



Initial Environmental Examination

Project Number: 40648-034
September 2016

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

Package : Conservation of Christ Church in the Heritage Zone in Shimla (Package HPTDB/16/1-A)

Submitted by:

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

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Asian Development Bank

Tourism Development Board

IDIPT-HP (ADB Loan No.2676-IND)

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

Subject: Submission of Revised IEEs for Markandeya and Christ Church under Tranche-3.

Ref No.: IDIPT-HP/ 3223-IND/ IEE- Tranche 3/ 2016- 2300 dated 12.08.2016

Madam,

This is with reference to the above referred letter vide which the IEEs of Rejuvenation of the Markandeya Temple Precincts & Provisions of Visitors Facilities, Bilaspur (Package HPTDB/11/1) and Conservation of Christ Church in the Heritage Zone in Shimla (HPTDB/16/1) was submitted to you.

As per the discussion with the Environmental Safeguard Consultant, ADB the IEE reports have been revised. Please find enclosed the revised IEEs for the above said projects. This is for your information and approval please.

Yours Sincerely,

**Project Director,
IDIPT-H.P.**

Encl: As Above.



Environmental Assessment Document

Initial Environmental Examination

ADB Loan No. 3223–IND

Project Number: 40648

Tranche 3

**Sub-project: Conservation of Christ Church in the Heritage Zone
in Shimla (Package HPTDB/16/1-A)**



September, 2016

Prepared by the Himachal Pradesh Tourism Development Board

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

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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
MOEFCC	–	Ministry of Environment, Forests and Climate Change
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. Shimla has been primarily a tourist destination, since its discovery in 1819 and is today the most preferred tourist destinations in Himachal Pradesh especially during the summer months. The former summer capital of the British in India, and the present capital of Himachal Pradesh; Shimla has been blessed with immense natural bounties, it has got a scenic location, as it is surrounded by green hills with snow-capped peaks. There are four Churches in Shimla viz., the Christ Church at the Ridge, the Saint Michael Cathedral, Catholic Church near Western Command and Churches in St. Bede's & Bishop Cotton School Complexes. Out of the four Churches of Shimla the Christ Church on the Ridge and St. Michael's Cathedral, Catholic Church near Western Command are the main tourist attractions because of their location in the central core of the town. Apart from being an important part of the heritage list, both these churches form the landmarks of the town and fall under the Heritage Zone as specified by the Heritage committee of Shimla.

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), Shimla to be supported by Design Supervision Consultant (DSC). The asset owner for Christ Church is Committee for Christ Church. A MOU has been signed for restoration works in the Christ Church.

4. **Categorization.** Shimla town subproject Package HPTDB/16/1-A is classified as Environmental Category B as per the SPS 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.

5. **Subproject Scope.** The major scope of this subproject as per Detail Project Report are: Conservation and restoration of the building structures; Site planning and designing; Landscaping; repairs of various components of church, provision of fire fighting equipment's and other miscellaneous refurbishments.

6. **Description of the Environment.** Subproject components of Christ Church are located in urban areas of Shimla town. Shimla features a subtropical highland climate under the Köppen climate classification. The climate in Shimla is predominantly cool during winters

and moderately warm during summer. Temperatures typically range from -4°C (25°F) to 31°C (88°F) over the course of a year. The average temperature during summer is between 19°C (66°F) and 28°C (82°F), and between -1°C (30°F) and 10°C (50°F) in winter and there is no natural habitat left at these sites. There is Shimla Water Catchment Wildlife Sanctuary in Shimla, but the proposed components are only restoration project of Christ Church, therefore no effect is expected due to proposed works. There are no any wetlands, mangroves, or estuaries in or near the subproject locations.

7. **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.

8. 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; and (v) 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.

9. During the construction phase, impacts mainly arise from the need to dispose of moderate quantities of waste materials and disturbances to visitors and public. These are common impacts of restoration works, 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.

10. 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 consultations with workers and beneficiaries. Any requirements for corrective action will be reported to the ADB.

11. 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.

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

13. **Consultation, Disclosure and Grievance Redress.** Public consultations were done in the preparation of the project and IEE. Consultations will be continued throughout the project implementation period. A grievance redressal mechanism is described within the IEE to ensure any public grievances are addressed quickly.

14. **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 and thereafter the report will be submitted to ADB on semi-annual basis. 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 progress reports including environmental closure report.

15. **Conclusions and Recommendations.** Therefore 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 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. The proposed project area is situated in the Christ Church at ridge near Mall Road. The coordinates of the site are $31^{\circ} 06' 15.8''$ N & $77^{\circ} 10' 33.2''$ E and $31^{\circ} 06' 20''$ N & $77^{\circ} 10' 95''$ E respectively. The project will enhance facilities and improve the cultural value and facilitate the residents and tourists alike.

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), Shimla, supported by Design and Supervision Consultant (DSC). The asset owner is Pastorate Committee, Christ Church, Shimla. A MOU (attached as **Annexure-3**) has been signed between IDIPT- HP and the Diocese of Amritsar, Church of North India through the Presbyter in Charge, Christ Church and the Chairman Pastorate Committee. A team of technical, administrative and financial officials, including safeguards specialists, provided at the PMU to implement, manage and monitor project implementation activities. The PIU is 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 scope of this subproject as per DPR are: Conservation and restoration of the building structures; Site planning and designing; Landscaping; repairs of various components, provision of fire fighting equipment's and other miscellaneous refurbishments. Detailed scope of works are given in para 9 of this report.

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 design show that proposed sub project is unlikely to cause significant adverse impacts. Thus it is classified as Environmental Category B as per ADB SPS as no significant impacts are envisioned.

6. **Purpose of the IEE.** This report gives an account of the initial environmental examination (IEE) of subproject as per detailed 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 (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. **Location.** The proposed project area is situated at the Christ Church at ridge near Mall Road. The coordinates of the site are $31^{\circ} 06' 15.8''$ N & $77^{\circ} 10' 33.2''$ E and $31^{\circ} 06' 20''$ N & $77^{\circ} 10' 95''$ E respectively. The project will enhance facilities and improve the cultural value and facilitate the residents and tourists alike. The **Figure1** depicts satellite image of the of the project location.

8. **Existing Conditions and Need of the Subproject.** The Christ Church has been maintained well but as far as the building structure is concerned, the architectural and aesthetic features have faced a lot of deterioration with time. The stained glass windows which not only have a religious significance but also are very valuable historic properties have been victims of weathering and vandalism. The pinnacles of the original building were broken/ removed in 1961 due to extreme weather conditions and have not been restored ever since. The complete roof requires repair. The most prominent feature of the church has been the tower clock which is not working for the past many years. Many efforts have been made by the Church committee to restore the clock but all in vain. Also the belfry needs restoration and if possible the bells should be rung announcing the service, as in the olden times. However, a complete surface treatment is warranted for the entire building besides the site beautification in terms of landscaping and lighting is also obligatory. Photos of existing conditions of the Church are attached as **Annexure 2**.

Figure 1: Satellite image of the Christ Church



B. Proposed Subproject

9. The main components of the proposed works under sub project are as follows :

Scope of works in Christ Church:

- Repair of old and provision of new railing
- Landscaping near the porch
- Provision of drain around the church
- Provision of illumination in and around the church
- Repair of old and erection of new gates
- Resurfacing the exterior as per design
- Restoring the pinnacles damaged/demolished
- Restoration of the stained glass windows
- Repair of wooden flooring and ladders in the belfry, gallery and staircases
- Restoration of the clock and pipe organ
- Repairing wooden ceiling where damaged
- Replacement of corrugated sheet, ridge, gutter, flashing
- Waterproofing above the porch
- Restoration of pews
- Cleaning of minton tiles
- Repair and restoration of all doors and windows
- Restoration and cleaning of font and pulpit
- Provision of carpets in nave and sanctuary
- Removal of vegetation and other factors responsible for causing deterioration in structure
- Surface treatment of the entire church – interior and exterior repainting, cleaning and re plastering of the new exposed brickwork inside belfry
- Restoration of the church bells
- Cleaning/restoration/polishing of the brass and marble plaques as per the requirement
- Repair of Rain Water Pipes
- Cleaning and repairing damaged parts of the retaining walls behind the Church building
- Proposal of benches, railings and site signage
- Fire fighting equipment's
- Provision of interpretation panels
- Polishing of false ceiling
- Repair of the lighting conductor
- Repair of gallery floor.

10. The site for subproject is owned by Church Committees thus no land acquisition is required. The MOU has been signed for the proposed restoration works (attached as **Annexure-3**). The sites are located in Shimla urban area which was converted into urban use for many years ago, and there is no natural habitat left at these sites.

11. 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.

12. Stone aggregate and sand are available within 40 km radius from sites. Also formwork and skilled labour is locally available. For brick wall construction, if required, bricks are also available within 50 km radius from the proposed site/region.

13. Water supply during construction will be provided by Municipal Corporation Shimla or will be transported through mobile water tankers, if required. Solid waste generated at sites will be disposed at designated areas.

C. Implementation Schedule

14. Detailed design of the subproject has been done by the Design and Supervision Consultant (DSC) team and it is estimated that construction period will cover 18 months.

III. POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK

A. ADB Policy

15. 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.

16. **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.

17. **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.

18. **Public Disclosure.** The IEE will be put in an accessible place (e.g., local government offices, nearby proposed sites, etc.), and a 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

19. 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.

20. 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 categories¹ - Category A and Category B, based on the spatial

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

extent of potential impacts and potential impacts on human health and; natural and man-made resources.

Table 1: Environmental Regulatory Compliance

Sub-Project	Applicability of Acts/Guidelines	Compliance criteria
Conservation of Christ Church in the heritage zone of Shimla	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 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.	The proposed sites are more than 10 km away from the boundary of Shimla Water Catchment Wildlife Sanctuary; therefore this act is not applicable for this subproject.
	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 involve 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.
	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

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
		instruments and ensure that the existing noise levels do not exceed the ambient air quality standards 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.
	<p>The BOCW Act 1996 Employer shall-</p> <ul style="list-style-type: none"> • 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 	Contractors are required to follow all the provisions of BOCW Act.

Sub-Project	Applicability of Acts/Guidelines	Compliance criteria
	<p>completing the construction works</p> <ul style="list-style-type: none"> • 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 <p>For safety of workers employer shall provide-</p> <ul style="list-style-type: none"> • Safe access to site and work place • 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 equipment's • Provide safety net, safety sheet, safety belts while working at height (more than 1.6 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 <p>Any other matters for the safety and health of workers</p>	

Sub-Project	Applicability of Acts/Guidelines	Compliance criteria
	<p>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</p>	Valid and appropriate (LMV/HMV) driving licence of operators and drivers is required to operate or drive vehicle and equipment at construction site
	<p>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.</p>	Do not allow any escape of diesel, lubricants in to drain or any nearby water course
	<p>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.</p>	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.
	<p>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.</p>	Annexure 10 provides applicable labour laws including amendments issued from time to time applicable to establishments engaged in construction of civil works.

