pollution) Act, 1974 and; Air (prevention and control of pollution) Act, 1981	Consent for Establishment (CFE) & Consent for Operation (CFO) from the HP PCB for setting up of diesel generators (if any), hot mix plant, wet mix plant, crusher plant (if exclusively for this project) to be obtained by the Contractor, prior to commencement of construction works at site. If contractor purchases the construction materials (eg. Sand, gravel) from third party, he must ensure that materials are coming from approved quarry sites.
	Hazardous Waste (Management and Handling) Rules, 1989	Hazardous wastes like oil and lubricants generated shall be disposed off as per provisions of Hazardous Waste.
	The Noise Pollution (regulation and Control) Rules, 2000	The subproject shall put measures for abatement of noise including noise emanating from vehicular movements, blowing of horns, and sound producing instruments and ensure that the existing noise levels do not exceed the ambient air quality standards

Sub-Project	Applicability of Acts/Guidelines	Compliance criteria
		specified under these rules.
	Hazardous Waste (Management and Handling) Rules, 1989.	Hazardous wastes like oil and lubricants generated shall be disposed off as per provisions of Hazardous Waste
	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. The Himachal Pradesh Ancient and Historical Monuments and Archaeological Sites and Remains Act, 1976;	Not applicable as neither any such monuments or Archaeological sites present at the site nor the proposed land is under influence of such any issue.
	Himachal Pradesh Ground Water (Regulation and Control of Development and Management) Act, 2005; Himachal Pradesh Ground Water (Regulation and Control of Development and Management) Rules, 2006;	At the site or nearby, no ground water shall be used while construction, therefore, not applicable.
	Himachal Pradesh Policy on Ecotourism;	Shall be adopted.
	Himachal Pradesh Participatory Forest Management Regulations, 2001;	Not required.
	The Himachal Pradesh non-biodegradable garbage (control) Act, 1995;	Shall be adopted.
	The Himachal Pradesh Town and Country Planning Act, 1977;	Not applicable
	The Shimla Road users and Pedestrians (Public Safety and Convenience) act, 2007;	Shall be adopted.
	The BOCW Act 1996 Employer shall- • Provide and maintain, at suitable point, sufficient quantity of wholesome drinking water, such point shall be at least 6 meters away from any washing areas, urinals or toilets • Provide sufficient urinals and latrines at convenient place, easily accessible by workers • Provide free of charge, temporary living accommodations near to work sites with separate cooking place, bathing and lavatory facilities and restore the site as pre conditions after completing the construction works • Provide crèche with proper accommodation, ventilation, lighting, cleanliness and sanitation if more than fifty female workers are engaged • Provide first aid facilities in all construction sites For safety of workers employer shall provide- • Safe access to site and work place	Contractors are required to follow all the provisions of BOCW Act.

Sub-Project	Applicability of Acts/Guidelines	Compliance criteria
	• Safety in demolition works • Safety in use of explosives • Safety in operation of transporting equipments and appoint competent person to drive or operate such vehicles and equipments • Safety in lifting appliance, hoist and lifting gears • Adequate and suitable lighting to every work place and approach • Prevention of inhalation of dust, smoke, fumes, gases during construction works and provide adequate ventilation in work place and confined space • Safety in material handling and stacking/un stacking • Safeguarding the machinery with fly-wheel of moving parts • Safe handling and use of plants operated by compressed air • Fire safety • Limit of weight to be lifted by workers individually • Safety in electric wires, apparatus, tools and equipments • Provide safety net, safety sheet, safety belts while working at height (more than1.6 mtrs as per OSHA) • Providing scaffolding, ladders and stairs, lifting appliances, chains and accessories where required • Safety in pile works, concrete works, hot asphalt, tar, insulation, demolition works, excavation, underground construction and handling materials • Provide and maintain medical facilities for workers Any other matters for the safety and health of workers	
	Motor Vehicles Act, 1988 No person will be allowed to drive a motor vehicle unless he holds an valid driving license issued to him authorizing him to drive the vehicle	Valid and appropriate (LMV/HMV) driving licence of operators and drivers is required to operate or drive vehicle and equipment at construction site
	The Petroleum Rules 2002 All due precautions will be taken at all times to prevent escape of petroleum into any drain, sewer, and harbour, river or watercourse or over any public road or railway line.	Do not allow any escape of diesel, lubricants in to drain or any nearby water course

Sub-Project	Applicability of Acts/Guidelines	Compliance criteria
	Gas Cylinder Rules 2004 These rules deal with Filling, possession, import and transport of cylinders, Safety relief devices, Marking on cylinders, Markings on valve, Identification colours, Labelling of cylinders, Restriction on delivery or despatch of cylinders, repairing of cylinders, Prohibition of employment of children and intoxicated persons, Prohibition of smoking, fires, lights and dangerous substances, General precautions, Special precautions against accidents, Competent person to be incharge of operations, Handling and use, Restrictions on filling, Loading, unloading and transport of cylinders, Storage of cylinders, ownership and record keeping etc.	All the safety in storage, transportation, handling, usage, maintenance, repairing of gas cylinders and other precautions should be taken and record should be kept maintained.
	Labor Laws The contractor shall not make employment decisions based upon personal characteristics unrelated to job requirements. The contractor shall base the employment relationship upon equal opportunity and fair treatment, and shall not discriminate with respect to aspects of the employment relationship, including recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment or retirement, and discipline. The contractor shall provide equal wages and benefits to men and women for work of equal value or type.	**Annexure 13** provides applicable labor laws including amendments issued from time to time applicable to establishments engaged in construction of civil works.

28. The proposed subproject does not require statutory clearances from MoEF. All no objection certificates, CFEs and other clearances will be obtained prior to award of contract.

IV. DESCRIPTION OF THE ENVIRONMENT

A Physical Environment

29. **Climate:** The climate of the region is sub-tropical. Summer season extends from March to mid of July and the monsoon is from mid-July to mid-September. The winter is mild and starts from mid- December till mid- March. The maximum temperature goes upto 38 C, where as the minimum temperature recorded is 3.5 C in winter. The annual average rainfall during the last five years is 1207 mm. Kangra district has extra topographical variation ranging to altitude 400 min parts like Milawan while area of Bara Bhangal is at the altitude of 5500 m above MSL. The average altitude at Kangra town is 750m above MSL and 690 min particular at the site.

30. **Geology and Soil:** The area forms apart of the Indo-***Ganga*** alluvium. The Upper ***Shivalik*** and the Quaternary deposits constitute the main geological formations of the area. The Upper ***Shivalik*** is comprised of conglomerate beds, friable and stone, silt stone and clay

bed. Stray pebbles of limestone and sandstone area also present. Sandstone is soft and friable. Lumps of clay and pellets area also met with in the sandstone. The sandstone contains a large portion of mica flakes and concretions of clay susceptible to weathering,

31. The soil found in the districts of Kangra is generally brown, alluvial and grey brown Podzolic. The oil is light textured with neutral Hand good fertility status.

32. **Land Use:** Total geographical area is 5, 739 sq km, Forest area is 12367 sq km, Cultivable land is 1175 sq km and Unusable area is 2197 sq km. In the absence of a master plan and unregulated commercial growth adjoining main roads, ad hoc haphazard buildings are mushrooming in almost all neighbouring villages and towns.

33. **Water bodies:** Valley areas in Kangra, Una and Hamirpur districts depend largely upon groundwater. Open wells, tube wells, infiltration galleries, and wells are modes of exploitation of groundwater. Traditional sources of water, such as springs, ponds, and ditches also supplement water requirements in rural areas.

34. A number of hot springs exists in Kangra district.

35. The subproject site Chakrakund is having two sacred pond within premises and rivulet in adjacent to the site. Water quality monitoring shall be done for Pond in Chamunda temple and in two ponds of Chakrakund near Brajeshwari Temple.

36. There is no water quality monitoring stations in Kangra. The quality of the rivers is expected to be good as water levels and flows area ranging from constant to turbulent. Water quality may be tested for the sacred pond during the implementation of EMP.

37. **Ambient Air and Noise Quality:** There are no air quality and noise level monitoring stations in Kangra. The main source of air pollution and increased noise are. Ambient air quality and noise levels in the subprojects sites are expected to be within Himachal Pradesh State Pollution Control Board standards. Air and noise quality monitoring will be done in silence zones before construction and during implementation periods as per EMP.

B. Ecological Environment

38. On the bank of river Beas, the crops grown are wheat, maize, paddy, pulses, oil seeds, mustard and vegetables. A number of fruit varieties are cultivated in the region dominated by the citrus family and different types of berries. The right bank of Beas has meagre forests in small pockets, whereas the left bank from Dehra to Terrace area has linear strips of scrub forests

39. **Flora and fauna:** Sub project is located in Kangra urban area orients immediate surroundings, which were converted in tour ban use for years ago, and there is no natural habitat left at these sites. Animals and plants in the subproject sites are those commonly found in urban and built- up areas.
Main tree species of the area are Acacia, Jamun, Sisoo, Mango, Mulberry, Ficus, Kachnar, Amla, Prunus, Adhatoda vesica, Mangifera, Dodonaea, Woodfordia, Ziziphus, Murraya,

Euphorbia and grasses Saccharum, Cymbopogan, etc. and several subtropical climbers are also found in these forests. No endangered/ protected species of either flora or fauna are found in the sites or its immediate surroundings.

40. **Protected areas:** There are no protected areas (forests, wildlife sanctuaries, wetlands, mangroves, or estuaries) in or near the subproject sites. There is no wildlife sanctuary within the distance of 10 km radius of the subproject sites.

C. Socio Cultural and Economic Environment

41. **Demographic Profile:** Population of Kangra district is 1,507,223 as of 2011 census. Urban population is 5.73% of the total in the district. Tribal population is 0.1%.Sex ratio is 1013 males per 1000 females. Population density is 263 persons per square kilometre. Literacy rate in the district is 86.49% out of which female literacy is 80.62%.

42. **Economy and Agriculture:** The district is predominantly agrarian and around eighty percent of its population depends on agriculture and allied activities for their livelihood. Tea cultivation has also been experimented in some parts of the district but has not played any significant role in the economy. There are a number of historical temples and tourist places in the district contributing to the growth of tourism industry. Adventure sport activities are carried out by Mountaineering Institute and Allied Sports to boost the tourism sector.

43. Tea cultivation was introduced into Kangra valley about 1850. The Palampur fair, established by government with a view to fostering commerce with central Asia, attracts a small concourse of Yarkandi merchants. The Lahaul is carry on enterprising trade with Ladakh and countries beyond the frontier, by means of pack sheep and goats. Rice, tea, potatoes, opiums pices, wool and honey are the chief exports

44. **Industry:** Tourism and agriculture are the main stays of the district economy. Agriculture is the major activity of local people in the Kangra. Apart from agriculture business from tourism activities is the main source of income of the Kangratown. There are no major industries in Kangratown.

45. **Physical Infrastructure and Services:** Department for Irrigation and Public Health (IPH) is responsible for water supply and sanitation. In the absence of an underground sewerage system in the district, there is a dependence on septic tanks. Local bodies in the districts are responsible for solid waste management. Many of the pilgrim temples and historic sites in the district are in elevated locations with good natural drainage. Key issues pertaining to the drainage in the cultural destinations include the choking of drains by deposited solids apart from improper drainage induced landslides during the monsoon. Himachal Pradesh Public Works Department (HPPWD) is responsible for construction and maintenance of roads.

V. ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

46. The assessment of environmental impacts for the proposed interventions under this package has been carried out during the preparation of the SAR. An environmental assessment using ADB's Rapid Environmental Assessment (REA) checklist for urban development **(Annexure 1)** was conducted. The following are categories of impacts assessed:

- **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.

.

47. **Land Acquisition and Resettlement Impacts.** The sub-project does not envisage any diversion of forest land for which any statutory and necessary formalities is required. The project sites are popular tourist destination. The area is administered under the Govt. of Himachal Pradesh/ Temple Trust and no any land acquisition is required therefore no any resettlement impact will be anticipated.

48. **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.
- Straight lines and simple geometry in the proposed landscape and architectural features.
- Use of subtle colours and simple ornamentation in the structures.
- Use of local stone in the proposed walkways and built structures thus maintaining a rustic architectural character

49. The results of interventions are unobtrusive and will be integral part of the ambience of the site. The physical components have been proposed with minimalist design treatment emphasising use of local materials (wood, stone, etc.) as defined in the management plan of the area.

A. Assessment of Environmental Impacts

50. **Determination of Area of Influence.** The primary impact for this subproject is the proposed site available for the construction of project components, which includes

Brajeshwari Temple, Chakrakund, Mata ka Bagh, Chamunda Temple and NagrotaBagwan.

51. In the case of this subproject the components will involve straight forward construction and operation, and impacts will be mainly localized, short in duration and expected only during construction period.

B. Pre-construction Impacts and Mitigation Measures

52. **Consents, permits, clearances, no objection certificate (NOC), etc.** All the consents, permits, clearances and NOCs shall be obtained during detailed design and before start of works. Failure to obtain necessary consents, permits, NOCs, etc. can result to design revisions and/or stoppage of works.

53. **Mitigation measures.** The following will be conducted during detailed design phase:

- Obtain all necessary consents, permits, clearance, NOCs, etc. prior to start of civil works.
- 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

54. **Erosion control.** Most of the impacts will occur due to excavation and earth movements during construction phase. Prior to commencement of civil works, the contractor will be required to:

- Develop an erosion control and re-vegetation plan to minimize soil loss and reduce sedimentation to protect water quality.
- Minimize the potential for erosion by balancing cuts and fills to the extent feasible.
- Identify and avoid areas with unstable slopes and local factors that can cause slope instability (groundwater conditions, precipitation, seismic activity, slope angles, and geologic structure).
- Minimize the amount of land disturbed as much as possible. Use existing roads, disturbed areas, and borrow pits and quarries when possible. Minimize vegetation removal. Stage construction to limit the exposed area at any one time.

55. **Utilities.** Interruption of services (water supply, toilets, bathing areas, 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 will coordinate with the providers to relocate the utility.

56. **Social and Cultural Resources.** There is a risk that any work involving ground disturbance can uncover and damage archaeological and historical remains. Although no such sites have been identified. For this subproject, excavation will occur in and around existing sites, RoWs and specified government land so no risk is foreseen to these structures. Nevertheless, the PIU/DSC will:

- Consult Archaeological Survey of India and/or State Department of Archaeology to obtain an expert assessment of the archaeological potential of the site.
- Consider alternatives if the site is found to be of medium or high risk.
- Include state and local archaeological, cultural and historical authorities, and interest groups in consultation forums as project stakeholders so that their expertise can be made available.
- Develop a protocol for use by the construction contractors in conducting any excavation work, to ensure that any chance finds are recognized and measures are taken to ensure they are protected and conserved.

57. **Sites for construction work camps and areas for stockpile, storage and disposal:** The priority is to locate these near the subproject sites. The contractor will be required to meet the following criteria for the 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, shortages of amenities, and crime).
- Disposal will not be allowed in to nearby water course or any nearby sensitive areas which may pollute surface water or can inconvenience the community.
- The construction camp, storage of fuel and lubricants should be avoided at the river bank. Any construction camp site will be finalized in consultation with DSC and PIU.

58. **Sources of construction materials:** Significant amounts of gravel, sand, and cement will be required for this subproject. Extraction of materials can disrupt natural land contours and vegetation resulting in accelerated erosion, disturbance in natural drainage patterns, ponding and water logging, and water pollution. The contractor will be required to:

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

59. It will be the construction contractor's responsibility to verify the suitability of all

material sources and to submit NOCs/approvals of the quarry sites and obtain the approval of PIU/DSC. If additional quarries are required after construction is started, then the contractor should obtain written approval of PIU, Kangra.

60. **Access:** Hauling of construction materials and operation of equipment on-site can cause traffic problems and conflicts in ROWs. Construction traffic will access most work areas from the existing roads therefore potential impacts will be of short-duration, localized and can be mitigated. The contractor will need to adopt the following mitigation measures:

1) Plan transportation routes so that heavy vehicles do not use narrow local roads, except in the immediate vicinity of delivery sites.
2) Schedule transport and hauling activities during non-peak hours.
3) Locate entry and exit points in areas where there is low potential for traffic congestion.
4) Keep the site free from all unnecessary obstructions.
5) Drive vehicles in a considerate manner.
6) Coordinate with the Traffic Police Department for temporary road diversions and for provision of traffic aids if transportation activities cannot be avoided during peak hours.
7) Notify affected sensitive receptors by providing sign boards with information about the nature and duration of construction works and contact numbers for concerns/complaints.
8) Provide free access to households and businesses/shops along the ROWs during the construction phase.

