Draft Initial Environmental Examination

October 2014

IND: Infrastructure Development Investment Program for Tourism Tranche 3
–Restoration, Adaptive Reuse and Revitalization of Almora Fort (Uttarakhand)

Prepared by the Government of Uttarakhand for the Asian Development Bank.

CURRENCY EQUIVALENTS

(as of 9 October 2014)

Currency unit	–	Indian rupee/s (Re/Rs)
Re1.00	=	$0.0163
$1.00	=	Rs61.025

ABBREVIATIONS

ADB	-	Asian Development Bank
BOD	-	Biological Oxygen Demand
BoQ	-	Bill of Quantities
CO	-	Carbon monoxide
CPCB	-	Central Pollution Control Board
DSC	-	Design and Supervision Consultant
EA	-	Executing Agency
EAC	-	Expert Appraisal Committee
EARF	-	Environment Assessment and Review Framework
EIA	-	Environmental Impact Assessment
EMP	-	Environment Management Plan
ES	-	Environmental Specialist
GC	-	General Conditions
KMVN	-	Kumaon Mandal Vikas Nigam
GoI	-	Government of India
GoUK	-	Government of Uttarakhand
IDIPT	-	Infrastructure Development Investment Program for Tourism
IEE	-	Initial environmental examination
INR	-	Indian Rupee
PUC	-	Pollution Under Control Certificate
MLD	-	Million Liters per day
MoEF	-	Ministry of Environment and Forests
MFF	-	Multi- Tranche Financing Facility
NGO	-	Non-Governmental Organization
NOx	-	Nitrogen oxide
PD	-	Project Director
PIU	-	Project Implementation Unit
PM	-	Particulate Matter
PMU	-	Project Management Unit
RPM	-	Respirable Particulate Matter
SC	-	Scheduled Castes
SO2	-	Sulphur dioxide
SPM	-	Suspended Particulate Matter
SPS	-	Safeguards Policy Statement
ST	-	Scheduled Tribe

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EXECUTIVE SUMMARY

1. Project Background: The Infrastructure Development Investment Program for Tourism (IDIPT) envisages an environmentally and culturally sustainable and socially inclusive tourism development, in the project states of Himachal Pradesh, Punjab, Tamil Nadu and Uttarakhand, delivered through a multi-tranche financing facility (MFF) modality. Project 2 includes the states of Uttarakhand and Tamil Nadu.

2. This Initial Environmental Examination (IEE) has been prepared for "Restoration, Adaptive Reuse & Revitalization of Almora Fort", Uttarakhand under Tranche III. This IEE has been prepared based on the primary, secondary data, field visits, reconnaissance survey and public and stake holder's consultations.

3. Executing and Implementing agencies A Project Management Unit (PMU) is established in Dehradun for the overall project management and Project Implementation Unit (PIU) is established at Bhimtal. Safeguards Specialists within the PMU will be responsible for implementation of the resettlement and environmental safeguard provisions. Project Management Consultants (PMC) and Design and Supervision Consultants (DSC) provide assistance to the PMU/PIUs in project implementation. Within the PMC team Safeguards Specialists will provide overall management of environmental and social issues, and will provide technical support to the PMU including implementation of the environmental and resettlement issues according to ADB's requirements, and assist in monitoring impacts and mitigation measures associated with sub- projects. The Safeguards Specialist of the DSC team will be responsible for preparation of the Environmental Assessment documents in line with the EARF and supervise the implementation of the EMP provisions in the various sub-projects.

4. The DSC Safeguards Specialist will support environmental management functions including updating sub-project IEEs in respect to environmental management plans, assisting in preparing IEEs, and assist in monitoring impacts and mitigation measures associated with sub-projects. 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 sub-project IEE.

5. Categorization The subproject has been categorized as B as per the ADB's Safeguard Policy Statement (2009). The subproject is not covered in the ambit of the EIA notification 2006 and EIA Act 2009. As a result, the categorization, and the subsequent environmental assessment and clearance requirements, either from the state or the Government is not triggered. Clearance requirements in the Construction Phase will be taken by the project contractor.

6. Subproject Scope This sub-project envisages the historic precincts' preservation; re-use strategy and revitalization of the Almora Fort or Malla Mahal for a substantial enhancement of the visitor experience. The project aims at restoring a heritage site to its ancient grandeur, revitalizing it in order to give the visitor a glimpse into the region's history and this significant site. The sub-project firmly believes that Almora, with its unique Himalayan locales and cultural heritage has the potential of emerging as the CULTURAL CAPITAL of the state, giving a boost to the experiential tourism aspect of not just the Himalayas but the entire country.

7. The proposed sub-project seeks to:

- Provide opportunities for the international visitor to develop an understanding of Kumaoni culture and ways of living in a historic setting.
- Enhance substantially the visitor experience through an interpretation of history.
- Allow the visitor to experience the Himalayas through participation in folk ways of living, viz. making craft objects, singing, dancing, and sampling local cuisines.
- Substantially improve basic infrastructure and services on site.
- Build capacities among frequently marginalized stakeholders: women entrepreneurs and practitioners of dying art forms, especially folk music, dance and crafts.
- Create opportunities for marketing of local organic produce and art objects.
- Improve last mile connectivity between natural and cultural edifices; and strengthen
- capacity of sector agencies and local communities for planning, development, management, and marketing of tourist/pilgrims destinations and attractions.

Description of the Environment

8. Subproject components are located in the Almora town area, amidst settlements and there is no natural habitat at these sites. The components proposed for restoration, is not Central or State Protected Monument'. There are no protected areas, wetlands, mangroves, or estuaries in or near the subproject locations.

9. Almora is located at 29.62°N, 79.67°E. It has an average elevation of 1,651 metres (5,417 feet). It is located on a ridge at the southern edge of the Kumaon Hills of the Himalayan Ranges, in the shape of a horse saddle shaped hillock, thick forests of pine and fir trees surround it. Flowing alongside the city are rivers Kosi (Kaushiki) and Suyal (Salmale). Snowcapped Himalayas can be seen in the background. Almora got its name from Kilmora, a short plant found in the region, which was used for washing the utensils of the Katarmal Temple. The people bringing Kilmora were called Kilmori and later Almori, and the place came to be known as Almora after them.

10. Environmental Management- an Environmental Management plan (EMP) outlining the specific environmental measures to be adhered to during various phases of implementation of the subproject has been prepared. The subproject will conform to all Government regulations, policies, and standards, as well as Asian Development Bank's Safeguard Policy Statement (2009). It includes (i) mitigation measures for environmental impacts during construction (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 will be reduced by amending the designs. The EMP will be included in civil work bidding and contract documents.

Consultation, Disclosure and Grievance Redress

11. Stakeholder discussion has been conducted during the SAR stage. The project concept incorporates the views of primary and secondary stakeholders including local communities and local officials who were all meaningfully consulted during IEE and project preparation. The consultations are an ongoing process, addressing public concerns in every stage of the project. The IEE will be made available at public locations in the town and will be disclosed to a wider audience via the ADB and Uttarakhand Tourism Development Board websites. The consultation process will be continued and expanded during DPR preparation and 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 citizens of Almora will be the major beneficiaries of the project. The most noticeable net environmental benefits to the population of the town will be positive and large as the proposed subproject will restore the architectural significance of the deteriorating Forts and temples and encourage the adaptive reuse.

13. **Monitoring and Reporting.** The PMU, PIU, PMC and DSC will be responsible for environmental monitoring. The PIU with support from the DSC will submit quarterly monitoring reports to the PMU. The PMU will consolidate the quarterly reports and will send it to ADB. ADB will post the environmental monitoring reports on its website.

14. **Implementation Schedule.** Construction of all elements will begin in the fourth quarter of the year 2014, and work will be completed in the end of 2016. Total implementation period is 24 months.

Conclusions and Recommendations

15. The initial environmental examination ascertains that the sub-project is unlikely to cause any significant environmental impacts. No additional studies or need of undertaking detailed EIA is envisaged at this stage. The proposed subproject is not expected to have any impact on the Forests and does not involve any tree cutting as the scope of the work is restricted to restoring a heritage site to its ancient grandeur, revitalizing it in order to give the visitor a glimpse into the history of this significant site. There are no rare, threatened, and endangered species (flora and fauna) within the subproject corridor of impact. The Executing Agency shall ensure that EMP and EmoP is included in Bill of Quantity (BOQ) and forms part of bid document and civil works contract. The same shall be revised during the DPR stage or at any stage, if necessary during project implementation and with approval of ADB.

16. The environmental impacts of the project are therefore not significant and at Category B level, as per ADB's Safeguards Policy Statement. The specific measures stated in the EMP will address the adverse environmental impacts due to the subproject. Impacts are readily mitigated through careful siting, specific selection criteria for procuring contractors with demonstrated experience in heritage restoration projects; execution of proven mitigation measures during the design; and adoption of good engineering practices during construction and implementation. A detailed monitoring plan prepared as part of this IEE will further mitigate negative environmental impacts during implementation

I. INTRODUCTION

A. Background

1. The India Inclusive Tourism Infrastructure Development Project (IITIDP) envisages an environmentally and culturally sustainable and socially inclusive tourism development, in the project states of Himachal Pradesh, Punjab, Tamil Nadu and Uttarakhand. The expected Impact of the Project in the four states is sustainable and inclusive tourism development in priority State tourism sub circuits divided into marketable cluster destinations that exhibit enhanced protection and management of key natural and cultural heritage tourism sites, improved market connectivity, enhanced destination and site environment and tourist support infrastructure, and enhanced capacities for sustainable destination and site development with extensive participation by the private sector and local communities.

2. As per the Asian Development Bank's (ADB) Environmental Assessment Guidelines, and in line with the Environment Assessment and Review Framework (EARF) for the project, all the sub-project components for the proposed works are categorized as 'B' and an Initial Environmental Examination (IEE) prepared. This Initial Environmental Examination (IEE) assesses the "Restoration, Adaptive Reuse & Revitalization of Almora Fort" and specifies measures towards addressing the impacts. The IEE is based on a review of sub-project site plans and reports; field visits, collection of secondary data to characterize the environment and identify potential impacts; and interviews and discussions with stakeholders.

3. Based on the findings of the IEE, an Environmental Management Plan (EMP) has been prepared, outlining the specific environmental measures to be adhered to during various phases implementation of the sub project. This EMP forms part of the contract document, and shall enable integration of environmental provisions / management measures in the Contract Document.

B. Purpose of IEE

4. The present proposal is aimed at "Restoration, Adaptive Reuse & Revitalization of Almora Fort". The environmental impacts due to this subproject are mostly related to the location of the site, construction impacts and Operation & Maintenance as well. Therefore, as per the Asian Development Bank's (ADB) Environmental Assessment Guidelines, the sub-project components are categorized as 'B' and this IEE has been carried out. This IEE provides mitigation measures for impacts related to location and design, construction, operation, and maintenance.

5. The purpose of the study is to identify the environmental issues to be considered at project planning and design stage, assess environmental consequences due to project intervention and suggests mitigation measures to minimise the adverse environmental impacts, if any, associated with construction and operation.

6. Initial environmental examination (IEE) has four basic objectives; (i) asses relevant potential impacts and risks associated with the proposed sub project (ii) assess the compliance with ADB environmental safeguard requirements and applicable environmental laws, (iii) incorporate mitigation measures in the project design and preparation of Environmental Management & Monitoring Plan (EMMP).

C. Extent of IEE

7. The IEE covers all activities proposed under the project and described in the SAR. The immediate project impact is considered as 500 meters from the site. However, the study area is considered up to 50 km for larger analysis of landuse and other environmental features.

D. Environmental Regulatory Compliance

8. The realm of environmental regulations and mandatory requirements for the proposed subproject 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, all projects and activities are broadly categorized into two categories1 - Category A and Category B, based on the spatial extent of potential impacts and potential impacts on human health and natural and man-made resources. Given that the sub-project is not covered in the ambit of the EIA notification, Environment clearance requirements from the GoI are not triggered.

Table 1: Environmental Regulatory Compliance for "Restoration, Adaptive Reuse & Revitalization of Almora Fort"

Applicability of Acts/Guidelines	Compliance Criteria
The EIA notification, 2006 (and its subsequent amendments in 2009) provides for categorization of projects into category A and B, based on extent of impacts.	These sub-projects are not covered in the ambit of the EIA notification as they are not covered either under Category A or Category B of the notification. As a result, the categorization, and the subsequent environmental assessment and clearance requirements, either from the state or the GoI is not triggered. 1
The Water (Prevention and Control of Pollution) Act 1974 and The Water (Prevention and Control of Pollution) Rules 1975	The Act and Rules outlines the activities which are prohibited on account of their potential to cause water pollution. Pollution from various sources in this sub project needs to be controlled as per this Act and Rules
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. *	Project site is not an ASI protected monument and there are no any monuments of this nature within the project influence zone. Therefore, the provisions of the act does not apply
Forest (Conservation) Act, 1980	This act provides guidelines for conservation of forests and diversion of forest land for non-forest

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

*Considering the historical significance of the site, guidelines as per the Act have been considered in the design components

Applicability of Acts/Guidelines	Compliance Criteria
	use. The law also states guidelines on de-reservation of various categories of forests for diversion of forest land. This law describes the penalty for contravention of the provisions of the Act. Restriction on the de-reservation of forests or use of forest land for non-forest purpose. For felling of the tree if any permission will be required from local forest office.
The Indian Wildlife (Protection) Act, 1972, amended 1993, The Wild Life (Protection) Amendment Act, 2002	This Act provides guidelines for protection of [Wild animals, birds and plants] and for matters connected therewith or ancillary or incidental thereto. It also states the norms for hunting of wild animals, prohibition of picking, uprooting, etc., of specified plants. The Act deals with the declaration of area as Sanctuary, National Park, and closed area and also states the restriction of entries in the sanctuary. There is no protected area in the vicinity. Not Applicable for the subproject
Biodiversity Act 2002 and Biodiversity Rules 2004	The Act essentially controls access to indigenous biodiversity resources. No agency/person referred to in sub-section (2) shall, without previous approval of the National Bio-diversity Authority, obtain any biological resource occurring in India or knowledge associated thereto for research or for commercial utilization or for bio-survey and bio-utilization. Not Applicable for the subproject
ADB Safeguard Policy Statement, (2009)	Categorization of subproject components into A, B or C and developing required level of environmental assessment for each component. Sub-project is Category B as no significant impacts are envisaged.

9. It can be observed from Table-1, that the proposed sub-project does not need to go through a full-scale environmental assessment process; as the scale of impacts and categorization of the sub-project components will not require clearances from Competent Authorities. The environmental screening (REA Checklist annexed) reveals that the most significant environmental impacts are anticipated during construction phase and are generic to construction activities. However since it is a conservation project aimed at adaptive reuse of the building, not much impacts are anticipated even in the operation phase. Thus all impacts are site specific, reversible and can be readily mitigated supporting a Category B classification.

10. The sub-project selection criteria specify that all project activities pertaining to “Restoration, Adaptive reuse & Revitalization of Almora Fort” are in accordance with the provisions of the prevalent local norms and guidelines.

11. It can be observed from Table-1, that the proposed sub-project does not need to go through a full-scale environmental assessment process; as the scale of impacts and categorization of the sub-project components will not require clearances from Competent Authorities. The sub-project selection criteria specify that all project activities pertaining to “Restoration, Adaptive reuse & Revitalization of Almora Fort” are in accordance with the

provisions of Conservation and Adaptive Reuse of buildings with cultural and architectural significance.

12. The ADB guidelines, stipulate addressing environmental concerns, if any, of a proposed activity in the initial stages of Project preparation. For this, the ADB Guidelines categorizes the proposed components into categories (A, B or C) to determine the level of environmental assessment required to address the potential impacts.2 The Rapid Environmental Assessment (REA) checklist method was followed as per ADB requirement to assess the potential impacts of the project in planning phase. The REA checklist is attached as Annexure I with this report. The subproject has been categorized as B as per the ADB's Safeguard Policy Statement (2009). Accordingly this IEE has been prepared to address the potential impacts, in line with the recommended IEE content and structure for Category B project. The IEE has been conducted based on Primary and secondary sources of information and field reconnaissance surveys and stakeholder consultations. Evaluation has been conducted for impacts likely to accrue due to due to location, design & pre-construction, construction, operation & maintenance. An EMP outlining the specific environmental measures to be adhered to during implementation of the subproject has been prepared.

E. Report Structure

13. This Report contains eight (8) sections including this introductory section: (i) Introduction; (ii) Description of Project Components; (iii) Description of the Existing Environment; (iv) Environmental Impacts and Mitigation Measures; (v) Environmental Management Plan; (vi) Public consultation & Information Disclosure; (vii) Findings and Recommendations; and (viii) Conclusions

[2]As per SPS 2009 projects are assigned to one of the following four categories: (i) **Category A.** A proposed project is classified as category A if it is likely to have significant adverse environmental impacts that are irreversible, diverse, or unprecedented. These impacts may affect an area larger than the sites or facilities subject to physical works. An environmental impact assessment is required. (ii) **Category B.** A proposed project is classified as category B if its potential adverse environmental impacts are less adverse than those of category A projects. These impacts are site-specific, few if any of them are irreversible, and in most cases mitigation measures can be designed more readily than for category A projects. An initial environmental examination is required. (iii) **Category C.** A proposed project is classified as category C if it is likely to have minimal or no adverse environmental impacts. No environmental assessment is required although environmental implications need to be reviewed (iv) **Category FI.** A proposed project is classified as category FI if it involves investment of ADB funds to or through a FI (paras. 65-67).

II. DESCRIPTION OF PROJECT COMPONENTS

A. Project Overview

14. The project “Restoration, Adaptive-Reuse and Revitalization of Almora Fort” is located in Almora town which is the district headquarters of the same name. Almora, a picturesque district in the Kumaun region, East of Uttarakhand in India, with a breathtaking panoramic view of Himalayas, summons tourists worldwide to its alluring grandeur of natural beauty. Famous for its rich cultural heritage, unique handicrafts, sumptuous cuisine and magnificent wildlife, coupled with an easy accessibility, Almora promises its tourists a visit full of fun and unforgettable moments.

15. The district of Almora is located in the province of Uttarakhand in India. In east lies the district of Pithoragarh bordering Tibet and its west lies the district of Garhwal and its North lies the newly created district of Bageshwer and in the South there is the district Nainital.

16. Almora is a unique destination that has the capacity of emerging as the CULTURAL CAPITAL of Uttarakhand State. The natural, cultural and mythical environments coalesce here to create a unique experience. The objective of the project is to highlight these aspects in order to project Almora town as a hub of cultural activities, the arts and sustainable tourism promotion.

B. Present status

17. The Fort’s historical importance and its image as an important part of the town’s historic evolution is practically unknown to visitors. This loss of historical and cultural association to the fort by the local community is largely due to absence of appropriate usage of this historical edifice. The current usage of the fort as the DM office is not conducive to create and sustain any form of cultural or historical association with the Fort.

Identified Problem areas:

- Unregulated Development
- Lack of re-use strategy
- Insensitive Additions and Repairs to the Site
- Complete Absence of Solid Waste Management and Disposal Systems
- Absence of Sanitation
- Lack of Accessibility
- Uncertainty in Terms of Long Term Site Management
- Lack of Balance between Natural Surroundings and Historic Elements
- Inadequate Parking Facilities and Walkways
- Lack of Tourism Infrastructure
- Potential of the Site is Under-utilized.

C. Project components

18. The scope of this sub-project includes:

(i) Restoration of the historic sites: Ram Shila Temple dating back to 1588 AD and the Malla Mahal or Fort Nanda Devi Complex built in 1815 AD as a precinct.