21. 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

22. **Climate.** Shimla features a subtropical highland climate under the Köppen climate classification. The climate in Shimla is predominantly cool during winters and moderately warm during summer. Temperatures typically range from -4°C (25°F) to 31°C (88°F) over the course of a year. The average temperature during summer is between 19°C (66°F) and 28°C (82°F), and between -1°C (30°F) and 10°C (50°F) in winter. Monthly precipitation varies between 15 millimetres (0.59 in) in November to 434 millimetres (17.1 in) in August. It is typically around 45 millimetres (1.8 in) per month during winter and spring and around 175 mm (6.9 inch) in June as the monsoon approaches. The average total annual precipitation is 1,575 millimetres (62 in), which is much less than most other hill stations but still much heavier than on the plains. Snowfall in the region, which historically has taken place in the month of December, has lately (over the last fifteen years) been happening in January or early February every year. The maximum snowfall received in recent times was 38.6 cm in January 2013.

23. **Geology and Soil.** The geological formation in the area is categorized into Pre-Cambrian system, Late Pre-Cambrian systems, Silurian and carboniferous systems. Pre-Cambrian system consists of schists, gneiss, grains and quartzite. Late Pre-Cambrian Himanta system is marked by phyllites, quartzites, conglomerates, shales and slates.

24. In Shimla district, the soil is generally shallow in depth except in areas having vegetation cover. The soils are acidic in nature with the organic content ranging from medium to high.

25. **Land Use.** Of the total area of 9950 hectares of Shimla, 15% of the area is under urban use. 21.85% in agriculture, 61.12% covered by forests, 2.20% comprises of water-bodies and undeveloped land. The existing land use of urban area shows 61.19% residential use, 1.71% commercial, 0.62% industrial, 1.47% tourism, 9.4% for public and semi-public use, 0.41% for parks and open spaces, and 3.75% for traffic and transportation.

26. **Water bodies.** Shimla is highly dissected by a number of seasonal tributaries joining the consequent streams. Shimla being a hill city, natural drains carry the water to valleys into Khads, which are used as source of water supply. Sutlej River about 21 km away is the nearest river system. There are no major surface water bodies both natural and artificial within Shimla Planning Area.

27. **Ambient Air and Noise Quality.** Air quality is being monitored in two stations at Tekka Bench on Ridge and ISBT (Bus stand) of Shimla. The range of monthly average values of SO_2 , NO_x and RSPM monitored from April 2012 to March 2015 are found to be mostly within the maximum permissible limits. The RSPM, however, observed in June 2012 was more than permissible limits. The air quality and noise level of Shimla is shown in **Table 2 & 3** below:

Table -2: Ambient Air Quality of Shimla

Month	Station: Tekka Bench (Residential) Monthly Average			Station: Bus stand (Residential) Monthly Average		
	SO_2 in $\mu g/m^3$	NO_x in $\mu g/m^3$	$RSPM$ in $\mu g/m^3$	SO_2 in $\mu g/m^3$	NO_x in $\mu g/m^3$	$RSPM$ in $\mu g/m^3$
April 2012	2.0	9.1	55.2	2.0	16.0	61.5
May 2012	2.0	10.1	71.9	2.0	19.6	81.7
June 2012	2.0	6.2	86.1	2.0	8.8	122.2
July 2012	2.0	12.0	50.1	2.0	10.6	68.9
August 2012	2.0	9.1	31.5	2.0	11.1	33.0
September 2012	2.0	8.9	24.1	2.0	12.8	30.9
October 2012	2.0	10.6	38.2	2.0	11.3	40.4
November 2012	2.0	8.4	43.8	2.0	12.8	54.8
December 2012	2.0	10.7	41.3	2.0	11.3	47.9
January 2013	2.0	9.4	41.6	2.0	12.4	57.0
February 2013	2.0	8.5	40.3	2.0	12.2	45.4
March 2013	2.0	9.2	44.6	2.0	12.6	48.0
January 2014	2.0	9.8	39.8	2.0	10.4	44.7
February 2014	2.0	9.8	39.8	2.0	10.8	47.1
March 2014	2.0	9.9	36.7	2.0	11.7	45.0
April 2014	2.0	10.6	36.2	2.0	13.0	47.4
May 2014	2.0	9.5	53.4	2.0	11.1	61.5
June 2014	2.0	10.0	45.6	2.0	11.8	56.3
July 2014	2.0	9.7	44.5	2.0	11.7	46.0
August 2014	2.0	10.4	35.8	2.0	11.2	48.5
September 2014	2.0	9.7	34.0	2.0	11.2	36.3
October 2014	2.0	10.6	46.7	2.0	11.7	55.1
November 2014	2.0	10.2	52.6	2.0	16.0	50.0
December 2014	2.0	9.5	63.1	2.0	15.9	64.7
January 2015	2.0	9.7	59.2	2.0	12.5	68.9
February 2015	2.0	9.5	43.4	2.0	15.5	71.0
March, 2015	2.0	9.9	39.0	2.0	16.8	75.7
Standard	80.0	80.0	100.0	80.0	80.0	100.0

Source: Himachal Pradesh Pollution Control Board (2015)

Table -3: Ambient Noise Level of Shimla

Ambient Noise dB(A)	Day time Results (Average) 26 th March, 2015	Limit
Silence Area IGMC	62	50
Residential Area Totu	51	55
Commercial Area Ridge	56	65
Industrial Area Shoghi	65	75

Source: Himachal Pradesh Pollution Control Board (2015)

28. The main source of air pollution and increased noise are vehicles only as Shimla is along national highways and crowded due to tourist influx. Ambient air quality and noise levels in the subproject site are expected to be within Himachal Pradesh State Pollution Control Board standard as there are no major sources of air pollution in nearby areas except the vehicles.

29. Ambient noise level in the project area falls under commercial area Ridge which is well within limit as per table 3.

30. Air and noise quality monitoring will be done at proposed site before construction, during construction and during post construction periods as per EMP.

B. Ecological Environment

31. Shimla is adorned with meadows and wooded hill sides laced with pine, fir, poplar, oak and deodar. All these contribute in making the serene hill station even more romantic.

32. **Flora and fauna.** Forests constitute about 55% of Shimla. The city is known for its City/Urban Forest, and urban forest is part of the fabric of Shimla bringing nature into urban landscape. There are about 9 parks/gardens and 8 open space/grounds in the city covering about 6 ha. In addition to forestlands, 1000 ha of land is under estate forest. The predominant species in the forest area are Deodar, Pine, Oak, Kail, Rai and Rhodendron. The wild life has migrated towards deeper forests and is limited to Pheasants.

33. There are no trees present within the sub project influence area. In addition, the whole town and its surroundings are interspersed with designated protected or reserved forests which have an associated eco-system value that plays a vital role in lending Shimla its unique natural heritage.

34. **Protected areas.** The proposed project sites are 5 km from the boundary of Shimla Water Catchment Wildlife Sanctuary but in proposed works there will not be any impact to the sanctuary as this is only a restoration project of the existing historic structures of the town. There are no other protected areas (forests, wetlands, mangroves, or estuaries) in or near the subproject sites.

C. Socio Cultural and Economic Environment

35. **Demographic Profile.** In 2011, Shimla district had population of 814,010 of which male and female were 425,039 and 388,971 respectively. In 2001 census, Shimla had a population of 722,502 of which males were 380,996 and remaining 341,506 were females. The initial provisional data released by census India 2011, shows that density of Shimla district for 2011 is 159 people per sq. km. In 2001, Shimla district density was at 141 people per sq. km. Shimla district administers 5,131 sq. km of areas. Average literacy rate of Shimla in 2011 were 83.64 compared to 79.12 of 2001. If things are looked out at gender wise, male and female literacy were 89.59 and 77.13 respectively. For 2001 census, same figures stood at 87.19 and 70.07 in Shimla District.

36. As per reports of Census India, population of Shimla city (urban area) in 2011 is 169,758; of which male and female are 93,364 and 76,394 respectively. Although Shimla city has population of 169,758; its urban / metropolitan population is 171,817 of which 94,797 are males and 77,020 are females. In education section, total literates in Shimla city are 147,799 of which 82,486 are males while 65,313 are females. Average literacy rate of Shimla city is 94.67 percent of which male and female literacy was 95.75 and 93.35 percent. The sex ratio of Shimla city is 818 per 1000 males. Child sex ratio of girls is 890 per 1000 boys. Total children (0-6) in Shimla city are 13,646 as per figure from Census India report on 2011. There were 7,221 boys while 6,425 are girls. The child forms 8.04 % of total population of Shimla City.

37. **Economy and Agriculture.** Employment is largely driven by the Government and tourism. Education and horticultural produce processing, comprise most of the remainder. In addition to being the local hub of transportation and trade, Shimla is the area's healthcare centre, hosting a medical college and four major hospitals: the Indira Gandhi Hospital (formerly known as Snowdown Hospital,) Deen Dayal Upadhyay Hospital (formerly called Ripon Hospital,) Kamla Nehru Hospital, and Indus Hospital. The city's development plan aims make Shimla an attractive health tourism spot. Hotel industry is one of the major sources of income generation for the city. Shimla leads the list of Indian cities with the highest ranked hotels. Government is trying to promote technology and IT sector as the new area for growth and promotion although not many companies have yet settled in Shimla. Two notable companies that are registered in Shimla are Avant-Garde Digital, an international company, and Instablogs, a company that deals with media publishing.

38. Maize and wheat are the major cereal crops in Shimla district. Under cash crop, potato is the main crop. Area and production under other crops viz. Millets, pulses and oil seeds is very low. Shimla district occupies a place of pride in the field of horticulture not only in the State but also in the country. Shimla is the biggest Apple growing district in Himachal Pradesh. Other fruits grown include peach, plum apricot, walnut, almond cherry, citrus, etc.

39. **Industry.** Tourism and agriculture are the mainstays of the district economy. Shimla is a multifunctional city with dominance in tourism, administration and institutional activities. Percentage contribution of primary sectors to total GDP is 25.40%, while that of secondary sector is 35.59 % and tertiary sector is 39.01%. Industrial development in the past has been limited largely due to unavailability of proper infrastructure, hilly region, and cost of transportation. Traditional small-scale industries like wool spinning and weaving, basket making, metal work, that use local resources are still alive without much progress. Apart from this, wood working, black-smith, dying and manufacturing works, oil crushing, leather works, pottery, gold smith, food processing are other small scale industries practiced in the town. The drivers for the majority of these industries are tourists and local people. There are around 259 registered small scale industries in Shimla, with food based industries, textile, leather, wood and wood works, paper and paper products manufacture, and service industries.