61. Summary of pre-construction activities is presented in **Table 2**. The responsibilities, monitoring program and costs are provided in detailed in the EMP. The contractor is required to update the information during detailed design phase. Sample waste/spoils management plan, traffic management plan, etc. are attached as **Annexures 3 & 4**. Site-specific plans will be developed as per detailed design.

Table 2: Summary of Pre-Construction Mitigation Measures

Parameters	Mitigation Measures
Consents, permits, clearances, no objection certificate (NOC), etc.	• Obtain all necessary consents, permits, clearance, NOCs, etc. prior to start of civil works. • 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
Erosion control	• Develop an erosion control and re-vegetation plan to minimize soil loss and reduce sedimentation to protect water quality. • Minimize the potential for erosion by balancing cuts and fills to the extent feasible. • Identify and avoid areas with unstable slopes and local factors that can cause slope instability (groundwater conditions, precipitation, seismic activity, slope angles, and geologic structure). • Minimize the amount of land disturbed as much as possible. Use existing

Parameters	Mitigation Measures
	roads, disturbed areas, and borrow pits and quarries when possible. Minimize vegetation removal. Stage construction to limit the exposed area at any one time.
Utilities	• 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 list of affected utilities and operators; • Prepare a contingency plan to include actions to be done in case of unintentional interruption of services. • If relocations are necessary, contractor will coordinate with the providers to relocate the utility.
Social and Cultural Resources	• Consult Archaeological Survey of India or State Department of Archaeology to obtain an expert assessment of the archaeological potential of the site. • Consider alternatives if the site is found to be of medium or high risk. • Include state and local archaeological, cultural and historical authorities, and interest groups in consultation forums as project stakeholders so that their expertise can be made available. • Develop a protocol for use by the construction contractors in conducting any excavation work, to ensure that any chance finds are recognized and measures are taken to ensure they are protected and conserved.
Sites for construction work camps, areas for stockpile, storage and disposal	• 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, shortages of amenities, and crime). • Disposal will not be allowed near sensitive areas which will inconvenience the community. • Disposal will not be allowed in nearby river to check water pollution • The construction camp, storage of fuel and lubricants should be avoided at the river bank. The construction camp site for intake well should be finalized in consultation with DSC and PIU.
Sources of construction materials	• Use 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 to PIU/DSC on a monthly basis documentation of sources of materials.
Access	• 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. • Coordinate with the Traffic Police Department for temporary road

Parameters	Mitigation Measures
	diversions and for provision of traffic aids if transportation activities cannot be avoided during peak hours. • Notify affected sensitive receptors by providing sign boards with information about the nature and duration of construction works and contact numbers for concerns/complaints. • Provide free access to households and businesses/shops along ROWs during the construction phase.

C. Anticipated Construction Impacts and Mitigation Measures

62. **Construction Schedule and Method:** As per preliminary design, construction activities will cover 24 months. The exact implementation schedule will be updated during detailed design phase and will be reflected in this IEE.

63. The infrastructures will be constructed manually according to design specifications. Excavations and trenches, if required, will be dug by small backhoe diggers supplemented by manual digging where necessary. Excavated soil will be placed nearby. Excavated materials will be reused to the maximum extent possible. Materials will be brought to site by trucks and will be stored on unused areas within sites and nearby vacant areas. Any excavated road will be reinstated.

64. The work will be mainly done in day time only and the working hours will be 8 hours daily, the total duration of each stage depends on the soil condition and other local features.

65. Though night works are not permitted, considering as especial zone due to limited space in Brajeshwari temple pathway &existing commercial areas with excessive pilgrims as well as high day-time traffic, night works shall be allowed only for pathway &drainage improvement works. The permissible limits of noise i. e. 40 dB(A) for religious places during night shall be adhered by manual working and arrangements of ready construction material. The provision of safety and light shall be ensured by the contractor. Night work management plan is attached as **Annexure-5.** Methodology of manual working of pathway and drainage improvement works adopted shall be as below;

- Permission shall be taken from local authorities prior to start of night works.
- Night hours working schedule will be submitted by the Contractor and will be duly approved by PIU.
- Skilled labour's shall be trained in PPEs and safety measures prior to start of night works.
- All arrangement of lighting, material, safety etc. as per night work management plan shall be done prior to start of night works.
- Only manual working like earth work, stone masonry, cement concreting with ready mix material, paving etc shall be permitted. The concrete will be brought to the project site as RMC and no vibrations are required since concreting will be done in drains and pavements.
- For ready mix machinery will be installed away from the temple premises and residential areas with due permission from the District Administration.
- The material brought at the site will be consumed on the very same day and no

residual will be left at site for day hour.

66. Although construction of these project components involves quite simple techniques of civil work, the invasive nature of excavation and the subproject sites in built-up areas where there are a variety of human activities, will result to impacts to the environment and sensitive receptors such as residents, businesses, and the community in general. These anticipated impacts are short-term, site-specific and within relatively small areas.

67. **Erosion Hazards:** The sites is having uneven terrain therefore risk of erosion is very high but limited during construction activities and expected to have negative impact on the drainage and hydrology of the area. Run off will produce a highly variable discharge in terms of volume and quality. Therefore the contractor will be required to:

- Save topsoil removed during excavation and use to reclaim disturbed areas, as soon as it is possible to do so.
- Use dust abatement such as water spraying to minimize windblown erosion.
- Provide temporary stabilization of disturbed/excavated areas that are not actively under construction.
- Apply erosion controls (e.g., silt traps) along the drainage leading to the water bodies.
- Maintain vegetative cover within unused land to prevent erosion and periodically monitor the area to assess erosion.
- Clean and maintain catch basins, drainage ditches, and culverts regularly.
- Conduct routine site inspections to assess the effectiveness of and the maintenance requirements for erosion and sediment control systems.

68. **Impacts on Water Quality:** Excavated materials may end up in drainages and water bodies adjacent to the subproject sites, particularly during monsoon season. Other risks of water pollution may be caused by: (i) poorly managed construction sediments, wastes and hazardous substances; and (ii) poor sanitation practices of construction workers. The contractor will be required to:

- Schedule civil works during non-monsoon season, to the maximum extent possible.
- Ensure drainages and water bodies within the construction zones are kept free of obstructions.
- Keep loose soil material and stockpiles out of drains, flow-lines and watercourses.
- 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 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.
- Develop a spill prevention and containment plan, educate workers about the plan, and have the necessary materials on site prior to and during construction.

- Refuel equipment within the designated refuelling containment area away from drainages, ***nallahs***, or any water body.
- Inspect all vehicles daily for fluid leaks before leaving the vehicle staging area, and repair any leaks before the vehicle resumes operation.

69. **Impacts on Air Quality:** There is potential for increased dust particularly during summer/dry season due to stockpiling of excavated materials. Emissions from vehicles transporting workers, construction materials and debris/materials to be disposed may cause increased in air pollutants within the construction zone, including construction camps. 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.
- Conduct regular visual inspection along alignments and construction zones to ensure no excessive dust emissions.
- Spreading crushed gravel over backfilled surfaces if re-surfacing of disturbed areas cannot be done immediately.
- Maintain construction vehicles and obtain "pollution under control" certificate from HPSPCB.
- Obtain CFE and CFO for hot mix plants, crushers, diesel generators, etc., if to be used in the project.

70. **Noise and Vibration Impacts:** Noise and vibration-emitting construction activities include earthworks, rock crushing, concrete mixing, movement and operation of construction vehicles and equipment, and loading and unloading of coarse aggregates. The significance of noise and vibration impacts will be high in areas where noise-sensitive institutions such as health care and educational facilities are situated. These impacts will be temporary, short-term, intermittent, and expected to be in the range of 80 to 100 dB(A) as per **Table 3**(typical noise levels of principal construction equipment).

Table 3: Typical Noise Levels of Principal Construction Equipment

CLEARING		STRUCTURE CONSTRUCTION	
Bulldozer	80	Crane	75-77
Front end loader	72-84	Welding generator	71-82
Jack hammer	81-98	Concrete mixer	74-88
Crane with ball	75-87	Concrete pump	81-84
		Concrete vibrator	76
EXCAVATION & EARTH MOVING		Air compressor	74-87
Bulldozer	80	Pneumatic tools	81-98
Backhoe	72-93	Bulldozer	80
Front end loader	72-84	Cement and dump trucks	83-94
Dump truck	83-94	Front end loader	72-84
Jack hammer	81-98	Dump truck	83-94
Scraper	80-93	Paver	86-88

CLEARING		STRUCTURE CONSTRUCTION	
GRADING AND COMPACTING		LANDSCAPING AND CLEAN-UP	
Grader	80-93	Bulldozer	80
Roller	73-75	Backhoe	72-93
		Truck	83-94
PAVING		Front end loader	72-84
Paver	86-88	Dump truck	83-94
Truck	83-94	Paver	86-88
Tamper	74-77	Dump truck	83-94

Source: U.S. Environmental Protection Agency. Noise from Construction Equipment and Operations .Building Equipment and Home Appliances.NJID. 300.1. December 31. 1971

71. The contractor will be required to:

- Plan construction activities in temple complexes and other important sites to day time only except for pathway & drainage work in temple. Night work management Plan is attached as **Annexure-5.**
  - 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.
  - Avoid loud random noise from sirens, air compression, etc.
  - 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 one or more of the following noise mitigation measures, as directed by the project manager:
    - 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 zone.[2]
    - Ensure vehicles comply with Government of India noise limits for vehicles. The test method to be followed shall be IS:3028-1998.

72. **Impacts on Flora and Fauna:** As per preliminary design, tree-cutting is not required. This will be reassessed during detailed design phase. There are no protected areas in the direct and indirect impact zones and no diverse ecological biodiversity as vegetation and

[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 HPSPCB. Mixed categories of areas may be declared as one of the above mentioned categories by HPSPCB.

animals found in the construction zones are common in built up/urban areas. The contractor will be required to:

- Conduct site induction and environmental awareness.
- Limit activities within the work area.
- Replant trees in the area using minimum ratio of 2 new trees for every 1 tree cut, if any. Replacement species must be approved by District Forest Department.

73. **Impacts on Physical Cultural Resources:** There may be inconvenience to tourists, residents, businesses, and other road users due to construction activities in the proposed area. This potential 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 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.
- 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.

74. **Impact due to Waste Generation:** Construction activities will produce excess excavated soils, excess construction materials, and solid wastes (such as removed concrete, wood, trees and plants, 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 Local Municipal Authority for beneficial uses of excavated soils/silts/sediments or immediately dispose to designated areas.
- Recover used oil and lubricants and reuse; or remove from the sites.
- Avoid stockpiling and remove immediately all excavated soils, excess construction materials, and solid waste (removed concrete, wood, trees and plants, 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.

75. **Impacts on Occupational Health and Safety:** Workers need to be mindful of occupational hazards which can arise from construction works. Exposure to work-related chemical, physical, biological and social hazard is typically intermittent and of short duration, but is likely to reoccur. Potential impacts are negative and long-term but reversible by mitigation measures. Overall, the contractor should comply with IFC EHS Guidelines on Occupational Health and Safety (this can be downloaded from http://www1.ifc.org/wps/wcm/connect/9aef2880488559a983acd36a6515bb18/2%2BOccupational%2BHealth%2Band%2BSafety.pdf?MOD=AJPERES). 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 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 as: (i) type of hazards during excavation works; (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 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 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.
- 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.

76. **Impacts on Socio-Economic Activities:** Manpower will be required during the 24 months construction phase. This can help generate contractual employment and increase in local revenue. Thus potential impact is positive and long-term. As per preliminary design, land acquisition and closure of roads are not required; therefore no negative impact is

expected. However, the contractor will need to adopt the following mitigation measures:

- Leave space for access between mounds of soil.
- Provide walkways and metal sheets where required to maintain access to shops/businesses along trenches.
- Consult businesses and institutions regarding operating hours and factoring this in to work schedules.
- 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 labor force, or to the maximum extent, local persons within the 2-km immediate area if manpower is available.

77. **Summary of Mitigation Measures during Construction: Table 4** provides summary of mitigation measures to be considered by the contractor during construction phase. The detailed mitigation measures, environmental monitoring and reporting requirements, emergency response procedures, related implementation arrangements, capacity development and training measures, implementation schedule, cost estimates, and performance indicators are provided in the EMP

Table 4: Summary of Mitigation Measures during Construction Phase

Potential Impact	Mitigation Measures
Erosion hazards	• Save topsoil removed during excavation and use to reclaim disturbed areas, as soon as it is possible to do so. • Use dust abatement such as water spraying to minimize windblown erosion. • Provide temporary stabilization of disturbed/excavated areas that are not actively under construction. • Apply erosion controls (e.g., silt traps) along the drainage leading to the water bodies. • Maintain vegetative cover within road ROWs to prevent erosion and periodically monitor ROWs to assess erosion. • Clean and maintain catch basins, drainage ditches, and culverts regularly. • Conduct routine site inspections to assess the effectiveness of and the maintenance requirements for erosion and sediment control systems.
Impacts on water quality	• Schedule civil works during non-monsoon season, to the maximum extent possible. • Ensure drainages and water bodies within the construction zones are kept free of obstructions. • Keep loose soil material and stockpiles out of drains, flow-lines and watercourses. • 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 any residuals at identified disposal site (PIU/DSC will identify approved sites). • Dispose waste oil and lubricants generated as per provisions of

Potential Impact	Mitigation Measures
	Hazardous Waste (Management and Handling) Rules, 1989. • Develop a spill prevention and containment plan, educate workers about the plan, and have the necessary materials on site prior to and during construction. • Refuel equipment within the designated refuelling containment area away from drainages, nallahs, or any water body. • Inspect all vehicles daily for fluid leaks before leaving the vehicle staging area, and repair any leaks before the vehicle resumes operation.
Impacts on air quality	• Conduct regular water spraying on earth piles, trenches and sand piles. • Conduct regular visual inspection along alignments and construction zones to ensure no excessive dust emissions. • Spreading crushed gravel over backfilled surfaces if re-surfacing of disturbed ROWs cannot be done immediately. • Maintain construction vehicles and obtain "pollution under control" certificate from HPSPCB. • Obtain CFE and CFO for hot mix plants, crushers, diesel generators, etc., if to be used in the project.
Noise and vibrations impacts	• Plan construction activities in temple complexes and other important sites to day time only except for pathway and drainage work in Brajeshwari temple as per Night works management plan (refer Annexure-5). • 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. • Avoid loud random noise from sirens, air compression, etc. • 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 one or more of the following noise mitigation measures, as directed by the project manager: (i) locate stationary construction equipment as far from nearby noise-sensitive properties as possible; (ii) shut off idling equipment; (iii) reschedule construction operations to avoid periods of noise annoyance identified in the complaint; and/or (iv) 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 zone.[3] • Ensure vehicles comply with Government of India noise limits for vehicles. The test method to be followed shall be IS:3028-1998.
Impacts on flora and fauna	• Conduct site induction and environmental awareness. • Limit activities within the work area. • Replant trees in the area using minimum ratio of 2 new trees for every 1

[3] 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 HPPCB. Mixed categories of areas may be declared as one of the above mentioned categories by HPPCB.

Potential Impact	Mitigation Measures
	tree cut, if any. Replacement species must be approved by District Forest Department.
Impacts on physical resources	• Ensure no damage to structures/properties near construction zone. • 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 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.
Impacts on waste generation	• 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 Town Municipal Authority for beneficial uses of excavated soils/silts/sediments or immediately dispose to designated areas. • Recover used oil and lubricants and reuse; or remove from the sites. • Avoid stockpiling and remove immediately all excavated soils, excess construction materials, and solid waste (removed concrete, wood, trees and plants, 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.
Impacts on occupational health and safety	• 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. • 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 as: (i) type of hazards during excavation works; (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 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 qualified first-aid can be provided at all times. Equipped first-

Potential Impact	Mitigation Measures
	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 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.
Impacts on socio-economic activities	• Leave space for access between mounds of soil. • 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 labor force, or to the maximum extent, local persons within the 2-km immediate area if manpower is available. • "Mobility Plan" has to be chalked out in consultation with the District Administration prior to start of work.