(ii) Revitalization of the entire precinct as a public space for experiencing regional history and culture, through creation of facilities such as:

- Develop cobblestone-paved courtyard as a performance arena.
- Create a Museum on Kumaon culture in the main building of the Malla Mahal or Fort Nanda Devi Complex.
- Create a Himalayan Art Gallery and nature interpretation centre in the Rani Mahal, adjacent to the main palace.
- Restoration of the historic site of Ram Shila Temple with proper access and signage, retaining the sanctity of this significant edifice.
- Creation of craft demonstration areas.
- Removal or concealment some buildings through strategic landscaping and foliage coverage of structures that create visual discord.
- Create facilities in Almora town to enable it to emerge as a complet destination with secular spaces for experiencing the true flavor of Kumaon.
- Improve all three access routes that lead up to the fort and temple leading to enhanced experience quality through interpretation and upgraded visitor amenities and facilities in and around the historic/archaeological site.
- Improve accessibility, especially for the differently-abled through the setting up of elevators leading from bazaar to the site.
- Improve basic tourist and pilgrim facilities and amenities in this significant area Of cultural/ historical/ archaeological significance, as well as satellite sites.
- Improve vehicular parking facilities for about 100 vehicles in the town.
- Improve basic environmental services like solid waste and wastewater management.
- Enforcing strict standards for cleanliness and upkeep Improving tourist/visitor wayside amenities along approximately 10 kms of vehicular access.Improving access to places of tourist/pilgrim attractions by way of 15 kms of connectivity improvement inclusive of roadside infrastructure and improved signage.
- Improving about 4 km of pedestrian environment connecting the heritage site with different parts of the town.
- Assisting in building capacities among rural communities and their organizations engaged in the practice of local art forms, craft and village based organic produce.
- Training around 50 individuals, giving equal opportunities to women and marginalized communities in heritage management and tourism-related skills in Almora town.
- Developing a range of master plans and management plans for environmental protection, restoration and development guidelines, cultural preservation, and pilgrim management.
- Assisting in building the institutional/organizational capacities of various sector agencies in management, reuse and revitalization of the historic site.
- Printing and publishing of literature on the site and its nearby attractions, for instance books, brochures, guide maps etc.
- Effective social media management.
- Creating a dedicated website leading to more effective web presence for the region.

D. Project Implementation Schedule

19. The implementation period for the proposed subproject is 24 months. Construction of all elements will begin in the fourth quarter of 2014, and work will be completed in the fourth quarter of 2016.

III. DESCRIPTION OF EXISTING ENVIRONMENT

A. Physical Environment

20. This section presents a brief description of the existing environment, including its physical, ecological resources, and socio-economic condition. Broad aspects on various environmental parameters such as geography, climate and meteorology, physiography, geology, seismology, ecology, socio-cultural and economic development parameters is listed. Secondary information has been compiled from IEE prepared for Restoration/reconstruction work of Almora under Uttarakhand Emergency Assistance Project, prepared by the State Disaster Management Authority, Uttarakhand for ADB.

Figure- 1 Map of Almora

Geography

21. Uttarakhand lies in the northern part of India amidst the magnificent Himalayas and dense forests. The State is bordering Himachal Pradesh in the north-west and Uttar Pradesh in the South and shares international borders with Nepal and China. The State is comprised of 13 districts, these are; Pithoragarh, Almora, Nainital, Bageshwar, Champawat, Uttarkashi, Udham Singh Nagar, Chamoli, Dehradun, Pauri, Tehri Garhwal, Rudraprayag, and Haridwar. Geographically, the state lies in the northern Himalayas between 28o53'24" to 31o27'50" North

latitude and 77o34’27” to 81o02’22” East longitude. The State has an area of 53,483 sq. km. and a population of about 10.08 million as per census 2011.

22. Uttarakhand is divided into two regions and also called administrative divisions, basically following terrain: the Kumaon and Garhwal. The Kumaon division located southeast of the state and composed of Almora, Bageshwar, Champawat, Nainital, Pithoragarh, and Udham Singh Nagar. The Kumaon region is part of the vast Himalayan track and and the sub-mountains of Terai and Bhabhar. The region is drained by Gori, Dhauli, and Kali from the Tibetan mountains, and Pindari and Kaliganga which ultimately joins Alaknanda River. The Garwhal division is composed of Chamoli, Uttarkashi, Rudraprayag, Tehri Garhwal, Pauri, Dehradun, and Haridwar districts.and is entirely on rugged mountain ranges dissected by valley, and deep gorges. The Alaknanda River, the main source of the Ganges, traces its headwaters in this region.

Figure-2 Districts of Uttarakhand

23. Almora is located at 29.62°N 79.67°E. It has an average elevation of 1,651 metres (5,417 feet). It is located on a ridge at the southern edge of the Kumaon Hills of the Himalaya range. In the shape of a horse saddle shaped hillock, it is surrounded by thick forests of pine and fir trees. Flowing alongside the city are rivers of Koshi, (Kaushiki), and Suyal (Salmale). The snow-capped Himalayas can be seen in the background. Almora got its name from "Kilmora" a short plant found nearby region., which was used for washing the utensils of Katarmal Temple. The people bringing Kilmora were called Kilmori and later "Almori"and the place came to be known as "Almora".

24. District of Almora is divided into nine tehsils namely: Almora, Bhikiyasain, Chaukhutiya, Dwarahat, Jainti, Ranikhet, Someshwar, and Sult. District Pauri, Nainital, Champawat, Pithoragarh, Bageshwar and Chamoli share its boundary with district Almora.

25. The eastern portion of the horse saddle shaped ridge is known as Talifat and the western one is known as Selifat. The market is at the top of the ridge where these two, Talifat and Selifat jointly terminate. The market is 1.25 miles (2.01 km) long and is covered with stone slabs. The place of the present cantonment was formerly known as Lalmandi. Presently where the collectorate exists, the 'Malla Mahal' (Upper Court) of Chanda kings was located. The site of present District Hospital used to be 'Talla Mahal' (Lower Court) of Chand rulers.

26. The Almora district lies in the lesser Himalayas which are the youngest mountains in the world and the land mass now covered by them was occupied by the great geosynclinal Tethys sea during the Mesozoic period. The rocks of the area belong to Crystalline zone. The area is broadly divided in two distinct lithologic units (a) Sarju Formation of valdiya of lohaghat, represented by the porphyries , migmatites, schists and micaceous quartzites (b) Duram Formation represented by Quartites

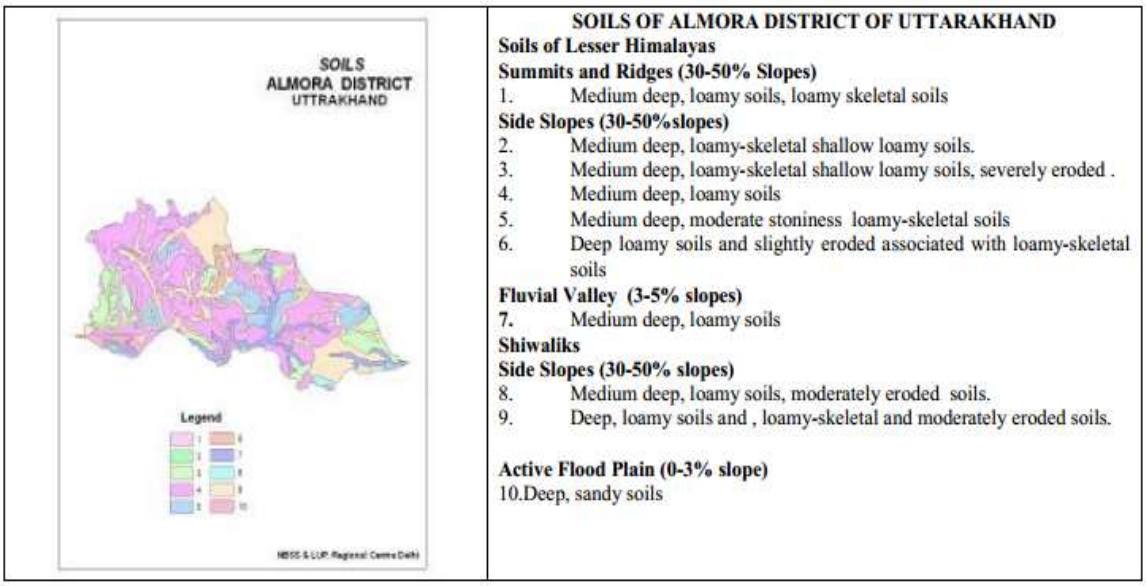
Physiography

27. The district is naturally landscaped with high Himalayan Mountains, snow capped peaks, passes, valleys, alpine meadows, forests, waterfalls, perennial rivers, glaciers and springs. Topographically the district is having rugged terrain with high cliffs and intersected by deep gorges. The district Almora is located at 29.62°N 79.67°E. It has an average elevation of 1,651 metres (5,417 feet). It can be observed that the district acquires a shape of a horse saddle shaped hillock. Surrounded by the thick forests of pine and fir trees, the city is neighbored rivers of Kochi and Suyal. The total area of district is 3082 Square Kilometer (1190 square mile) and it is surrounded by other districts of Uttaranchal including Bageshwar and Chamoli on Northern side, Pauri on western side, Nainital on southern and Champawat on the eastern side.

Pedology

28. The soils of Almora district can be broadly classified into two types, viz. Soils of Lesser Himalaya and Soils of Greater or Central Himalaya. Majority of the area is covered by the first type.

Figure- 3 Soil Map of Almora



CLIMATE AND METEOROLOGY

29. The State of Uttarakhand, with its highly varying topographical features, has shown an equally variegating climatic condition, ranging from hot and sub-humid tropical in the southern tract of Bhabhar to temperate, cold alpine, and glacial climates in the northern part of the high mountains.

30. Factors such as elevation, slope, and proximity of glaciers, forests, mountain peaks and ridges and direction of mountain ranges together give rise to the great variations in climatic conditions, even at the micro and local levels. These attributes determine the temperature range as well as the distribution of rainfall.

31. However, the overall climatic condition in the State is governed by the southwest monsoon. It has a sub-tropical to temperate climate, with three pronounced seasons; summer, winter, and monsoon. The hilly terrain of the Himalayan region has snow cover and is severely cold during winter with snowfall normally occurring during the months of December to March. The climatic conditions of Almora, Nainital, Pithoragarh, Chamoli, Uttarkashi, Pauri and Dehradun are humid and cold.

32. As for the project areas within the Kumaon region, such districts come under the Intermediate Zone, a zone with moderate temperature and moderate rainfall. The climate is cool, dry and delightfully healthy. The weather normally follows the seasonal rhythm during the year. The temperature ranges from 0°C to 10°C in winter and from 8°C to 33°C in summer season. The average rainfall ranges in between 55 to 212 cm. The winter season beginning from November to the end of February is cold and the summer period from March to June is hot. The rainy season from July to September is warm and moist.

33. The entire district can be grouped into the following climatic zones :

Table 1: Climatic Zones

Climatic Zone	Elevation (in meters)
1. Cool Temperature	
a. Moist	600 - 1200
b. Dry	1000 - 2500
c. Sub Tropical Valley	600 - 1200
2. Cold Temperature	
a. Cold Temperature in higher location (snow bound) (5 - 6 month)	3000 - 3500
b. Cold Temperature (lower valley)	2000 - 3000
3. Alpine Zone	
Perpetually snow covered area	3500 - above
4. Dry Climate	
Trans Himalayan Alpine Valley of rain shadow location	2500 - 3500

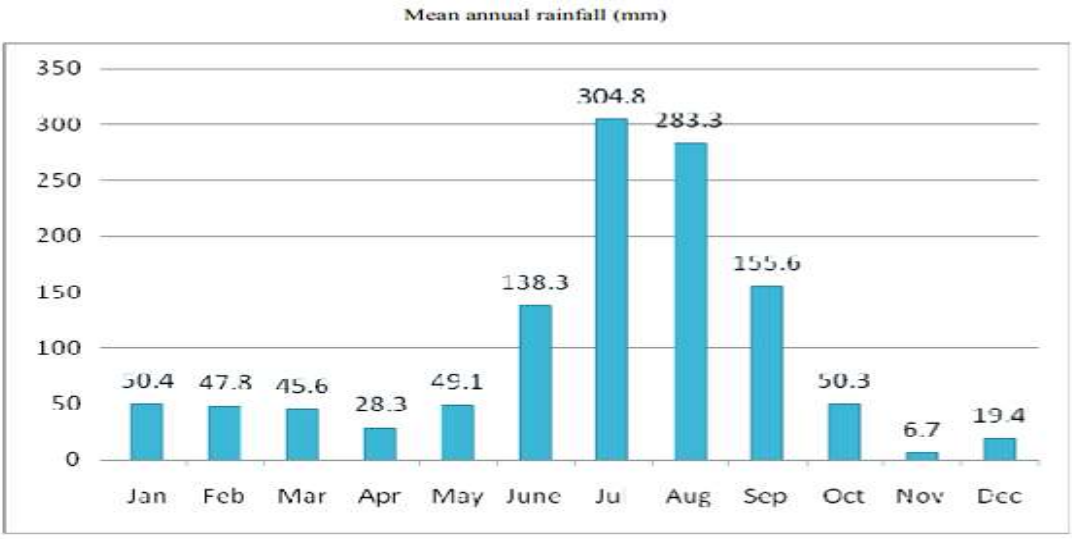
34. **Seasons**: The entire district exhibits four broad seasons in the year

(i) Winter or Cold weather (mid Dec. - mid March)
(ii) Summer or hot weather (mid March - mid June)
(iii) Season of general rains (South - West monsoon season)
(iv) Season of retreating monsoon (mid September to mid November)

35. **Temperature**:-There is no meteorological observatory in the district. The following account of the climate is based mainly on the records of the observations in the neighboring districts where similar meteorological conditions prevail. Variations in temperature are considerable from place to place and depend upon elevation as well as aspect. As the insolation is intense at high altitudes, in summer temperatures are considerably higher in the open than in the shade. Pools of cold stagnant air in the valleys cause the diurnal range of temperature to be considerable. January is the coldest month with a mean maximum temperature of 10°C. at heights of 2,000 m. above sea-level, the mean minimum temperature being at the freezing point (0° C.). Cold waves in the wake of western disturbances often make winter conditions rigorous. With the onset of the monsoon towards the end of June, day temperatures fall by about 3° to 5°C. and with its withdrawal towards the third or fourth week of September, day and night temperatures begin to decrease, slowly in the beginning but more rapidly after October till January, which is the coldest month. Temperatures are much lower at higher altitudes towards the north. in association with western disturbances, precipitation at higher altitudes occurs mostly in the form of snow which accumulates considerably in the valleys. After January, both day and night temperatures begin to rise, rapidly from March to May or June, the last two being the warmest months. The mean daily maximum temperature is about 25°C. at stations 2,000 m. above sea-level, 15° to 18°C. at 3,000m. Above sea-level and still lower at higher elevations. With the incursion of the monsoon current, temperatures fall slightly by about 3° to 5°C. The annual temperature of the district vary between 28 OC to -2 OC . In Summer it vary between 28 OC-12 and in winter 15 to -2OC.

36. **Rainfall**: - As per Agriculture Contingency Plan of district Almora, the annual rainfall in district is 1054 mm. The district observes 905.5 mm of rain in SW monsoon period from June to September, 46.4 mm during North East monsoon during October – December. In winter (January – February) the precipitation is recorded 67.9 mm and in summer (March – May) the precipitation is 34.7 mm.

Figure- 4 Mean Annual Rainfall



37. **Humidity**: - the humidity is highest during the monsoon months and particularly so during the rainiest months of July and August. During the winter months, it increases towards the afternoon at high altitudes.

38. **Cloudiness**: - Skies are heavily clouded during the monsoon months and for short spells when the region is affected by western disturbances. During the rest of the year, the skies are generally clear to lightly cloud.

39. **Winds**:- Owing to the nature of the terrain, local effects are pronounced and when the general prevailing winds are not too strong to mask these effects, there is a tendency for diurnal reversal of winds which blow up the slopes during the day (anabatic flow) and down the slopes at night (katabatic flow). Katabatic wind can blow with considerable force.

AIR QUALITY AND NOISE QUALITY

40. The pristine environment and sparse population suggest that most part of Almora have a very good air quality. Any point or non-point pollution sources of air pollution (except vehicular emission) were not observed throughout the survey period. It was observed that the traffic on the roads is too low to cause significant air pollution due to vehicular exhaust. There are no industries in the vicinity and hence any other source of atmospheric air pollution is not expected. The air pollution level expected to be well within the permissible limits because there are no major sources of pollution in the region.

41. Since there is no official/published air quality data available for this district, the baseline data on ambient air quality will be generated by the contractor before commencement of construction works.

42. Generally, noise pollution is not a problem in project district. Traffic, and festival/cultural noises, along with noise generated from construction activities, DG sets etc., are the most prominent sources of noise in the urban areas. There are no industrial enterprises in the project area. As the traffic is very low, the noise pollution either at point or non-point sources is unlikely in the project area. Moreover, there will be not much rise in the noise levels to be brought about by the proposed activities as project proposes adaptive reuse of the building, anticipating not

much noise generation during operation phase also. During the construction period, a temporary increase in the noise levels are expected due to movement of construction machineries and construction activities.

43. It was observed that ambient noise scenario in residential, commercial, and sensitive areas in the study area are quite low in general. The baseline data on Noise levels will be generated by the contractor before commencement of civil works.

HYDROLOGY
Water drainage

44. Rivers and drainage in project district- The district abounds in rivers some of which originate within the fold of the district and, assuming a peripheral course along the borderline, enter the Garhwal region and eventually merges into the Ganga and have thus been geographically grouped under the rivers of the Ganga system. These are Koshi (Kaushiki), Suyal (Salmale) Gori, Ram Ganga Sarju etc. Ram Ganga and Koshi are around project road influence area and at few locations it flow along the project roads. The project area is well drained by these rivers other rivulets locally known as Gad, Gadhera and Naulla.

Water Quality

45. Based on the reconnaissance survey/site visit and visual observations, water seems to be unpolluted. The secondary data is generally not available/ accessible for surface water as well as ground water. There is very little documentation on the pollution status of rivers of the area. The secondary data of Kosi river is being represented here for the purpose of reference.