40. **Physical Infrastructure and Services.** Department of Irrigation and Public Health and Shimla Municipal Corporation (SMC) are planning and implementing drinking water supply as well as sewage disposal. Public Works department is responsible for planning, construction and operation and maintenance of road network; while internal roads are maintained by SMC. SMC does solid waste disposal and management. Shimla has the network of sewerage system with treatment plants. Health infrastructure includes 7 hospitals, 3 primary health centres and 21 dispensaries of the State Government. Shimla characterized by unique and distinct British Heritage is famous for built heritage such as Vice Regal Lodge (India Institute of Advanced Studies), Rothney Castle, Railway Board Building, Gaiety Theatre and Gorton Castle. The architectural heritage in Shimla shows eminence diversity including Tudor, Victorian, Edwardian style in such small geographical area and are very precious assets of Shimla's Built Fabric. The Government of Himachal Pradesh, under Town and Country Planning Act has notified the 50m area around Mall Road possessing significant evidence of heritage as Heritage Zone.

V. ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

41. 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.

42. **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 Church is the property of Church Committees, which have given consent in form of MOU for the proposed works, therefore no land acquisition is required and no any resettlement impact will be anticipated.

43. **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

44. 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

45. **Determination of Area of Influence.** The primary impact for subproject is the proposed site available for the construction of project components.

46. 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

47. **Consents, permits, clearances, no objection certificate (NOC), etc.** All the consents, permits, clearances and NOCs are required to be obtained before construction works. Failure to obtain necessary consents, permits, NOCs, etc. can result to design revisions and/or stoppage of works.

48. **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 of all obtained consents, permits, clearance, NOCs, etc.
- Include in detailed design drawings and documents all conditions and provisions if necessary

49. **Erosion control.** Most of the proposed works are only restoration works on existing buildings of Church, therefore soil erosion is not expected in most of the work components. It can be expected in proposed landscaping works. Therefore the contractor will be required to:

- 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 (precipitation, seismic activity, slope angles, and geologic structure).
- Minimize the amount of land disturbed as much as possible. Minimize vegetation removal. Stage construction to limit the exposed area at any one time.

50. **Utilities.** Propose works are only restoration of existing church buildings therefore no disturbance to existing utility services is envisaged. Nevertheless, interruption of services (water supply, toilets, electric supply, 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.

51. **Social and Cultural Resources.** There is no risk that can uncover and damage

archaeological and historical remains. Although no such risks have been identified, the PIU/DSC will:

- 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.

52. Sites for construction work camps and areas for stockpile, storage and disposal. The priority is to locate these near the subproject sites but for this sub-project there may be no space for the work camps, stockpile, storage and disposal as the site is located in busy areas. Therefore these facilities, if required, should be away from work sites and 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 or near any 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 near drain/water bodies/river banks. Any construction camp site will be finalized in consultation with DSC and PIU.

53. Sources of construction materials. Very less amounts of gravel, sand, and cement will be required for this subproject, which can be procured from the local markets. No specific quarry site will be required for this project, nevertheless, the contractor will be required to:

- 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.

54. 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.

55. Access. All the proposed works will be within the premises of existing Church and during construction works access of visitors to the Church may be temporarily affected; therefore potential impacts will be of short-duration, localized and can be mitigated. The contractor will need to adopt the following mitigation measures:

- Schedule construction activities during non-peak hours (keeping in mind the time of prayers).
- Schedule transport of materials in lean time by small vehicles.
- Keep the site free from all unnecessary obstructions.
- Notify affected sensitive receptors (visitors) by providing sign boards with information about the nature and duration of construction works and contact numbers for concerns/complaints.

56. Occupational health and safety: Occupational hazards can arise from construction activities. Therefore following need to be planned;

- Plan to comply with IFC EHS Guidelines on Occupational Health and Safety
- Develop comprehensive site-specific health and safety (H&S) plan. The overall objective is to provide guidance to contractors on establishing a management strategy and applying practices that are intended to eliminate, or reduce, fatalities, injuries and illnesses for workers performing activities and tasks associated with the project.
- Include in H&S plan measures such 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.

57. Public consultations: Continue information dissemination, consultations, and involvement/participation of stakeholders during project preparation/implementation.

58. Fire fighting equipment's: Fire extinguishers to be placed need training of identified personnel's during the construction/operation phase.

59. Identification of muck disposal site:

- Identify muck disposal areas in consultation with MC, Shimla to dispose off dismantle wastes of the building
- Utilize the dismantle material as much as possible.

60. Summary of pre-construction activities is presented in **Table 4**. 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 is attached as **Annexures 4**. Site-specific plans will be developed as per detailed design.

Table 4: Summary of Pre-Construction Mitigation Measures

Parameters	Mitigation Measures
Consents, permits, clearances, no objection certificate (NOC), etc.	<ul style="list-style-type: none"> • 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

Parameters	Mitigation Measures
Establishment of baseline environmental conditions prior to start of civil works	<ul style="list-style-type: none"> • Conduct documentation of location of components, areas for construction zone (camps, staging, storage, stockpiling, etc.) and surroundings (within direct impact zones). Include photos and GPS coordinates. • Prior to start of civil works ambient air quality and ambient noise level will be generated (once at one site except monsoon period).
Erosion control	<ul style="list-style-type: none"> • 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 (precipitation, seismic activity, slope angles, and geologic structure). • Minimize the amount of land disturbed as much as possible. Minimize vegetation removal. Stage construction to limit the exposed area at any one time.
Utilities	<ul style="list-style-type: none"> • Identify and include locations and operators of these utilities in the detailed design documents to prevent unnecessary disruption of services during the construction phase. • Require contractors to prepare a contingency plan to include actions to be done in case of unintentional interruption of services. • 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.
Social and Cultural Resources	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Will not promote instability and result in destruction of property, vegetation, irrigation, and drinking water supply systems, etc. • Residential areas will not be considered so as to protect the human environment (i.e., to curb accident risks, health risks due to air and water pollution and dust, and noise, and to prevent social conflicts, 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.
Sources of construction materials	<ul style="list-style-type: none"> • Procure the sand and gravel from quarry sites and sources permitted by government. • Verify suitability of all material sources and obtain approval from PIU/DSC. • Submit to PIU/DSC on a monthly basis documentation of sources of materials.
Access	<ul style="list-style-type: none"> • Schedule construction activities during non-peak hours (keeping in mind the time of prayers). • Schedule transport of materials in lean time by small vehicles. • Keep the site free from all unnecessary obstructions. • Notify affected sensitive receptors (visitors) by providing sign boards with information about the nature and duration of construction works and contact numbers for concerns/complaints.
Occupational health and safety	<ul style="list-style-type: none"> • Plan to comply with IFC EHS Guidelines on Occupational Health and Safety • Develop comprehensive site-specific health and safety (H&S) plan. The overall objective is to provide guidance to contractors on establishing a management strategy and applying practices that are intended to eliminate, or reduce, fatalities, injuries and illnesses for workers performing activities and tasks associated with the project.

Parameters	Mitigation Measures
	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Continue information dissemination, consultations, and involvement/participation of stakeholders during project implementation.
Fire Fighting equipment's	<ul style="list-style-type: none"> • Fire extinguishers to be placed need training of identified personnel's during the construction/operation phase..
Identification of Muck disposal site	<ul style="list-style-type: none"> • Identify muck disposal areas in consultation with MC, Shimla to dispose off dismantle wastes of the building • Utilize the dismantle material as much as possible.

C. Anticipated Construction Impacts and Mitigation Measures

61. **Construction Schedule and Method.** As per detailed design, construction activities will cover 18 months.

62. The proposed works shall be done manually according to design specifications. Excavations and trenches, if required, will be dug by manual digging. Excavated soil will be placed nearby. Excavated materials will be reused to the maximum extent possible. Materials will be brought to site by small loading vehicles (autos) and will be stored on unused areas within sites and nearby vacant areas. The working hours will be 8 hours daily, the total duration of each stage depends on the soil condition and other local features.

63. Proposed works are within the premises of Church, which are located in busy and congested areas. There will be no space for storage of huge quantity of construction material or plying construction machineries. Therefore contractor will be require to bring the required quantity of construction material for a single day only and the contractor will also need to remove all construction and demolition wastes on a daily basis.

64. 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 tourists, residents, businesses, and the community in general. These anticipated impacts are short-term, site-specific and within relatively small areas.

65. **Erosion Hazards.** The sites are having even terrain therefore risk of erosion is very low and limited during construction activities and not expected to have negative impact on the drainage and hydrology of the area. Nevertheless, the contractor will be required to:

- Provide temporary stabilization of disturbed areas while landscaping.
- Maintain vegetative cover within unused area to prevent erosion.

66. **Impacts on Water Quality.** Proposed construction activities are not large enough to cause water pollution and limited to small areas only. Very low 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. Nevertheless, The contractor will be required to:

- Schedule civil works during non-monsoon season, to the maximum extent possible.
- Ensure drainages within the construction zones are kept free of obstructions.
- Keep loose soil material and stockpiles out of drains, 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, dismantle 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.

67. **Impacts on Air Quality.** There is potential for increased dust particularly during summer/dry season due to stockpiling and surface cleaning activities but these activities are not large enough to cause depletion of ambient air quality. 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 and sand piles.
- Conduct regular visual inspection along alignments and construction zones to ensure no excessive dust emissions.
- Spreading water, if possible, before surface cleaning to reduce dust emission.

68. **Noise and Vibration Impacts.** Noise and vibration-emitting activities are not expected in the proposed works as there will be no use of any construction equipment's and vehicles, which may create noise and vibration impacts. However, the contractor will be required to:

- Limit construction activities in Church complexes to **day time only**.
- Plan activities in consultation with the PIU/DSC so that activities with the greatest potential to generate noise are conducted during non-peak periods of the day which will result in least disturbance.
- If specific noise complaints are received during construction, the contractor may be required to reschedule construction operations to avoid periods of noise annoyance identified in the complaint
- 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

69. **Impacts on Flora and Fauna.** As per detailed design, tree-cutting is not required. There are no protected areas in the direct and indirect impact zones and no diverse

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

ecological biodiversity as vegetation and 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.
- Choose local species in landscaping works.

70. **Impacts on Physical and Cultural Resources.** There may be inconvenience to tourists, residents, businesses, and other facility 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.
- 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.

71. **Impact due to Waste Generation.** Constructions activities will produce dismantle material, excess construction materials, and solid wastes (such as removed concrete, wood, packaging materials, empty containers, oils, lubricants, and other similar items). These impacts are negative but short-term and reversible by mitigation measures. The contractor will need to adopt the following mitigation measures:

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

72. **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%2BOccupati>

onal%2BHealth%2Band%2BSafety.pdf?MOD=AJPERES). The contractor will be required to:

- 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.
- 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.