78. The construction related impacts due to proposed subproject components are generic to construction activities, and are typical of small-scale construction projects. The potential impacts that are associated with construction activities can be mitigated to standard levels without difficulty through incorporation or application of the recommended mitigation measures and procedures.

D. Post-Construction Impacts and Mitigation Measures

79. 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.
- Stabilize all areas of disturbed vegetation using weed-free native shrubs, grasses, and trees.
- Restore access roads, staging areas, and temporary work areas.
- Restore roadside vegetation.
- 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

80. 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 –Kangra Municipality to put in place solid waste management programs.

V. INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION

A. ADBD is closure Policy

81. 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 project was prepared based on opinions of all those consulted, especially at the micro level, by setting up dialogues with the local people and fishermen from whom information on site facts and prevailing conditions were collected.

82. 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 work with the key stakeholders particularly with wild life authorities and NGOs, and secondly to discuss mitigating measures and get concurrence of stakeholders.

B. Process for Consultation followed

Process for Consultation followed

83. During project preparation (June to September, 2014), consultations have been held with the HP Department of Tourism, tourists and local administration, Municipal Council Municipality of Kangra, local community representatives, tourism officers, and tourist guides/photographers 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. During details design phase more consultations with stakeholders were done. Records of the consultations are provided in **Annexure-6**.

C. Plan for continued public participation

84. To ensure continued public participation, stakeholder engagement at main stages of work 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, Shimla 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 Himachal Tourism website.

85. The 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 semi-annual environmental monitoring reports.

86. For the benefit of the community, relevant information in the IEE (Executive Summary) will be translated in Hindi and made available at: (i) Office of the PMU; and, (ii) Office of the District Commissioner, Kangra District. These copies will be made available free of cost to any person seeking information on the same. Hard copies of the IEE will be available in the PMU/PIU, 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 Tourism Department and the website of ADB after approval of the documents by Government and ADB.

VII. GRIEVANCE REDRESS MECHANISM

87. The affected person/aggrieved party can give their grievance verbally or in written to the 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.

88. 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

89. **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 Himachal Pradesh, 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.

90. **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, 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.

91. **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).

92. The Committee details are attached as **Annexure 7.**

B. Approach to GRC.

93. 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–8.**
- Telecom based: The Project Manager office no. is displayed at various construction sites so that general public can register their complaint through telephone / mobile phone to the PIU office.

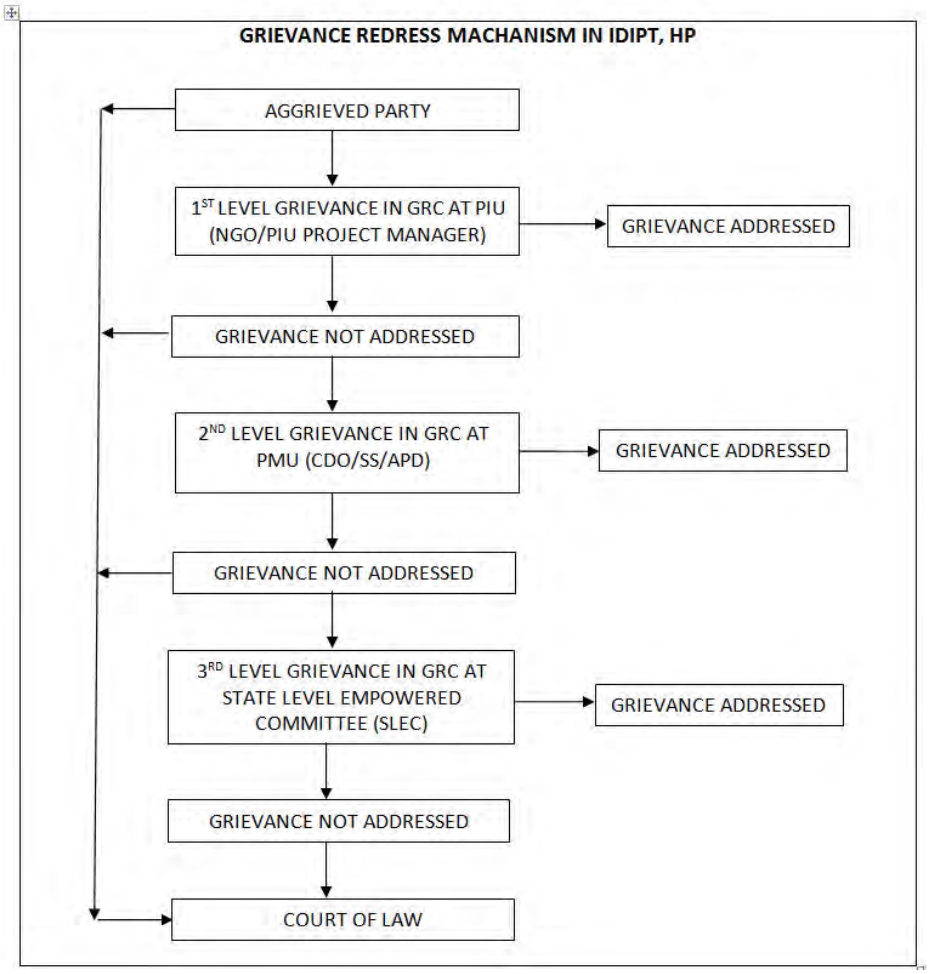


Figure 3: Grievance Redress Mechanism in IDIPT, Himachal Pradesh

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)

VIII.ENVIRONMENTALMANAGEMENTPLAN

94. 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 (Table 5).

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

96. 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

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

- Department of Tourist and Civil Aviation, Government of H.P. is the Executing Agency (EA) responsible for overall management, coordination, and execution of all activities funded under the loan. Project Implementing Unit (PIU) is the Implementing Agency (IA) responsible for coordinating procurement and construction of 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) already established in Kangra 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 Kangra and DSC. The environmental related mitigation measures will also be implemented by the contractor.

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

Box 1: Terms of Reference of Safeguards Specialist – PMU
• 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 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

Box 1: Terms of Reference of Safeguards Specialist – PMU

- 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

- Review the IEE document and ensure 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 Advice the PMU and Consultants team in-

- 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
- Management plan and mitigation measures
- Oversight of implementation of environmental standards and safeguards as part of project implementation

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

99. **Responsibility for updating IEE during detailed design.** DSC will update this IEE if and when required and submit to PMU for final review before submission to ADB. PMC will assist PMU and coordinate with DSC.

100. **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 Temple Trusts& Govt. of H.P.

101. **Responsibility for reporting.** The PMU, PIU, PMC and DSC will be responsible for environmental monitoring. PIU in coordination with DSC will submit monthly monitoring report to PMU on the basis PMU will submit to ADB semi-annual reports on implementation of the EMP and ADB may conduct field environmental review missions which will review in detail the environmental aspects of the project. ADB will post the environmental monitoring reports on its website. Any major accidents having serious environmental consequences will be reported immediately. PMC environmental expert will help in preparing quarterly and semi-annual reports including environmental closure report. The sample field monitoring report and semi-annual environmental monitoring report templates are attached as **Annexure-9&10** respectively.

B. EMP Tables

102. **Table 4 to 6** shows the potential adverse environmental impacts, proposed mitigation measures, responsible parties, and cost of implementation. This EMP will be included in the bid documents and will be further reviewed and updated during implementation.

Table 4: Pre-Construction EMP Table

Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds to Implement Mitigation Measures
Consents, permits, clearances, no objection certificate (NOC), etc.	• Obtain all necessary consents, permits, clearance, NOCs, etc. prior to start of civil works.	Consents, permits, clearance, NOCs, etc.	PMU	EA to report to ADB in environmental monitoring report (EMR)	check CFEs, permits, clearance, prior to start of civil works	PMU
	• Acknowledge in writing and provide report on compliance of all obtained consents, permits, clearance, NOCs, etc.	Records and communications	PMU	EA to report to ADB in EMR	Acknowledge upon receipt Send report as specified in CFE, permits, etc.	PMU
	• Include in detailed design drawings and documents all conditions and provisions if necessary	Detailed design documents and drawings	Contractor	PMU and PMC PIU and DSC	Upon submission by contractor	PMU
Establishment of baseline environmental conditions prior to start of civil works	• Conduct documentation of location of components, areas for construction zone (camps, staging, storage, stockpiling, etc.) and surroundings (within direct impact zones). Include photos and GPS coordinates • Prior to start of civil works ambient air quality, ambient noise level, water quality will	Records	PMU	PIU and DSC	Baseline data will be generated prior to start of civil work.	PMU

Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds to Implement Mitigation Measures
	be generated (once at five sites except monsoon period).					
Erosion control	• Develop an erosion control and re-vegetation plan to minimize soil loss and reduce sedimentation to protect water quality. • Minimize the potential for erosion by balancing cuts and fills to the extent feasible. • Identify and avoid areas with unstable slopes and local factors that can cause slope instability (groundwater conditions, precipitation, seismic activity, slope angles, and geologic structure). • Minimize the amount of land disturbed as much as possible. Use existing roads, disturbed areas, and borrow pits and quarries when possible. Minimize vegetation removal. Stage construction to limit the exposed area at any one	Erosion control and re-vegetation plan covering construction phase	Contractor	PIU and DSC	Included in updated IEE report	Contractor

Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds to Implement Mitigation Measures
	time. Minimize the amount of land disturbed as much as possible. Use existing roads, disturbed areas, and borrow pits and quarries when possible. Minimize vegetation removal. Stage construction to limit the exposed area at any one time.					
Utilities	• 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 list of affected utilities and operators; • If relocations are necessary, contractor will coordinate with the providers to	List and maps showing utilities to be shifted Contingency plan for services disruption	- DSC to prepare preliminary list and maps of utilities to be shifted - During detailed design phase, contractor to (i) prepare list and operators of utilities to be shifted; (ii) contingency plan	PIU and DSC	Included in updated IEE report	DSC – preliminary design stage Contractor – detailed design stage

Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds to Implement Mitigation Measures
	relocate the utility.					
Social and Cultural Resources	• Consult Archaeological Survey of India (ASI) or HP State Archaeology Department to obtain an expert assessment of the archaeological potential of the site. • Consider alternatives if the site is found to be of medium or high risk. • Include state and local archaeological, cultural and historical authorities, and interest groups in consultation forums as project stakeholders so that their expertise can be made available. • Develop a protocol for use by the construction contractors in conducting any excavation work, to ensure that any chance finds are recognized and measures are taken to ensure they are protected and conserved.	Chance find protocol	- PMC to consult ASI or HP State Archaeology Department - PMC to develop protocol for chance finds	PMU	Included in updated IEE report	PMU

Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds to Implement Mitigation Measures
Sites for construction work camps, areas for stockpile, storage and disposal	• 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, shortages of amenities, and crime). • Disposal will not be allowed near sensitive areas which will inconvenience the community. • The construction camp, storage of fuel and lubricants should be avoided at the river bank. The construction camp site for intake well should be finalized in consultation with DSC and PIU.	List of pre-approved sites for construction work camps, areas for stockpile, storage and disposal Waste management plan	- DSC to prepare list of potential sites DSC to inspect sites proposed by contractor if not included in pre-approved sites	PIU/DSC	Monthly	DSC
Sources of construction materials	• Use quarry sites and sources permitted by government.	Permits issued to quarries/sources of materials	Contractor PMC and DSC to verify	PMU/PIU	Upon submission by contractor,	PMC and DSC

Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds to Implement Mitigation Measures
	• 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 documentation of sources of materials.		sources (including permits) if additional is requested by contractor		monthly	
Access	• 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. • Coordinate with the Traffic Police Department for temporary road diversions	Traffic management plan	Contractor	PIU and DSC	Continuous during construction	Contractor

Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds to Implement Mitigation Measures
	and for provision of traffic aids if transportation activities cannot be avoided during peak hours. • Notify affected sensitive receptors by providing sign boards with information about the nature and duration of construction works and contact numbers for concerns/complaints. • Provide free access to households along the alignments of raw and clear water transmission routes during the construction phase.					
Occupational health and safety	• 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	Health and safety (H&S) plan	Contractor	PIU and DSC	Continuous during construction	Contractor

Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds to Implement Mitigation Measures
	reduce, fatalities, injuries and illnesses for workers performing activities and tasks associated with the project. • Include in H&S plan measures such as: (i) type of hazards in the intake wells 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	PMC and DSC	PMU and PMC	- During updating of IEE Report - During preparation of site- and activity-specific plans as per EMP	PMU/PMC/DSC

Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds to Implement Mitigation Measures
					- Prior to start of construction - During construction	

Table5: 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
Erosion hazards	• Save topsoil removed during excavation and use to reclaim disturbed areas, as soon as it is possible to do so. • Use dust abatement such as water spraying to minimize windblown erosion. • Provide temporary stabilization of disturbed/excavated areas that are not actively under construction. • Apply erosion controls (e.g., silt traps) along the drainage leading to the water bodies. • Maintain vegetative cover within road ROWs to prevent erosion and periodically monitor ROWs to assess erosion. • Clean and maintain catch basins, drainage ditches, and	Erosion control and re-vegetation plan	Contractor	PIU and DSC PIU to submit EMP monitoring report to PMU	- daily visual 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 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
	culverts regularly. • Conduct routine site inspections to assess the effectiveness of and the maintenance requirements for erosion and sediment control systems.					
Impacts on water quality	• During construction, surface water quality testing will be done at three sites (quarterly except monsoon period for 24 month at three sites)	pH, TDS, DO, BOD, Total coliform and Oil & Grease	PMU/ PMC	PMC/DSC	- Data will be generated during the construction phase.	PMU
	• Schedule construction activities during non-monsoon season, to the maximum extent possible.	Work schedule	Contractor	PIU and DSC PIU 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 inspection by PMU, PIU, PMC and/or DSC	
	• Ensure drainages and water bodies 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				
	• Re-use/utilize, to maximum extent possible, excavated materials.	Condition in waste management plan				

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	• Dispose any residuals at identified disposal site (PIU/DSC will identify approved sites).	Condition in waste management plan				
	• Dispose waste oil and lubricants generated as per provisions of Hazardous Waste (Management and Handling) Rules, 1989.	Condition in waste management plan				
	• Refuel equipment within the designated refueling containment area away from drainages, ***nallahs***, or water body.	Condition in list of pre-approved sites for construction work camps, areas for stockpile, storage and disposal				
	• Inspect all vehicles daily for fluid leaks before leaving the vehicle staging area, and repair any leaks before the vehicle resumes operation.	Vehicle inspection report				
Impacts on air quality	During construction ambient air quality testing will be done at five sites (quarterly except monsoon period for 24 month at five sites)	PM10, PM2.5, SO_2, NO_2,	PMU/ PMC	PMC/DSC	- Data will be generated during the construction phase.	PMU
	• Conduct regular water spraying on stockpiles.	- Visual inspection - No complaints from sensitive receptors - Records	Contractor	PIU and DSC	- daily inspection by contractor supervisor and/or environment specialist	Contractor

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	• Conduct regular visual inspection in the construction zones to ensure no excessive dust emissions.	Visual inspection			- 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	
	• Maintain construction vehicles and obtain "pollution under control" certificate from HPSPCB.	PUC certificates				
	• Obtain CFE and CFO for hot mix plants, crushers, diesel generators, etc., if to be used in the project.	CTE and CTO				
Noise and vibrations impacts	• During construction noise quality testing will be done at five sites (quarterly except monsoon period for 24 month at five sites)		PMU/ PMC	PMC/DSC	- Data will be generated during the construction phase.	PMU
	• Limit construction activities in temple complexes and other important areas to daytime only. • 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.	Work schedule	Contractor	PIU and DSC	- daily inspection by contractor supervisor and/or environment specialist - weekly visual inspection by DSC (more frequent during noise-generating activities and if corrective action is	Contractors