Figure- 5 Water Quality Data of Kosi River Almora

Location: Kosi River (Near Pump House of Pey Jal Sansthan Almora)
Season: Summer

S/ No.	Parameters	IS: 10500 *	Analysis of Results for sampling date			Remarks
			18/05/07	23/05/07	12/06/07	
1	Total coliform organism MNP/100ml		300	400	-	Objectionable
2	PH	6.5-8.5	7.4	7.2	7.6	O.K
3	Dissolved oxygen, mg/l		6.03	6.5	5.4	O.K
4	Total hardness (as CaCO3), mg/l	600	64	70	84	O.K
5	Calcium (as Ca), mg/l	200	25	28	34	O.K
6	BOD, mg/l	<3#	16	8	2.1	Objectionable
7	Alkalinity	600	92	102	108	O.K
8	Iron (as Fe), mg/l	1.0	1.79	1.84	1.96	Objectionable
9	Arsenic (as As), mg/l	0.01		-	-	
10	Chromium (as Cr), mg/l	0.05	0.054@	0.038	0.028	Excess
11	Mercury (as Hg), mg/l	0.001	BDL	BDL	-	O.K
12	Lead (as Pb), mg/l	0.05	BDL	BDL	BDL	O.K
13	Copper (as Cu), mg/l	1.5	BDL	BDL	BDL	O.K
14	Zinc (as Zn), mg/l	15	BDL	BDL	BDL	O.K
15	Manganese (as Mn), mg/l	0.3	0.018	0.021	0.031	O.K

* Acceptable limits in absence of alternate source. # Not available in IS: 10500, have taken from CPCB's website:http://www.cpcb.nic.in @ Within MCLG (0.1 mg/l) as per USEPA. BDL = below desirable limit

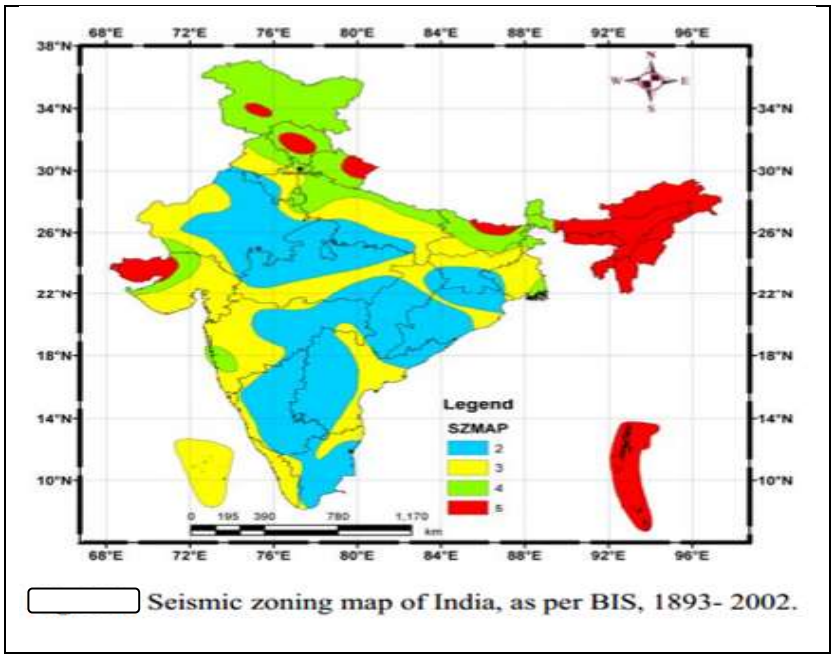
46. Based on limited records, the water quality of Uttarakhand's rivers, rivulets, and other natural water sources is generally good and no major source of water pollution was found. The hand pumps, natural water seeping out from mountains locally called as "Naula", and natural water springs locally called as "Gadhera" represent the ground water sources in the hills. There are no major sources of water pollution in terms of point or non-point sources aside from natural landslides leading to deposition of debris in streams.

47. Proposed subproject is not expected to have any impact on the surface/ ground water quality. The baseline data on water quality will be generated by the contractor before the commencement of construction activity.The proposed locations of water quality monitoring shall be finalized by the DSC Environment Expert

SEISMOLOGY

48. Uttarakhand Himalayas are one of the seismically active regions of the world and have experienced earthquakes since times immemorial. The region has also experienced tectonic movements. This is evident from several thrusts and faults present in and around the state. Two regional tectonic features in Uttarakhand, which have earthquake potential, are the main central thrust (MCT) and the main Boundary Thrust (MBT). In fact, these tectonic feature are present all along the entire Himalayan tectonic belt.

Figure- 6 Seismic Zone of India



49. As per the seismic zoning map of India, as incorporated in Indian Standard Criteria for earth quake Resistant Design of Structure IS:1893-(Part I) 2002 : General Provisions and Buildings; the entire state of Uttarakhand has been assigned to seismic zone IV and V, which are the two most seismo-tectonically active zones on the map. Most part of Alaknanda valley are in seismic zone V whereas the Bhagirathi valley is in seismic zone IV.

B. ECOLOGICAL RESOURCES

50. The hilly State of Uttarakhand has a forest cover of 65% of its total geographical areas (slightly lower than the stipulated 66.6% forest cover for hilly states).

Forestry

51. According to the India State of Forest report 2011, the recorded forest area of the Uttarakhand state is 34,651 km2 which constitutes 64.79% of its geographical area. Reserve forests constitute 71.11%. Protected Forests 28.52% and Unclassed Forests constitutes 0.35% of the total forest area.

52. The distribution of forest cover by district is presented in the succeeding Figure and Table. The Garhwal region has more forest cover with 14,626 km compared to the Kumaon region with 9,869 km2. However, they are almost equal in terms of distribution over its territory with 45% and 47% of covered with forest. The district of Pauri Garhwal, Uttarkashi, Nainital, and Chamoli have the largest forest cover accounting for 50% of all the state's total.

Figure- 7 Uttarakhand Forest Cover Map

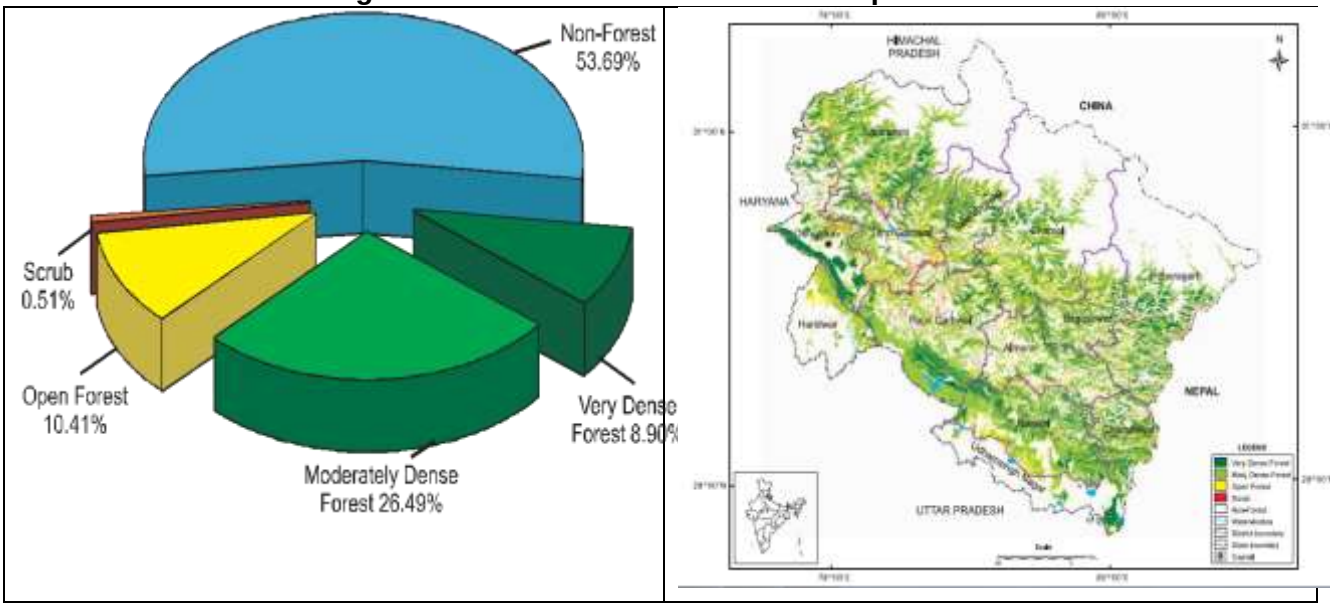


Table 2. District-wise Forest Cover, Uttarakhand

Region	District	Geographic Area	Forest Cover			Total Forest 2007	% of Total 2007
			Very Dense	Moderate Dense	Open Forest		
Garhwal	Uttarkashi	8,016	567	1959	619	3145	39.23
	Rudraprayag	1,984	246	581	298	1125	56.70
	Chamoli	8,030	427	1,586	682	2695	33.56
	Pauri Garhwal	5,329	523	2,094	672	3289	61.72
	Tehri Garhwal	3,642	298	1,232	617	2147	58.95
	Dehradun	3,088	584	695	328	1,607	52.04
	Haridwar	2,360	26	354	238	618	26.19
Sub-Total		32,449	2,671	8,501	3,454	14,626	46.91

Region	District	Geographic Area	Forest Cover			Total Forest 2007	% of Total 2007
			Very Dense	Moderate Dense	Open Forest		
Kumaon	Pithoragarh	7,090	567	1,115	412	2,094	29.53
	Bageshwar	2,246	194	883	304	1,381	61.49
	Almora	3,139	222	928	427	1,577	52.04
	Nainital	4,251	601	1,919	573	3,093	72.76
	Champawat	1,766	336	571	274	1,181	66.87
	Udham Singh Nagar	2,542	171	248	124	543	21.36
Sub-Total		21,034	2,091	5,664	2,114	9,869	50.38
Grand Total		5,3483	4,762	14,165	5,567	24,496	48.65
Note	Very Dense Forest – All lands with tree cover of canopy density of 70% and above Moderately Dense Forest – Canopy density between 40%-70% Open Forest – Canopy density between 10%-40%						

53. The proposed subproject is not expected to have any impact on the Forests and does not involve any tree cutting as the scope of the work is restricted to reconstruction and adaptive reuse of the Fort. Only the roots of a Banyan tree shall be scientifically treated.

Biodiversity

54. The State of Uttarakhand is endowed with rich bio-diversity as manifested by its approximately 64 percent forest cover. The State has established six national parks and six wildlife sanctuaries for the conservation of flora and fauna. Such areas include the Nanda Devi National Park, Valley of Flowers, Gangotri National Park, Govind Pashu Vihar National Park, Rajaji National Park, Jim Corbett National Park, Kedarnath Wildlife Sanctuary, Askot Musk Deer Sanctuary, Mussoorie Sanctuary, Binsar Wildlife Sanctuary, Sanadi Sanctuary, and Govind Wildlife Sanctuary—all of which are being looked after by the Uttarakhand government. A positive remark on the State is that it maintains rich wildlife outside their protected areas.

55. The State of Uttarakhand is represented by Biogeographic Zones 2B Western Himalaya and 7B Siwaliks 3 in this region. About 18.7 % of the total area under the Forest Department has been clearly earmarked for biodiversity conservation by the creation and management of 12 Protected Areas (PA) and a biosphere reserve in the State.

56. The proposed site has no protected area in vicinity. Binsar Wildlife Sanctuary is about 33 kms north of the Almora town. The sanctuary was established to conserve and protect the shrinking broad leaf oak.

Table 3 National Parks in Uttarakhand

Sl. No.	National Park	Year of Establishment	Area (sq.km)	District
1.	Corbett NP	1936	521	Garhwal
2.	Nanda Devi NP	1982	630	Chamoli
3.	Valley of Flower NP	1982	87	Chamoli
4.	Rajaji NP	1983	820	Dehradun and Haridwar
5.	Gangotri NP	1989	2390	Uttarkashi

[3] Negi, A.S., Status, Distribution and Management of Mountain Ungulates in Uttaranchal, Envis Bulletine, 2002.

Sl. No.	National Park	Year of Establishment	Area (sq.km)	District
6.	Govind NP	1990	472	Uttarkashi

Source: Wildlife and Protected Areas, ENVIS, 2002

Table 4. Wildlife Sanctuaries in Uttarakhand

Sl. No.	Sanctuary	Year of Establishment	Area (sq.km.)	District
1.	Govind WLS	1955	521	Uttarkashi
2.	Kedarnath WLS	1972	957	Chamoli
3.	Askot WLS	1986	600	Pithoragarh
4.	Sonanadi WLS	1987	301	Garhwal
5.	Binsar WLS	1988	46	Almora
6.	Musoorie WLS	1993	11	Dehradun

Source: Wildlife and Protected Areas, ENVIS, 2002

Forest Type	Wild Life / Birds in Almora region
Sub-trophical	Tiger, Chital (Axis axis) Leopard (Panthera Pardus), Fox (Vulpes vulpes montanus), Boar (Sus scrofa)
Tropical rain Forest	Goral (Nemoahaedus goral), Kalij Pheasant (Lophura leucomelana), Peora Patridge (hill Patridge, Chir Pheasant)
Mixed Cane Forest	Himalayan Thar, Monal, Koklas
Khusoo Forest	Musk Deer (Moschus moschiiferus), Himalayan Thar, Black Bear
Sub Alpine	Blue Sheep / 'Bharal' (Pseudois nahoor) Monal
Alpine	Snow Leopard (Panthera Uncia), Monal, Black Beer, Marmot, Bharal, Snow Cock (Tetraogallus himalayensis), Snow Patridge (Lerwa lerwa) etc.

Fishery

57. Fish abound in almost all streams of the district and riparian villages find in it an important supplement to their ordinary food. The common species found here are asela or saul, mahasher, kalabans or karaunch and fucta or phar kata. Other species found in the district include gadara, gadiyal or guluwa, tarra, symplu and nama, nawoo or japa. No interference with fishery activities is envisaged by execution of the proposed subprojects.

C. SOCIAL AND CULTURAL RESOURCES

58. The State of occupies a total land area of 53,483 sq. km. which is 1.73 percent of India's total land area. The native people of Uttarakhand are generally called either Garhwalior Kumaon depending on their place of origin in either the Kumaon or Garhwal region. According to the 2011 census of India, Uttarakhand has a population of 10,116,752 comprising 5,154,178 males and 4,962,574 females, with 69.45% of the population living in rural areas. The state is the 20th most populous state of the country having 0.84% of the population on 1.69% of the land. The population density of the state is 189 people per square kilometer having a 2001–2011 decadal growth rate of 19.17%. The gender ratio is 963 females per 1000 males. The crude birth rate in the state is 18.6 with the total fertility rate being 2.3. The state has an infant mortality rate of 43, a maternal mortality rate of 188 and a crude death rate of 6.6. The schedule caste and schedule tribe population in the State is significant, averaging 18 percent and three percent respectively. The population density is 189persons per sq.km.—considerably lower than the national average of 364.9persons per sq.km. Rural population constitutes about 69.77% while urban population composes the remaining 30.23% of State's total populations.

About 70% of the State population lives below the poverty line which is way above the national average of 46%. Literacy rate in the State is 78.82%.

Figure- 8 Major Urban Centres of Uttarakhand

59. The State is divided into Garhwal and Kumaon divisions. Administratively, the State is divided into 13 districts, 79 tehsils and 97 blocks. Garhwal division has seven hill districts with one located in the foothills (Haridwar). Kumaon division, on the other hand, has six districts—one in the foothills (Udham Singh Nagar).

60. **Population Density**. In 2001 census, Almora had a population of 630,567 of which males were 293,848 and remaining 336,719 were females. In 2011, Almora had population of 622,506 of which male and female were 291,081 and 331,425 respectively. The density of Almora district as per census 2011 is 198 people per sq. km against 201 people per sq. km in 2001. Almora district administers 3,090 square kilometers of areas.

Table 5 District comparative demographic scenario 2001 and 2011

Description	Year 2011	Year 2001
Actual Population	621,927	630,567
Male	290,414	293,848
Female	331,513	336,719
Population Growth	-1.73%	3.67%
Area Sq. Km	3,090	3,090
Density/km2	198	201
Proportion to Uttarakhand Population	6.15%	7.43%
Sex Ratio (Per 1000)	1142	1145
Child Sex Ratio (0-6 Age)	921	933
Average Literacy	81.06	73.64
Male Literacy	93.57	89.20
Female Literacy	70.44	60.56
Total Child Population (0-6 Age)	77,991	97,368
Male Population (0-6 Age)	40,601	50,376
Female Population (0-6 Age)	37,390	46,992
Literates	440,918	392,640
Male Literates	233,748	217,169
Female Literates	207,170	175,471
Child Proportion (0-6 Age)	12.54%	15.44%

Description	Year 2011	Year 2001
Boys Proportion (0-6 Age)	13.98%	17.14%
Girls Proportion (0-6 Age)	11.28%	13.96%

Land use pattern

61. The land use pattern of Uttarakhand is strongly governed by the following: elevation, climate, mountainous terrain, lithological type, topography, surface hydrology, sunlight in the fields of forestry and agriculture, alpine meadows, sparse vegetation (scrub), grazing land, barren land, and human settlement. The human settlements are mainly located in the shallow water zones or around the localities nearer to springs.

62. Forest is the main land use in the State and nearly 64 % of the geographical area is under the varying forest densities (cover). Tree line is clearly demarcated above 2900 m elevation. Agriculture is confined to areas of low reliefs which are underlined by weak rock formation (i.e. schists, phyllites, weathered gneisses, and crushed quartzite). The cultivated land, approximately 11.5 % of the total geographical area, is either terraced/semi-terraced or plain. Other land use categories such as meadows, grazing lands, and scrubs do not exhibit definite relationship with lithology. It is also observed that the south-facing hill slopes are covered by lush green forests.

63. The project district is located in hilly forest area and predominant land use is forest. Below is described area wise land use in district.

Table 6 Land use pattern

S.No	Particulars	Area (in 000 hac)
1.	Geographical/reported area	464
2.	Forest Area	236
3.	Land under Non Agricultural Use	12.5
4.	Permanent Pasture	28.3
5.	Cultivable Wasteland	37.8
6.	Land Under Misc. Tree Crops and Groves	33.9
7.	Barren Land Uncultivable Land	25.2
8.	Current Fallows	14
9.	Other Fallows	64.5

Source- http://agricoop.nic.in/Agriculture%20Contingency%20Plan/Uttarakhand/almora.pdf

Cultural and Archeological resources

64. The State of Uttarakhand has a great range of cultural practices. Festivals and cultural activities are being celebrated throughout the year in the State. The major fairs and festivals of the Garhwal region include the Hatkalika Fair, Tapkeshwar Fair, Surkhanda Devi Mela, Kunjapuri Fair, Lakhawar Village Fair, and Mata Murti Ka Mela. On the other hand, major fairs and festivals in the Kumaon region consist of Uttarayani Mela, Shravan Mela (Jageshwar), Kartik Poornima at Dwarahat, Kasar Devi fair, and Nanda Devi mela.

65. There are no heritage/Archaeological sites listed by Archaeological Survey of India (ASI) within the study area hence, the proposed project activities do not have any adverse impact on these sites. There are few small temples located along the project corridors, but none of them will be affected as the restoration work is restricted to the Fort site only.

D. ECONOMIC RESOURCES

Transportation and communication

66. Transportation system is a key factor in the socio-economic development of any area. Roads are logically the critical inputs to the growth of all the sectors. Aside from road systems, the State of Uttarakhand is connected to other states via rail and air transportation systems. In project district Almora the total length of Pucca road is 1964 km in which 115 km is under Forest Department and 13 Km is under Nagar Panchyat/ Cantt while rest of the road is under PWD.

Industrial Development

67. Almora is a hilly district of Uttarakhand. Large industries are not present here.

Table 7 Industrial Scenario in District Almora

S. No.	Head	Unit	
1	Khadi udhyog	1	Run by Industrial co-operative Society
2	Transformed Khadi Gram udhoyag	2+3+603	2 unit is run by Industrial co-operative Society, 3 unit is run by Registered organization and rest 603 is run by private owners.
3	Small industrial units	Nil	
4	Engineering works	219	All are run by private owners
5	Chemical industrial units	44	All are run by private owners
6.	Vidhyan	625	All are run by private owners
7.	Handicraft power looms	41	All are run by private owners
	Handicraft	119	All are run by private owners
	Others	422	
7.	Total person Employed in these industries	1323	

Source - http://almora.nic.in/files/ZSP%202009/tab36.pdf

Agriculture

68. Agriculture is the main economic activity in the State as per latest land-use statistics. The total reported area for agricultural activity is 55.66 lakh hectares. In the hills, the major crops grown include wheat, paddy, mandua, ramdana and potato whereas in the plains the major crops are wheat, paddy, pulses, and sugarcane.