73. **Impacts on Socio-Economic Activities.** Manpower will be required during the 18 months construction phase. This can help generate contractual employment and increase in local revenue. Thus potential impact is positive and long-term. As per detailed 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:

- Provide walkways and metal sheets where required to maintain access to tourists/visitors.
- Consult Church Authorities regarding operating hours and factoring this in to work schedules.
- Provide sign boards for tourists/visitors 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.

74. **Summary of Mitigation Measures during Construction.** Table 5 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 5: Summary of Mitigation Measures during Construction Phase

Potential Impact	Mitigation Measures
Erosion hazards	<ul style="list-style-type: none"> Provide temporary stabilization of disturbed areas while landscaping. Maintain vegetative cover within unused area to prevent erosion.
Impacts on water quality	<ul style="list-style-type: none"> 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.
Impacts on air quality	<ul style="list-style-type: none"> Conduct regular water spraying on earth piles and sand piles. Conduct regular visual inspection construction zones to ensure no excessive dust emissions. Spreading water, if possible, before surface cleaning to reduce dust emission.
Noise and vibrations impacts	<ul style="list-style-type: none"> Limit construction activities in Church complexes to day time only. Plan activities in consultation with the PIU/DSC so that activities with the greatest potential to generate noise are conducted during non-peak periods of the day which will result in least disturbance. If specific noise complaints are received during construction, the contractor may be required to reschedule construction operations to avoid periods of noise annoyance identified in the complaint 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.
Impacts on flora and fauna	<ul style="list-style-type: none"> 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. Choose local species in landscaping works.
Impacts on physical resources	<ul style="list-style-type: none"> 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. 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	<ul style="list-style-type: none"> Prepare and implement a waste management plan. Manage solid waste according to the following hierarchy: reuse, recycling and disposal. Include in waste management plan designated/approved disposal areas. Coordinate with Local Municipal Authority for beneficial uses of excavated

Potential Impact	Mitigation Measures
	soils/silts/sediments or immediately dispose to designated areas. <ul style="list-style-type: none"> Recover used oil and lubricants and reuse; or remove from the sites. Avoid stockpiling and remove immediately all dismantled material, excess construction materials, and solid waste (removed concrete, wood, packaging materials, empty containers, oils, lubricants, and other similar items). Prohibit disposal of any material or wastes into drainage, <i>nallah</i>, or watercourse.
Impacts on occupational health and safety	<ul style="list-style-type: none"> 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. 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	<ul style="list-style-type: none"> Provide walkways and metal sheets where required to maintain access to tourists/visitors. Consult Church Authorities regarding operating hours and factoring this in to work schedules. Provide sign boards for tourists/visitors 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.

75. 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

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

- 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 areas, staging areas, and temporary work areas.
- Remove all tools, equipment, barricades, signs, surplus materials, debris, and rubbish. Demolish buildings/structures not required for O&M. Dispose in designated disposal sites.
- Monitor success of re-vegetation and tree re-planting. Replace all plants determined to be in an unhealthy condition.
- Request in writing from PIU/DSC that construction zones have been restored.

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

77. 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 another subproject (Shimla Mall Road)
- Increase solid waste generation – Christ Church Committee will coordinate with Municipal Corporation to put in place solid waste management programs.

VI. INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION

A. ADB Disclosure Policy

78. 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 tourist, Church Authorities from whom information on site facts and prevailing conditions were collected.

79. As per ADB safeguard requirement, public consultation is to be carried out before and after impact identification. Public consultation was therefore carried out thrice, once at the time of conceptualization of the project with the key stakeholders particularly with District Administration, Church Authority, tourists and nearby shopkeepers/ vendors etc, secondly to discuss mitigating measures and get concurrence of stakeholders and thirdly to seek more information to strengthen the document.

B. Process for Consultation followed

80. During project preparation (July 2014 to December 2015), consultations have been held with the HP Department of Tourism, tourists of Shimla and District administration, Church Committees, 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. Records of the consultations are provided in **Annexure-5**.

C. Plan for continued public participation

81. 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 shall be made available on Himachal Tourism website.

82. 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.

83. 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, Shimla 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 at Shimla, 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

84. 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.

85. 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

86. **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.

87. **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.

88. **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).

89. The details are attached as **Annexure 6**.

B. Approach to GRC.

90. 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-7**.
- 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.

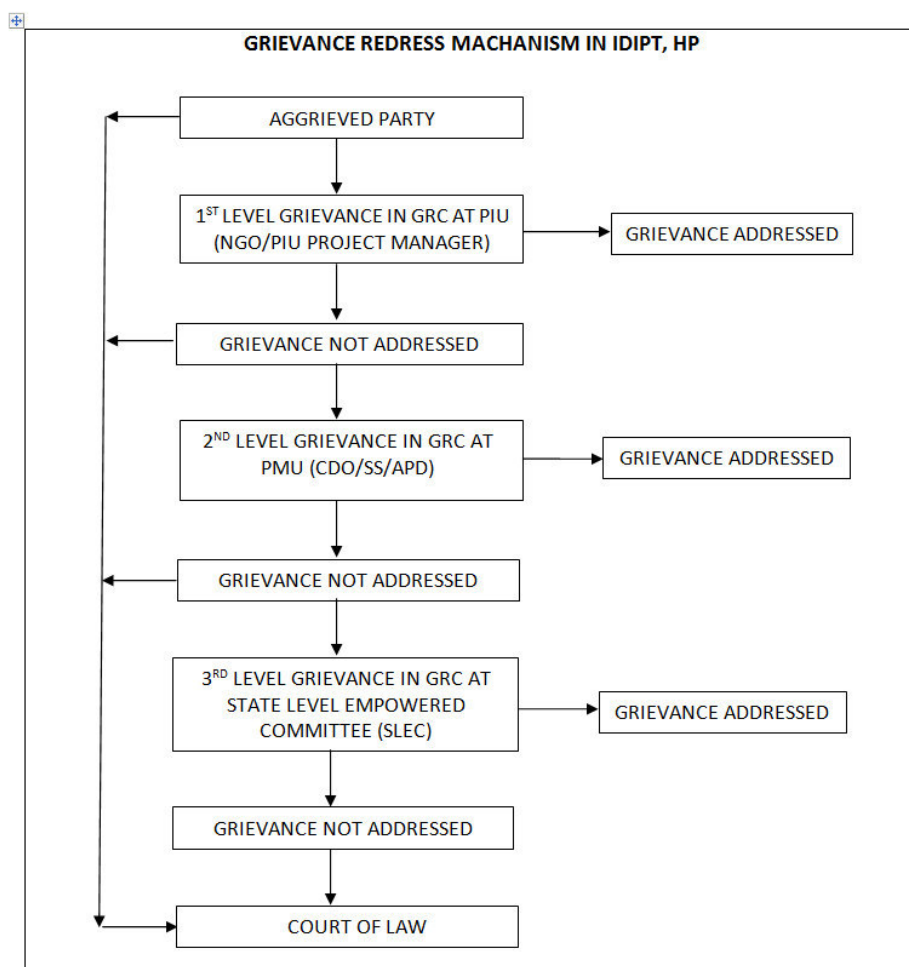


Figure 2: Grievance Redress Mechanism in IDIPT, Himachal Pradesh

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. ENVIRONMENTAL MANAGEMENT PLAN

91. 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.

92. 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.

93. 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. Responsibility for EMP Implementation

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

- The Department of Tourism and Civil Aviation (DoTCA), Government of Himachal Pradesh, is the Executing Agency.
- The implementing agency is the Himachal Pradesh Tourism Development Board (HPTDB).
- The Project Management Unit (PMU) has been established in Shimla for the overall project management and
- Project Implementation Unit (PIU) has been established in Shimla.
- Environmental Specialist has been deputed by the PMU, who will be responsible for implementation of the environmental safeguard provisions. The Project Management Consultants (PMC) and Design and Supervision Consultant (DSC, Shimla) have been recruited to provide assistance to the PMU/PIUs in project implementation.
- Within the PMC team, an Environmental Specialist provides overall direction for management of environmental issues, and provides technical support to the PMU including implementation of the environmental safeguards according to ADB requirements, and assist in monitoring impacts and mitigation measures associated with subprojects.
- The Environmental Specialist of the DSC team is responsible for preparation of the Environmental assessment documents in line with the EARF and supervises the implementation of the EMP provisions in the subprojects. The DSC Safeguards specialist supports environmental management functions including updating IEEs with respect to sub-project Environmental Management Plans, and assist in monitoring impacts and mitigation measures associated with subprojects. He/she will be required to include mitigation measures in designs where appropriate, and to specify other measures in construction contracts. Contractors will be required by their contracts to implement all specified mitigation, monitoring, and reporting assigned to contractors as presented in the EMP.
- The PMU, oversees the implementation of the environmental provisions related to subproject implementation, its responsibilities include preparation and updation of IEEs consistent with the ADBs Safeguards Policy Statement and the environmental compliance requirements of the Government of Himachal Pradesh and the Government of India. Environmental monitoring will be undertaken by the PMU supported by the DSC - Safeguards Specialist.

- The project includes upfront and on-going supervision and training assistance for environmental monitoring reporting in project management structures. 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 PMC/DSC.

95. 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
- 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

- Prepare 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

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

by the Contractor. Hold regular consultation meetings with the Environmental specialist of the PMU

- Review the Contractors' Environmental Implementation Plans to ensure compliance with the IEE.
- Develop good practice construction guidelines to assist the contractors in implementing the provisions of IEE.
- Prepare and submit regular environmental monitoring and implementation progress reports.
- Assist Environmental Specialist of the PMU to prepare good practice dissemination notes based on the experience gained from site supervision.

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

Support and Advise the PMU and Consultants team in-

- Review the IEE document and ensure adequacy under Safeguard Policy Statement, 2009 and identify any areas for improvement.
- 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
- 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

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

97. **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 Tourism Department.

98. **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 thereafter the reports will be submitted to ADB on semi-annual basis. 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 progress reports including environmental closure report. The sample field monitoring report and semi-annual environmental monitoring templates are attached as **Annexure- 8 & 9**.