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	• Minimize noise from construction equipment by using vehicle silencers and fitting jackhammers with noise-reducing mufflers.	Report on ambient noise level monitoring within direct impact zones			required) - random inspection by PMU, PIU, PMC and/or DSC	
	• Avoid loud random noise from sirens, air compression, etc.	zero incidence				
	• Require drivers that horns not be used unless it is necessary to warn other road users or animals of the vehicle's approach.	Feedback from receptors within direct and direct impact zone				
	• If specific noise complaints are received during construction, the contractor may be required to implement one or more of 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 hospital, as possible. • Shut off idling equipment. • Reschedule construction operations to avoid periods of noise annoyance identified in the complaint.	- Complaints addressed satisfactory - GRM records				

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	• Notify nearby residents whenever extremely noisy work will be occurring.					
Night Works impacts	• Baseline data for noise shall be generated for night hours • Contractor will plan for night works only after directions from PMU/PIU/DSC at Brajeshwari temple for pathway & drainage improvement. • Contractor will submit plan for night works for approval from PIU. • PIU shall ensure that prior written information is given to local authorities such as district administration, Police/traffic police, Temple Trust and line agencies concerned, for their consents/permissions and shall be available prior to start of night works. • PIU/DSC engineers should check and ensure that all the preparation as per management plan is done by contractor and contractor is having all the necessary equipment's and materials for night works. • Minimizing night time of construction by increasing	-Work schedule -Prior permission from local authorities -Manual working and use of ready mix material -Noise level permissible limit	Contractor	PIU and DSC	- daily inspection by 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	Contractors

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	manpower. • Locate equipment farther from commercial area • Best to use ready material as much as possible, prefer manual working for night. • Installation of mufflers around noisy equipment , preference to quieter equipment or construction methods • Contractor is required to have following equipment's/arrangements for night works- - Contractors should have hand held noise level meter for measurement of noise during night hours and shall ensure to generate and record the noise levels on hourly basis throughout the construction period at night time. - Contractors should have hand held lux meter for the measurement of illumination during night hours - Preferably electrical connections is available for running equipments					

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	otherwise sound proof/super silent Diesel Generator set should be available - Sound level should not increase 40 dB(A) as per Norms - Proper Illumination throughout the work area should be arranged prior to start of work. - As far as possible ready mix concrete from batching plant to be used, otherwise the concrete should be prepared away from Temple areas and brought to the site - All the noise activity like hammering, cutting, crushing, running of heavy equipment's shall be done in day time and avoided in night time - Workers engaged in night works shall have adequate rest/sleep in day time before start of night works - Worker engaged for night works should have previous experience of night works					

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	and should be physically fit for such works including clear vision in night - All the necessary provisions of traffic aids such as traffic signals, road signage, barricades, cautions boards etc. should be available with fluorescent/ reflective arrangements - Workers should be trained before start of night works about risks and hazards of night works and their mitigation measures and should be provided all the protective aids (PPEs) including fluorescent/retro-reflective vests - Mandatory use by workers of personal protective equipment (PPE) such as ear plugs and earmuffs - Horns should not be permitted by equipment's and vehicles (Light shall be used) - Workers should not shout and create noise - First aid and emergency					

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	vehicles should be continuously available at site till work. - Emergency preparedness plan should be operative during night works - Old persons and pregnant women and women having small kids shall not be allowed to work in night time - All the vehicles and equipment's being used at night works should have adequate type of silencers/enclosures/mufflers to reduce noise - All the vehicles should be checked for working head lamps, tail lamps, inner lights etc. before start of night works - Drivers and workers should be alert and responsive during night works - All the wages to workers working in night hours should be as per the applicable labour acts - Avoid any nuisance which may create problems to					

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	nearby habitants and work peacefully during night hours • PIU/DSC site engineers and contractors safety personnel should closely monitor the safety of works continuously and noise and illumination levels on hourly basis and maintain photographic and video graphic records as well as register the observations • Night works should be stopped early in the morning at least one hour before start of pedestrian/traffic movement. • After completion of night works all the site should be cleaned and maintained obstruction free for day time movement of vehicles and pedestrians					
Impacts on flora and fauna	• Conduct site induction and environmental awareness.	Records	Contractor	PIU and DSC	- daily inspection by contractor supervisor and/or environment specialist - weekly visual inspection by DSC (more frequent if	Contractor
	• Limit activities within the work area.	Barricades along excavation works				
	• Replant trees in the area using minimum ratio of 2 new trees for	Number and species approved by District				

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	every 1 tree cut. Replacement species must be approved by District Forest Department.	Forest Department			corrective action is required) - random inspection by PMU, PIU, PMC and/or DSC	
Impacts on physical and cultural resources	• Ensure no damage to structures/properties adjacent to construction zone.	- Visual inspection - any impact should be addressed by project resettlement plan	Contractor In coordination with PIU and DSC for any structures within proposed site and construction zone	PIU and DSC	- 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
	• Provide sign boards to inform nature and duration of construction works and contact numbers for concerns/ complaints.	- no complaints received - photo-documentation				
	• Increase the work force near the school and other sensitive receptors.	- Records of workers deployment - Work schedule				
	• Implement good house keeping. Remove wastes immediately.	- Visual inspection - No stockpiled/ stored wastes				
	• Ensure workers will not use nearby/adjacent areas as toilet facility.	- No complaints received - Sanitation facilities for use of workers				
	• Coordinate with PIU/DSC for transportation routes and schedule. Schedule transport and hauling activities during non-peak hours. Communicate	- Approved routes in traffic management plan				

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	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.	Condition in chance find protocol				
Impact due to waste generation	• 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 disposal to designated areas. • Recover used oil and lubricants and reuse; or remove from the site. • Avoid stockpiling and remove	Condition in waste management plan	Contractor	PIU and DSC	- 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
	immediately all excavated soils, excess construction materials, and solid waste (removed concrete, wood, trees and plants, 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.					
Impacts on occupational health and safety	• Comply with IFC EHS Guidelines on Occupational Health and Safety	- Visual inspection - Records	Contractor	PIU and DSC	- 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
	• 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.	- Visual inspection - Work schedule - Noise level monitoring in work area				
	• 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	- Records - Condition in H&S plan				

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	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.	- Visible first aid equipment and medical supplies - Condition in H&S plan				
	• Provide medical insurance coverage for workers.	Records				
	• Secure construction zone from unauthorized intrusion and accident risks.	- Area secured - Trenches barricaded				
	• Provide supplies of potable drinking water.	- Supply of water				
	• Provide clean eating areas where workers are not exposed to hazardous or noxious substances.	- Workers area				
	• 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.	- Records - Condition in H&S plan				
	• Ensure the visibility of workers through their use of high visibility vests when working in	- Visual inspection - Condition in H&S plan				

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	or walking through heavy equipment operating areas.					
	• Ensure moving equipment is outfitted with audible back-up alarms.	- Construction vehicles - Condition in H&S plan				
	• 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.	- Visible and understandable sign boards in construction zone - H&S plan includes appropriate signs for each hazard present				
Impacts on socio-economic activities	• Provide sign boards for pedestrians to inform nature and duration of construction works and contact numbers for concerns/complaints.	Visible and understandable sign boards in construction zone	Contractor	PIU and DSC	- 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
	• Employ at least 50% of the labor force, or to the maximum extent, local persons within the 2-km immediate area if manpower is available.	Employment records				

Table 6: 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.)	• Backfill any excavation and trenches, preferably with excess excavation material generated during the construction phase.	Pre-existing condition Construction zone has been restored	Contractor within defect liability period	PIU and DSC PIU to submit EMP monitoring report to PMU	- visual inspection by contractor supervisor and/or environment specialist	Contractor
	• Use removed topsoil to reclaim disturbed areas.	-DO-	-DO-	-DO-	-DO-	-DO-
	• Re-establish the original grade and drainage pattern to the extent practicable.	-DO-	-DO-	-DO-	-DO-	-DO-
	• Stabilize all areas of disturbed vegetation using weed-free native shrubs, grasses, and trees.	-DO-	-DO-	-DO-	-DO-	-DO-
	• Restore access roads, staging areas, and temporary work areas.	-DO-	-DO-	-DO-	-DO-	-DO-
	• Restore roadside vegetation, if removed	-DO-	PIU/PMU*	-DO-	-DO-	PMU
	• Remove all tools, equipment,	-DO-	Contractor within defect liability period	-DO-	-DO-	Contactor

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	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.	Construction zone vegetation has been enhanced	PIU/PMU*	-DO-	-DO-	PMU
	• Request in writing from PIU/DSC that construction zones have been restored.	Certificate	PMU	PMC/PMU	-DO-	PMU
Environmental conditions	• Ambient air quality- During construction ambient air quality testing will be done at five sites (quarterly except monsoon period for 24 month at five sites)	PM10, PM2.5, SO_2, NO_2,	PMU			PMU
	• Water testing- During construction surface water quality testing will be done at three sites (quarterly except monsoon period for 24 month at three sites)	pH, TDS, DO, BOD, Total coliform and Oil & Grease	PMU			PMU
	• Noise testing- During construction noise quality testing will be done at five sites (quarterly except monsoon period for 24 month at five sites)		PMU			PMU

* The site will be handed over to the asset owner /Temple Trust& Govt. of H.P) after the restoration of the site and consent form asset owner will be taken to maintain the area with provisions of required solid waste management and aesthetic value

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

103. **Table 7** summarizes site and activity-specific plans to be prepared as per EMP tables.

Table7: 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	PMC/DSC	Contractor
Detailed Design Phase	Erosion control and re-vegetation plan	Mitigate impacts due to erosion	PMC/DSC	Contractor
Detailed Design Phase	List and maps showing utilities to be shifted	Utilities shifting	DSC during preliminary stage Contractor as per detailed design	Contractor
Detailed Design Phase	Contingency plan	Mitigate impacts due to interruption of services during utilities shifting	Contractor	Contractor
Detailed Design Phase	Chance find protocol	Address archaeological or historical finds	PMC/DSC	Contractor
Detailed Design Phase	List of pre-approved sites	Location/s for work camps, areas for stockpile, storage and disposal	PIU and DSC	Contractor
Detailed Design Phase	Waste management plan	Mitigate impacts due to waste generation	Contractor	Contractor
Detailed Design Phase	Traffic management plan	Mitigate impacts due to transport of materials and pipe laying works	Contractor	Contractor
Detailed Design Phase	H&S plan	Occupational health and safety	Contractor	Contractor
Detailed Design Phase	Spill prevention and containment plan	Mitigate impacts of accidental spills of oil, lubricants, fuels, concrete, and other hazardous materials	Contractor	Contractor

D. Environmental Monitoring Program

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

105. **Table 8** 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. Environmental monitoring for ambient air and noise will be done in all five locations i.e. Chamunda temple, Brajeshwari Temple, Chakrakund, Mata Ka Bagh & Nagrota Bagwan before construction, during implementation and post construction periods as per EMP. Water quality monitoring shall be done for Pond in Chamunda temple and in two ponds of Chakrakund near Brajeshwari Temple.

Table 8: Indicative Environmental Monitoring Program

Potential Impact	Parameter to be monitored	Proposed Locations	Method of Monitoring	Frequency of monitoring	Indicator of Compliance	Cost	Source of Funds
1. Detailed Design Phase							
Consents, permits, clearances, no objection certificate (NOC), etc.	- Consents, permits, clearance, NOCs, etc. - Records and communications - Detailed design documents and drawings	n/a	Visual inspection	check CFEs, permits, clearance, Acknowledge upon receipt Send report as specified in CFE, permits, etc.	Obtained prior to start of civil works Conditions of consents, permits, clearance, NOCs, etc incorporated in detailed design	already covered under PMU and PIU	PMU
Establishment of baseline environmental conditions prior to start of civil works and monitoring during-construction time	Ambient air quality – PM10, PM2.5, SO_2, NO_2,	Five locations proposed as under: 1. At Chamunda Temple 2.At Bajreshwari Temple 3. Nagrota Bagwan site 4. Near Chakrakund 5. Near Mata ka Bagh	Collection of air samples (continuously 24 hours)	1. Prior to start of civil works (once at five sites except monsoon period) 2. During construction (quarterly except monsoon period for 24 month at five sites) -First quarter during January to March) -Second quarter during April to June) -Third quarter during October to December) 3. During post construction (once at five sites except monsoon period)	1. Baseline data will be generated prior to start of civil work. 2. Data will be generated during the construction phase. 3. Data will be generated after the work is completed	7,800 per sample (total forty samples) Transportation charges Rs. 1,000 per sample	PMU

Potential Impact	Parameter to be monitored	Proposed Locations	Method of Monitoring	Frequency of monitoring	Indicator of Compliance	Cost	Source of Funds
	Noise levels – day time	Five locations proposed as under: 1. At Chamunda Temple 2.At Bajreshwari Temple 3. NagrotaBagwan site 4. Near Chakrakund 5. Near Mata ka Bagh	Use of noise meters (once)	1. Prior to start of civil works (once at five sites except monsoon period) 2. During construction (quarterly except monsoon period for 24 month at two sites) -First quarter during January to March) -Second quarter during April to June) -Third quarter during October to December) 3. During post construction (once at five sites except monsoon period)	1. Baseline data will be generated prior to start of civil work. 2. Data will be generated during the construction phase. 3. Data will be generated after the work is completed	4,000 per sample (total forty samples) Transportation charges Rs. 1,000 per sample	PMU
	Water Testing- pH, TDS, DO, BOD, Total coliform and Oil & Grease	Three locations proposed as under: 1. Pond water at Chamunda Temple 2. Two ponds water at Chakrakund	As per IS code	1. Prior to start of civil works (once at four sites except monsoon period) 2. During construction (quarterly except monsoon period for 24 month at two sites) -First quarter during January to March) -Second quarter	1. Baseline data will be generated prior to start of civil work. 2. Data will be generated during the construction phase	6,000 per sample (total twenty four samples) Transportation charges Rs. 1,000 per sample	PMU

Potential Impact	Parameter to be monitored	Proposed Locations	Method of Monitoring	Frequency of monitoring	Indicator of Compliance	Cost	Source of Funds
				during April to June) -Third quarter during October to December) 3. During post construction (once at four sites except monsoon period)	***3.***Data will be generated after the work is completed		
Erosion control	Erosion control and re-vegetation plan covering construction phase	n/a	Checking of erosion control and re-vegetation plan	Upon finalization of detailed design	included in updated IEE report The contractor will submit a plan before any excavation work will take place during construction phase.	already covered under PMU /PIU and Contractor	Contractor
Utilities	List and maps showing utilities to be shifted Contingency plan for services disruption	n/a	Checking of list and maps showing utilities to be shifted Checking of contingency plan for services disruption	Upon finalization of detailed design	included in updated IEE report Will be provided to contractor before start of civil work.	already covered under PMU/PIU /PMC/DSC and Contractor	PMU
Social and Cultural Resources	Chance find protocol	n/a	Checking of chance find protocol	Upon finalization of detailed design and during construction	included in updated IEE report Copy of the list will be provided to contractor, if any.	already covered under PMU/PIU and PMC/DSC	NA
Sites for construction work camps,	List of pre-approved sites for construction work camps, areas for	sites for construction work camps,	Visual inspection	Upon approval of site/s	included in updated IEE report The contractor will submit a plan		NA

Potential Impact	Parameter to be monitored	Proposed Locations	Method of Monitoring	Frequency of monitoring	Indicator of Compliance	Cost	Source of Funds
areas for stockpile, storage and disposal	stockpile, storage and disposal	areas for stockpile, storage and disposal			before the civil work starts.		
	Waste management plan	n/a	Checking of waste management plan	Upon finalization of detailed design	included in updated IEE report The contractor will submit a plan before the civil work stars.	already covered under PMU/PIU and PMC/DSC	NA
Sources of construction materials	Permits issued to quarries/sources of materials	n/a	Checking of permits	Upon submission by contractor	contractor's submission	already covered under PMU/PIU and PMC/DSC	NA
Access	Traffic management plan	n/a	Checking of traffic management plan as per detailed design (alignment, routes, etc)	Prior to start of civil works	contractor's submission	contractor's cost	Contractor
Occupational health and safety	Health and safety (H&S) plan	n/a	Checking of H&S plan	Prior to start of civil works	contractor's submission	contractor's cost	Contractor
Public consultations	- Disclosure records - Consultations	- locations of affected persons - locations of stakeholders	Documentation of (minutes of consultations, date/s, location/s, issue/s raised, photographs, etc.)	- During updating of IEE Report - During preparation of site- and activity-specific plans as per EMP - Prior to start of construction - During construction	included in updated IEE	already covered under PMU/PIU and PMC/DSC	NA
2. Construction Phase							