69. The pattern of land ownership is unlike that found in the rest of India. Most of the Uttarakhand farmers are owner-cultivators. Tenant farming and sharecropping are rare while landholdings are generally small and limited to family farms—approximately 50 percent of all landholdings are less than 0.5 hectares in size and 50 percent under one hectare. As such, the zamindari system of big landholders is limited to the plains. Both the geography and the Pahari cultural heritage have played roles in maintaining a traditionally more equitable, if impoverished, land distribution in Uttarakhand.

70. The agriculture related statistics of project district Almora has been mentioned in below table- 8 for reference

Table 8 Agriculture Scenario in Almora district

SL	Particular	Unit (000 ha)	Cropping intensity %

SL	Particular	Unit (000 ha)	Cropping intensity %
1	Net sown area	83.5	158.9
2.	Area Sown more than once	49.5	
3.	Gross cropped area	132.7	
Irrigation			
1	Net Irrigated Area	5.5	6.6
2	Gross Irrigated Area	9.8	11.7
3	Rainfed Area	73.7	88.7
Predominant agricultural produce are:- Main Agricultural products are – Wheat (Triticum aestivum), Paddy (Oryza sativa), Wheat , Jaue , Maize (Zea mays), Barley (Hordeum vulgare), Madua(Eleusine coracana), Finger millet (Eleusine coracana), Pulse – Urad (Phaseolus radiatus), Mung , Masur(Ervum lens), Gram , Pea, Arhar Oilseed- Mustard (Brassica compestris), Aalse , Til, Groundnut (Arechis hypogea) , Sunflower, Soyabeen, Others- Potato, Tobaco and Turmeric			

Sl	Livestock	Numbers (000)
1	Cattle	237.7
2	Buffaloes	109.7
3	Total Commercial dairy Farm	347.4
4	Goat	171.7
5	Sheep	4.8
6	Others (Pig, Yak etc)	0.6

Aesthetics and Tourism

71. Tourism is one of the strong pillars of the State economy. The State has high growth potential for tourism, be in nature, wildlife, adventure or pilgrimage tourism. Tourist arrivals in the state have been increasing over time. Expenditure on schemes for tourism development and promotion in the State has progressively increased over the years. Some of the major destinations with tourism potential include Haridwar (called 'The Gateway of God'), Rishikesh (the birth place of Yoga), Dehradun, Mussoorie, Almora, Kedarnath, Badrinath, Yamunotri, Gangotri, Jim Corbett National Park, Nainital, Ranikhet, and Pithoragarh.

72. Almora is a naturally picturesque district. Its pine and deodar covered slopes and magnificent mountain vistas have attracted seekers for centuries. From Swami Vivekananda to poet Sumitra Nandan Pant, Nobel Laureate Sir Ronald Ross to Academy award winning actress Uma Thurman, lyricist and ad-guru Prasoon Joshi to Apple founder Steve Jobs, creative individuals were either born in these hills or visited them to derive inspiration from the quiet environs of this salubrious retreat.

73. With the establishment of the Uday Shankar India Cultural Centre in 1938 in Simtola near the town, Almora acquired exalted status as a cultural hub of North India. Great artistes like Ustad Allauddin Khan, Pandit Ravi Shankar, Guru Dutt, Zohra Segal, Lakshmi Shankar, Ananda Shankar, to name just a few, came to this town that evolved gradually into a renowned centre for the arts.

74. This sub-project envisages the "Restoration, Adaptive Reuse & Revitalization of Almora Fort" or Malla Mahal for a substantial enhancement of the visitor experience. The sub-project firmly believes that Almora, with its unique Himalayan locales and cultural heritage has the potential of emerging as the CULTURAL CAPITAL of the state, giving a boost to the experiential tourism aspect of not just the Himalayas but the entire country.

75. The rationale is to create a secular cultural space (at present the town is dotted with temples and ashrams) and make a concerted effort to engage all five senses of the visitor, attracting people to the site and places around it, telling the story of the place called ALMORA.

76. The sub-project envisages a substantial rise in tourism interest in Almora as a destination, leading to sustainable and equitable economic growth in the region. The site will lead to a 10% growth in direct employment generation through tourism activity, also contributing an increase of about 15% in the real income levels in the district of Almora. The sub-project, once implemented, would enhance the duration of stay for the average visitor by at-least twenty-four hours.

77. More significantly, since the sub-project is located in the heart of the town, it can be an equal-opportunities employer and benefits to the economy will trickle down to the local populace that derives sustenance from direct employment in the main bazaar. The sub-project will substantially increase footfalls in the local eateries, guesthouses and hotels, located within Almora Town. This will lead to the building of capacities for stakeholders already engaged in tourism as a sector of employment.

78. The Strengths, Challenges, Opportunities & Risks (SCOR) Analysis of Almora Fort Restoration Sub-project is presented in the following table-9:

Table 9: SCOR Analysis of Almora

Strengths	**Challenges**
Almora Town is the hub of tourism activity in the region, both in the south-north and the east-west corridors. Hence, geographical location is appropriate Almora town has a historical connect with arts and culture and hence the centre has an appropriate context. The connection with spirituality and situation of sacred sites such as Jageshwar and Binsar in proximity, renders the site an appropriate place for developing an experience based tourism product. The site has unique historic value, unparalleled by any other in the region. The site represents a unique amalgam of architectural styles, representing a true picture of Almora. The site's location, at the pinnacle in the heart of the town can easily make the project viable through appropriate footfalls.	Getting the key stakeholders to come together to ensure success of the project. The region has developed an identity as a spiritual destination. To add the experiential input through an arts and culture centre would require a longer gestation period. Setting up the institutional framework to ensure the quality of services and software offered to the visitor over a long period of time. Putting in place, mechanisms that will ensure striking a balance between imperatives of conservation and handling of visitor influx. The project has to walk the tightrope between close coordination with government agencies and yet retain an independent character to ensure the quality of experience offered.
Opportunities	**Risks**
Absence of a destination offering experiential tourism in the area of arts and culture could be a unique selling proposition. There is no Himalayan Art Gallery in the state and this could be unique meeting point for artistes and art lovers and even buyers. Almora's associational significance to culture could be fully utilized. Would be unique example of heritage	Spiritual or religious tourists may choose to ignore the site. A social media push has not been tried for any site. There would be a need to constantly innovate and attract visitors if the site is to become a vibrant arts' centre. The right human and cultural resources need to be identified and supported and implementing agency may not be equipped

preservation with viable re-use. Would be a first for social media promotion of a destination in Uttarakhand. The unique elevation of the site providing visibility shall lend character to the town, once the ramparts are illuminated. The imperative of conservation is already on the government as the site is under serious stress. A reuse mechanism will make the conservation effort more meaningful.	to make those choices. Political interference and influence may be exerted to influence work once the reputation of the centre is established. Just having a centre as an island with environmental degradation around will not help. The town, if it does not rise to the occasion the centre will promise, the centre in itself may not be able to give the desired push to tourism footfall. The possibility of lack of ability to address issues comprehensively and rather focusing on unilateral perspective of tourism development without addressing the planning, protection, management aspects can adversely affect the perception of quality of services.

IV. ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

79. The assessment for environmental impacts due to the implementation of this project has been carried out for potential impacts during the following stages of the project planning and implementation:

(i) Location impacts: Impacts associated with site selection, including impacts on environment and resettlement or livelihood related impacts on communities and wildlife
(ii) Design impacts: Impacts arising from project design, including the technology used, scale of operations, discharge standards etc
(iii) Construction impacts: Impacts resulting from construction activities including site clearance, earthworks, civil works, etc.
(iv) O&M impacts: Impacts associated with the operation and maintenance of the infrastructure built in the project.

LOCATION IMPACT:

A. Land Acquisition and Resettlement

80. The location considered for the subproject is within the area designated for eco- tourism as part of developing Uttarakhand's conservation, heritage, natural and cultural attractions, and are outside areas demarcated for habitat protection and conservation. The proposed sub-project envisages upgrading the infrastructure and adaptive reuse of existing Almora Fort Complex. No additional land is to be acquired. For shifting of the DM Office, consultations have been carried out, and is under progress. Letter to the Secretary Tourism is enclosed as Annexure IV B. No objection certificate from District Administration, for restoration of the Fort is enclosed as Annexure IV A

1. MEASURES TO MITIGATE LOCATION IMPACTS

81. In accordance with the provisions in the subproject selection criteria, the subproject design will include adequate provisions for ensuring effective maintenance and protection of the assets created so as to ensure the long term sustainability of the sites.
Designs will be worked out and implemented in accordance with the provisions. Further, the design guidelines for the project components will conform to Archaeological Survey of India Guidelines. The other reference codes/Standards/ Guidelines consulted include US Secretary of Interior's Standards, Great Britain's National Trust for Places of Historic Interest and Beauty Guidelines and INTACH Architectural Heritage Division benchmarks.

Design considerations to avoid environmental impacts: Since it is a heritage restoration project, impacts arising from the inappropriate designs of proposed facilities are not likely. All component designs will be worked out to minimize any impacts on the adjoining properties, and the drainage and sewerage connections on the road. Given that there is a need for disposal of construction wastes, the contractors will be required to consult with the Project Implementation Unit (PIU) and Almora Nagar Palika Parishad for safe disposal sites.

2. MEASURES TO MITIGATE DESIGN IMPACTS

82. Design of proposed components will enable efficient drainage at the project site and maintain natural drainage patterns.

Designs will be worked out in such a manner that exposed steel and concrete structures are avoided. The obsolete and inappropriate additions will be removed. The design brief for all components proposed will strictly conform to the Uttarakhand architecture. Any new landscaping elements will only utilize native species to protect local biodiversity

83. Technical Suitability: The intervention proposed would be of non-destructive nature. Most alterations to the site, currently made to it, are in blatant contravention of heritage conservation norms. Removing the same shall not lead to any danger or defacement of the site, but will in fact add to its appearance.

84. No additional land is required for the sub-project. The entire work components will be carried out within the available government land. Thus, telephone lines, electric poles and wires, water and sewer lines will not be affected. The storm water runoff from alterations of the site‘s natural drainage patterns due to landscaping, excavation works in the Almora Fort Complex and landscaping near the surroundings will be taken care in the designs. Selection of materials and construction technologies shall be carefully chosen as per the heritage restoration guidelines. Designs will ensure :

- Incorporation of adequate drainage provisions
- Natural tree species in the proposed landscape.
- Use of materials such that architectural character of the site is maintained.

B. Environmental Impacts

85. **Determination of Area of Influence**. The primary impact areas are (i) sites for subproject UK/IDIPT/BHT/03 components; (ii) main routes/intersections which will be traversed by construction vehicles. The secondary impact areas are: (i) entire town area outside of the delineated primary impact area; and (ii) entire Almora district in terms of over-all environmental improvement.

86. In the case of this subproject UK/IDIPT/BHT/03 the components will involve straight forward construction and operation, and impacts will be mainly localized, short in duration and expected only during construction period.

3. DESIGN IMPACTS AND PRE-CONSTRUCTION IMPACTS

87. Impacts arising from the inappropriate designs of proposed facilities would in general include the contemporary designs for the traditional and cultural environment, etc. Selection of materials, if not carefully chosen, will adversely impact the aesthetic appeal of the surroundings. The results of interventions are unobtrusive and will be integral part of the overall ambience so as to avoid impacts on the aesthetics of the site. Structural designs to be worked out in such a manner that over ground structures do not affect the aesthetics of the area. All component designs will be worked out to minimize any impacts on the adjoining properties, and the drainage and sewerage connections on the road. Given that there is a need for disposal of construction wastes, the contractors will be required to consult with the Project Implementation Unit (PIU) and Almora Nagar Palika Parishad for safe disposal sites.

88. Technical Suitability: The intervention proposed would be of non-destructive nature. Most alterations to the site, currently made to it, are in blatant contravention of heritage conservation norms. Removing the same shall not lead to any danger or defacement of the site, but will in fact add to its appearance. Since the temple is on a raised plinth, the proposed interventions are also not detrimental to the security of the site.

89. No additional land is required for the sub-project. The entire work components will be carried out within the available government land. Thus, telephone lines, electric poles and wires, water and sewer lines will not be affected. The storm water runoff from alterations of the site's natural drainage patterns due to landscaping, excavation works in the Almora Fort Complex and landscaping near the surroundings will be taken care in the designs. Selection of materials and construction technologies shall be carefully chosen, so that it does not adversely impact the aesthetic appeal of the destinations. Designs will ensure energy conservation as briefed below.

90. Energy Efficiency Measures. Energy efficiency measures shall be observed wherever possible:

- Use of LED lighting to reduce energy cost, maintenance cost.
- All electric equipment including fans, lights and switches would be as per BEE star rating.
- Designing of structures to be done for maximum utilization of natural light and ventilation in the day time
- Use of Vernacular architecture and maximum usage of locally available materials in construction thereby cutting processing and transportation cost of material procurement
- Preserving natural landscape features and use of native plant species will minimize irrigation cost
- Use of regionally appropriate, low water-using and native plants in landscaping to save water as once established, these plants require little water beyond normal rainfall. And also, because native plants are better adapted to local soils and climatic conditions, they rarely require the addition of fertilizer and are more resistant to pests and diseases thereby cutting irrigation and maintenance costs.
- Use of water efficient fixtures

4. PRE-CONSTRUCTION IMPACTS AND MITIGATION MEASURES

91. Consents, permits, clearances, no objection certificate (NOC), etc. Failure to obtain necessary consents, permits, NOCs, etc. can result to design revisions and/or stoppage of works.

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

- Obtain all necessary consents, permits, clearance, NOCs, etc. prior to start of civil works.
- Acknowledge in writing and provide report on compliance all obtained consents, permits, clearance, NOCs, etc.
- Include in detailed design drawings and documents all conditions and provisions if necessary

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

- Develop an erosion control and re-vegetation plan to minimize soil loss and reduce sedimentation to protect water quality.

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

94. Sites for construction work camps and areas for stockpile, storage and disposal. The priority is to locate these near the subproject sites. The contractor will be required to meet the following criteria for the sites:

- Will not promote instability and result in destruction of property, vegetation, irrigation, and drinking water supply systems, etc.
- Residential areas will not be considered so as to protect the human environment (i.e., to curb accident risks, health risks due to air and water pollution and dust, and noise, and to prevent social conflicts, shortages of amenities, and crime).
- Disposal will not be allowed near sensitive areas which will cause inconvenience to the community.
- Any construction camp site will be finalized in consultation with DSC and PIU.

95. Sources of construction materials. For the construction material required for this sub project, considering that the extraction of materials can disrupt natural land contours and vegetation resulting in accelerated erosion, disturbance in natural drainage patterns, ponding and water logging, and water pollution, the contractor will be required to:

- Use quarry sites and sources permitted by government.
- Verify suitability of all material sources and obtain approval from PIU/DSC.
- Submit to DSC on a monthly basis documentation of sources of materials.

96. The contractor will identify and seek prior approval of the DSC engineer for quarrying and borrowing operations. Quarry and borrowing will be carried only from approved locations and no new quarries will be opened for the purposes of the project. Any deviation from the provisions will be immediately notified and approval of the engineer is to be sought.

97. Access: Hauling of construction materials and operation of equipment on-site can cause traffic problems and conflicts in ROWs. However, potential impacts will be of short-duration, localized and can be mitigated. The contractor will need to adopt the following mitigation measures:

- Plan transportation routes so that heavy vehicles do not use narrow local roads, except in the immediate vicinity of delivery sites.
- Schedule transport and hauling activities during non-peak hours.
- Locate entry and exit points in areas where there is low potential for traffic congestion.
- Keep the site free from all unnecessary obstructions.
- Drive vehicles in a considerate manner.

- Notify affected sensitive receptors by providing sign boards with information about the nature and duration of construction works and contact numbers for concerns/complaints.
- Provide free access to households and businesses/shops along the ROWs during the construction phase.

98. Summary of pre-construction activities is presented in Table 10. The responsibilities, monitoring program and costs are provided in detail in the EMP. The contractor is required to update the information during detailed design phase.

Table 10: Summary of Pre-Construction Mitigation Measures

Parameters	Mitigation Measures
Consents, permits, clearances, no objection certificate (NOC), etc.	Obtain all necessary consents, permits, clearance, NOCs, etc. prior to start of civil works. Acknowledge in writing and provide report on compliance of all obtained consents, permits, clearance, NOCs, etc. Include in detailed design drawings and documents all conditions and provisions if necessary
Erosion control	Develop an erosion control and re-vegetation plan to minimize soil loss and reduce sedimentation to protect water quality. Minimize the potential for erosion by balancing cuts and fills to the extent feasible. Identify and avoid areas with unstable slopes and local factors that can cause slope instability (groundwater conditions, precipitation, seismic activity, slope angles, and geologic structure). Minimize the amount of land disturbed as much as possible. Use existing roads, disturbed areas, and borrow pits and quarries when possible. Minimize vegetation removal. Stage construction to limit the exposed area at any one time.
Utilities	Identify and include locations and operators of these utilities in the detailed design documents to prevent unnecessary disruption of services during the construction phase. Require contractors to prepare a contingency plan to include actions to be done in case of unintentional interruption of services. Obtain from the PIU and/or DSC the list of affected utilities and operators; Prepare a contingency plan to include actions to be done in case of unintentional interruption of services. If relocations are necessary, contractor will coordinate with the providers to relocate the utility.
Social and Cultural Resources	Develop a protocol for use by the construction contractors in conducting any excavation work, to ensure that any chance finds are recognized and measures are taken to ensure they are protected and conserved.
Sites for construction work camps, areas for stockpile, storage and disposal	Will not promote instability and result in destruction of property, vegetation, irrigation, and drinking water supply systems, etc. Residential areas will not be considered so as to protect the human environment (i.e., to curb accident risks, health risks due to air and water pollution and dust, and noise, and to prevent social conflicts, shortages of amenities, and crime). Disposal will not be allowed near sensitive areas which will cause inconvenience to the community.

Parameters	Mitigation Measures
Sources of construction materials	Use quarry sites and sources permitted by government. Verify suitability of all material sources and obtain approval from PIU/DSC. If additional quarries are required after construction has started, obtain written approval from PIU/DSC. Submit to DSC on a monthly basis documentation of sources of materials.
Access	Schedule transport and hauling activities during non-peak hours. Locate entry and exit points in areas where there is low potential for traffic congestion. Keep the site free from all unnecessary obstructions. Drive vehicles in a considerate manner. Notify affected sensitive receptors by providing sign boards with information about the nature and duration of construction works and contact numbers for concerns/complaints. Provide free access to households and businesses/shops along ROWs during the construction phase.

5. CONSTRUCTION IMPACTS

Anticipated Construction Impacts and Mitigation Measures

99. Construction Schedule and Method. As per preliminary design, construction activities will cover 24 months. The exact implementation schedule will be updated during detailed design phase and will be reflected in the IEE. The infrastructures will be constructed according to design specifications and Guidelines of Archaeological Survey of India, US Secretary of Interior's Standards, Great Britain's National Trust for Places of Historic Interest and Beauty Guidelines and INTACH Architectural Heritage Division benchmarks.
Demolished materials will be reused to the maximum extent possible. Materials will be brought to the storage site (selected in consultation with DSC Expert) by trucks and will be transported and stored on unused areas within the fort complex. The working hours will be 8 hours daily, the total duration of each stage depends on the soil condition and other local features.