B. EMP Tables

99. **Table 6 to 8** show 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 6: 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	<ul style="list-style-type: none"> • Conduct documentation of location of components, areas for construction zone (camps, staging, storage, stockpiling, etc.) and surroundings (within direct impact zones). Include photos and GPS coordinates. • Prior to start of civil works ambient air quality and ambient noise level will be generated (once at one site except monsoon period). 	Records/ Ambient air Parameter's (PM10, PM2.5, SO ₂ , NO ₂) & ambient noise level	Contractor/PMU	PIU and DSC	Baseline data will be generated prior to start of civil work.	Contractor
Erosion control	• Minimize the potential for erosion by balancing cuts and fills to the extent	Erosion control and re-vegetation plan covering	Contractor	PIU and DSC	to be 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
	feasible. <ul style="list-style-type: none"> Identify and avoid areas with unstable slopes and local factors that can cause slope instability (precipitation, seismic activity, slope angles, and geologic structure). Minimize the amount of land disturbed as much as possible. Minimize vegetation removal. Stage construction to limit the exposed area at any one time. 	construction phase				
Utilities	<ul style="list-style-type: none"> Identify and include locations and operators of these utilities in the detailed design documents to prevent unnecessary disruption of services during the construction phase (if any). Require contractors to prepare a contingency plan to include actions to be done in case of unintentional interruption of services. Require contractors to obtain from the PIU and/or DSC the list of affected utilities and operators; If relocations are necessary, 	<p>List and maps showing utilities to be shifted</p> <p>Contingency plan for services disruption</p>	<p>- DSC to prepare preliminary list and maps of utilities to be shifted</p> <p>- During detailed design phase, contractor to (i) prepare list and operators of utilities to be shifted; (ii) contingency plan</p>	PIU and DSC	Upon submission by contractor,	<p>DSC – preliminary design stage</p> <p>Contractor – detailed design stage</p>

Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds to Implement Mitigation Measures
	contractor will coordinate with the providers to relocate the utility.					
Social and Cultural Resources	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> - PMC to consult ASI or HP State Archaeology Department - PMC to develop protocol for chance finds 	PMU	Included in updated IEE report	PMU
Sites for construction work camps, areas for stockpile, storage and disposal	<ul style="list-style-type: none"> • Will not promote instability and result in destruction of property, vegetation, irrigation, and drinking water supply systems, etc. • Residential areas will not be considered so as to protect the human environment (i.e., to curb accident risks, health risks due to air and water pollution and dust, and noise, and to prevent social conflicts, shortages of amenities, and crime). 	<p>List of pre-approved sites for construction work camps, areas for stockpile, storage and disposal</p> <p>Waste management plan</p>	<ul style="list-style-type: none"> - DSC to prepare list of potential sites DSC to inspect sites proposed by contractor if not included in pre-approved sites 	PIU/DSC	Monthly	DSC

Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds to Implement Mitigation Measures
	<ul style="list-style-type: none"> 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. 					
Sources of construction materials	<ul style="list-style-type: none"> Procure the sand and gravel from quarry sites and sources permitted by government. Verify suitability of all material sources and obtain approval from PIU. Submit to DSC on a monthly basis documentation of sources of materials. 	Permits issued to quarries/sources of materials	Contractor PMC and DSC to verify sources (including permits) if additional is requested by contractor	PMU/PIU	Upon submission by contractor, monthly	PMC and DSC
Access	<ul style="list-style-type: none"> Schedule construction activities during non-peak hours (keeping in mind the time of prayers). Keep the site free from all unnecessary obstructions. Notify affected sensitive receptors (visitors) by providing sign boards with information about the nature and duration of construction works and contact numbers 	Visual inspection	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
	for concerns/complaints.					
Occupational health and safety	<ul style="list-style-type: none"> • Comply with IFC EHS Guidelines on Occupational Health and Safety • Develop comprehensive site-specific health and safety (H&S) plan. The overall objective is to provide guidance to contractors on establishing a management strategy and applying practices that are intended to eliminate, or reduce, fatalities, injuries and illnesses for workers performing activities and tasks associated with the project. • Include in H&S plan measures such 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. 	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
Public consultations	<ul style="list-style-type: none"> Continue information dissemination, consultations, and involvement/participation of stakeholders during project implementation. 	<ul style="list-style-type: none"> - Disclosure records - Consultations 	PMC and DSC	PMU and PMC	<ul style="list-style-type: none"> - During updating of IEE Report - During preparation of site- and activity-specific plans as per EMP - Prior to start of construction - During construction 	PMU/PMC/DSC
Fire fighting equipment's	<ul style="list-style-type: none"> Fire extinguishers to be placed need training of identified personnel's during the construction/operation phase. 	<ul style="list-style-type: none"> - Disclosure records - Consultations 	PIU and DSC	PMU and PMC	<ul style="list-style-type: none"> -Prior to start of construction - During construction 	Contractor
Identification of Muck disposal site	<ul style="list-style-type: none"> Identify muck disposal areas in consultation with MC, Shimla to dispose off dismantle wastes of the building Utilize the dismantle material as much as possible. 	<ul style="list-style-type: none"> - Disclosure records - Consultations 	PIU and DSC	PMU and PMC	<ul style="list-style-type: none"> - Prior to start of construction - During construction 	PMU/PIU/Contractor

Table 7: EMP Table during Construction Phase

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
Erosion hazards	<ul style="list-style-type: none">• Provide temporary stabilization of disturbed areas while landscaping.• Maintain vegetative cover within unused area to prevent erosion.	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
Impacts on water quality	<ul style="list-style-type: none">• 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	
	<ul style="list-style-type: none">• Ensure drainages and water bodies within the construction zones are kept free of obstructions.	Visual inspection				
	<ul style="list-style-type: none">• Keep loose soil material and stockpiles out of drains and flow-lines.	Visual inspection				
	<ul style="list-style-type: none">• Avoid stockpiling of excavated and construction materials (sand, gravel, cement, etc.)	Visual inspection				

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	unless covered by tarpaulins or plastic sheets.				is required) - random inspection by PMU, PIU, PMC and/or DSC	
	• Re-use/utilize, to maximum extent possible, excavated materials.	condition in waste management plan				
	• 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				
Impacts on air quality	• During construction ambient air quality testing will be done at one site (quarterly except monsoon period for 18 months at one site)	PM10, PM2.5, SO2, NO2,	PMU/ PMC	PMC/DSC	- Data will be generated during the construction phase.	Contractor
	• 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 - weekly visual inspection by DSC (more frequent during dry season and if corrective	Contractor
	• Conduct regular visual inspection in the construction zones to ensure no excessive dust emissions.	Visual inspection				
	• Wet the surface before cleaning, if possible	Visual inspection				

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
					action is required) - random inspection by PMU, PIU, PMC and/or DSC	
Noise and vibrations impacts	<ul style="list-style-type: none"> During construction noise quality testing will be done at one site (quarterly except monsoon period for 18 months at one site) 		PMU/ PMC	PMC/DSC	- Data will be generated during the construction phase	Contractor
	<ul style="list-style-type: none"> Limit construction activities in Church 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	<ul style="list-style-type: none"> - 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
	<ul style="list-style-type: none"> If specific noise complaints are received during construction, the contractor may be required to reschedule construction operations to avoid periods of noise annoyance identified in the complaint. 	<ul style="list-style-type: none"> - Complaints addressed satisfactory - GRM records 				
Impacts on flora and fauna	<ul style="list-style-type: none"> Conduct site induction and environmental awareness. 	Records	Contractor	PIU and DSC	- daily inspection by contractor supervisor and/	Contractor
	<ul style="list-style-type: none"> Limit activities within the work area. 	Barricades along excavation works				

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	<ul style="list-style-type: none"> Replant trees in the area using minimum ratio of 2 new trees for every 1 tree cut. Replacement species must be approved by District Forest Department. Use native species of plants during landscaping works 	Number and species approved by District Forest Department			or environment specialist - weekly visual inspection by DSC (more frequent if corrective action is required) - random inspection by PMU, PIU, PMC and/or DSC	
Impacts on physical and cultural resources	<ul style="list-style-type: none"> 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
	<ul style="list-style-type: none"> Provide sign boards to inform nature and duration of construction works and contact numbers for concerns/complaints. 	- no complaints received - photo-documentation				
	<ul style="list-style-type: none"> Increase the workforce to finish the works quickly 	- Records of workers deployment - Work schedule				
	<ul style="list-style-type: none"> Implement good housekeeping. Remove wastes immediately. 	- Visual inspection - No stockpiled/ stored wastes				
	<ul style="list-style-type: none"> Ensure workers will not use nearby/adjacent areas as toilet facility. 	- No complaints received - Sanitation facilities for use of workers				
	<ul style="list-style-type: none"> Provide instructions on event of chance finds for archaeological and/or ethno-botanical 	condition in chance find protocol				

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	resources. Works must be stopped immediately until such time chance finds are cleared by experts.					
Impact due to waste generation	<ul style="list-style-type: none"> • Prepare and implement a waste management plan. Manage solid waste according to the following hierarchy: reuse, recycling and disposal. Include in waste management plan designated/approved disposal areas. • Coordinate with PIU/DSC for beneficial uses of excavated soils or immediately disposal to designated areas. • Recover used oil and lubricants and reuse; or remove from the site. • 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, <i>nallah</i>, or watercourse. 	condition in waste management plan	Contractor	PIU and DSC	<ul style="list-style-type: none"> - daily inspection by contractor supervisor and/or environment specialist - weekly visual inspection by DSC (more frequent if corrective action is required) - random inspection by PMU, PIU, PMC and/or DSC 	Contractor
Impacts on	• Comply with IFC EHS	- Visual inspection	Contractor	PIU and DSC	- daily	Contractor

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
occupational health and safety	Guidelines on Occupational Health and Safety	- Records			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	
	• 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 workers.	- Records - Condition in H&S plan				
	• 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	- Workers area				

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	substances.					
	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> - Records - Condition in H&S plan 				
	<ul style="list-style-type: none"> • Mark and provide sign boards in the construction zone, and areas for storage and disposal. Signage shall be in accordance with international standards and be well known to, and easily understood by workers, visitors, and the general public as appropriate. 	<ul style="list-style-type: none"> - Visible and understandable sign boards in construction zone - H&S plan includes appropriate signs for each hazard present 				
Impacts on socio-economic activities	<ul style="list-style-type: none"> • Provide sign boards for tourists/visitors 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	<ul style="list-style-type: none"> - daily inspection by contractor supervisor and/or environment specialist - weekly visual inspection by DSC (more frequent if corrective action is required) - random inspection by PMU, PIU, PMC and/or DSC 	Contractor
	<ul style="list-style-type: none"> • 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 8: EMP Table during Post-Construction Phase

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
Solid waste (debris, excavated soils, etc.)	<ul style="list-style-type: none"> Backfill any excavation and trenches, preferably with excess excavation material generated during the construction phase. 	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
	<ul style="list-style-type: none"> Use removed topsoil to reclaim disturbed areas. 	-DO-	-DO-	-DO-	-DO-	-DO-
	<ul style="list-style-type: none"> Re-establish the original grade and drainage pattern to the extent practicable. 	-DO-	-DO-	-DO-	-DO-	-DO-
	<ul style="list-style-type: none"> Stabilize all areas of disturbed vegetation using weed-free native shrubs, grasses, and trees. 	-DO-	-DO-	-DO-	-DO-	-DO-
	<ul style="list-style-type: none"> Restore access roads, staging areas, and temporary work areas. 	-DO-	-DO-	-DO-	-DO-	-DO-
	<ul style="list-style-type: none"> Restore roadside vegetation, if removed 	-DO-	PIU/PMU*	-DO-	-DO-	PMU
	<ul style="list-style-type: none"> Remove all tools, equipment, barricades, signs, surplus materials, debris, and rubbish. Demolish buildings/structures not required for O&M. Dispose in designated disposal sites. 	-DO-	Contractor within defect liability period	-DO-	-DO-	Contractor
	<ul style="list-style-type: none"> 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
	<ul style="list-style-type: none"> Request in writing from PIU/DSC 	Certificate	PMU	PMC/PMU	-DO-	PMU