Potential Impact	Parameter to be monitored	Proposed Locations	Method of Monitoring	Frequency of monitoring	Indicator of Compliance	Cost	Source of Funds
Erosion hazards	Erosion control and re-vegetation plan	- Construction zone - storage areas	Visual inspection	- daily visual 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 inspection by PMU, PIU, PMC and/or DSC	- no erosion - erosion control in place - measures in erosion control and re-vegetation plan implemented	Contractor's cost	Contractor
Impacts on water quality	- Any construction related materials - visible seepage of paints, oils, silts, etc. from storage areas - complaints related to water quality	Adjacent bodies of water including drainages, canals/nallahs, etc.	Visual inspection	- daily visual 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 inspection by PMU, PIU, PMC and/or DSC	- no visible change in pre-construction quality of adjacent bodies of water including drainages, canals/nallahs, etc. - no disposal and/or seepage to adjacent bodies of water including drainages, canals/nallahs, etc.	Contractor's cost	Contractor
Impacts on air quality	- water spraying on stockpiles - excessive dust emissions	- Construction zone - Sensitive receptors	Visual inspection	- daily visual inspection by contractor supervisor and/or environment	- no excessive dust emissions - no complaints from sensitive receptors - Valid pollution under control	Contractor's cost	Contractor

Potential Impact	Parameter to be monitored	Proposed Locations	Method of Monitoring	Frequency of monitoring	Indicator of Compliance	Cost	Source of Funds
	- vehicles "pollution under control" certificate from Himachal Pradesh SPCB - CFE and CFO for hot mix plants, crushers, diesel generators, etc., if to be used in the project - complaints related to air quality	site/s		specialist - weekly visual inspection by DSC (more frequent during summer season and if corrective action is required) - random inspection by PMU, PIU, PMC and/or DSC	certificate/s. CFE, and/or CFO		
Noise and vibrations impacts	- work schedule (limit to day time only in temple complexes and other important areas) - activities with the greatest potential to generate noise (conducted during periods of the day which will result in least disturbance) - vehicle silencers and noise-reducing mufflers - complaints related to noise and vibrations	- Construction zone - Sensitive receptors site/s - silence zone/s	Visual inspection	- daily visual inspection by contractor supervisor and/or environment specialist - weekly visual inspection by DSC (more frequent during machine operation and if corrective action is required) - random inspection by PMU, PIU, PMC and/or DSC	- no complaints from sensitive receptors	Contractor's cost	Contractor
Impacts on flora and fauna	- site induction and environmental awareness - number of trees cut - number of trees	- construction zone - sites approved by Forest	Visual inspection	- daily visual inspection by contractor supervisor and/or environment specialist	- all contractor's employees have undertaken site induction and environmental awareness prior to mobilization - approved trees to be cut	Contractor's cost	Contractor

Potential Impact	Parameter to be monitored	Proposed Locations	Method of Monitoring	Frequency of monitoring	Indicator of Compliance	Cost	Source of Funds
	replanted - survival rate of trees planted	Department for replanting, if any		- weekly visual inspection by DSC (more frequent during monsoon season and if corrective action is required) - random inspection by PMU, PIU, PMC and/or DSC	- approved tree species for replantation		
Impacts on physical and cultural resources	- damage to structures/properties adjacent to construction zone - sign boards to inform nature and duration of construction works and contact numbers for concerns/complaints - number of workforce near the school/s and other sensitive receptor/s - housekeeping practices, wastes around construction zones - toilet facilities for workers - transportation routes and schedule - chance find procedure	- construction zone	Visual monitoring	- daily visual 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 inspection by PMU, PIU, PMC and/or DSC	- no damage to structures/properties adjacent to construction zone - sign boards understandable by local people - sufficient number of workforce near the school/s and other sensitive receptor/s - wastes managed according to waste management plan - clean and usable toilet facilities for workers - transportation routes and schedule followed - no complaints from sensitive receptors - chance find procedures followed, as necessary	Contractor's cost	Contractor

Potential Impact	Parameter to be monitored	Proposed Locations	Method of Monitoring	Frequency of monitoring	Indicator of Compliance	Cost	Source of Funds
Impact due to waste generation	- provisions of the waste management plan - quantity of excavated soils - quantity of used oil and lubricants - excess construction materials, and solid waste (removed concrete, wood, trees and plants, packaging materials, empty containers, oils, lubricants, and other similar items)	- construction zone	Visual monitoring	- daily visual 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 inspection by PMU, PIU, PMC and/or DSC	- wastes managed according to waste management plan - no complaints from sensitive receptors	Contractor's cost	Contractor
Impacts on occupational health and safety	- IFC EHS Guidelines on Occupational Health and Safety - noise level and duration of exposure - PPEs, high visibility vests, hearing protection, etc. - conduct of H&S orientation training - qualified first aider and equipped first aid stations - medical insurance coverage for workers - security in	- construction zone	- visual monitoring - checking of records	- daily visual 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 inspection by PMU, PIU, PMC and/or DSC	- conditions in H&S plan - all workers oriented on H&S plan - use of PPEs, etc at all times - max of 80 dB(A) and 8 hours exposure - visible first aid equipment and medical supplies - areas secured - trenches barricaded - adequate potable drinking water - clean eating areas away from hazardous or noxious substances - visible and understandable sign boards in construction zone	Contractor's cost	Contractor

Potential Impact	Parameter to be monitored	Proposed Locations	Method of Monitoring	Frequency of monitoring	Indicator of Compliance	Cost	Source of Funds
	construction zone - potable drinking water supply - clean eating areas - conduct of visitor orientation - audible back-up alarms for vehicles - sign boards in the construction zone - site accident records						
Impacts on socio-economic activities	- % of locals in labor force - complaints/ grievances	- construction zone	checking of records	- random inspection by PMU, PIU, PMC and/or DSC - during complaints/ grievance redressal	- least 50% of the labor force, or to the maximum extent, local persons within the 2-km immediate area if manpower is available - complaints/ grievance addressed as per GRM.	Contractor's cost	Contractor
3. Post-construction Phase							
Solid waste (debris, excavated soils, etc.)	- disturbed areas	- construction zone	visual inspection	upon completion of civil works prior to turn over to asset owner	- backfilled any excavation and trenches - reclaimed disturbed areas. - Re-established original grade and drainage pattern to the extent practicable. - stabilized all areas of disturbed vegetation using weed-free native shrubs, grasses, and trees - restored access roads, staging areas, and temporary work areas.	Contractor's cost	Contractor

Potential Impact	Parameter to be monitored	Proposed Locations	Method of Monitoring	Frequency of monitoring	Indicator of Compliance	Cost	Source of Funds
					- restored roadside vegetation, if removed - removed all tools, equipment, barricades, signs, surplus materials, debris, and rubbish. - demolished buildings/structures not required for O&M. - disposed in designated disposal sites. - success of re-vegetation and tree re-planting. Replaced all plants determined to be in an unhealthy condition. - documentation from PIU/DSC that construction zones have been restored.	PMU cost	PMU

E. Capacity Building

104. 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 will 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 9**below. This training program is intended for the entire destination and is not just specific to this package.

Table9: Training Modules for Environmental Management (Common for Entire Project)

Program	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 Govt. 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	Environmental Specialist of the PMC and DSC
B. Construction Stage					
Module 1	Roles and Responsibilities of officials / contractors / consultants towards protection of environment Implementation Arrangements	Engineers and staff of line depts. of GoHP, and PMU/PIU (including the ES)	Lecture / Interactive Sessions	½ Working Day	Safeguards Specialist of the PMC and DSC
Module 2	Monitoring and Reporting System	Engineers and staff of implementing agencies and PMU/ PIU (including ES)	Lecture / Interactive Sessions	½ Working Day	Safeguards Specialist of the PMC and DSC

F. EMP Implementation Cost

2. 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.

3. This is a small construction project and it is not expected to cause much significant air, water and noise pollution. The main EMP cost will arise from monitoring of environmental parameters (air, water and noise) and training. The costs of water sprinkling for dust suppression and providing personal protective equipment's to construction workers shall borne by 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 10** below:

Table10: Indicative EMP Budget

S.N.	Particulars	Stages	Unit	Total number	Rate (INR)	Cost (INR)	Source of fund
A. Monitoring Measures							
1.	Air quality monitoring- 24 hourly (PM10, PM2.5, SO2, NO2,) (Five Locations)	1. Prior to start of civil works (once at four sites except monsoon period) 2. During construction (quarterly except monsoon period for 24 month at two sites) -First quarter during January to March) -Second quarter during April to June) -Third quarter during October to December) 3. During post construction (once at four sites except monsoon period)	Per sample	40	7,800	3,12,000	PMU
	Transportation & sampling cost			40	1,000	40,000	
2.	Noise Levels - Day time by noise meter (Five Locations)		Per sample	40	4,000	1,60,000	
	Transportation & sampling cost			40	1000	40,000	
3.	Water Tests- pH, TDS, DO, BOD, Total coliform and Oil & Grease-IS code (Three Locations)		Per sample	24	6,000	1,44,000	
	Transportation & sampling cost			24	1000	24,000	
Sub- Total (A)						**7,20,000**	
B. Capacity Building – Training cost							
1	Sensitization Workshop	Pre-Construction	L.S			1,50,000	PMU
2	Training Session I	Construction	L.S			1,50,000	
3	Training Session II	Construction	L.S			1,50,000	

S.N.	Particulars	Stages	Unit	Total number	Rate (INR)	Cost (INR)	Source of fund
Sub -Total (B)						**4,50,000**	
Total (A+B) INR						**11,70,000**	

IX.FINDINGS AND RECOMMENDATIONS

4. 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.

5. The specific management measures laid down in the IEE will effectively address any adverse 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.

X. CONCLUSIONS

6. The IEE carried out for the sub-project show that the proposed sub-components will result in net environmental benefits, and that any adverse 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 for 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.

7. 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 special study or detailed environmental impact assessment (EIA) needs to be undertaken to comply with ADB SPS (2009).

Annexure-1

RAPID ENVIRONMENTAL ASSESSMENT (REA) CHECKLIST

Subproject: Restoration & Improvement of Chamunda Temple &Bajreshwari Temple Precinct and Creation of Cultural Centre for Traditional Arts & Crafts at Nagrota Bagwan, Kangra.

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

Sector Division: Urban Development.

Screening Questions	Yes	No	Remarks
A. Project Siting Is the project area			
▪ Densely populated?	✓		Chamunda Temple site is between scattered habitations. Bajreshwari Temple site is located in town centre and its vicinity which is the hub of business, education, entertainment and tourist activity . NagrotaBagwan is a town and a Municipal Council in Kangra district with populated habitation
▪ Heavy with development activities?		✓	Normal development activities observed.
▪ Adjacent to or within any environmentally sensitive areas?			
• Cultural heritage site		✓	Cultural heritage centres. Connected to other circuitous pilgrimage sites like Kangra & Jwalamukhi
• Protected Area		✓	No protected area.
• Wetland		✓	No wetland
• Mangrove		✓	No mangrove
• Estuarine		✓	Site is on a hilly area
• Buffer zone of protected area		✓	Not a buffer zone
• Special area for protecting biodiversity		✓	Not declared.
• Bay		✓	Site is on a hilly area.
B. Potential Environmental Impacts Will the Project cause…			
▪ impacts on the sustainability of associated sanitation and solid waste disposal systems and their interactions with other urban services.		✓	Temporary. Minor impact is anticipated during construction phase for which adequate measures envisaged in the proposals.

Screening Questions	Yes	No	Remarks
▪ Deterioration of surrounding environmental conditions due to rapid urban population growth, commercial and industrial activity, and increased waste generation to the point that both manmade and natural systems are overloaded and the capacities to manage these systems are overwhelmed?		✓	Minor impacts cannot be ruled out. However, adequate measures proposed and included in DPR for handling the issues.
▪ Degradation of land and ecosystems (e.g. loss of wetlands and wild lands, coastal zones, watersheds and forests)?		✓	Not a cultivation land, not a watershed area, and hence no such impacts (land/eco degradation) envisaged. Not a coastal zone or a forest area.
▪ Dislocation or involuntary resettlement of people?		✓	Not required as no land acquisition involved and all the project activities are restricted within the available land.
▪ Disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable group?		✓	No such impacts are anticipated. No such indigenous people exist in the area.
▪ Degradation of cultural property, and loss of cultural heritage and tourism revenues?		✓	On completion of the subproject the cultural heritage value will enhance and thereby influx of tourists will increase and tourism revenue will grow.
▪ Occupation of low-lying lands, floodplains and steep hillsides by squatters and low-income groups, and their exposure to increased health hazards and risks due to pollutive industries?		✓	No such cases noticed and moreover the project has no pollutive industrial activities. .
▪ Water resource problems (e.g. depletion/ degradation of available water supply, deterioration for surface and ground water quality, and pollution of receiving waters?	✓		Minor and negligible problems such as deterioration of surface water quality and pollution of nearby water course may emerge due to the construction activity for which proper measures are included in the proposals.
▪ Air pollution due to urban emissions?		✓	Though not directly, but during the construction phase anticipated if any, will be addressed properly by adopting suitable mitigation measures during implementation.
▪ Risks and vulnerabilities related to occupational health and safety due to physical, chemical and biological hazards during project construction and operation?	✓		During execution stage, workers may face occupational health and safety related issues if personal protection measures are not used properly. No such impacts are anticipated during the operation stage. Contractor will be required to adopt safety measures such as use of personal protective wear, cautionary signage and proper material storage.

Screening Questions	Yes	No	Remarks
▪ Road blocking and temporary flooding due to land excavation during rainy season?		✓	Temporary. However caution shall need to be exercised for taking up construction activity during extreme weather conditions (like rain or snow) to avoid accidents and injury either to the general public or workers on site
▪ Noise and dust from construction activities?	✓		Minor increase in noise levels and dust generation from construction activities is anticipated but shall be temporary in nature coinciding only with the duration of construction activities and will be of site specific. This shall be minimized by adopting suitable mitigation measures during implementation.
▪ Traffic disturbances due to construction material transport and wastes?		✓	During construction phase as transport of materials may create some temporary road blockage and traffic management plan will be chalked out. However, traffic diversion plan, if need arise, will be prepared by contractor in consultation with Engineer and local police assistance to avoid traffic disturbances
▪ Temporary silt runoff due to construction?	✓		Temporary silt run off possible, coinciding with rainy season. Majority works shall be carried out during dry periods to avoid such impacts. To avoid silt flow in drain during rainy seasons, silt barrier will be provided at the sides of the drains. Appropriate material storage will help mitigate temporary silt run-off. Other project components such as landscaping shall also help minimize silt run-off in the long term.
▪ Hazards to public health due to ambient, household and occupational pollution, thermal inversion, and smog formation?		✓	Not foreseen due to the nature of works involved
▪ Water depletion and/or degradation?		✓	Though minor and negligible, precautions will be included in the Environmental monitoring & planning schedule
▪ Overpaying of ground water, leading to land subsidence, lowered ground water table, and salinization?		✓	No ground water exploitation envisaged. Water for construction phase will be managed with line agencies consent.
▪ Contamination of surface and ground waters due to improper waste disposal?	✓		Contamination of surface and ground water cannot be ruled out as improper material handling and storage such as paints and fuels. Appropriate material storage and handling practice can help mitigate this risk for which instructions shall be caused to the Contractor. Besides adequate measures have been proposed like treatment facilities for waste water & solid waste disposal.