100. Suitable and sufficient space for construction equipment and stockpiling of materials will be marked prior to work start and the contractor will need to remove all construction and demolition wastes on a daily basis.

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

102. Erosion Hazards: The sites are in the built up area of the town therefore risk of erosion is low, limited during construction activities and not expected to have any negative impact on the drainage and hydrology of the area. Runoff will produce a highly variable discharge in terms of volume and quality, and in most instances will have no discernible environmental impact. The contractor will be required to:

- Save topsoil removed during excavation and use to reclaim disturbed areas, as soon as it is possible to do so.

- Use dust abatement such as water spraying to minimize windblown erosion.
- Provide temporary stabilization of disturbed/excavated areas that are not actively under construction.
- Conduct routine site inspections to assess the effectiveness of and the maintenance requirements for erosion and sediment control systems.

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

- Schedule civil works during non-monsoon season, to the maximum extent possible.
- Ensure drainages 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. DSC in consultation with the PIU will identify approved sites.
- Dispose waste oil and lubricants generated as per provisions of Hazardous Waste (Management and Handling) Rules, 1989.

104. Impacts on Air Quality. There is potential for increased dust particularly during summer/dry season due to stockpiling of excavated materials. Emissions from vehicles carrying construction materials and debris/materials to be disposed may cause increased in air pollutants within the construction zone. These are inherent impacts which are site-specific but have low magnitude and short in duration due to being a restoration project and can be easily mitigated. The contractor will be required to:

- Conduct regular water spraying on earth piles, trenches and sand piles.
- Conduct regular visual inspection along alignments and construction zones to ensure no excessive dust emissions.
- Maintain construction vehicles and obtain “pollution under control” certificate from UEPPCB.
- Obtain CFE and CFO for crushers, diesel generators, etc., if to be used in the project.

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

106. The contractor will be required to:

- Limit construction activities in fort complexes and other important sites to daytime only.

- Plan activities in consultation with the PIU/DSC so that activities with the greatest potential to generate noise are conducted during periods of the day which will result in least disturbance.
- Minimize noise from construction equipment by using vehicle silencers and noise-reducing mufflers.
- Avoid loud random noise from sirens, horns etc.
- Instruct drivers that horns not be used unless it is necessary to warn other road users or animals of the vehicle's approach.
- If specific noise complaints are received during construction, the contractor may be required to implement one or more of the following noise mitigation measures, as directed by the project manager
- Locate stationary construction equipment as far as possible from nearby noise-sensitive properties as possible.
- Shut off idling equipment.
- Reschedule construction operations to avoid periods of noise annoyance identified in the complaint.
- Notify nearby residents whenever extremely noisy work will be occurring.
- Follow Noise Pollution (Regulation and Control) Rules, day time ambient noise levels should not exceed 65 dB(A) in commercial areas, 55 dB(A) in residential areas, and 50 dB(A) in silence zone.
- Ensure vehicles comply with Government of India noise limits for vehicles.

107. Impacts on Flora and Fauna. As per preliminary design, tree-cutting is not required. This will be reassessed during detailed design phase. There are no protected areas in the direct and indirect impact zones and no diverse ecological biodiversity as vegetation and 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 with the help of Environment Expert DSC.
- 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 DSC and PMU Forest Conservation Specialist and should be a native species.

108. Impacts on Physical Cultural Resources. There may be inconvenience to tourists, residents, businesses, and other road users due to construction activities in the fort complexes and slower flow of traffic in areas with narrow roads. 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 walkways and metal sheets where required to maintain access of people and vehicles.
- Provide sign boards to inform nature and duration of construction works and contact numbers for concerns/complaints.
- Implement good housekeeping. Remove wastes immediately. Prohibit stockpiling of materials that may obstruct/slow down pedestrians and/or vehicle movement.
- Ensure workers will not use nearby/adjacent areas as toilet facility.
- Coordinate with DSC for transportation routes and schedule. Schedule transport and hauling activities during non-peak hours. Communicate road detours via visible boards, advertising, pamphlets, etc.

- Ensure heavy vehicles do not use narrow local roads, except in the immediate vicinity of delivery sites.
- Provide instructions on event of chance finds for archaeological and/or ethno-botanical resources. Works must be stopped immediately until such time chance finds are cleared by experts.

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

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

110. Impacts on Occupational Health and Safety. Residential accommodation for workers is not proposed. Exposure to work-related hazards is typically intermittent and of short duration, but is likely to occur. 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.

111. The contractor will be required to:

- Disallow worker exposure to noise level greater than 85 dBA for a duration of more than 8 hours per day without hearing protection. The use of hearing protection shall be enforced actively.
- Develop comprehensive site-specific health and safety (H&S) plan. The overall objective is to provide guidance to contractors on establishing a management strategy and applying practices that are intended to eliminate, or reduce, fatalities, injuries and illnesses for workers performing activities and tasks associated with the project.
- Include in H&S plan measures such as: (i) type of hazards during excavation works; (ii) corresponding personal protective equipment for each identified hazard; (iii) H&S training for all site personnel; (iv) procedures to be followed for all site activities; and (v) documentation of work-related accidents.
- Provide H&S orientation training to all new workers to ensure that they are apprised of the rules of work at the site, personal protective protection, and preventing injury to fellow workers.

- Ensure that qualified first-aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the site.
- 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.
- 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.

112. 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. During the operation of the project, anticipated impacts are positive owing to increase in revenue from tourism in the area. As per preliminary design, land acquisition and closure of roads are not required. However, construction activities may disturb the traffic in the market area and cause public discomfort. The potential impacts are negative and moderate but short-term and temporary. The contractor will need to adopt the following mitigation measures:

- Leave space for access between mounds of soil.
- Provide walkways and metal sheets where required to maintain access to shops/businesses along trenches.
- Consult businesses and institutions regarding operating hours and factoring this in to work schedules.
- Provide sign boards for pedestrians to inform nature and duration of construction works and contact numbers for concerns/complaints.
- Employ at least 50% of the labor force, or to the maximum extent, local persons within the 2-km immediate area if manpower is available.

113. Summary of Mitigation Measures during Construction. Table 11 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 (Section IX).

Table 11: Summary of Mitigation Measures during Construction Phase

Potential Impact	Mitigation Measures
Erosion hazards	Save topsoil removed during excavation and use to reclaim disturbed areas, as soon as it is possible to do so. Use dust abatement such as water spraying to minimize windblown erosion. Provide temporary stabilization of disturbed/excavated areas that are not actively under construction. Apply erosion controls (e.g., silt traps) along the drainage leading to the water bodies. Maintain vegetative cover within road ROWs to prevent erosion and periodically monitor ROWs to assess erosion.

Potential Impact	Mitigation Measures
	Clean and maintain catch basins, drainage ditches, and culverts regularly. Conduct routine site inspections to assess the effectiveness of and the maintenance requirements for erosion and sediment control systems.
Impacts on water quality	Schedule civil works during non-monsoon season, to the maximum extent possible. Ensure drainages and water bodies within the construction zones are kept free of obstructions. Keep loose soil material and stockpiles out of drains, flow-lines and watercourses. Avoid stockpiling of excavated and construction materials (sand, gravel, cement, etc.) unless covered by tarpaulins or plastic sheets. Re-use/utilize, to maximum extent possible, excavated materials. Dispose any residuals at identified disposal site (PIU/DSC will identify approved sites). Dispose waste oil and lubricants generated as per provisions of Hazardous Waste (Management and Handling) Rules, 1989. Refuel equipment within the designated refueling containment area away from drainages, nallahs, or any water body. Inspect all vehicles daily for fluid leaks before leaving the vehicle staging area, and repair any leaks before the vehicle resumes operation.
Impacts on air quality	Conduct regular water spraying on earth piles, trenches and sand piles. Conduct regular visual inspection along alignments and construction zones to ensure no excessive dust emissions. Spreading crushed gravel over backfilled surfaces if re-surfacing of disturbed ROWs cannot be done immediately. Maintain construction vehicles and obtain “pollution under control” certificate from HPSPCB. Obtain CFE and CFO for hot mix plants, crushers, diesel generators, etc., if to be used in the project.
Noise and vibrations impacts	Limit construction activities in temple complexes and other important sites to daytime only. Plan activities in consultation with the PIU/DSC so that activities with the greatest potential to generate noise are conducted during periods of the day which will result in least disturbance. Minimize noise from construction equipment by using vehicle silencers and fitting jackhammers with noise-reducing mufflers. Avoid loud random noise from sirens, air compression, etc. Require drivers that horns not be used unless it is necessary to warn other road users or animals of the vehicle’s approach. If specific noise complaints are received during construction, the contractor may be required to implement one or more of the following noise mitigation measures, as directed by the project manager: (i) locate stationary construction equipment as far from nearby noise-sensitive properties as possible; (ii) shut off idling equipment; (iii) reschedule construction operations to avoid periods of noise annoyance identified in the complaint; and/or (iv) notify nearby residents whenever extremely noisy work will be occurring. Follow Noise Pollution (Regulation and Control) Rules, day time ambient noise levels should not exceed 65 dB(A) in commercial areas, 55 dB(A) in residential areas, and 50 dB(A) in silence zone.4 Ensure vehicles comply with Government of India noise limits for vehicles. The test method to be followed shall be IS:3028-1998.
Impacts on flora and	Conduct site induction and environmental awareness. Limit activities within the work area.

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

Potential Impact	Mitigation Measures
fauna	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 Forest Conservation Specialist of DSC/PMU
Impacts on physical resources	Ensure no damage to structures/properties near construction zone. Provide walkways and metal sheets where required to maintain access of people and vehicles. Provide sign boards to inform nature and duration of construction works and contact numbers for concerns/complaints. Increase the workforce in front of critical areas such as institutions, place of worship, business establishment, hospitals, and schools; Implement good housekeeping. Remove wastes immediately. Prohibit stockpiling of materials that may obstruct/slow down pedestrians and/or vehicle movement. Ensure workers will not use nearby/adjacent areas as toilet facility. Coordinate with DSC for transportation routes and schedule. Schedule transport and hauling activities during non-peak hours. Communicate road detours via visible boards, advertising, pamphlets, etc. Ensure heavy vehicles do not use narrow local roads, except in the immediate vicinity of delivery sites. Provide instructions on event of chance finds for archaeological and/or ethno-botanical resources. Works must be stopped immediately until such time chance finds are cleared by experts.
Impacts on waste generation	Prepare and implement a waste management plan. Manage solid waste according to the following hierarchy: reuse, recycling and disposal. Include in waste management plan designated/approved disposal areas. Coordinate with DSC Environment Expert for beneficial uses of excavated soils/silts/sediments or immediately dispose to designated areas. Recover used oil and lubricants and reuse; or remove from the sites. Avoid stockpiling and remove immediately all excavated soils, excess construction materials, and solid waste (removed concrete, wood, trees and plants, packaging materials, empty containers, oils, lubricants, and other similar items). Prohibit disposal of any material or wastes (including human waste) into drainage, nallah, or watercourse.
Impacts on occupational health and safety	Comply with IFC EHS Guidelines on Occupational Health and Safety Disallow worker exposure to noise level greater than 85 dBA for a duration of more than 8 hours per day without hearing protection. The use of hearing protection shall be enforced actively. Develop comprehensive site-specific health and safety (H&S) plan. The overall objective is to provide guidance to contractors on establishing a management strategy and applying practices that are intended to eliminate, or reduce, fatalities, injuries and illnesses for workers performing activities and tasks associated with the project. Include in H&S plan measures such as: (i) type of hazards during excavation works; (ii) corresponding personal protective equipment for each identified hazard; (iii) H&S training for all site personnel; (iv) procedures to be followed for all site activities; and (v) documentation of work-related accidents. Provide H&S orientation training to all new workers to ensure that they are apprised of the rules of work at the site, personal protective protection, and preventing injury to fellow workers. Ensure that qualified first-aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the site as well as at construction camps. Provide medical insurance coverage for workers. Secure construction zone from unauthorized intrusion and accident risks. Provide supplies of potable drinking water. Provide clean eating areas where workers are not exposed to hazardous or noxious substances. Provide visitor orientation if visitors to the site can gain access to areas where

Potential Impact	Mitigation Measures
	hazardous conditions or substances may be present. Ensure also that visitor/s do not enter hazard areas unescorted. Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas. Ensure moving equipment is outfitted with audible back-up alarms. Mark and provide sign boards in the construction zone, and areas for storage and disposal. Signage shall be in accordance with international standards and be well known to, and easily understood by workers, visitors, and the general public as appropriate.
Impacts on socio-economic activities	Provide walkways and metal sheets where required to maintain access to shops/businesses along trenches. Consult businesses and institutions regarding operating hours and factoring this in to work schedules. Provide sign boards for pedestrians to inform nature and duration of construction works and contact numbers for concerns/complaints. Employ at least 50% of the labor force, or to the maximum extent, local persons within the 2-km immediate area if manpower is available. “Mobility Plan” has to be chalked out in consultation with the District Administration prior to start of work.

114. The construction related impacts due to proposed subproject Package No. UK/IDIPT/BHT/03 components are generic to construction and are relatively less significant being an architectural heritage restoration 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.

Post-Construction Impacts and Mitigation Measures

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

- Backfill any excavation and trenches, preferably with excess excavation material generated during the construction phase.
- Use removed topsoil to reclaim disturbed areas.
- Reestablish the original grade and drainage pattern to the extent practicable.
- Stabilize all areas of disturbed vegetation using weed-free native shrubs, grasses, and trees.
- Restore access roads, staging areas, and temporary work areas.
- Restore roadside vegetation.
- Remove all tools, equipment, barricades, signs, surplus materials, debris, and rubbish. Demolish buildings/structures not required for O&M. Dispose in designated disposal sites.
- Request in writing from PIU/DSC that construction zones have been restored.

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

116. Impacts on environmental conditions associated with the O&M of the subproject Package UK/IDIPT/BHT/03 components pertain to impacts related to increased tourists in the areas resulting to increased vehicular movement along the roads, increased demands for services, and increased solid waste generation. These impacts can be mitigated by:

- Increased vehicular movement along the roads - speed restrictions, provision of appropriate road signage and well located rest points for pedestrians shall minimize impacts on safety of the people
- Increase demands for services – addressed through the subproject design
- Increase solid waste generation – Municipal Corporation to put in place solid waste management programs.

117. Operation and Maintenance Impacts:

- The project initiatives will encourage tourist populations to these destinations.
- The project will also build the capacity of primary and secondary stakeholders by training on environmental and livelihood aspect. The project will have a cumulative positive impact on the tourism sector through a series of steps that target the:

118. Socio-Economic:

- The Almora Fort Restoration Plan will bring in much needed investment to develop a range of tourism products, which will not only improve connectivity and infrastructure but also provide a range of employment opportunities linked to pilgrimage, culture and nature tourism. The sub-project would lead to improvement in basic tourism infrastructure which help improve the quality of life for the residents and improve the level of urban services in the town thereby leading to a coordinated decision-making between different concerned stakeholders. The existing local craft based activities can be further diversified to cater to an increasing number of tourists and also create new opportunities for local entrepreneurship (SHG) not only among men but also women force.
- This sub-project is envisaged to encourage gender equality by increasing women's participation in tourism related activities especially those related to craft and cuisine.

119. This sub-project will benefit the region as a whole and several institutions like Uday Shankar Institute of Dance, Almora, Gobind Ballabh Pant Institute of Folk Arts, Almora, Mayawati Ashram, Champawat, Vivekananda Ashram, Univeristy of Kumaon, Faculty of Fine Arts, Yug Manch, Nainital, Folk Crafts Museum, Bhimtal etc. shall be included as key stakeholders.

Nature and Environment

120. Better infrastructure and tourism facilities will help increase the benefits to natural areas of Almora by enabling visitors to make informed choices to avoid conflicting uses between the built and natural environment through the various identified projects activities and will enable finding solutions to make them compatible.

121. The project will increase public appreciation of the environment and will spread awareness of environmental problems by creating an enabling environment for a better understanding, cooperation and sensitivity towards the depleting environmental resources of the area and issues of tourism development not just by the implementation agency UTDB but also all concerned stakeholders such as the Forest Department, Van Panchayat and District Administration.

122. Carbon footprint generation envisaged by this sub-project will be relatively low by ensuring the implementation of principles such as the 3R (Reuse, Reduce, Recycle) through the use of eco-friendly building materials and techniques.

V. ENVIRONMENTAL MANAGEMENT PLAN (EMP)

123. An environmental management plan (EMP) translates recommended mitigation and monitoring measures into specific actions that will be carried out by the contractor and proponent. Environmental Management Plan deals with the management measures and implementation procedure of the guidelines along with enhancement measures recommended to avoid, minimize and mitigate foreseen environmental impacts of the project.

124. The EMP will guide the environmentally -sound construction of the subproject and ensure efficient lines of communication between the DSC (Engineer), contractors, and PIU/PMU.

125. The EMP identifies the three phases of development as: (i) Site Establishment and Preliminary Activities; (ii) Construction Phase; and (iii) Post Construction/Operational Phase.

126. The purpose of the EMP is to ensure that the activities are undertaken in a responsible non detrimental manner to: (i) provide a pro-active, feasible and practical working tool to enable the measurement and monitoring of environmental performance on site; (ii) guide and control the implementation of findings and recommendations of the environmental assessment conducted for the subproject; (iii) suggest detail specific actions deemed necessary to assist in mitigating the environmental impact of the subproject; and (iv) ensure that safety recommendations are complied with.

127. A copy of the EMP must be kept on site during the construction period at all times. The EMP will be made binding on all contractors operating on the site and will be included within the Contractual Clauses. Non -compliance with, or any deviation from, the conditions set out in this document constitutes a failure in compliance. It shall be noted that the Supreme Court of India mandates those responsible for environmental damage must pay the repair costs both to the environment and human health and the preventative measures to reduce or prevent further pollution and/or environmental damage. (The polluter pays principle).

128. The Contractor is deemed not to have complied with the EMP if:

- Within the boundaries of the site, site extensions and haul/ access roads there is evidence of contravention of clauses.
- If environmental damage ensues due to negligence.
- The contractor fails to comply with corrective or other instructions issued by the Engineer/PMU/PIU within a specified time.
- The Contractor fails to respond adequately to complaints from the public.

129. All works undertaken towards protection of environmental resources as part of the EMP and as part of good engineering practices while adhering to relevant specifications will be deemed to be incidental to works being carried out and no separate payment will be made unless otherwise specified explicitly. The costs towards environmental management as per EMP unless otherwise provided as a separate head, will be deemed to be part of the BoQ of the project. The scope of works of the contractor towards the implementation of the environmental provisions shall be as follows:

- Abide by all existing Environmental regulations and requirements of the local level, Government of Uttarakhand and Government of India, during implementation.
- Compliance with all mitigation measures and monitoring requirements set out in the Environmental Management and Monitoring Plan (EMMP).
- Submission of a method statement detailing how the subproject EMMP will be complied with. This shall include methods and schedules of monitoring.
- Monitoring of project environmental performance including performance indicators defined therein, and periodic submission of monitoring reports.
- Compliance with all measures required for construction activities in sensitive areas, in line with the regulatory requirements of these protected areas, and the guidelines set forth in the management plans for these areas.
- Compliance of all safety rules and regulations applicable at work, and provision of adequate health and safety measures such as water, food, sanitation, personal protective equipment, workers insurance, and medical facilities.

Responsibilities for EMP Implementation

A. Institutional Arrangements

130. The institutional arrangements specify the arrangements for the implementation of environmental provisions of the entire project, and include the proposed subproject also.