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	that construction zones have been restored.					
Environmental conditions	<ul style="list-style-type: none"> Ambient air quality- During construction ambient air quality testing will be done at one site (quarterly except monsoon period for 18 months at one site) 	PM10, PM2.5, SO ₂ , NO ₂ ,	PMU	PMU/PMC	Data will be generated after the work is completed	PMU
	<ul style="list-style-type: none"> Noise testing- During construction noise quality testing will be done at one site (quarterly except monsoon period for 18 months at one site) 	8 hourly	PMU	PMU/PMC	Data will be generated after the work is completed	PMU

** The site will be handed over to the asset owner (Church Committee) 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

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

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

To be Prepared During	Specific Plan/Program	Purpose	Responsible for Preparation	Responsible for Implementation
Pre-construction phase	Environmental monitoring program as per detailed design	Indicate sampling locations, methodology and parameters	PMC/DSC	PMU
Pre-construction phase	Erosion control and re-vegetation plan	Mitigate impacts due to erosion	PMC/DSC	Contractor
Pre-construction phase	List and maps showing utilities to be shifted	Utilities shifting	DSC during preliminary stage Contractor as per detailed design	Contractor
Pre-construction phase	Contingency plan	Mitigate impacts due to interruption of services during utilities shifting	Contractor	Contractor
Pre-construction phase	Chance find protocol	Address archaeological or historical finds	PMC/DSC	Contractor
Pre-construction phase	List of pre-approved sites	Location/s for work camps, areas for stockpile, storage and disposal	PIU and DSC	Contractor
Pre-construction phase	Waste management plan	Mitigate impacts due to waste generation	Contractor	Contractor
Pre-construction phase	H&S plan	Occupational health and safety	Contractor	Contractor
Pre-construction 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

101. 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.

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

Table 10: Indicative Environmental Monitoring Program

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.	<ul style="list-style-type: none"> - 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 ,	One location proposed as under: 1. At Christ Church	Collection of air samples (continuously 24 hours)	1. Prior to start of civil works (once at one site except monsoon period) 2. During construction (quarterly except monsoon period for 18 month at one site) -First quarter during January to March) -Second quarter during April to June) -Third quarter during October to December) 3. During post construction (once at one site except monsoon period).	1. Baseline data will be generated prior to start of civil work. Data will be generated during the construction phase. 2. Data will be generated after the work is completed 3. Data will be generated after the work is completed	7,800 per sample (total seven samples) Transportation charges extra (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	One location proposed as under: 1. At Christ Church	Use of noise meters (once)	1. Prior to start of civil works (once at one site except monsoon period) 2. During construction (quarterly except monsoon period for 18 month at one site) -First quarter during January to March) -Second quarter during April to June) -Third quarter during October to December) 3. During post construction (once at one site except monsoon period)	1. Baseline data will be generated prior to start of civil work. 2. Data will be generated after the work is completed. 3. Data will be generated after the work is completed.	4,000 per sample (total seven samples) Transportation charges extra (1,000/- per sample)	PMU
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	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

Potential Impact	Parameter to be monitored	Proposed Locations	Method of Monitoring	Frequency of monitoring	Indicator of Compliance	Cost	Source of Funds
			contingency plan for services disruption				
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	already covered under PMU/PIU and PMC/DSC	NA
Sites for construction work camps, areas for stockpile, storage and disposal	List of pre-approved sites for construction work camps, areas for stockpile, storage and disposal	sites for construction work camps, areas for stockpile, storage and disposal	Visual inspection	Upon approval of site/s	included in updated IEE report The contractor will submit a plan before the civil work starts.		NA
	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 starts.	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	Documentation of (minutes of	- During updating of IEE Report - During preparation	included in updated IEE	already covered under PMU/PIU and	NA

Potential Impact	Parameter to be monitored	Proposed Locations	Method of Monitoring	Frequency of monitoring	Indicator of Compliance	Cost	Source of Funds
		- locations of stakeholders	consultations , date/s, location/s, issue/s raised, photographs, etc.)	of site- and activity-specific plans as per EMP - Prior to start of construction - During construction		PMC/DSC	
Identification of Muck disposal site	<ul style="list-style-type: none"> Identify muck disposal areas in consultation with MC, Shimla to dispose off dismantle wastes of the building Utilize the dismantle material as much as possible. 	To be identified with MC	PIU and DSC	PMU and PMC	- Disclosure records - Consultations	PMU/PIU/Contractor	
2. Construction Phase							
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

Potential Impact	Parameter to be monitored	Proposed Locations	Method of Monitoring	Frequency of monitoring	Indicator of Compliance	Cost	Source of Funds
Impacts on water quality	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - 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 	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - water spraying on stockpiles - excessive dust emissions - 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 	<ul style="list-style-type: none"> - Construction zone - Sensitive receptors site/s 	Visual inspection	<ul style="list-style-type: none"> - daily visual inspection by contractor supervisor and/or environment 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 	<ul style="list-style-type: none"> - no excessive dust emissions - no complaints from sensitive receptors - Valid pollution under control certificate/s. CFE, and/or CFO 	Contractor's cost	Contractor
Noise and vibrations impacts	<ul style="list-style-type: none"> - work schedule (limit to day time only in temple complexes and other important 	<ul style="list-style-type: none"> - Construction zone - Sensitive 	Visual inspection	<ul style="list-style-type: none"> - daily visual inspection by contractor supervisor and/or 	<ul style="list-style-type: none"> - no complaints from sensitive receptors 	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
	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	receptors site/s - silence zone/s		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			
Impacts on flora and fauna	- site induction and environmental awareness - number of trees cut - number of trees replanted - survival rate of trees planted	- construction zone - sites approved by Forest Department for replanting, if any	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	- all contractor's employees have undertaken site induction and environmental awareness prior to mobilization - approved trees to be cut - approved tree species for replantation	Contractor's cost	Contractor
Impacts on physical and cultural resources	- damage to structures/properties adjacent to construction zone - sign boards to inform nature and duration of	- construction zone	Visual monitoring	- daily visual inspection by contractor supervisor and/or environment specialist - weekly visual	- 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	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 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			inspection by DSC (more frequent during monsoon season and if corrective action is required) - random inspection by PMU, PIU, PMC and/or DSC	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		
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	- construction zone	- visual monitoring - checking of	- daily visual inspection by contractor	- conditions in H&S plan - all workers oriented on H&S plan	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
	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 - 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		records	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	- 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		
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)	- disturbed areas	- construction	visual inspection	upon completion of civil works prior to	- backfilled any excavation and trenches	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
soils, etc.)		zone		turn over to asset owner	<ul style="list-style-type: none"> - 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. - 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

103. The Environmental Specialist of the DSC will provide the basic training required for environmental awareness followed by specific aspects of infrastructure improvement Projects along with Environmental implications for projects. Specific modules customized for the available skill set will be devised after assessing the capabilities of the members of the Training Programme and the requirements of the project. The entire training 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 11** below. This training program is intended for the entire destination and is not just specific to this package.

Table 11: Training Modules for Environmental Management (Common for Entire Project)

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	1/2 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	1/2 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	1/2 Working Day	Safeguards Specialist of the PMC and DSC

F. EMP Implementation Cost

104. 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.

105. 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.

106. 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 12** below.

Table 12: 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 (RSPM, SO ₂ , NO ₂) (One Location)	Prior to start of civil works (once at one site except monsoon period)	Per sample	7	7,800	54,600	PMU/ Contractor
	Transportation & sampling cost			7	1,000	7,000	
2	Noise Levels -Day time by noise meter (One Location)	2. During construction (quarterly except monsoon period for 18 month at one site) -First quarter during January to March) -Second quarter during April to June) -Third quarter during October to December)	Per sample	7	4,000	28,000	
	Transportation & sampling cost			7	1,000	7,000	
Sub- Total (A)						96,600	
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	
Sub -Total (B)						4,50,000	
Total (A+B) INR						5,46,600	

IX. FINDINGS AND RECOMMENDATIONS

107. 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.

108. 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

109. 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.

110. 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: Conservation of Christ in Heritage Zone of Shimla

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?	✓		The project locations comprise the town centre and its vicinity which is the hub of business, education, entertainment and tourist activity.
• Heavy with development activities?		✓	Development activities at Christ Church is on the ridge
• Adjacent to or within any environmentally sensitive areas?		✓	The sub-project area is not adjacent to or within any environmentally sensitive areas.
• Cultural heritage site	✓		The project area is city-level Heritage Core Zone of Mall Road, under MC, Shimla Notification dated 22-Aug-2002 & as per Zoning Regulations of TCP notification No. TCP-F(5)-5/2010 dt.28-2-2011 implemented by MC Shimla.
• Protected Area		✓	The proposed church site are 5 km away from the boundary of Shimla Water Catchment, Wildlife Sanctuary. Proposed works will not have any impact on the sanctuary as this is only a restoration project of the existing historic structures of the town. In addition, the whole town and its surroundings are interspersed with designated protected or reserved forests which have an associated eco-system value that plays a vital role in lending Shimla its unique natural heritage.
• Wetland		✓	The building structures are in existence at site and there is no wetland.
• Mangrove		✓	The areas are totally developed with building structures and no mangrove nearby the site.
• Estuarine		✓	No estuarine water course nearby.
• Buffer zone of protected area		✓	None. The project sites do not fall under buffer zone.
• Special area for protecting biodiversity		✓	None. The project sites do not fall under special area for protection biodiversity.
• Bay		✓	The sites are on 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 for which adequate measures will be taken.