Screening Questions	Yes	No	Remarks
▪ Pollution of receiving waters resulting in amenity losses, fisheries and marine resource depletion, and health problems?		✓	No effective pollution predicted. There is no fishery or marine resource in the vicinity of the site. No disposal to receiving waters as waste water treatment and disposal system is proposed based on zero discharge principles.
▪ Large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?		✓	Negligible quantum only and measures included in project proposal and in the EMP
▪ Social conflicts if workers from other regions or countries are hired?		✓	Not applicable as the demand for labour category is much high.
▪ 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 operation and construction?		✓	The construction activity needs to be well planned & executed in a phased manner so as to minimize community health and safety risks especially with respect to seasonal challenges, mobility issues and impact on local businesses.
▪ Community safety risks due to both accidental and natural hazards, especially where the structural elements or components of the project are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning?	✓		The subproject is located in seismic zone V. Due to the natural topography of hilly terrain landslides are a common phenomenon. Safety risks due to accidents and natural causes cannot be ruled out and can become a major hazard if the project execution is not carried out in a well-planned and phased manner. Proper measures will be included in the EMP.

PRELIMINARYCLIMATERISKSCREENINGCHECKLISTFORSAMPLESUBPROJECTTOWNS

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	The proposed sites are not anticipated to be affected from extreme weather events.
	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	Works proposed does not need to address these parameters
Materials and	Will weather, current and likely future climate	0	Works proposed

[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.

Screening Questions		Score	Remarks[4]
Maintenance	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)?		may not be affected however, appropriate materials and methodology should be adopted in planning phase
	Will weather, current and likely future climate conditions, and related extreme events likely affect the maintenance (scheduling and cost) of project output(s)?	1	Normal weathering conditions of Himachal shall be considered.
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 issues pertaining to project output is envisaged.

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): Medium

Other Comments: None

Annexure-2

Photo Illustration

Proposed site at NagrotaBagwan

Proposed site at Mata Ka Bag

Brajeshwari Temple

Entrance gate of Brajeshwari Temple

Chamunda Temple open area

Lake and Kund at Chamunda Temple

Existing structures at Chamunda Temple campus

Existing sarai and office at Chamunda Temple campus

Pathway to Chakrakund proposed for resurfacing

Holy kund at Chakrakund

Existing drain to be improved at Chakrakund

Existing bathroom and pathway to be restored

Annexure-3

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
- Mange 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.

Annexure-4

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:

(i) the safety of pedestrians, bicyclists, and motorists travelling through the construction zone;
(ii) protection of work crews from hazards associated with moving traffic;
(iii) mitigation of the adverse impact on road capacity and delays to the road users;
(iv) maintenance of access to adjoining properties
(v) Avoid hazards in
(vi) 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.

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

C. Analyse 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:

(i) approval from the PIU, local administration to use the local streets as detours;

(ii) 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;
(iii) determining of the maximum number of days allowed for road closure, and incorporation of such provisions into the contract documents;
(iv) determining if additional traffic control or temporary improvements are needed along the detour route;
(v) considering how access will be provided to the worksite;
(vi) contacting emergency service, school officials, and transit authorities to determine if there are impacts to their operations; and
(vii) 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.

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 GoI. All vehicles to be used at STWSSP shall be in perfect condition meeting pollution standards of GoI. 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 India.
- 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.

Annexure-5

Night Work Management Plan

(Only for Pathway works including drainage under Brajeshwari Sub-project)

Background: Brajeshwari temple is one of the most important pilgrimage shrines of north India. Thousands of visitors come here on pilgrimage every day. The area around the main temple has developed rapidly and as result is congested with lots of pedestrians and vehicular traffic.

Shopkeepers work 6:00 AM to 8:00PM and construction activities during day time will affect their livelihood therefore, construction activities at night shifts have been decided to minimize the impact on livelihoods. Consultations with the shopkeepers and temple trust have been carried out for information dissemination on night-shift works. Shopkeepers at large agreed with the strategy of night-shift work and they appreciated the strategy as they perceived no-impact on their livelihoods in any form. This strategy was also considered as there is no other alternative route to divert pilgrims/tourists and allow shopkeepers to carry out their day-business without interruption during construction works.

It has been observed that in different seasons of summer and winter the business of shopkeepers varying in time between 6.00 PM (winter) and 7.00 PM (in summer). Thus, night-shift of construction activities may be considered to start after 8.00 PM (in winter) and after 9:00 PM in summer months for avoiding impacts on vendors' livelihoods. Moreover, due to severe cold climatic condition during winters the night shift works would only be possible to be carried out till 11.00 PM

Night Works Proposed: It is proposed at the stretch from the main temple area and drains & pathway improvement will take place during night hours.

Mitigation Measures: This stipulates the activities to be performed by the contractors to minimize noise pollution and provide safety as follows:

1. Baseline data for noise shall be generated for night hours.
2. Contractor will plan for night works only after directions from PMU/PIU/DSC
3. Contractor will submit plan for night works for approval from PIU.
4. PIU shall ensure that prior written information is given to local authorities such as district administration, Police/traffic police, Temple Trust and line agencies concerned, for their consents/permissions and shall be available prior to start of night works.
5. PIU/DSC engineers should check and ensure that all the preparation as per management plan is done by contractor and contractor is having all the necessary equipment's and materials for night works.
6. Minimizing night time of construction by increasing manpower.
7. Locate equipment farther from commercial area
8. Best to use ready material as much as possible, prefer manual working for night.
9. Installation of mufflers around noisy equipment , preference to quieter equipment or construction methods

10. Contractor is required to have following equipment's/arrangements for night works-
    - Contractors should have hand held noise level meter for measurement of noise during night hours and shall ensure to generate and record the noise levels on hourly basis throughout the construction period at night time.
    - Contractors should have hand held lux meter for the measurement of illumination during night hours
    - Preferably electrical connections is available for running equipments otherwise sound proof/super silent Diesel Generator set should be available
    - Sound level should not increase 40 dB(A) as per Norms (Enclosure-1)
    - Proper Illumination throughout the work area should be arranged prior to start of work.
    - As far as possible ready mix concrete from batching plant to be used, otherwise the concrete should be prepared away from Temple areas and brought to the site
    - All the noise activity like hammering, cutting, crushing, running of heavy equipment's shall be done in day time and avoided in night time
    - Workers engaged in night works shall have adequate rest/sleep in day time before start of night works
    - Worker engaged for night works should have previous experience of night works and should be physically fit for such works including clear vision in night
    - All the necessary provisions of traffic aids such as traffic signals, road signage, barricades, cautions boards etc. should be available with fluorescent/ reflective arrangements
    - Workers should be trained before start of night works about risks and hazards of night works and their mitigation measures and should be provided all the protective aids (PPEs) including fluorescent/retro-reflective vests
    - Mandatory use by workers of personal protective equipment (PPE) such as ear plugs and earmuffs
    - Horns should not be permitted by equipment's and vehicles (Light shall be used)
    - Workers should not shout and create noise
    - First aid and emergency vehicles should be continuously available at site till work.
    - Emergency preparedness plan should be operative during night works
    - Old persons and pregnant women and women having small kids shall not be allowed to work in night time
    - All the vehicles and equipment's being used at night works should have adequate type of silencers/enclosures/mufflers to reduce noise
    - All the vehicles should be checked for working head lamps, tail lamps, inner lights etc. before start of night works
    - Drivers and workers should be alert and responsive during night works
    - All the wages to workers working in night hours should be as per the applicable labour acts
    - Avoid any nuisance which may create problems to nearby habitants and work peacefully during night hours

11. PIU/DSC site engineers and contractors safety personnel should closely monitor the safety of works continuously and noise and illumination levels on hourly basis and maintain photographic and video graphic records as well as register the observations
12. Night works should be stopped early in the morning at least one hour before start of pedestrian/traffic movement.
13. After completion of night works all the site should be cleaned and maintained obstruction free for day time movement of vehicles and pedestrians

Enclosure-1

THE NOISE POLLUTION (REGULATION AND CONTROL) RULES, 2000

(The Principal Rules were published in the Gazette of India, vide S.O. 123(E), dated 14.2.2000 and subsequently amended vide S.O. 1046(E), dated 22.11.2000, S.O. 1088(E), dated 11.10.2002, S.O. 1569 (E), dated 19.09.2006 and S.O. 50 (E) dated 11.01.2010 under the Environment (Protection) Act, 1986.)

SCHEDULE

(see rule 3(1) and 4(1))

Ambient Air Quality Standards in respect of Noise

Area Code	Category of Area / Zone	Limits in dB(A) Leq*	
		Day Time	Night Time
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

Note:- 1. Day time shall mean from 6.00 a.m. to 10.00 p.m.

2. Night time shall mean from 10.00 p.m. to 6.00 a.m.
3. Silence zone is an area comprising not less than 100 metres around hospitals, educational institutions, courts, religious places or any other area which is declared as such by the competent authority
4. Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.

* dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

A “decibel” is a unit in which noise is measured.

“A”, in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.

Leq: It is energy mean of the noise level over a specified period.

Annexure-6

Public Consultations

During project preparation (June to September 2014), consultations have been held with the following stakeholders-

- ✓ HP Department of Tourism,
- ✓ Tourists of Kangra and local administration,
- ✓ Municipal Administration, local community representatives,
- ✓ Tourism officers, and tourist guides/photographers

The 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 have been discussed. The key issues are-

a) With the growing tourist activities, the temple precincts are stressed due to the lack of proper facilities & delineation of appropriately defined areas for various religious activities and tourism. Adhoc insertions are being made time and again depending on the needs as well as the availability of funds. Hence an integrated approach to the development of tourists facilities, conservation & restoration of the place is urgently needed for both the temple precincts.

b) It is disheartening to see the local and traditional art forms and techniques heading towards obscurity.

c) It is necessary to promote the traditional practices such as building traditions, food products and cuisine, traditional arts & crafts and performing arts of Himachal Pradesh in such a way that it should be beneficial for the local communities as well as for tourism promotion in the state.

The details are as under:

Site: Restoration and Improvement of Bajreshwari Temple Precinct

Objectives: This exercise was undertaken to access the acceptance of our proposed scope of work by the Mandir Committee/vendors/ shop owners/visitors. The outcome of this consultation would enable us to modify and finalize the SAR and help us in the preparation of the relevant documents for DDR/DPR and other round of consultations during the various phases of Project implementation.

Procedure: Individual interviews were undertaken with various stakeholders at the respective sites and discussions were held with Temple Trust members to understand their way of functioning.
With respect to the individual stakeholders such as shopkeepers, resident in surrounding areas, PMC/PMU/PIU team members described the proposed scope of work for the project and their views were comprehended.

The Temple Trust members shared their responsibilities and the problems being faced with respect to tourism management. A joint visit was undertaken to develop a common consensus on the feasibility of the scope of work /status of land ownership etc.

Views expressed by Stakeholders:

- **Mandir Trust Members:** The members from the District Administration /Temple trust officer expressed their conformity with the proposed project activities. The land belongs to the Temple Trust and it is ready to provide the requisite documents as well as provide their full support in the implementation of the project. The development of the site would act as a focal point for encouraging tourism to nearby sites as well – increased livelihood of local community. The Temple officer briefly discussed the importance of the Park at Bajreshwari.

- **Shopkeepers:** The various facilities and public amenities provided in a systematic manner would facilitate the visitors and would help to increase the livelihood. They informed that there was a regular flow of visitors to the Temple but it increased considerably on weekends/religious festivals etc. The shopkeepers highlighted on the following facilities that are required in and around the temple as well as near the park:
  1. Provision of proper railing/ street furniture's/street lights/ toilets.
  2. Beautification of the Park with proper benches, dust bins, Toilets etc.
  3. Changing room near the scared pond.
  4. Proper drinking facilities etc.


Photos of Public Consultation

Site: Restoration and Improvement of Chamunda Temple.

Objectives: This exercise was undertaken to access the acceptance of our proposed scope of work by the Temple Trust/vendors/ shop owners/visitors. The outcome of this consultation would enable us to modify and finalize the Report and help us in the preparation of the relevant documents for SAR/DDR/DPR and other round of consultations during the various phases of Project implementation.

Procedure: Individual interviews were undertaken with various stakeholders at the respective sites and discussions were held with Temple Trust members to understand their way of functioning.

The PMC/PMU/PIU team members described the proposed scope of work for the project to the Temple Trust. The members elaborated there way of functioning /financial transactions. A joint visit was undertaken to develop a common consensus on the feasibility of the scope of work /status of land ownership etc.

Mandir Trust Members: Various members /Temple trust officer Mr. Girigesh Chauhan were all in favour of the project. The land belongs to the Temple trust and is ready to provide the requisite documents and give their full support in the implementation of the project. The development of the site would act as a focal point for encouraging tourism to nearby sites as well – increased livelihood of local community.

Shopkeepers: Interaction was done with the shopkeepers to understand the tourist inflow in the temple. They informed that there was a regular flow of visitors to the Temple but it increased considerably on weekends/religious festivals etc.

Photos of Public Consultation

Site: Creation of Cultural Centre for Traditional Crafts and Arts at NagrotaBagwan, Kangra

Objectives: This exercise was undertaken to access the acceptance of our proposed scope of work by the District Administration (SDM/ Members from IPH Deptt and HPPWD Deptt.) and women residing in Rajiana Panchayat. The outcome of this consultation would enable us to modify and finalize the SAR and help us in the preparation of the relevant docs for DDR/DPR and other round of consultations during the various phases of Project implementation.

Procedure: Discussions were done with various stakeholders at the proposed site.

Stakeholders like officers/ officials from HPPWD/ IPH Deptt./Rajiana Panchayat etc.: The PMC/PMU/PIU team members described the proposed scope of work to the stakeholders. The Pradhan from the Rajiana Panchayat elaborated their way of functioning, activities currently being undertaken by women. Women expressed keen interest in associating with the project and offered their full support for the implementation.

The District administration also gave positive feedback on the proposed project activities and described the importance of the town and measures that can be can be taken to increase the inflow of the tourists. The land belongs to the District Administration the Sub divisional collector gave his confirmation for providing NoC. The officials assured their full support for implementation of the project. The development of the site would act as a focal point for encouraging tourism to nearby sites like Chamunda Devi Temple, Bajreshwari Temple, Engineering College, and Tanda Medical College etc. and also provide opportunity for increasing livelihood opportunities of local community.