Project Management Unit (PMU) and Project Implementation Unit (PIU)

131. The Department of Tourism, Government of Uttarakhand is the Executing Agency (EA). Project Management Unit (PMU) is established in Dehradun for the overall project management and Project Implementation Units (PIU) have been established for each of the three circuits. The proposed sub-project shall be implemented by the PIU, Bhimtal. A Safeguards Specialist (SS) is within the PMU, and SS is responsible for overall management implementation of the resettlement and environmental safeguard provisions.

Project Management Consultant (PMC) and Design and Supervision Consultants (DSC)

132. Project Management Consultants (PMC) and Design and Supervision Consultants (DSC) have been recruited to provide assistance to the PMU and PIUs respectively in project implementation. Within the PMC team an Environment Safeguards Specialist will provide overall direction for management of environmental issues, and will provide technical support to the PMU including implementation of the environmental requirements according to ADB requirements, and assist in monitoring impacts and mitigation measures associated with sub-projects. The Safeguards Specialist of the DSC team will be responsible for preparation of the Environmental Assessment documents in line with the EARF and supervise the implementation of the EMP provisions in the various sub-projects. The PMU, will oversee the implementation of the environmental provisions related to subproject implementation, its responsibilities include preparation and updating of IEEs consistent with the ADBs Environmental Assessment Guidelines and the environmental compliance requirements of the Government of Uttarakhand and the Government of India.

133. The DSC Safeguards Specialist will support environmental management functions including updating sub-project IEEs in respect to environmental management plans, assisting in

preparing IEEs, and assist in monitoring impacts and mitigation measures associated with sub-projects. 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 sub-project IEE. Environmental monitoring will be undertaken by the PMU/PMC supported by the DSC- Safeguards Specialist.

134. Towards addressing the forest related issues in the project components during design and implementation, the PMU/DSC includes provisions of Forest Conservation Specialist.

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

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

136. The contractor's conformity with contract procedures and specifications during construction will be carefully monitored by the DSC and PIU.

137. Responsibility for updating IEE during detailed design by PMC and DSC

138. Responsibility for monitoring: During construction, DSC's Environmental Specialist and the designated representative engineer of the PIU will monitor the contractor's environmental performance. During the operation phase, monitoring will be the responsibility of the UTDB.

139. Responsibility for Reporting. PMU will submit to ADB semi-annual reports on implementation of the EMP and will permit ADB to field environmental review missions which will review in detail the environmental aspects of the project. Any major accidents having serious environmental consequences will be reported immediately. PMC environmental expert will help in preparing monthly, quarterly, semi-annual and annual progress reports.

B. EMP Tables

140. Tables 12 to 13 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: 12 Environment Management Plan For Pre-Construction Phase

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.	PIU	PMU to be reported to ADB in environmental monitoring report (EMR)	check CFEs, permits, clearance from State Culture Dept. prior to start of civil works	Project cost /PMU
	Acknowledge in writing and provide report on compliance all obtained consents, permits, clearance, NOCs, etc.	Records and communications				
Establishment of baseline environmental conditions prior to start of civil works	Conduct documentation of location of components, areas for construction zone (camps, staging, storage, stockpiling, etc.) and surroundings (within direct impact zones). Include photos and GPS coordinates	Records	Contractor	PMU and PMC PIU and DSC	Once prior to construction	Contractor
Utilities	1-Identify and include locations and operators of these utilities in the detailed design documents to prevent unnecessary disruption of services during the construction phase. 2-Require contractors to prepare a contingency plan to include actions to be done in case of unintentional interruption of services. 3-Obtain from the PIU and/or DSC the list of affected utilities and operators; 4-If relocations are necessary; contractor will coordinate with the providers to relocate the utility.	List and maps showing utilities to be shifted Contingency plan for services disruption	- DSC will prepare preliminary list and maps of utilities to be shifted - During detailed design phase, contractor to (i) prepare list and operators of utilities to be shifted; (ii) contingency plan	PIU/DSC	Pre Construction Phase	Contractor

Social and Cultural Resources	1-Consult Archaeological Survey of India (ASI) or Uttarakhand State Archaeology Department to obtain an expert assessment of the archaeological potential of Pedestrian route. 2-Consider alternatives if the site is found to be of medium or high risk. Include state and local archaeological, cultural and historical authorities, and interest groups in consultation forums as project stakeholders so that their expertise can be made available. 3-Develop a protocol for use by the construction contractors in conducting any excavation work, to ensure that any chance finds are recognized and measures are taken to ensure they are protected and conserved.	Chance find protocol	- PMC to consult ASI or Uttarakhand State Archaeology Department - PMC to develop protocol for chance finds	PMU	Prior to start of construction activities	DSC/PMC
Sites for construction work camps, areas for stockpile, storage and disposal	Siting of the construction camps shall be as per the guidelines below and details of layout to be approved by DSC. The potential sites will be selected for labour camp and these shall be visited by the DSC environmental expert and one having least impacts on environment will be approved by the DSC. As far as possible construction camp will be established at in vacant land near alignment of Pedestrian route and planned locations of amenities to avoid impact on other land. Location for stockyards for construction materials shall be	Construction camps site, and locations of material storage areas, sanitation facilities	Contractor	DSC/ PIU	At the time of construction camp establishment and finalisation of storage areas	Contractor

	identified either at Locations of amenities/facilities or at sites at a minimum distance of 300 m from streams. Construction sanitation facilities shall be adequately planned, The Sewage collection and treatment and disposal and solid waste collection and disposal at camp site shall be designed, built and operated.					
Sources of construction materials	Use quarry sites and sources licensed by the Uttarakhand Government. Verify suitability of all material sources and obtain approval from PIU. If additional quarries are required after construction has started, obtain written approval from PIU. Submit to DSC on a monthly basis 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	PMC and DSC as part of consultancy fee
Access	1. Plan transportation routes so that heavy vehicles do not use narrow local roads, except in the immediate vicinity of delivery sites. 2. Schedule transport and hauling activities during non-peak hours. 3. Locate entry and exit points in areas where there is low potential for traffic congestion. 4. Keep the site free from all unnecessary obstructions. 5. Drive vehicles in a considerate manner.	Traffic management plan	Contractor	PIU and DSC	to be included in updated IEE report	Contractor

	6. Coordinate with the Traffic Police Department for temporary road diversions and for provision of traffic aids if transportation activities cannot be avoided during peak hours. Notify affected sensitive receptors by providing sign boards with information about the nature and duration of construction works and contact numbers for concerns/complaints.					
Occupational health and safety	Comply with IFC EHS Guidelines on Occupational Health and Safety	Health and safety (H&S) plan	Contractor	PMU and PMC PIU and DSC	To be included in updated IEE report	Contractor
Public consultations	Continue information dissemination, consultations, and involvement/participation of stakeholders during project implementation.	Disclosure records Consultations	PMU and PMC PIU and DSC Contractor	PMU and PMC	During updating of IEE Report During preparation of site- and activity-specific plans as per EMP Prior to start of construction During construction	PMU Contractor to allocate funds to support

Table: 13 Environment Management Plan For Construction Phase

S. No.	Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds to Implement Mitigation Measures
1	Site clearance activities, including delineation of	Shrubs and grass (no trees) shall be removed from construction sites prior to commencement of construction. All works shall	Site clearance plan and demarcation of	Contractor	DSC / PIU	Construction sites delineation	Contractor

S. No.	Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds to Implement Mitigation Measures
	construction areas	be carried out such that the damage or disruption of flora other than those identified for cutting is minimum. Only ground cover/shrubs that impinge directly on the permanent works or necessary temporary works shall be removed with prior approval from the Environmental Expert of DSC All areas used for temporary construction operations will be subject to complete restoration to their former condition with appropriate rehabilitation procedures.	construction areas				
2	Drinking water availability	Sufficient supply of cold potable water to be provided and maintained. If the drinking water is obtained from an intermittent public water supply then storage tanks will be provided. .At construction camp site water will be arranged as per available source followed by storage	Availability of water at identified sources, drinking water quality results	Contractor	DSC/ PIU	Regularly during construction phase	Contractor
3	Waste disposal	The pre-identified disposal location shall be part of Comprehensive Waste	Waste Disposal sites, waste	Contractor	DSC / PIU	Regularly during construction	Contractor

S. No.	Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds to Implement Mitigation Measures
		Disposal Plan. Solid Waste Management Plan to be prepared by the Contractor in consultation and with approval of Environmental Specialist of DSC. The Environmental Specialist of DSC shall approve these disposal sites after conducting a joint inspection on the site with the Contractor. Contractor shall ensure that waste shall not be disposed off near any water course or close to Pedestrian Route or agricultural land, Orchards and Natural Habitats like Grasslands.	management plan			phase	
4	Stockpiling of construction materials	Stockpiling of construction materials does not impact, obstruct the drainage and Stockpiles will be covered to protect from dust and erosion. If these are exposed than regular water spray shall be carried out.	Identified locations of stockpiling	Contractor	DSC/ PIU	Regularly during construction phase	Contractor
5	Arrangement for Construction Water	The contractor shall use ground/surface water as a source of water for the construction with the written consent from the concerned Department. To avoid disruption/	Identified sources of construction water , availability of construction water	Contractor	DSC / PIU	Regularly during construction phase	Contractor

S. No.	Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds to Implement Mitigation Measures
		disturbance to other water users, the Contractor shall extract water from fixed locations and consult DSC before finalizing the locations. The Contractor shall provide a list of locations and type of sources from where water for construction shall be extracted. The Contractor shall need to comply with the requirements of the State Ground Water Department for the extraction and seek their approval for doing so and submit copies of the permission to DSC.					
6	Soil Erosion	Slope protection measures will be undertaken as per design to control soil erosion	Protection locations as per design	Contractor	DSC/ PIU	Regularly during construction phase	Contractor
7	Water Pollution from Construction Wastes	The Contractor shall take all precautionary measures to prevent entering of wastewater into local streams, water bodies Contractor shall not wash his vehicles in surface water body	Waste water discharge at construction camps, Vehicle parking and washing areas	Contractor	DSC/ PIU	Regularly during construction phase	Contractor
8	Water Pollution from Fuel and	The Contractor shall ensure that all construction vehicle parking locations, fuel/	Vehicle parking, refuelling and	Contractor	DSC/ PIU	Regularly during construction	Contractor

S. No.	Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds to Implement Mitigation Measures
	Lubricants	lubricants storage sites, vehicle, machinery and equipment maintenance and refuelling sites shall be located at least 500 m away from habitation and other local streams	washing areas			phase	
9	Soil Pollution due to fuel and lubricants, construction waste	The fuel storage and vehicle cleaning area will be stationed such that spillage of fuels and lubricants does not contaminate the ground. Soil and pollution parameters will be monitored as per monitoring plan.	Fuel and Lubricant storage areas, soil quality parameters	Contractor	DSC / PIU	Regularly during construction phase	Contractor
10	Generation of dust	The contractor will take every precaution to reduce the levels of dust at construction site. All earthworks to be protected/ covered in a manner to minimize dust generation.	Air quality monitoring results, water sprinkling frequency	Contractor	DSC /PIU	Regularly during construction phase	Contractor
11	Emission from Construction Vehicles, Equipment and Machinery	All vehicles, equipment and machinery used for construction shall conform to the relevant Bureau of India Standard (BIS) norms. The discharge standards promulgated under the Environment Protection Act, 1986 shall be strictly adhered to. The silent/quiet	Pollution under control certificates for vehicles and machinery	Contractor	DSC/ PIU	Regularly during construction phase	Contractor

S. No.	Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds to Implement Mitigation Measures
		equipment available in the market shall be used in the sub Project. The Contractor shall maintain a record of PUC for all vehicles and machinery used during the contract period which shall be produced for verification whenever required.					
12	Noise Pollution	The Contractor shall confirm that all Construction equipment used in construction shall strictly conform to the MoEF/CPCB noise standards and all Vehicles and equipment used in construction shall be fitted with exhaust silencers. At the construction sites noisy construction work such as crushing, operation of DG sets, use of high noise generation equipment shall be stopped during the night time between 10.00 pm to 6.00 am. Noise limits for construction equipment used in this project will not exceed 75 dB (A).	Noise under control certificates, noise monitoring results	Contractor	DSC/ PIU	Regularly during construction phase	Contractor
13	Material Handling at	Workers employed on mixing cement, lime	Records of availability of	Contractor	DSC/ PIU	Regularly during	Contractor

S. No.	Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds to Implement Mitigation Measures
	Site	mortars, concrete etc., will be provided with protective footwear and protective goggles. Workers, who are engaged in welding works, will be provided with welder's protective eye-shields. The use of any toxic chemical will be strictly in accordance with the manufacturer's instructions. The Engineer will be given at least 6 working days' notice of the proposed use of any chemical. A register of all toxic chemicals delivered to the site will be kept and maintained up to date by the Contractor.	personal protective equipment (PPE), training records for use of PPEs			construction phase	
14	Disposal of Construction Waste / Debris / Cut Material	The Contractor shall confirm that Safe disposal of the construction waste will be ensured in the pre-identified disposal locations. In no case, any construction waste will be disposed off around the project site indiscriminately. The waste will be disposed off as per spoil Management Plan to be prepared during construction phase.	Disposal sites, waste utilisation records	Contractor	DSC/ PIU	Regularly during construction phase	Contractor
15	Safety	Adequate safety measures	Safety	Contractor	DSC/ PIU		Contractor

S. No.	Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds to Implement Mitigation Measures
	Measures During Construction	for workers during handling of materials at site will be taken up. The contractor has to comply with all regulations for the safety of workers. Precaution will be taken to prevent danger of the workers from fire, etc. First aid treatment will be made available for all injuries likely to be sustained during the course of work. The Contractor will conform to all anti-malaria instructions given to him by the Engineer.	training program records, availability of first aid kits and trained personnel			Regularly during construction phase	
16	Clearing of Construction of Camps and Restoration	Contractor to prepare site restoration plans for approval by the Engineer. The plan is to be implemented by the contractor prior to demobilization. On completion of the works, all temporary structures will be cleared away, all rubbish burnt, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor's expense, to the entire satisfaction of the	Pre construction records and photographs, disposal site rehabilitation	Contractor	DSC/ PIU	Regularly during construction phase	Contractor

S. No.	Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds to Implement Mitigation Measures
		Engineer					

Table 14: Environmental Management Plan for Operation Phase

S. No.	Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds to Implement Mitigation Measures
4.1	Uncontrolled tourism flow	Environmental Monitoring Plan and the Tourism Master Plan will be implemented strictly to avoid uncontrolled tourism flow.	Tourism Master Plan	Tourism department	District Administration		Government of Uttarakhand and Tourism Department
4.2	Unhygienic condition due to poor maintenance of sanitation facilities and irregular solid waste collection	Tourism department will carry out maintenance of the toilets, and carry out the regular collection and disposal of wastes to a designated waste treatment site.	Maintenance schedule of sanitation facilities	PIU	PMU		PMU

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

141. Table 15 summarizes site- and activity-specific plans to be prepared as per EMP tables.

Table 15: Site- and Activity-Specific Plans/Programs as per EMP

To be Prepared During	Specific Plan/Program	Purpose	Responsible for Preparation	Responsible for Implementation
Detailed Design Phase	Environmental monitoring program as per detailed design	Indicate sampling locations, methodology and parameters	PMU/PIU and PMC/DSC	Contractor
Detailed Design Phase	Erosion control and re-vegetation plan	Mitigate impacts due to erosion	Contractor	Contractor
Detailed Design Phase	List and maps showing utilities to be shifted	Utilities shifting	DSC during preliminary stage Contractor as per detailed design	Contractor
Detailed Design Phase	Contingency plan	Mitigate impacts due to interruption of services during utilities shifting	Contractor	Contractor

To be Prepared During	Specific Plan/Program	Purpose	Responsible for Preparation	Responsible for Implementation
Detailed Design Phase	Chance find protocol	Address archaeological or historical finds	PMU and PMC	Contractor
Detailed Design Phase	List of pre-approved sites	Location/s for work camps, areas for stockpile, storage and disposal	PIU and DSC	Contractor
Detailed Design Phase	Waste management plan	Mitigate impacts due to waste generation	Contractor	Contractor
Detailed Design Phase	Traffic management plan	Mitigate impacts due to transport of materials and pipe laying works	Contractor	Contractor
Detailed Design Phase	H&S plan	Occupational health and safety	Contractor	Contractor

C. Environmental Monitoring Plan

142. 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.

143. Table 9 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.

144. Environmental monitoring will be done during construction in three levels; namely monitoring development of project performance indicators done by the DSC Environmental Specialist, monitoring implementation of mitigation measures done by the Contractor; and overall regulatory monitoring of the environmental issues done by the PMC/PMU Environmental Specialist. The monitoring carried out by the contractor through the approved agency will be supervised by the Safeguard Specialist of the Design & Supervision Consultant. The Environmental Monitoring Plan for the project is presented in Table 16. The proposed monitoring of all relevant environmental parameters, with a description of the sampling stations, frequency of monitoring, applicable standards and responsible agencies are presented.

Table 16: Environmental Monitoring Plan

S. No.	Attributes	Stage	Parameters to be Monitored	Location	Frequency	Responsibility
1	Debris /Construction materials disposal	Construction Stage	Safe disposal of construction wastes	Major construction sites	Random checks	Contractor
2	Dust suppression	Construction Stage	No. of tankers for water sprinkling, Timing of	Major construction sites	Random checks	Contractor

S. No.	Attributes	Stage	Parameters to be Monitored	Location	Frequency	Responsibility
			sprinkling, Location of sprinkling, Log Book			
2	Ambient Air Quality	Construction Stage	RPM, SPM, SO2, NOx, CO	Major construction sites	Once in a season (except monsoons) for the entire construction period	Contractor, to be monitored through engagement of agency approved under NABL Accreditation norm
4	Water quality	Construction stage	TDS, TSS, pH, DO, BOD, COD, Faecal Coliform, Ammonia, Nitrogen	Locations to be decided during detailed design	Twice a year (pre-monsoon and post-monsoon) for the entire period of construction	Contractor, to be monitor through engagement of agency approved under NABL Accreditation norm
5	Noise Levels	Construction and Operation Stage	Equivalent Day & Night Time Noise Levels	All Construction sites	Once in a season during construction stage	Contractor, to monitor through on approved Monitoring Agency
6	Supply of PPE	Construction Stage	Provision of PPE on site, adequacy of equipment	All Construction sites	Continuous	Contractor
7	Establishing Medical facilities	Construction Stage	Access to health facilities for the construction workers	All Construction sites	Continuous	Contractor
8	Accident record	Construction Stage	No. of fatal accidents, No. of injuries, No. of disabilities	All construction sites	Continuous	Contractor
9	Post construction clearance of site	Post construction	Whether temporary locations for workers camp, site office, and other construction locations are restored to pre-project conditions	All Construction sites	Post construction	Contractor

D. Environmental Monitoring and Reporting

145. The PMU will monitor and measure the progress of EMP implementation. The monitoring activities will be corresponding with the project's risks and impacts and will be identified in the EIAs/IEEs for the subprojects. In addition to recording information of the work, deviation of work components from original scope, the PMU and PIU will undertake site inspections and document review to verify compliance with the EMP and progress toward the final outcome.

146. DSC will submit monthly monitoring and implementation reports to PIU, who will take follow-up actions, if necessary. PIU will submit the quarterly monitoring and implementation reports to PMU who will then submit to the ADB. The PMU will submit semi-annual monitoring reports to ADB. Project budgets will reflect the costs of monitoring and reporting requirements. Monitoring reports will be posted in a location accessible to the public.