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?		✓	Only improvement to the existing buildings is proposed and no rapid urban growth is anticipated due to this activity as is it saturated for any further growths.
• Degradation of land and ecosystems (e.g. loss of wetlands and wild lands, coastal zones, watersheds and forests)?		✓	The subproject aims to restore the cultural and heritage value of the buildings by proposed improvements and facilitate the residents and tourists alike. No such impact (land/eco degradation) envisaged.
• Dislocation or involuntary resettlement of people?		✓	Not required as no land acquisition involved and all the project activities are restricted within the existing building structures
• Disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable group?		✓	No such group exists at the sites and no impacts anticipated. The sub project will generate more employment opportunity to such groups.
• 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 indirect revenue will increase.
• 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 as the site is a restricted area and more over the project has no pollutive industrial activities nearby.
• Water resource problems (e.g. depletion/degradation of available water supply, deterioration for surface and ground water quality, and pollution of receiving waters)?		✓	Proposed works will involve very less amount of water, which can easily be coped with mobile water tankers
• Air pollution due to urban emissions?		✓	Though not directly, but during the construction phase anticipated if any, this will be addressed properly in the EMP
▪ 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 is required to adopt safety measures such as use of personal protective wear, cautionary signage and proper material storage.
• Road blocking and temporary flooding due to land excavation during rainy season?		✓	Road blocking and temporary flooding is not expected as per scope of works which are only restoration of existing structures
• Noise and dust from construction activities?	✓		Minor increase in noise levels & 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. Shall be minimized by adopting suitable mitigation measures during implementation.

Screening Questions	Yes	No	Remarks
• Traffic disturbances due to construction material transport and wastes?		✓	The area has minimal vehicular movement due to roads being 'restricted' or 'sealed' hence not much disturbance to traffic is envisaged. However, traffic diversion plan, if required, will be prepared by contractor in consultation with Engineer 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?		✓	No water bodies involved within the limits.
• Overpaying of ground water, leading to land subsidence, lowered ground water table, and salinization?		✓	Water for construction will be made thr' transportation from external sources.
• Contamination of surface and ground waters due to improper waste disposal?	✓		Contamination of surface and ground water is possible from 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.
• Pollution of receiving waters resulting in amenity losses, fisheries and marine resource depletion, and health problems?		✓	No receiving waters in the nearby area.
• 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 which can be addressed 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.

Screening Questions	Yes	No	Remarks
<ul style="list-style-type: none"> 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 IV. Due to the natural topography of hilly terrain landslides are a common phenomenon. In addition, the project site is located in the core area of the town that is heavily congested and a major public access in the town connecting almost all commercial, residential and office areas. 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. The most vulnerable among the proposed activities is the area of the Ridge and those that are located north of it.

PRELIMINARY CLIMATE RISK SCREENING CHECKLIST FOR SAMPLE SUBPROJECT TOWNS

Screening Questions		Score	Remarks ³
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?	1	Extreme cold conditions is experienced in Shimla during winters and Shimla is also prone to landslides, though the proposed sites are not affected from landslides
	Will the project design (e.g. the clearance for bridges) need to consider any hydro-meteorological parameters (e.g., sea-level, peak river flow, reliable water level, peak wind speed etc)?	0	No such issue may affect the project
Materials and Maintenance	Will weather, current and likely future climate conditions (e.g. prevailing humidity level, temperature contrast between hot summer days and cold winter days, exposure to wind and humidity, and hydro-meteorological parameters) affect the selection of project inputs over the life of project outputs (e.g. construction material)?	0	No such issue may affect the project
	Will weather, current and likely future climate conditions, and related extreme events likely affect the maintenance (scheduling and cost) of project output(s)?	0	No problem is envisaged in future which likely affect the maintenance
Performance of project outputs	Will weather/climate conditions and related extreme events likely affect the performance (e.g. annual power production) of project output(s) (e.g. hydro-power generation facilities) throughout their design life time?	0	No problem will envisaged in future which likely affect the performance of project output

Options for answers and corresponding score are provided below:

Response	Score
Not Likely	0
Likely	1
Very Likely	2

³If 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.

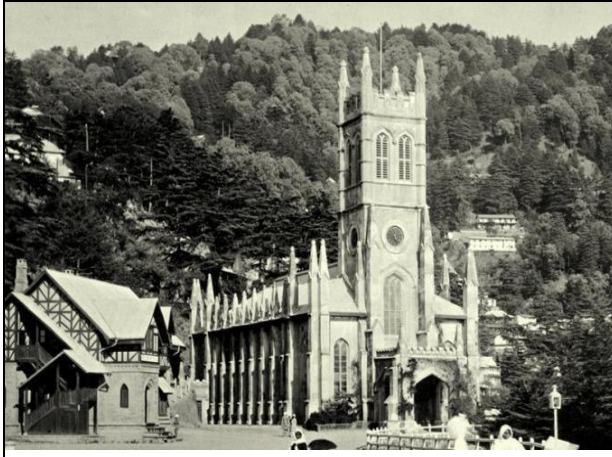
Responses when added that provide a score of 0 will be considered low risk project. If adding all responses will result to a score of 1-4 and that no score of 2 was given to any single response, the project will be assigned a medium risk category. A total score of 5 or more (which include providing a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

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

Other Comments: None

Annexure-2

Photo Illustration of Existing Christ Church



Annexure-3

MOU with Christ Church and
NOC

हिमाचल प्रदेश HIMACHAL PRADESH

A 440354

Memorandum of understanding between The Diocese of Amritsar, Church of North India through the Presbyter Incharge, Christ Church and the Chairman, Pastorate Committee, Christ Church, The Ridge, Shimla and Project Director, IDIPT-HP, U. S. Club, Shimla under the Contract package HPTDB/P1/T2/1 (Copy of the contract package to be Procured & attached with the agreement).

MEMORANDUM OF UNDERSTANDING

This agreement is made on this 10th day of September 2014 between The Diocese of Amritsar, Church of North India through the Presbyter Incharge, Christ Church and the Chairman, Pastorate Committee, Christ Church, The Ridge, Shimla, hereinafter called the First Party and IDIPT-HP through The Project Director hereinafter called the Second Party.

Whereas the Government of Himachal Pradesh has decided that the said Church on the said land area will be conserved under the ADB funded projects. Whereas it has been decided that the Second Party shall make the conservation of the Church on the said land.

Whereas the first party is the owner and absolute authority by way assigned to him is holding the possession and maintaining the Church property in the Kh. No. 458, 459, 460, 461, 463, 464, 465, 466, 467, 468, 469, 470, 714, 716, 717, 718, 719, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 738, 739, 740, 741, 742, 744, 745, 746, 747, 736 and situated at the Ridge, Shimla which has been considered as cultural heritage site by MC Notification dated 22-Aug-2002 and as per Zoning Regulations of TCP notification No. TCP-F(5)-5/2010 dt. 28-2-2011 implemented by MC Shimla segmented for the purpose of conservation of Churches in heritage zone, Shimla.

[Signature]
Presbyter in-Charge,
Church, Shimla

[Signature]
Project Director
IDIPT-HP, HPTDB
Department of Tourism & Civil Aviation

No 1998650

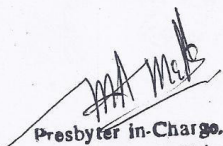
2
0
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3**Himachal Government Judicial Paper**

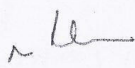
Whereas the Government of Himachal Pradesh has decided that the said Church on the said land area will be conserved under the ADB funded projects.

Whereas it has been decided that the second party shall make the restoration of the Church on the said land.

NOW THEREFORE THIS AGREEMENT WITNESS AS UNDER:

1. That the Second Party shall carry out the construction activities to carry out repairs and restoration works for the Church.
2. That the Second Party shall be responsible for the construction activities of the said project and any liability arising out of the same.
3. That the Second Party shall obtain all the permits from the line agencies and pay all the requisite fees with regard to the construction activities to the concerned departments.
4. That the First Party shall be responsible in getting all the consent related to the project from the Church Committee or other as the case may be.
5. That the Second Party reserves the rights to carry out the works as per the approval of the proposals by the Government in accordance with the standard specifications and in adherence to the religious sanctity and heritage norms.
6. That the Second Party is fully responsible to get the work completed as per the approved project under all circumstances.
7. That the Second Party shall provide authenticated copies of the permission obtained to the First Party.
8. That the Second Party shall provide authenticated copies of drafts and drawings to the First Party.
9. That the Second Party shall have no right or title over the land in question and the First Party reserves the right to enter the premises at all the times.
10. That it shall be the responsibility of the Second Party to carry out the Restoration activities as per the approved plan from the competent authority.
11. That the First Party shall give sufficient time to the Second Party for making alternate arrangements during the festivals if any occurs to either hold the works or to postpone.
12. That during the execution, a situation may arise to carry the work at odd times for which the Church Committee may co-ordinate and assist in all the matters.


Presbyter in-Charge.
Christ Church, Shimla.


Project Director
IDIPT-HP, HPTDB
Department of Tourism & Civil Aviation
SHIMLA

13. That the First Party shall allow the Second Party all access to the property for the execution free from all encumbrances and will not impede the work during execution.
14. That during the execution of such work, the tourist movements will be regulated by proper planning in co-ordination with the Church Committee as well as the traffic police.
15. That in case of any breach of this agreement, the construction made shall vest with the First Party and the Second Party shall have no claim over the said construction and the area.
16. That the First Party shall be responsible for Operation and Maintenance of facilities made through the project.
17. That, as per the bid conditions, during the execution period of 2 years the cost of electrical Power/water supply either through PDD or through Diesel generator sets (Fuel both Diesel & M Oil for DG sets) shall be borne by the Second Party under the project costs.
18. That the Chairman of Church Committee, Christ Church, Shimla shall be the nodal officer for the project and shall liaison with Second Party during the execution and during Operation and Maintenance period.

The Memorandum of Understanding shall be stamped and registered by the Second Party at its own cost and expenses. In witness of the parties to this agreement have signed this agreement on the day above mentioned.

First Party

[Signature]
 Minister in Charge,
 Christ Church, Shimla.

Witness

1. *[Signature]*
 (BANK DEER)
 MERRY COTTAGE
 TALLAND, SHIMLA
2. *[Signature]*
 Anand Kuljit Rana
 9816043506
 9 Kamanna Cottage
 Nr. Gopal Mandir.
 Baitheeraj
 SHIMLA A-111005 CH.P.

Second Party

[Signature]
 Project Director
 IDIPT-HP, HPTDB
 Department of Tourism & Civil Aviation
 SHIMLA

Witness

1. *[Signature]*
 Rajen Sood
 Late Kalki Phog
 Shimla
2. *[Signature]*
 Priyanka
 Priyanka Khangenta,
 Khangenta House,
 Near Chibber Complex,
 Bhatta-Kuffer,
 Sanyauli, Shimla-6

NoCsAppendix-IX**Christ Church Shimla**

(DIOCESE OF AMRITSAR, C.N.I.)

The Ridge, Shimla-171 001 (H.P.)

Ph.: 0177-2652853

No. CCS/PI/2014/372

Dated:

01/06/2014

To

Project Director,
IDIPT-HP,
Shimla-I.

Dear Sir,

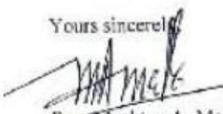
Greetings from Christ Church Shimla!

This is in reference to the letter regarding Dated 17-05-2014 IDIPT-HP/2676-IND/2014-422 Restoration of Christ Church Shimla. We are pleased to hear that Tourism Department has short listed Christ Church Shimla under Phase II of Asian Development Bank funded project which is commenced from July 2015 onwards.