Consultation with the officers from HPPWD/ IPH

Consultation with the ladies of the Rajiana Panchayat

Proposed site location

Public Consultations during Details Design (1)

Place: Chamunda Temple, Brajeshwari Temple and NagrotaBagwan
Date: 06.01.2016

Location	Name of person and designation	Outcome of consultation
Chamunda Temple	Man Chandra, Shopkeeper, Khadib Gramodyog Kendra,	Shop on rent from Temple trust since 15-16 years, one post office and one govt. Ayurveda hospital also on rent, 6 rooms for stay of pilgrims, if structures are dismantled they will shift to other place. No issue of compensation
NagrotaBagwan	H. Capt. Chunnilal, Village Rajiana (53 Miles)	Proposed works are good, passage from proposed sites traverse to some habitations and a govt. Primary school, there is need of provide passage from sides of boundary wall, few trees present at site, which should be saved from cutting
Brajeshwari Temple	Mukesh, Ramdas, movable shopkeepers at proposed parking site at Brajeshwari Temple	Temporary parking site is not having enough space for parking of vehicles during festival days, no drainage, sanitation and housekeeping arrangements, site becomes slushy during rainy days, movable shops can be shifted during proposed works,

Public consultation at Chamunda Temple

Public consultation at Nagrota Bagwan

Consultatin at Parking site at Brajeshwari Temple

Public Consultations during Details Design (2)

Place: Brajeshwari Temple proposed sites of parking and pathway to temple & Chakrakund
Date: 04.03.2016

S.No.	Name, address and designation of persons consulted	Topics discussed	Outcome of the consultations
1.	Ashwini Kumar, Shop no. 9 and Kuljeet Mehra, shop no. 7 and Ashok Kumar, Shop no. 6 on roof top of committee shopping complex in front of proposed parking site	Ownership and nature of deed of shops, willingness to shift the shops during construction works	Shops are on rent from committee @ Rs. 500 per month, willing to co-operate during construction works and ready to shift to other location if provided shops
2.	Pyarelal, vegetable and fruit shop, near Union Bank of India, Vegetable market	Nature of shops, working timings, acceptance of works and their willingness of co-operation during construction works	Most of the shops in vegetable market are temporary movable shops, they pay Rs. 20 per day to committee and willing to relocate to other place during construction works, market is closed on Sunday and timings are 8 am to 6 pm
3.	Shankar Das, Sanjeev Kumar, shoes and gas and cooker repair shops, temporary and movable shopkeepers at main temple marg	Nature of shops, working timings, acceptance of works and their willingness of co-operation during construction works	Most of the shops in vegetable market are temporary movable shops, they pay Rs. 20 per day to committee and willing to relocate to other place during construction works, market is closed on Sunday and timings are 8 am to 6 pm
4.	Ramesh, Pujari of Chakrakund temple	Present status of site and acceptance of works and their willingness of co-operation during construction works	Presently bathrooms and other structures and drainage at site is in poor state and renovation and rehabilitation is required and ready to co-operate during construction works

Photographs of Consultations

Consultations at proposed foot over bridge site near parking

Consultations at proposed pathway site near Union Bank Of India

Consultations at proposed pathway site on way to Brajeshwari temple

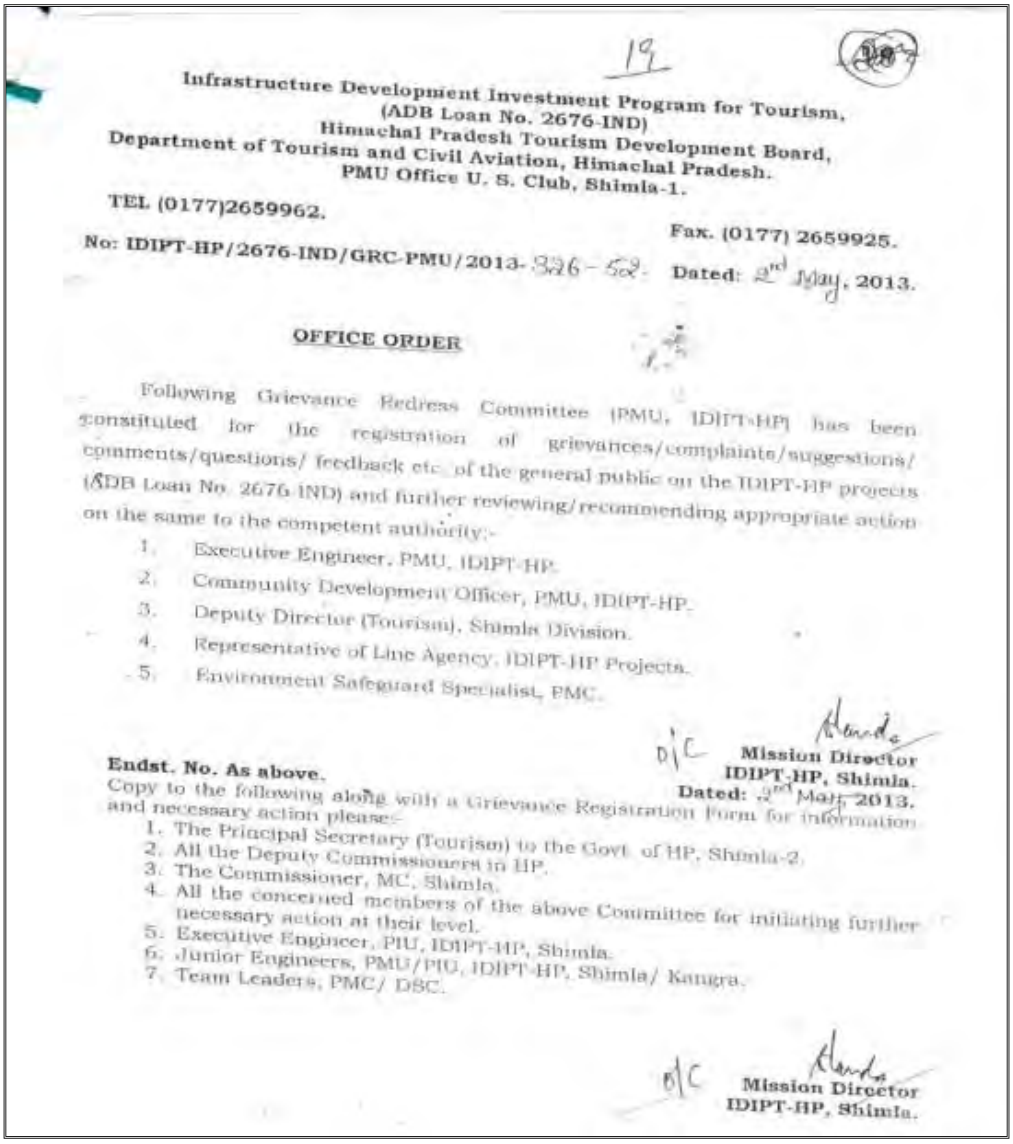
Consultations at proposed pathway site on way to Brajeshwari temple

Consultations at proposed parking site

Consultations at proposed parking site

Annexure-7

Office Orders of GRC at PMU level



19

Infrastructure Development Investment Program for Tourism,
(ADB Loan No. 2676-IND)
Himachal Pradesh Tourism Development Board,
Department of Tourism and Civil Aviation, Himachal Pradesh.
PMU Office U. S. Club, Shimla-1.

TEL (0177)2659962. **Fax. (0177) 2659925.**

No: IDIPT-HP/2676-IND/GRC-PMU/2013- 326 – 52 **Dated:** 2nd May, 2013.

OFFICE ORDER

Following Grievance Redress Committee (PMU, IDIPT-HP) has been constituted for the registration of grievances/complaints/suggestions/ comments/questions/ feedback etc. of the general public on the IDIPT-HP projects (ADB Loan No. 2676-IND) and further reviewing/recommending appropriate action on the same to the competent authority:-

1. Executive Engineer, PMU, IDIPT-HP.
2. Community Development Officer, PMU, IDIPT-HP.
3. Deputy Director (Tourism), Shimla Division.
4. Representative of Line Agency, IDIPT-HP Projects.
5. Environment Safeguard Specialist, PMC.

D/C
Mission Director
IDIPT-HP, Shimla.
Dated: 2nd May, 2013.

Endst. No. As above.
Copy to the following along with a Grievance Registration Form for information and necessary action please:-

1. The Principal Secretary (Tourism) to the Govt. of HP, Shimla-2.
2. All the Deputy Commissioners in HP.
3. The Commissioner, MC, Shimla.
4. All the concerned members of the above Committee for initiating further necessary action at their level.
5. Executive Engineer, PIU, IDIPT-HP, Shimla.
6. Junior Engineers, PMU/PIU, IDIPT-HP, Shimla/ Kangra.
7. Team Leaders, PMC/ DSC.

D/C
Mission Director
IDIPT-HP, Shimla.

Orders of GRC at PIU Kangra level

(9)

Infrastructure Development Investment Program for Tourism,
(ADB Loan No. 2676-IND)
Himachal Pradesh Tourism Development Board,
Department of Tourism and Civil Aviation, Himachal Pradesh.
PMU Office U. S. Club, Shimla-1.

TEL (0177)2659962. **Fax. (0177) 2659925.**

No: IDIPT-HP/2676-IND/GRC-PIU/2013- 363-92 **Dated:** 2nd May, 2013.

OFFICE ORDER

Following Grievance Redress Committee (PIU, IDIPT-HP) has been constituted for the registration of grievances/complaints/suggestions/ comments/questions/ feedback etc. of the general public on the IDIPT-HP projects (ADB Loan No. 2676-IND) and further reviewing/ recommending appropriate action on the same to the competent authority:-

1. Executive Engineer/ Project Manager, PIU, IDIPT-HP.
2. Community Development Officer, PMU, IDIPT-HP.
3. Deputy Director (Tourism), Kangra Division at Dharamshala.
4. Representative of Line Agency, IDIPT-HP Projects.
5. Safeguard Specialist, Environment, DSC.

O/C
Mission Director
IDIPT-HP, Shimla.
Dated: 2nd May, 2013.

Endst. No. As above. 30
Copy to the following along with a Grievance Registration Form for information and necessary action please:-

1. The Principal Secretary (Tourism) to the Govt. of HP, Shimla-2.
2. All the Deputy Commissioners in H. P.
3. All the concerned members of the above Committee.
4. The Executive Engineer, PMU/PIU, IDIPT-HP, Shimla/ Kangra.
5. The Executive Officers, Municipal Councils, Kangra, Una, Bilaspur, HP.
6. The Junior Engineers, PMU/PIU, IDIPT-HP, Shimla/ Kangra. The JE (Civil), PIU, Kangra is directed to install a box of size-12"x18"10" outside of the PIU office with the words written on it "**PIU-IDIPT-HP welcomes suggestions/ comments/questions/ feedback/ grievances/complaints etc. of the general public on the implementation of IDIPT-HP projects (ADB Loan No. 2676-IND)**"
7. Team Leaders, PMC/DSC.

Received by Sunil Kaun & Dharmender Sharma & Jitender Chaddha copies by Sunil.

O/C
Mission Director
IDIPT-HP, Shimla.

Infrastructure Development Investment Program for Tourism
(ADB Loan No. 2676-IND.)
Himachal Pradesh Tourism Development Board
Department of Tourism and Civil Aviation, Himachal Pradesh,
PMU Office U. S. Club, Shimla-1.

TEL (0177)2659962. **Fax. (0177)2659925.**

No.: IDIPT-HP/3223-IND/GRC-PIU /2015- **Dated: .04.2016.**

Office Order

In supersession of this office order No. IDIPT-HP/2676-IND/GRC-PIU/2013-363-92 dated 02.05.2013 wherein the Grievance Redress Committee (PIU, IDIPT-HP) has been constituted for the registration of grievances/ complaints/ suggestions/ comments/ questions/ feedback etc. of the general public on the IDIPT-HP projects (ADB Loan No. 2676-IND). Now the said committee is re-structured as GRC, PIU, Kangra, HP for the registration of grievances/ complaints/ suggestions/ comments/ questions/ feedback etc. of the general public on the IDIPT-HP projects under ADB Loan No. 2676-IND as well as Loan No. 3223-IND and further reviewing/recommending appropriate action on the same to the competent authority as following:

1. The Project Manager, PIU, IDIPT-HP, Kangra.
2. The Deputy Director (Tourism), Kangra Division at Dharamshala.
3. The Community Development Officer, PMU/PIU, IDIPT-HP.
4. Representative of Line Agency, IDIPT-HP Projects under the PIU, Kangra.
5. The Safeguard Specialist, PMU/PMC/DSC.

Commissioner (Tourism)-cum-
Mission Director,
IDIPT-HP

Endst. No. As above. 641 **Dated:** 04.05.2016.

Copy to the following alongwith a Grievance Registration Form and Grievance Redress Mechanism for information and necessary action please:

1. The Additional Chief Secretary (Tourism), to the Govt. of H.P., Shimla-2.
2. All the Deputy Commissioner in H.P.
3. All the concerned members of the above committee.
4. The Technical Consultant, PMU, IDIPT-HP, Shima.
5. The Executive Engineer, PMU, IDIPT-HP Shimla.
6. The Project Manager, PIU, IDIPT-HP, Dhaliara, Kangra, HP. He is directed to install a box for Loan No. 3223-IND as did for Loan No. 2676-IND.
7. The Asstt. Engineer, PIU, IDIPT-HP, Dhaliara, Kangra, HP.
8. The Team Leader, PMC/DSC, IDIPT-HP.

Commissioner (Tourism)-cum-
Mission Director,
IDIPT-HP

Annexure-8

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 -9

Sample Field Environmental Monitoring Report Template

ENVIRONMENTAL MONITORING CHECKLIST **(Note: To be filled in separately for each package)**				
Project no.				
Site location				
Date & Time of visit				
Stage	Pre-construction/Construction/Post construction phase			
Activity	**Parameter monitored**	**Observation**		**Remark/s, if any**
		Yes	No	
Activity 1: Signage & display	Is the content & design of project related signage on site found correct?			
	Is the signage/display appropriately located?			
	Is there proper cautionary & directional signage on site?			
	Has the surrounding population been informed about the nature and duration of the works?			Note: Give dates & method of communication
Activity 2: Ambient Air Quality	Is the emissions testing done as specified in the EMP?			Note: Give dates
	Is the testing record being maintained as specified?			
	Were there any fumes, bad odour or dust observed on site?			
	If yes, has this been communicated to the Contractor for him to take appropriate measures to redress the issue?			
	Is the dust suppression/sprinkling being done adequately/as prescribed in the EMP?			
	If not, has the contractor been informed to improve the situation?			
Activity 3: Solid Waste Management & Debris Disposal	Are litter bins provided on site for solid waste collection?			
	Is there any litter found lying			

	around on site or nearby the site but originating from the site that creates unsafe or unhealthy working conditions (e.g. risk of slipping, falling over, or mosquito breeding)?			
	Is the frequency of waste removal from site adequate?			
	Is the mode of waste disposal appropriate e.g. recycling, composting, removal to MC bin etc.?			
	Are the debris/ muck from earthwork/excavation being properly disposed off in a pre-designated disposal site?			
	Is the demolition or construction waste being properly carried out & disposed off from site as specified in the EMP?			
Activity 4: Water & drainage	Is the water quality testing done as specified in the EMP?			Note: Give dates
	If standards were exceeded: has this been communicated to the Contractor directly after the results were available, for him to take appropriate action?			
	Is the testing record being maintained as specified?			
	Is there any water-logging at site?			
Activity 5: Noise	Is the noise testing done as specified in the EMP?			Note: Give dates
	If standards were exceeded: has this been communicated to the Contractor directly after the results were available, for him to take appropriate action?			
	Is the testing record being maintained as specified?			
	Is the generator set being housed in an insulated enclosure to prevent noise pollution on site?			
	Is there any other undue noise activity or noise source observed on site?			

Activity 6: Site operations &management	Is the site being inspected by field staff on regular basis or as required by the EMP?			Note: Attach a copy of site inspection record
	Are the work areas properly barricaded or fenced?			
	Is there proper pedestrian and vehicular access to site?			
	Is the alternate mobility route/decongestion plan being followed on site, if applicable?			
	Is there proper storage arrangement for construction materials & supplies on site? e.g. preventing water logging or water pollution			
	Are the hazardous substances like fuel – (diesel, LPG, kerosene, oil) or paints or asbestos being properly stored and used on site/as specified in the EMP?			
	Are there adequate fire safety precautions being maintained onsite?			
	Are the machinery & other construction implements being maintained properly on site?			
	Are the vehicles carrying raw material/supplies and heavy equipment parked at the designated area within or near the site?			
	Is there any incidence of soil/water contamination from toxic substances observed on site? e.g. from oil spill or waste engine oil			Note: If yes, please specify date and describe incident, how was it resolved and how to avoid in future
	Is the oil /waste oil disposal being done safely and properly away from site?			Note: Safe disposal should be done on sealed ground preventing leakage and run-off, away from direct sunlight and

				combustible products.
Activity 7: Occupational Health & Safety	Is the OHS plan being followed and record being maintained as specified?			
	Is proper safety gear being used by workers on site? E.g. gloves, shoes, helmets & hearing protection equipment			
	Is there provision of safe drinking water on site?			
	Are there proper and clean toilets for workers on or near the site?			
	Is the provision for First Aid & Emergency Services available on site?			Note: Check the availability, accessibility and completeness of the first aid kit (e.g. are band-aids, disinfectant?).
	Is there any accident reported on site?			Note: If yes, please provide detailed report on any incident, accident, or fatality during the reporting period. Specify what and how it happened and what will be done to avoid a similar situation to occur again
	Is the accident record being properly maintained on site?			
	Is there any incidence of water borne disease or exposure to toxic substance on site?			
	Are disease preventive measures such as inoculation, sprays etc. being carried out on site?			
	Are there any labour camps established within or in close proximity to protected areas or heritage sites?			
As per Loan <u>covenant 6 under Schedule 5</u> for HPIDIPT: "The State shall ensure that civil works Contracts under the projects follow all applicable labour laws of the Borrower and the State and that these further include provisions to the effect that Contractors ……..				
	… (i) carry out HIV/AIDS awareness programs for			Note: Give dates & a brief report on

	labour and disseminate information at worksites on risks of sexually transmitted diseases and HIV/AIDS as part of health and safety measures			compliance where applicable
	… (ii) follow and implement all statutory provisions on labour, health, safety, welfare, sanitation and working conditions.			Note: Attach an undertaking from the Contractor
Concluding remarks	Environmental compliance of this sub-project: □ Fully compliant □ Nearly compliant □ Partially compliant □ Non-compliant			
Checked by				
Designation				

Annexure -10

Sample EMR Template

Environmental Monitoring Report

Loan Number: ----------
Reporting period: (month/year to month/year)

(Title of Project)

Prepared by: ----------

Implementing Agency: ----------

Executing Agency: ----------

Date: (dd/ mm/ yyyy)

TABLE OF CONTENTS

1. Introduction

- overall project description;
- project objectives;
- environmental category;
- environmental performance indicators, if any;
- overall project progress, agreed milestones and implementation schedules;
- any other information useful for assessing environmental performance of the project

(Limited to 3/4 of a page)

2. Compliance status with National /State /Local statutory environmental requirements

- Tabular presentation of statutory environmental requirements for the project at national, state and local levels (applicable to the borrower, sub-borrowers, contractors, vendors, etc. as the case may be), and the status of compliance thereof.
- If the project is not in compliance with any of those requirements, the report would provide actions proposed for achieving compliance within an agreed time frame duly approved by the respective regulatory agencies.