147. For projects likely to have significant adverse environmental impacts, the EA will retain qualified and experienced external experts to verify its monitoring information. The EA will document monitoring results, identify the necessary corrective actions, and reflect them in a corrective action plan. The EA, in each quarter, will study the compliance with the action plan developed in the previous quarter. Compliance with loan covenants will be screened by the EA.

148. ADB will review project performance against the EA's commitments as agreed in the legal documents. The extent of ADB's monitoring and supervision activities will be commensurate with the Project's risks and impacts. Monitoring and supervising of social and environmental safeguards will be integrated into the project performance management system. ADB will monitor projects on an ongoing basis until a project completion report is issued. ADB will carry out the following monitoring actions to supervise project implementation:

- conduct periodic site visits for projects with adverse environmental or social impacts;
- conduct supervision missions with detailed review by ADB's safeguard specialists/ officers or consultants for projects with significant adverse social or environmental impacts;
- review the periodic monitoring reports submitted by EA to ensure that adverse impacts and risks are mitigated as planned and as agreed with ADB;
- work with EA to rectify to the extent possible any failures to comply with their safeguard commitments, as covenanted in the legal agreements, and exercise remedies to re-establish compliance as appropriate; and
- Prepare a project completion report that assesses whether the objective and desired outcomes of the safeguard plans have been achieved, taking into account the baseline conditions and the results of monitoring.

E. Capacity Building

149. Institutional Strengthening.The Department of Tourism, Government of Uttarakhand is the Executing Agency (EA). Project Management Unit (PMU) is established in Dehradun for the overall project management. This sub-project will be implemented by the PIU, Bhimtal. A Safeguards Specialist in the PMU is responsible for implementation of the environmental safeguard provisions. Project Management Consultants (PMC) and Design and Supervision Consultants (DSC) are recruited to provide assistance to the PMU/PIUs in project implementation. Within the PMC team a Safeguards Specialist will provide overall direction for

management of environmental and social issues, and will provide technical support to the PMU including implementation of the environmental and resettlement requirements according to ADB requirements, and assist in monitoring impacts and mitigation measures associated with sub-projects. The Safeguards specialist of the DSC team will be responsible to assist in preparation of IEE and EMP report and supervise the implementation of the EMP provisions in the sub-projects. The PMU will oversee the implementation of the environmental provisions related to subproject implementation, consistent with the ADBs Environmental Assessment Guidelines and the environmental compliance requirements of the Government of Uttarakhand and the Government of India.

150. Training and Capacity Building. The Environmental Specialist of the PMC and DSC will provide the basic training required for environmental awareness followed by specific aspects of infrastructure improvement projects along with environmental implications for projects located within / in the vicinity of natural and cultural heritage sites. Specific modules customized for the available skill set will be devised after assessing the capabilities of the members of the Training Programme and the requirements of the project. The entire training would cover basic principles of environmental assessment and management; mitigation plans and programmes, implementation techniques, monitoring methods and tools. The proposed training program along with the frequency of sessions is presented in Table 17

Table 17: Training Modules for Environmental Management

Programme	Description	Participants	Form of Training	Duration/ Location	Training Conducting Agency
A. Pre-Construction Stage					
Sensitization Workshop	Introduction to Environment: Basic Concept of environment Environmental Regulations and Statutory requirements as per Government of India and ADB	Tourism / Forest / Roads / Culture Department Officials, Project Director (PD) and Environmental Specialist (ES) of the PMU/PIU	Workshop	1 Working Day	Environmental Specialist of the PMC
Session I					
Module I	Introduction to Environment: Basic Concept of environment Safeguards Regulations and Statutory requirements as per Govt. of India and ADB Guidelines on cultural resources, Environmental considerations in planning, design and implementing projects	PMU/PIU (including the ES) and Engineering staff of the implementing agencies	Lecture	1Working Day	Safeguards Specialist of the PMC
Module II	Environmental components impacted in construction and operation stages Activities causing pollution during construction and operation stages Environmental Management	PMU/ PIU (including the ES) and Engineering staff of Tourism dept	Workshop	1 Working Day	Safeguards Specialist of the PMC

Programme	Description	Participants	Form of Training	Duration/ Location	Training Conducting Agency
	Environmental Provisions Implementation Arrangements Methodology of Assessment Good engineering practices to be integrated into contract documents				
Module III	Improved Co-ordination with Other Departments: Statutory Permissions – Procedural Requirements Co-operation & Coordination with other Departments.	PMU/PIU (including the ES) and Engineering staff of Tourism dept	Lecture / Interactive Sessions	1Working Day	Safeguards Specialist of the PMC
Module IV	Environmental considerations in planning, designing and implementing heritage buildings and conservation projects	PMU/PIU (including the ES) and Engineering staff of Tourism dept.	Lecture / Interactive Sessions and site visits	2 Working days	Safeguards specialist of the PMC with support from the Conservation specialist of the PMC/DSC
Module V	Environmental principles of eco-tourism (as per Uttarakhand eco-tourism policies) and training and awareness building on Conservation and management aspects of the area.	Local Community Groups, NGOs	Lecture / Interactive Sessions	1 Working Day	Specialist from DSC and PIU
B. Construction Stage					
Session II					
Module VI	Role during Construction- Roles and Responsibilities of officials / contractors / consultants towards protection of environment Implementation Arrangements Monitoring mechanisms	Engineers and staff of line departments of the Government of Uttarakhand, and PMU/PIU (including the ES)	Lecture / Interactive Sessions	1 Working Day	Safeguards Specialist of the DSC
Module VII	Monitoring and Reporting System	Engineers and staff of implementing agencies and PMU/PIU (including the ES)	Lecture / Interactive Sessions	1 Working Day	Safeguards Specialist of the DSC
Session III					
Module VIII	Skill upgrade on Hospitality, Interpretational skills, micro-planning,	Youth in the villages in the periphery, and other NGOs in the	Site visits, interactive sessions	2 working days	Tourism department

Programme	Description	Participants	Form of Training	Duration/ Location	Training Conducting Agency
		district			

Notes: PMU = Project Management Unit; PIU = Project Implementation Unit; PMC = Project Management Consultant; DSC = Design and Supervision Consultant; ES = Environment Specialist; NGO= Non-government organization

F. Environmental Budget

151. As part of good engineering practices in the project, there have been several measures as erosion prevention, rehabilitation of borrow areas, safety, signage, provision of temporary drains, etc., 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.

152. This is a small reconstruction-restoration project and there are no major structures to be constructed therefore 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).

153. The costs of personal protective equipment to construction workers shall be 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 18.

Table 18: Environmental Budget

Item	Rate per sample	Number	Total Cost (INR)	Source of funds
	Environmental Monitoring			
	Construction Phase			Contractor's costs
Air Quality(2 locations; 3 times a year , Total 12 samples)	7500	12	90,000.00	
Noise Quality (2 locations; 3 times a year, Total 12 samples	2500	12	30,000.00	
Total Monitoring Cost For Construction Phase			1,20,000.00	
Capacity Building Expenses (3 Sessions in project life)	90000		2,70,000.00	PMU/ DSC
Total Cost			3,90,000.00	
Contingencies @ 5 %			19,500.00	
Total Budgeted Cost			4,09,500.00	

VI. PUBLIC CONSULTATION AND INFORMATION DISCLOSURE

A. Process for Consultation followed

154. During Project preparation, consultations have been held with the District Administration, Municipal Authority, Members of Bar Association, Department of Tourism, public representatives of project area villages, Hotel Owners, and tourists on project orientation, issues pertaining to conservation and management Almora Fort, land acquisition problems and addressing the current gaps in provision of basic services and improvement of tourist infrastructure. These consultations (Table-19) provided inputs in identification of the felt needs of the communities, and the relevant stakeholders.

Table 19: Consultations with Stakeholders

Date	Members Consulted	Issues	Suggestions
25th June, 2014	Groups of traders from the market, litigants at the DM Office and the office bearers of the Bar Association	Need Assessment, know public perception about restoration and reuse of building	Site needs repair and reconstruction in sync with its architectural fabric and can highlight Almora's image as a tourist destination
5th July, 2014	District administration officials	Presentation was shown on the proposed reuse and restoration plan for the Almora Fort Complex.	Restoration was appreciated but wider public consultations were suggested before any move to shift the administrative offices
11th August, 2014	District Administration, PWD, Municipal Authority, Hotel Association, Culture Dept., District tourism Dev Officer	Briefing about the sub project components	Minutes enclosed. (Annexure V)
20th August, 2014	Members from Almora Municipal Authorities, Bar Association, The Hotel and Restaurant Association, The Department of Culture, Government of Uttarakhand, The Traders' Association of Almora, Public Representatives and Members of the Media	As a follow up of earlier meeting, for a wider disclosure	Stakeholders expressed concern over the increasing breakdown of civic amenities in the town and the overcrowding. Concerns were also expressed that the other heritage sites in the town were immense stress and in advanced stages of deterioration. A general consensus emerged on relocation of the administrative offices with the provision of efficient and inexpensive transport facility to the new complexes. The administration, however, insisted upon even wider consultations with public before any decision to issue NOC could be arrived at. Another meeting was called on the 25th August'14.
22nd	PWD, District Administration,	To obtain	The general consensus favoured

Date	Members Consulted	Issues	Suggestions
August, 2014	Municipal Authorities, Bar Association, The Hotel and Restaurant Association, The Department of Culture, Government of Uttarakhand, The Traders' Association of Almora	general consensus on the sub project	and welcomed the adaptive reuse project and relocation of the administrative buildings

B. Future Consultation and Information Disclosure

155. To ensure continued public participation, provisions to ensure regular and continued stakeholder participation, at all stages during the project design and implementation is proposed. A grievance redress cell will be set up within the PIU and PMU to register grievances of the people regarding technical, social and environmental aspects. This participatory process will ensure that all views of the people are adequately reviewed and suitably incorporated in the design and implementation process. Further, to ensure an effective disclosure of the project proposals to the stakeholders, an extensive project awareness campaign will be carried out.

156. For the information and benefit of the community the summary of IEE will be translated in the local language (Hindi) and made available at: (i) Office of the PIU/PMU; and, (ii) Office of the District Magistrate, Almora and other relevant line departments in the 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 as well as the district library at Almora, 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. This will create awareness of the project implementation among the public.

C. Grievance Redress Mechanism

157. The affected person/aggrieved party can give their grievance verbally or in written to the local grievances committee. Grievances of affected person will first be brought to the attention of the implementing NGO who can resolve the issue at site level. If the matter is not solved within 7 days period by the NGO or 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.

158. 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.

Composition and functions of GRC

159. Local Grievance Committee.(LGC) – In this LGC has worked with NGO, SHG, Line Agency, representative of Gram Panchayat ,Special invitee.

160. 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 Uttarakhand, Community Development Officer of PIU, nominated representative of District Magistrate and nominated representative committee shall be headed by Project Manager (PIU). 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.

161. GRC within Environmental and Social Management Cell (ESMC) 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. 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).

Approach to GRC

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

(i) Web based: A separate corner will be developed at the program website so that public / community/ affected person can register their complaint in the online column.
(ii) Telecom based: A toll free no. Will be issued by the PMU/ PIU so that general public can register their complaint through telephone / mobile phone to the PIU/PMU office.
(iii) Through implementing NGO: The local representative of the NGO appointed for the purpose will collect the problems & issues of the community or affected person and pass on the same to PIU / PMU.

GRIEVANCE REDRESS MECHANISM (IDIPT-Uttarakhand)

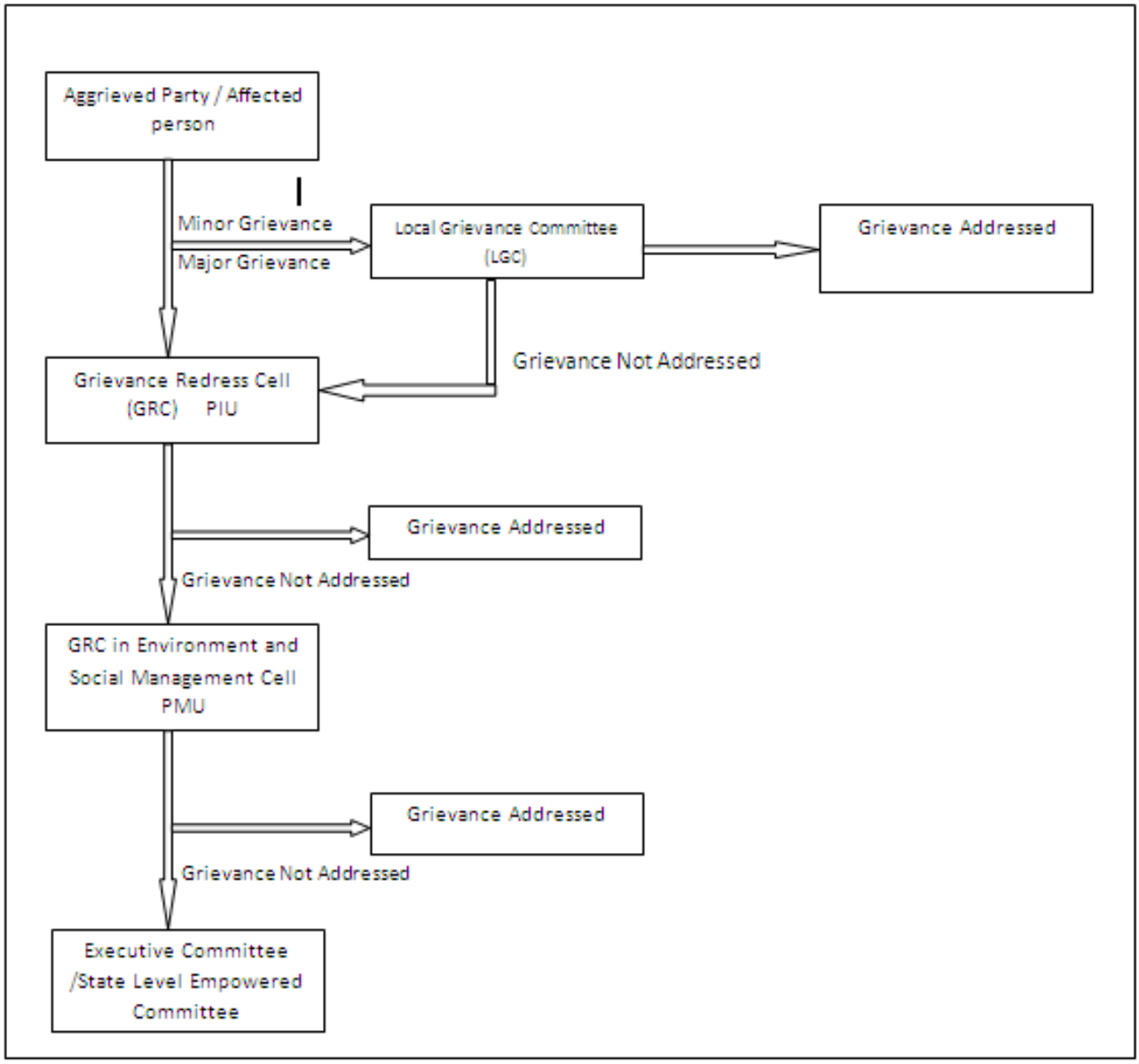


Figure 8: Grievance Redress Mechanism in IDIPT, Uttarakhand

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)

VII. FINDINGS & RECOMMENDATIONS

163. The proposed components of the project are in line with the sub-project selection criteria for the IDIPT. (Annexure). The subproject conforms to all GoI, GoUK and ADB regulations, policies, and standards including all necessary government permits and clearances.

164. The significance of the environmental impacts will be more due to the construction related impacts. It is to be noted that the resultant potential impacts from these proposals can be offset through provision of proven mitigation measures during the design and adoption of good engineering practices during construction and implementation. Further, the provision of environmental infrastructure will better the environmental conditions and minimize the pollution related and aesthetic quality near the sub project site.

165. 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 opportunities towards course correction to address any residual impacts during construction or operation stages.

VIII. CONCLUSIONS

166. The IEE carried out for the sub-project show that the proposed sub-components will result in net environmental benefits in terms of enhanced tourism facilities and revenue generation, 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 provided for mitigation of all identified short term 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 exist.

ANNEXURE- I

RAPID ENVIRONMENTAL ASSESSMENT (REA) CHECKLIST

Instructions:

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

Country/Project Title: IDIPT-Uttarakhand-Restoration, Adaptive Re-use and Revitalization of Almora Fort

Sector Division: SAUW (South Asia Urban Development and Water Division)

SCREENING QUESTIONS	Yes	No	REMARKS
A. Project Siting: Is the project area adjacent to or within any of the following areas?			
• Densely populated?	✓		The fort lies in the centre of the Almora town with dense population.
• Heavy with development activities?	✓		The fort lies in the centre of the town with dense population. Therefore heavy with development activities. It is surrounded with residential, official and commercial buildings.
• Adjacent to or within any environmentally sensitive areas?		✓	
• Cultural heritage site	✓		sub-project is on a heritage site that dates back to 15th to 18th century. Even though not declared to be of national importance/ State importance as recognized by the Archaeological Survey of India (ASI), the provisions of Ancient Monuments and Archaeological Sites and

SCREENING QUESTIONS	Yes	No	REMARKS
			Remains (Amendment and Validation) Act, 2010) shall be considered in view of the architectural significance.
• Protected Area		✓	
• Wetland		✓	
• Mangrove		✓	
• Estuarine		✓	
• Buffer zone of protected area		✓	
• Special area for protecting biodiversity		✓	
• Bay		✓	
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.	✓		These impacts shall result in the event of the sanitation and solid waste management systems not being developed in the proposed sites. It will also dependent on the efficiency/capability of community institutions and inaction of environmental laws developed by community. Proper mitigation measures are provisioned in the project.
• 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?	✓		It is envisaged that due to increase in tourism related infrastructure development, more entrepreneurs like hotel, lodge, home-stay, shops etc will be developed resulting to rapid urban population growth, commercial and industrial activity, and increased waste generation
• Degradation of land and ecosystems (e.g. loss of		✓	

SCREENING QUESTIONS	Yes	No	REMARKS
wetlands and wild lands, coastal zones, watersheds and forests)?			
• Dislocation or involuntary resettlement of people		✓	
• Degradation of cultural property, and loss of cultural heritage and tourism revenues?		✓	
• 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 polluting industries?		✓	
• Water resource problems (e.g. depletion/degradation of available water supply, deterioration for surface and ground water quality, and pollution of receiving waters?		✓	
• Air pollution due to urban emissions?		✓	
• Risks and vulnerabilities related to occupational health and safety due to physical, chemical and biological hazards during project construction and operation?	✓		Only physical hazards to workers due to accidents may come across during construction for which safety of workers should be taken in priority.
• Social conflicts between construction workers from other areas and local workers?		✓	
• Road blocking and temporary flooding due to land excavation during rainy season?		✓	
• Noise and dust from construction activities?	✓		Impacts envisaged during construction phase. Due care will be taken as per

SCREENING QUESTIONS	Yes	No	REMARKS
			mitigation measures listed in the EMP
• Traffic disturbances due to construction material transport and wastes?	✓		Impacts envisaged during construction phase. Due care will be taken during construction to avoid traffic disturbances. Circulation plan will be prepared in consultation with the stakeholders and properly disseminated. Timings and frequency of movement of construction vehicles shall be kept to minimize impact on public movement.
• Temporary silt runoff due to construction?	✓		Due to construction activities in the fort premises, there is a potential of temporary silt runoff to the downstream. Adoption of mitigation measures shall effectively address such impact during construction.
• Hazards to public health due to ambient, household and occupational pollution, thermal inversion, and smog formation?		✓	
• Water depletion and/or degradation?		✓	
• Overpaying of ground water, leading to land subsidence, lowered ground water table, and salinization?		✓	
• Contamination of surface and ground waters due to improper waste disposal?	✓		Due to increase in tourist inflow, it is envisaged that garbage and other solid waste may increase which may result to contamination of surface and ground waters. Adoption of mitigation measures like formulation of environmental laws, developing solid waste management systems like composting etc. shall effectively address such impact during construction and post construction.
• Pollution of receiving waters resulting in amenity losses, fisheries and marine resource		✓	

SCREENING QUESTIONS	Yes	No	REMARKS
depletion, and health problems?			
• Large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?		✓	
• Social conflicts if workers from other regions or countries are hired?		✓	Not envisaged. Preference will be given to local laborers and migratory labour shall be employed in unavoidable circumstances only.
• 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?		✓	
• 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?		✓	
C. Climate Change and Disaster Risk Questions The following questions are not for environmental categorization. They are included in this checklist to help identify potential climate and disaster risks.			
• Is the Project area subject to hazards such as earthquakes, floods, landslides, tropical cyclone winds, storm surges,	✓		The project area is located in an area prone to landslides, cloud bursts, earthquakes etc. as it is located in the seismic Zone V as per IS 1893:2002.