Kindly except our NOC for taking the Restoration of Christ Church in this regard.

With regards!

Yours sincerely,


Rev. Mushtaq A. Malik,
Chairman, Pastorate Committee,
Christ Church,
Shimla-I.

Copy to the Office-Bearers of Christ Church, Shimla for information ✓





Annexure-4

Sample Outline of Spoil Management Plan (SMP)

1.0 Purpose and application:

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

2.0 Objectives of SMP:

The objectives of SMP are:

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

3.0 Structure of SMP:

Section 1: Introduction of SMP

Section 2: Legal and other requirements

Section 3: Roles and responsibilities

Section 4: Identification and assessment of spoil aspects and impacts

Section 5: Spoil volumes, characteristics and minimization

Section 6: Spoil reuses opportunities, identification and assessment

Section 7: On site spoil management approach

Section 8: Spoil transportation methodology

Section 9: Monitoring, Reporting, Review, and Improvements

4.0 Aspects and Potential Impacts

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

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

5.0 Spoil volumes, characteristics and minimization

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

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

5.3 Adopt Spoil Reduce, Reuse Opportunities

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

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

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

5.5 Storage and stock piling

5.6 Transportation and haulage route

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

Annexure-5

Public Consultations

Christ Church Ridge**Date:** 29/04/14**Person met:** Mr. Arun Wilson (Asth Pastor) Contact: 09816026695**Brief History :** (As told by Mr. Arun)

- The Church construction started in 1844 and completed 1856. The total cost of construction was Rs 50,000/(All records available)
- It served as the first Women's college in Asia and closed down in 1962
- The severe snowfall of 1966 broke down numerous spirals of the Church.
- The Church was under the Diocese of Lahore and presently that of Amritsar.
- People use to time themselves with the Church bell.
- The clock presently is non-functional. Was restored by a German 7 yrs back but has again become non-functional.
- Some stained glass windows have been damaged during robbery in the past years.
- There is a Local Committee under the Pastor for administrative functioning of the Church.

Suggestions for restoration/others

1. The Bell (Ringer)
2. Clock
3. Broken Spirals
4. The dying history to be documented in plaques/brochures

Apprehension:

Terms and conditions as riders by the Tourist Deptt in the functioning of the Church
NOC by line deptt a challenge to restoration plan.



Christ Church Ridge**Date:** 09.05.2014**Person met:** The Rev. Mushtaq A. Malk (Presbyter-in-charge), chairman of the Pastorate Committee
Contact: 098166-35739**The following points were discussed in the meeting:**

1. Restoration of clock, bell, white wash and repair of roof and have hired Ar. R.C. Sharma to do the work.
2. Interested in renovation of Christ Church
3. Revenue records alongwith old photograph of church are available.
4. Pastorate Committee meeting (Church meeting) on 11.05.2014 to discuss the future course of action regarding the restoration of church.

Other information's:

- Out of 210 people including children, 176 people are Communicant members.
- Voting done to elect members and maximum period is 6 years.
- The priest term is 5-6 years.



Consultation with the Presbyter-in-charge

Place of Consultations: Near Christ Church, Ridge, Shimla**Date of Consultations: 23.07.2014**

S.No.	Name of the person and place	Topics discussed	Outcomes
1.	Pappu Kewat, Shyam Kewat, mobile toy and balloon shop near Christ Church	Tourist inflow at Christ Church, income generation due to tourists, basic facilities near Christ Church, main tourist season	Tourist of Shimla certainly visit Christ Church and tourist influx is very high at this place which create a good source of income for small mobile vendors like ice creams, snacks, toys, balloons etc, summer, weekends and festivals are the main tourist season, all the basic facilities like toilets, drinking water, benches are available at ridge but rain shelter is required
2.	Sanchit Sandhu, horse owner for visitors	Tourist inflow at Christ Church, income generation due to tourists, basic facilities near Christ Church, main tourist season	Tourist influx is very high at Christ Church, many of tourists and visitors like horse riding which creates a good source of income, all the basic facilities are available near ridge
3.	Mr. Sanchit Kaushal, Rajendra Kawal, visitors and students of Himachal University (near Christ Church)	Environmental issues in Shimla, visitor facilities required at Ridge, sanitation and solid waste conditions, road conditions	Solid waste collection and sanitation conditions are adequate at Ridge specially near Christ Church, road conditions need improvement, dust bins and rain shelters are required at different places, retaining wall is damaged in some places and needs to be repaired



Consultation at Ridge near Christ Church



Consultations at Ridge near Christ Church

Annexure-6

Office Orders of GRC set-up 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.

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.
Dated: 2nd May, 2013.

d/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.

No.: IDIPT-HP/3223-IND/GRC-PIU /2015- 647- 670

Fax. (0177)2659925.

Dated: 09.05.2016.

Office Order

In supersession of this office order No. IDIPT-HP/2676-IND/GRC-PMU/2013-326-52 dated 02.05.2013 wherein the 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). Now the said committee is re-structured as under for the registration of grievances/ complaints/ suggestions/ comments/ questions/ feedback etc. of the general public on the IDIPT-HP projects under Loan No.2676-IND as well as Loan No. 3223-IND and further reviewing/recommending appropriate action on the same to the competent authority:-

1. The Technical Consultant, PMU, IDIPT-HP.
2. The Executive Engineer, PMU, IDIPT-HP.
3. The Community Development Officer, PMU, IDIPT-HP.
4. The Deputy Director (Tourism), Shimla Division.
5. The Representative of Line Agencies, IDIPT-HP Projects in HP.
6. The Safeguard Specialists, PMU/PMC/DSC, Shimla.

[Signature]
Commissioner (Tourism)-cum-
Mission Director,
IDIPT-HP
Dated: 09.05.2016.

Endst. No. As above.

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 Deputy Directors (Tourism) in HP.
4. The Commissioner, Municipal Corporation Shimla
5. All the concerned members of the above Committee for initiating further necessary action at their level.
6. The Technical Consultant, PMU, IDIPT-HP, U. S. Club, Shimla.
7. The Executive Engineer, PMU, IDIPT-HP, U. S. Club, Shimla.
8. The Team Leader, PMC/DSC, IDIPT-HP.

*Received
Arbiters
10/5/16*

*Reviewed
Project Director
10/5/16*

[Signature]
Commissioner (Tourism)-cum-
Mission Director,
IDIPT-HP

Office orders of GRC set-up at PIU level.

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 /2015-1066 Dated: 24.06.2015.

Office Order

Following Grievance Redress Committee (PIU Shimla, 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. The Project Manager, PIU Shimla, IDIPT-HP.
2. The Deputy Director (Tourism), Shimla, H.P.
3. The Community Development Officer, PIU Shimla.
4. Representative of Line Agency, IDIPT-HP Projects.
5. The Safeguard Specialist, PMU/PMC/DSC.

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

Endst. No. As above. 1066 Dated: 24.06.2015.

Copy to the following alongwith a Grievance Registration Form 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. The Commissioner, Municipal Corporation Shimla
4. All the concerned members of the above committee.
5. The Executive Engineer, PMU, IDIPT-HP Shimla.
6. The Project Manager, PIU, IDIPT, Shimla. He is informed that suggestions/ comments/ questions/ feedback/ grievances/ complaints box has already been installed outside the office premises in U. S. Club. Necessary follow up action on suggestions/ comments/ questions/ feedback/ grievances/ complaints etc. if any, received in the office/box, may be initiated in co-ordination with Safeguards Specialist (Social & Environment) PMU, Shimla in a time bound manner at his level.
7. The Team Leader, PMC/DSC;

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.

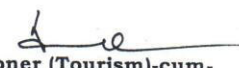
No.: IDIPT-HP/3223-IND/GRC-PIU /2015-

Dated: 09.09.2016.

Office Order

In supersession of this office order No. IDIPT-HP/2676-IND/GRC-PIU/2015-1049-72 dated 24.06.2015 wherein the Grievance Redress Committee (PIU Shimla, 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 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 Shimla, IDIPT-HP.
2. The Deputy Director (Tourism), Shimla, H.P.
3. The Community Development Officer, PIU Shimla.
4. Representative of Line Agency, IDIPT-HP Projects at Shimla.
5. The Safeguard Specialist, PMU/PMC/DSC.

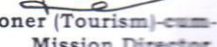

Commissioner (Tourism)-cum-
Mission Director,
IDIPT-HP

Endst. No. As above. 616

Dated: 09.09.2016.

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. The Deputy Commissioner, Shimla, HP.
3. The Commissioner, Municipal Corporation Shimla
4. All the concerned members of the above committee.
5. The Technical Consultant, PMU, IDIPT-HP, U. S. Club, Shimla.
6. The Executive Engineer, PMU, IDIPT-HP, U. S. Club, Shimla.
7. The Project Manager, PIU, IDIPT, U. S. Club, Shimla. He is informed that suggestions/ comments/ questions/ feedback/ grievances/ complaints box has already been installed outside the office premises in U. S. Club. Necessary follow up action on suggestions/ comments/ questions/ feedback/ grievances/ complaints etc. if any, received in the office/box, may be initiated in co-ordination with Safeguards Specialist (Social & Environment) PMU, Shimla in a time bound manner at his level.
8. The Team Leader, PMC/DSC, IDIPT-HP.


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

Annexure-7

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:	

Sample Field Environmental Monitoring Template

ADB LOAN NO.3223-IND

**India: Infrastructure Development Investment Program for Tourism
Himachal Pradesh**

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 <u>away</u> 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 covenant 6 under Schedule 5 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 labour and disseminate information at worksites on risks of sexually transmitted diseases and HIV/AIDS as part of health and safety measures			Note: Give dates & a brief report on 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: <ul style="list-style-type: none"> <input type="checkbox"/> Fully compliant <input type="checkbox"/> Nearly compliant <input type="checkbox"/> Partially compliant <input type="checkbox"/> Non-compliant 			
Checked by				
Designation				

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)

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1. Introduction	
2. Compliance status with National /State /Local statutory environmental requirements	
3. Compliance status with the environmental covenants as stipulated in the Loan Agreement	
4. Compliance status with environmental management and monitoring plans and environmental assessment and review framework/procedures as stipulated in the environmental documentation as agreed with ADB	
5. Approach and methodology engaged for environmental monitoring of the project	
6. Monitoring of environmental receptors/ attributes (e.g. ambient air, surface water, ground water, land, ecological aspects, noise, hazardous/toxic wastes, etc.)	
7. Any other environmental aspects, impacts observed during implementation which were not covered earlier	
8. Details of complaints received from public and actions taken thereof to resolve	
9. Follow-up actions and conclusions	

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 10

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 confinement or 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 labor and 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 up to 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 off or 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.