(Limited to 1/2 to 1 page)

3. Compliance status with the environmental covenants as stipulated in the Loan Agreement

- Tabular presentation of environmental covenants as stipulated in the Loan Agreement and the status of compliance thereof.
- If the project is not in compliance with any of those requirements, the report would provide actions proposed for achieving compliance within a time frame to be reviewed and approved by the ADB.

(Limited to 3/4 of a page)

4. Compliance status with environmental management and monitoring plans as stipulated in the environmental documentation as agreed with ADB

- Tabular presentation of environmental management and monitoring plans and environmental assessment and review framework/procedures as agreed and the status of implementation thereof.
- The status chart would provide details of actions proposed to be taken by various agencies, including contractors/vendors for implementation, the current status of compliance.
- In case any corrective measures are warranted, the status chart would outline the corrective action plan with an agreed time frame duly agreed by all those agencies concerned for ADB's review and concurrence.
- In case of corrective measures are implemented based on the earlier monitoring, the status chart would elaborate clearly the improvements noticed and further steps required if any.

(Limited to 2 pages)

5. Approach and methodology engaged for environmental monitoring of the project

- Monitoring basis
  - rationale for selection of sampling/ monitoring locations,
  - selection of environmental receptors /attributes for monitoring,
  - linkage with environmental performance indicators agreed upon,
  - phases of project – design, construction, operation
- Standards /monitoring methods to be employed for assessment
- Monitoring Quality Control

(Limited to 1 page)

6. Monitoring of environmental receptors/ attributes (e.g. ambient air, surface water, ground water, land, ecological aspects, noise, hazardous/toxic wastes, etc.)

- Type of environmental receptor/attribute to be monitored (for each type)
  - Method of monitoring
  - Duration and frequency of monitoring
  - Equipment /instrumentation to be used for monitoring
  - Sampling locations/ sites for monitoring (linked with Appendix 1 – location map)
  - Reporting monitoring results (provide tabular presentation)
  - Detailed analyses of monitoring reports and conclusions (use histograms or any other methods)
  - Correlate the monitoring results with statutory requirements at national/state/local levels
  - Corrective actions proposed in case on non-compliance /improvements noticed due to corrective actions taken during the reporting period, and further actions required if any.
  - Recommendations /Suggestions.

(Limited to 2 pages)

7. Any other environmental aspects, impacts observed during implementation which were not covered earlier

(Limited to 1/2 page)

8. Details of Grievance Redress Committee and complaints received from public and actions taken thereof to resolve

(Limited to 1 page)

9. Follow-up actions and conclusions

(Limited to 1/2 to 1 page)

Signed by:

Monitoring agency:
(name, title, date)

Authorized signatory from Implementing Agency /Executing Agency:
(name, title, date)

APPENDIX 1

Location Map for Environmentally Sensitive Sites and Monitoring Stations

Annexure-11

No Objection Certificates

From:

Sub Divisional Collector,
Kangra Sub Division

To:

The Deputy Director Tourism,
Kangra at Dharamshala.

No. 384 /SDK-
Dated 05/09/2014.

Subject: Regarding N.O.C.

Sir,

It is to state that there is no objection from any quarter in case facilities of Park etc are created in Khasra No. 882 min, situated at mohal and mauza Rajiana, Tehsil Nagrota Bagwan, Distt Kangra (H.P). The land for this purpose will be made available as per the requirement of the project.

Yours faithfully,

Sub Divisional Collector,
Kangra Sub Division.

कार्यालय
ग्राम पंचायत रजियाणा 53 मील

विकास खण्ड कांगड़ा
तह. नगरोटा बगवां जिला कांगड़ा (हि.प्र.)

क्रमांक.................. दिनांक 2/9/014

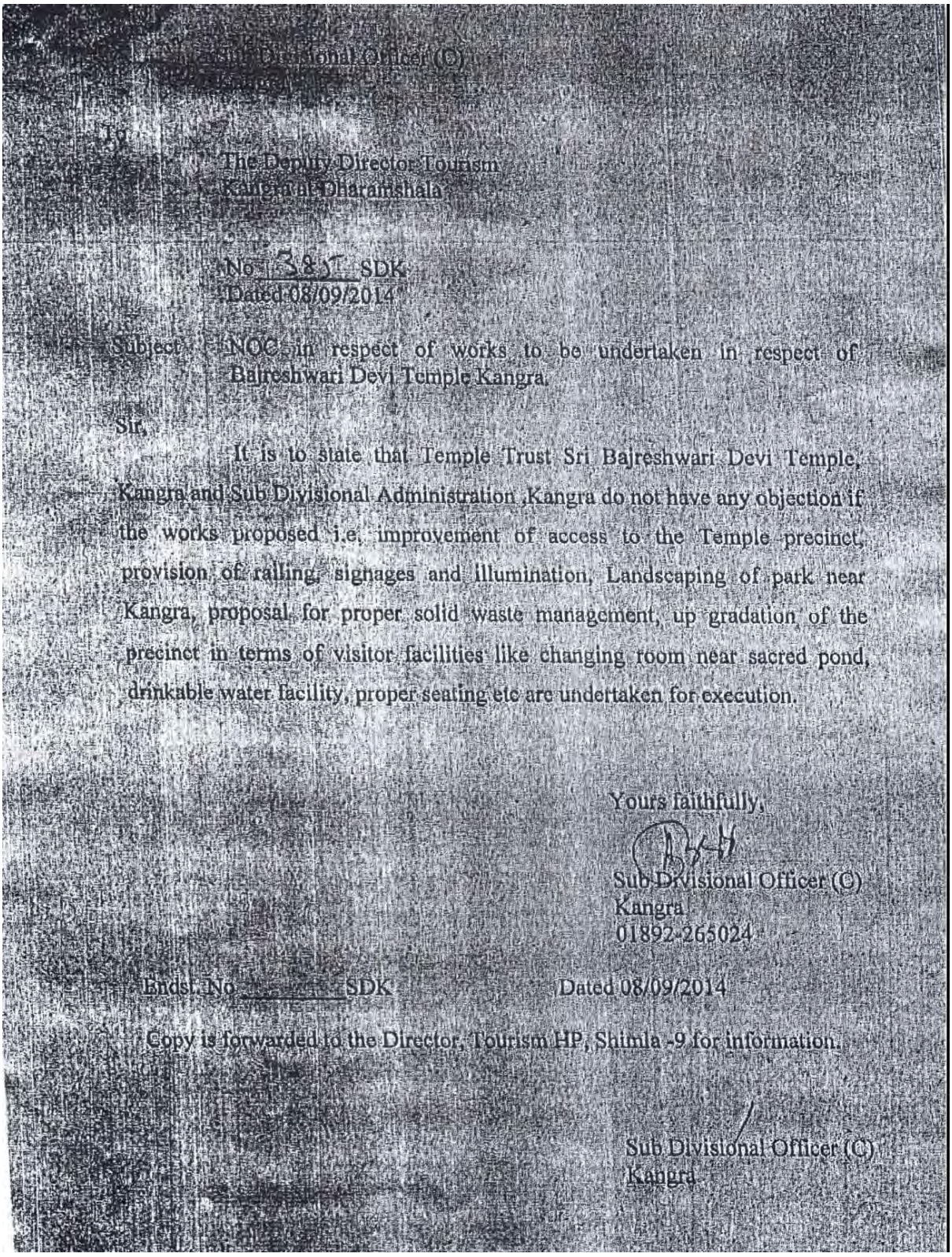
अनापत्ति प्रमाण पत्र

प्रमाणित किया जाता है कि भूमि खाता नं० 862 किता खतौनी नं० 1166 किता नं० खसरा नं० 882 किता रकबा चार-48-55 हैक्टेयर आशाल व मौजा रजियाणा तह० नगरोटा बगवां जिला कांगड़ा जो कि मलकीयत सरकार हि० प्र० की है इसमें जो भी विकास कार्य या कुछ तैयार करना चाहते हैं गांव पंचायत को कोई एतराज न है।

अतः अनापत्ति प्रमाण पत्र जारी किया जाता है।

ग्राम पंचायत रजियाणा 53 मील, कांगड़ा, जिला कांगड़ा

SRU...
2/9/014



Sub Divisional Officer (C)

To

The Deputy Director Tourism
Kangra at Dharamshala

No 385 SDK
Dated 08/09/2014

Subject: NOC in respect of works to be undertaken in respect of Bajreshwari Devi Temple Kangra.

Sir,

It is to state that Temple Trust Sri Bajreshwari Devi Temple, Kangra and Sub Divisional Administration ,Kangra do not have any objection if the works proposed i.e. improvement of access to the Temple precinct, provision of railing, signages and illumination, Landscaping of park near Kangra, proposal for proper solid waste management, up gradation of the precinct in terms of visitor facilities like changing room near sacred pond, drinkable water facility, proper seating etc are undertaken for execution.

Yours faithfully,

Sub Divisional Officer (C)
Kangra
01892-265024

Endst. No _____ SDK Dated 08/09/2014

Copy is forwarded to the Director, Tourism HP, Shimla -9 for information.

Sub Divisional Officer (C)
Kangra

Annexure-12

MoUs

MOU for Operation & Maintenance

(Between HPTDB and Assets Owner)

I, Charan Lal (name), agree to undertake the operation and maintenance for the assets which will be constructed, renovated, restored and etc. by the HPTDBunder Tranche 3 of the IDIPT program together with other assets currently maintained by us. All works under Tranche 3 including but not limited to landscape works, pathways, railings, toilets, car parking, and etc. will be maintained by us, with our own funds generated from operations or received from various sources.

Our annual total receipts are Rs. ..... (Optional).

I have no objection for any work being taken up by HPTDB under Tranche 3 of the IDIPT program within the boundary premises and pathway, access to the premises from main road and etc. I assure you that the operation and maintenance of the assets will be done by us from our own resources.

The Name of Project- Creation of Cultural Centre for Traditional Arts & Crafts at Nagrota Bagwan

Charan Lal

Designation of the Exec. Officer (Asset Owner)
Executive Officer
Municipal Council
Nagrota Bagwan

MOU for Operation &Maintenance

(Between HPTDB and Assets Owner)

I, Pawan Bhardwaj (name), agree to undertake the operation and maintenance for the assets which will be constructed, renovated, restored and etc. by the HPTDBunder Tranche 3 of the IDIPT program together with other assets currently maintained by us. All works under Tranche 3 including but not limited to landscape works, pathways, railings, toilets, car parking and etc. will be maintained by us, with our own funds generated from operations or received from various sources.

Our annual total receipts are Rs ..... (Optional).

I have no objection for any work being taken up by HPTDB under Tranche 3 of the IDIPT program within the boundary premises and pathway, access to the premises from main road and etc. I assure you that the operation and maintenance of the assets will be done by us from our own resources.

The Name of Project- Restoration & improvement of Bajreshwari Temple.

Temple Officer,
Shri Shri Bajreshwari Devi
Kangra (H.P.)

Designation of the (Pawan Bhardwaj) (Asset Owner)

MOU for Operation &Maintenance

(Between HPTDB and Assets Owner)

I, Girish Chauhan (name), agree to undertake the operation and maintenance for the assets which will be constructed, renovated, restored and etc. by the HPTDBunder Tranche 3 of the IDIPT program together with other assets currently maintained by us. All works under Tranche 3 including but not limited to landscape works, pathways, railings, toilets, car parking and etc. will be maintained by us, with our own funds generated from operations or received from various sources

Our annual total receipts are Rs..... ..... (Optional).

I have no objection for any work being taken up by HPTDB under Tranche 3 of the IDIPT program within the boundary premises and pathway, access to the premises from main road and etc. I assure you that the operation and maintenance of the assets will be done by us from our own sources.

The Name of Project- Restoration & improvement of Chamunda Temple.

Designation of the Temple Office (Asset Owner)
Chamunda Nandikeshwar Temple
Chamunda
मन्दिर कार्यालय
श्री चामुण्डा नन्दिकेश्वर मन्दिर ट्रस्ट
नगरोटा बगवां (कांगड़ा)

Annexure 13

Salient Features of Major Labor Laws Applicable to Establishments Engaged in Construction/Civil Works

(i) Workmen Compensation Act, 1923- The Act provides for compensation in case of injury by accident arising out of and during the course of employment.

(ii) Payment of Gratuity Act, 1972-Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years' service or more or on death at the rate of 15 days wages for every completed year of service. The Act is applicable to all establishments employing 10 or more employees.

(iii) Employees' PF and Miscellaneous Provisions Act, 1952-The Act provides for monthly contributions by the employer plus workers @ 10% or 8.33%. The benefits payable under the Act are:

(a) Pension or family pension on retirement or death as the case may be;(b)deposit linked insurance on the death in harness of the worker;(c) payment of PF accumulation on retirement/ death etc.

(iv) Maternity Benefit Act, 1951-The Act provides for leave and some other benefits to women employees in case of confine mentor miscarriage etc.

(v) Contract Labour (Regulation and Abolition) Act, 1970-The Act provides for certain welfare measures to be provided by the Contractor to contract laborand in case the Contractor fails to provide, the same are required to be provided by the Principal Employer by Law. The principal employer is required to take Certificate of Registration and the Contractor is required to take a License from the designated Officer. The Act is applicable to the establishments or Contractor of principal employer if they employ 20 or more contract labor.

(vi) Minimum Wages Act, 1948- The employer is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment. Construction of Buildings, Roads, Runways are scheduled employment.

(vii) Payment of Wages Act, 1936- It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.

(viii) Equal Remuneration Act, 1979-The Act provides for payment of equal wages for work of equal nature to Male and Female workers and not for making discrimination against Female employees in the matters of transfers, training and promotions etc.

(ix) Payment of Bonus Act, 1965- The Act is applicable to all establishments employing 20 or more workmen. The Act provides for payments of annual bonus subject to a minimum of 8.33% of wages and maximum of 20% of wages to employees drawing Rs. 3,500/- per month or less. The bonus to be paid to employees getting Rs.2,500/-per month or above upto Rs.3,500/- per month shall be worked out by taking wages as Rs.2,500/-per

month only. The Act does not apply to certain establishments. The newly set up establishments are exempted for five years in certain circumstances. Some of the State Governments have reduced the employment size from 20 to 10 for the purpose of applicability of the Act.

(x) Industrial Disputes Act, 1947-The Act lays down the machinery and procedure for resolution of industrial disputes, in what situations a strike or lock-out becomes illegal and what are the requirements for laying of for retrenching the employees or closing down the establishment.

(xi) Industrial Employment (Standing Orders) Act, 1946- It is applicable to all establishments employing 100 or more workmen (employment size reduced by some of the States and Central Government to 50). The Act provides for laying down rules governing the conditions of employment by the employer on matters provided in the Act and get the same certified by the designated Authority.

(xii) Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act of 1996 - - Applicable to all construction works in the project, Contractor to obtain license from designated labour officer, Contractor shall register with Labour Department, GOR if Inter-state migrant workmen are engaged, Adequate and appropriate amenities and facilities shall be provided to workers including housing, medical aid, travelling expenses from home and back, etc.