SCREENING QUESTIONS	Yes	No	REMARKS
tsunami or volcanic eruptions and climate changes			
• Could changes in precipitation, temperature, salinity, or extreme events over the Project lifespan affect its sustainability or cost?	✓		The project area lies in the hilly region having landslides a major environmental problem during monsoons. In case of such events, the road blockage may hamper project progress.
• Are there any demographic or socio- economic aspects of the Project area that are already vulnerable (e.g. high incidence of marginalized populations, rural-urban migrants, illegal settlements, ethnic minorities, women or children)?		✓	
• Could the Project potentially increase the climate or disaster vulnerability of the surrounding area (e.g., increasing traffic or housing in areas that will be more prone to flooding, by encouraging settlement in earthquake zones)?	✓		Due to development of tourism infrastructure, it is envisaged that tourist inflow in the area will increase resulting to increase traffic and noise pollution in the area. Also more enterprises like guest houses, lodges, home-stays and shops are likely to come. Proper systems need to be developed to address such problems in future.

ANNEXURE- II

COMPLIANCE WITH SUB PROJECT SELECTION CRITERIA (AS PER EARF TABLE 6)

Component	Criteria	Remarks
Overall selection criteria	1. Will be fully consistent with management plans or master plans for the area	Sub project selected based on the Uttarakhand Tourism Development master plan for Uttarakhand. Sub project area comes in zone 5 of the said master plan and is part of the Almora, Bageshwar, Champawat, Pithoragarh, Munisiari regional circuit.
	2. Will avoid resettlement/relocation. If unavoidable the extent of resettlement will be minimized.	No such impact anticipated. Series of discussions have been held regarding shifting of DM Office at the Govt. level.
	3. Will not result in destruction of or encroachment onto protected areas, including National Parks. Sanctuaries, Conservation Reserves and Community Reserves, environmentally sensitive zones and Biosphere reserves.	No environmentally sensitive zones in the vicinity
	4. Will be in line with the Conservation Plan/management plan for the conservation and management of the Protected areas	NA
	5. Will promote tourism related activities in protected areas, in the zones earmarked for tourism development, the scale and extent of which shall be in line with the provisions in the Management Plan	Not a Protected area
	6. Will not result in destruction of or encroachment onto archaeological monuments/heritage sites and will be in line with the master plan proposals for the conservation and preservation of the site/monuments	Not an ASI Site, yet guidelines/reference codes of following shall be used as design guidelines/ reference codes: 1. Archaeological Survey of India Guidelines. 2. US Secretary of Interior's Standards. 3. Great Britain's National Trust for Places of Historic Interest and Beauty Guidelines. 4. INTACH Architectural Heritage Division benchmarks.

Component	Criteria	Remarks
	7. Will not involve major civil works within the prohibited and regulated areas, as defined in the ASI refutations, to minimize any potential impacts on safety to the structures/ monuments	Proposed works entail repair and renovation, using a palette of local materials for repair and renovation works, which are non-detrimental to heritage character. Incremental additions within the complex will be carefully planned, with material and construction conforming to or respecting the heritage structure.
	8. Will reflect inputs from public consultation and disclosure for site selection	Meaningful public consultations are being done from planning phase and inputs have been considered in the project design
	9. Will not introduce any elements or components that are invasive upon the sanctity and significance of the cultural heritage site, including large scale commercial activities or creation of new land uses with potential to trigger induced development and land use changes around the sites	Proposed interventions aim at enhancement of the quality of Fort's natural and historic built environment which has been transformed and adversely affected by recent constructions in the fort precinct. The fort walls, ramparts & historic buildings inside are in a state of disrepair and in need of conservation.
	10. Will introduce landscaping and other tourist infrastructure in line with the environmental quality of the tourist destinations, such as landscaping in harmony with the natural vegetation and diversity and not encourage introduction of species that are invasive	No new/alien species shall be introduced. Landscaping plan shall enhance the natural and scenic beauty of the place. Only native and drought tolerant species will be planted.
	11. Will not result in development of physical infrastructure/ tourism amenities that would impair the environmental conditions due to lack of management capacities or high O&M costs	O&M has been linked with the local stakeholders to ensure project sustainability and enhanced environment management.
Conservation measures and excavation measures-in and around	12. Will observe the principle of not altering the historic condition and shall involve treatment of damage caused by natural processes and human actions and prevention of further deterioration, using both technical and management	• Proposed interventions aim at restoring the historic glory of the Fort and its image. • The current usage of the fort as the DM office is not conducive to create and sustain any form of

Component	Criteria	Remarks
Cultural properties and protected Monuments/ Structures.	measures.	cultural or historical association with the Fort. • New interventions in the areas surrounding the fort precinct have gradually led to a disconnect and obstructing the visibility of the fort in the surroundings area.
	13. Will promote in situ conservation and only in the face of uncontrollable natural threats and relocation is the sole means of saving elements of a site may they be moved in their historic condition.	Proposed interventions promote in situ conservation of the buildings and if in future, need of relocation arises due to some uncontrollable natural threat, efforts will be made to retain its historic character.
	14. Will ensure that intervention be minimal. Every intervention proposed shall have clear objectives and use tried and proven methods and materials.	Proposed designs are in sync with the historic and architectural character of the surroundings
	15. Will ensure that physical remains are conserved in their historic condition without loss of evidence. Respect for the significance of the physical emails must guide any restoration. Technical interventions should not compromise subsequent treatment of the original fabric. The results of intervention should be unobtrusive when compared to the original fabric or to previous treatments, but still should be distinguishable	The major objective of the sub project is preservation of historic setting of the fort and the quality of its historic and natural environment, which has been adversely affected by the recent constructions and additions.
	16. Will ensure that the adaptive reuse of any particular building of monuments/structures does not intrude or induce impacts on other areas of the monument	The proposed Almora Fort Restoration, Adaptive Reuse and Revitalization project offers to protect, sustainably develop and reconnect people to the rich historic, cultural resources of Almora town with the Historic Fort acting as the catalyst to enhance its image as a Cultural Heritage Destination and emerging Eastern Tourism gateway to Uttarakhand.
	17. Will ensure preservation of traditional technology and craftsmanship. New materials and techniques may only be	Project designs are based on guidelines conforming to Uttarakhand architecture, other

Component	Criteria	Remarks
	used after they have been tried and proven, and should in no way cause damage to site.	reference codes including Archaeological Survey of India Guidelines, US Secretary of Interior's Standards, Great Britain's National Trust for Places of Historic Interest and Beauty Guidelines and INTACH Architectural Heritage Division benchmarks.
	18. Will ensure that the setting of a heritage site be conserved. Natural and cultural landscapes that form part of a sites setting contribute to its significance and should be integrated with its conservation	• Despite being strategically located in the middle of the town, new interventions in the areas surrounding the fort precinct have gradually led to creating a visible disconnect between the site and additions obstructing the visibility of the fort in the surroundings area and hills. There is a also a complete lack of clarity and grandness in the access to the Fort. • The goal of the project is to undertake holistic revitalization and cultural revival of the fort and surrounding precinct and enhance the standard of the built and natural environment of the Fort and its precinct.
	19. Will ensure that during archaeological excavation care be taken to conserve the physical remains. A practical plan for the conservation of a site-both during and after excavation-should be submitted for all site programmed for excavation	NA
	20. Will ensure that treatment of the cultural heritage site and its environs is a comprehensive measure to prevent damage form natural processes and human actions, to reveal the historic condition of a site, and to allow its rational use. Service building should be as far as possible form the principal area of the site.	Incidental landscaping of appreciation foregrounds with minimal interventions will help enhance and appreciate the historic built environment of the place. Also the landscaping elements will only utilize native species to protect local biodiversity. Landscaping will

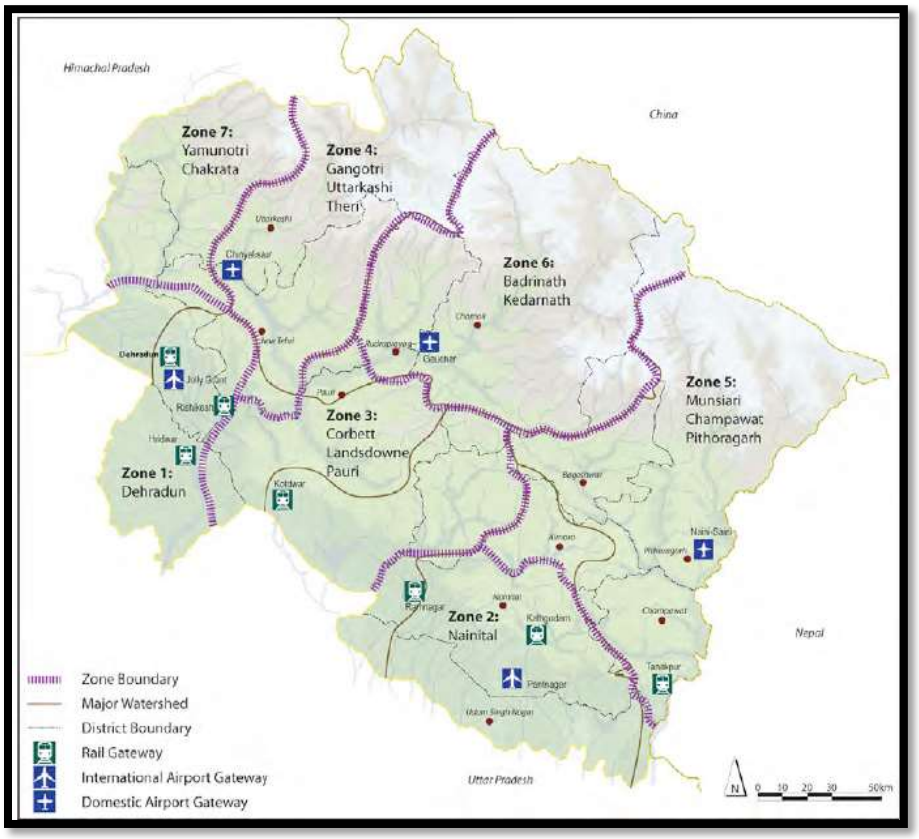
Component	Criteria	Remarks
	Landscaping should aim to restore the site to its historic state and should not adversely affect the site: contemporary gardening and landscape concepts and designs should not be introduced.	be aimed to store the site to its historic state and indigenous ornamental species like osmanthus fragrans, champa, padam, nyctanthes etc. will be planted.
Conservation and habitat protection measures- in and around the natural heritage assets and protected areas.	21. Will observe the principle of not adversely impacting the habitat quality of the protected area and shall involve treatment of damage caused by natural processes and human actions and prevention of further deterioration, using both technical and management measures.	The Sub project site is not a protected area as per ASI norms yet ASI provisions form the basis of design guidelines Project is an integrated conservation project aimed at restoring the historic character of the Fort precinct. No impact on habitat quality is envisaged.
	22. Will ensure that intervention, in form of additional civil works within the protected areas, be minimal. Every intervention proposed shall have clear objectives and use tried and proven methods and materials.	The project strategy is to give recognition to the fort and it's surrounding as realms of historical, socio-cultural, socio-economic, intra-cultural activities for visitors and locals which can harnesses opportunities for employment, livelihood generation, and recreational styles for people and enhance the standard of the built and natural environment of the Fort and its precinct. An Integrated Conservation, Environmental up-gradation and tourism development of Almora fort and its precinct approach will be adopted.
	23. Will not open up new areas of tourist movement, including opening up of new routes for boating in wetlands etc, especially in areas identified as core or zone identified for conservation in the management plan for the protected area.	Not a wetland or sensitive or protected area. Not envisaged the proposed interventions shall retain the historic character and significance of the Fort .
	24. Will ensure that the areas of significant habitat diversity habitats are conserved in their natural condition.	NA

Component	Criteria	Remarks
	25. The results of intervention should be unobtrusive when compared to the original fabric or to previous treatments, but still should be distinguishable	Proposed interventions are as per original fabric and architectural character of the surroundings
	26. New materials and techniques may only be used after they have been tried and proven, and should in no way cause damage to the site.	No new materials and techniques are used
	27. Service buildings should be as far as possible from the principal area of the site.	NA
Water supply	28. Will be taken up from existing potable treatment systems nearby, unless on such systems are available in the vicinity	Existing potable system is used. Project only contains provision of water storage system.
	29. Will not result in excessive abstraction of ground water or result in excessive groundwater pumping impairing ground water quality	Not envisaged
	30. Will ensure adequate protection form pollution of intake points	Since water supply is from existing potable supply scheme of Jal Sansthan, only internal distribution system is provided in the project, the chances of pollution from intake points is already minimized by the Jal Sansthan.
	31. Will not result in unsatisfactory raw water supply (e.g. supply with excessive pathogens or mineral constituents)	Potable water supply is through existing water supply scheme of Jal Sansthan. Internal distribution system will be provided in the project.
	32. Will ensure proper and adequate treatment and disposal facilitates for increased volumes of wastewater generation	Not much waste water generation envisaged. There will be upgradation of existing system of sewage management - septic tanks/sock pits.
Sanitation and toilet facilities	33. Will ensure that the site selection for the septic tank/ or any/ or any other treatment method proposed is not close to water intake or water usage points, or areas prone to flooding or water logging	Upgradation/ new construction of septic tanks/ sock pits will be done at the existing location.
	34. Will ensure that sanitation improvements proposed do not result in pollution of groundwater.	Ensured and forms part of EMMP

Component	Criteria	Remarks
	35. Will not interfere with other utilities and block access to buildings, cause nuisance to neighboring areas due to noise, smell, and influx of insects, rodents, etc.	The proposed sanitation arrangements have been made in view of population load and hence interference with other utilities and nuisance to neighboring areas not envisaged.
	36. Will not impair downstream water quality due to inadequate sewage treatment or release of untreated sewage,	Project entails provision of new septic tanks/sock pits or upgradation of the existing system. Hence impairment of downstream water quality not envisaged.
	37. Will not cause overflows and flooding of surroundings, especially around the heritage sites with raw sewage.	Adequate sewage treatment arrangements
Solid waste management	38. Will ensure that the disposal of solid wastes will not result in degradation of aesthetics in the vicinity of the proposed tourist areas	There is provision of waste segregation at source through separate Bio-degradable and Non-Biodegradable Waste bins and suitable disposal arrangements.
	39. Will ensure buffer of greenbelt and earth works around the site to avoid nuisance to neighboring areas due to foul odor and influx of insects, rodents, etc.	During construction phase suitable buffer will be provided as per EMMP. Project has provisions for incidental landscaping with native species
	40. Will ensure that for composting pits for protected areas, the locations are devoid of any wildlife population, especially wild boars, porcupines	NA
	41. Will ensure any on site waste management done in compliance with government regulations and in coordination with municipal authorities.	On site waste management has been planned in due compliance with govt. regulations and consultation with the Almora Nagar Palika Parishad and forms part of the DPR. Mitigation measures relating to waste management during construction phase forms part of the EMP.
Roads	42. Will ensure minimal clearing of vegetation	Clearing of vegetation will be done only if necessary, after consultation with Environment Specialist of the DSC.

Component	Criteria	Remarks
		This forms part of contractor's responsibility listed in the EMMP.
	43. Will ensure no dislocation and involuntary resettlement of people living in right of way.	No dislocation and involuntary resettlement envisaged. Shifting of the DM Office shall be done in consultation with stakeholders, which is being pursued as per annex-IV
	44. Will not lead to alteration of surface water hydrology of streams/waterways that may result in increased sediment load due to erosion form construction sites.	No surface water body in the vicinity. Erosion from construction sites will be controlled as per EMMP provisions.
Drainage and flood protection	45. Will ensure improvements are identified to cater to the watershed or drainage zones and not individual drains.	No alterations to the existing drainage patterns are expected due to project interventions
	46. Will ensure adequacy of outfall of proposed drainage works, to avoid any impacts associated with flooding in downstream areas, or areas not covered	NA
	47. Will ensure effective drainage of the monument area, and provide for improved structural stability of the monuments	The buildings, pavements and new additions to the fort have led to ill planned drainage system. Drainage improvement works are proposed for sanitation and rainwater disposal without causing damage to the foundation and wall of the buildings. These interventions shall rather improve the structural stability of the Fort.
Development of parking and other tourist infrastructure amenities	48. Will ensure no deterioration of surrounding environmental conditions due to uncontrolled growth around these facilities, increased traffic and increased waste generation resulting from improved infrastructure facilities 49. Will not create structures or buildings that are physically or visually intrusive, in terms of size, scale, location that shall have an adverse impact on the aesthetic quality or the site, through careful designs in terms of built form,	The sub project shall lead to improved environmental conditions by supplementing the inadequate sanitation system. Not envisaged. The proposed developments will provide a context- and use-appropriate solution to the project looking at the environmental sensitivity of the Fort property. Project shall add to the aesthetic

Component	Criteria	Remarks
	construction materials etc.	beauty of the site and enhance the visitor experience.



Tourism Zones in Uttarakhand

ANNEXURE- III -A

PROJECT LOCATION MAP

ALMORA FORT

Malla Mahal

Rani Mahal

Courtyard

Ram Shila Temple

Ramparts

ANNEXURE- III -B

Site Photographs

Ram Shila Temple	Rani Mahal & Courtyard
	
Ramparts	**Court Hall of Malla Mahal**
	

Access Point 1 to the fort	Access Point 2 to the fort
	
Almora Bazar has its own character	On-site image of tree invading the monument
	

ANNEXURE IV- A

NOC FROM DISTRICT ADMINISTRATION

No Objection Certificate from the DM, Almora for proposed reconstruction/ conservation works in the Almora Fort

पर्यटन विभाग, उत्तराखण्ड के शासनादेश सं0 99/ /नि0स0/स0पर्य0/2014 देहरादून: दिनॉक: 23 जुलाई, 2014 तथा परियोजना प्रबन्धक पी0आई0यू0, भीमताल के पत्रांक 338Gen corp./PIU-Bhimtal/346/1-B/2014-15 दिनॉक: 26–07–2014 एवं कार्यक्रम निदेशक के पत्र सं0 1550/2–10–ADB(IDIPT)/208/2013-14 दिनॉक: 26, अगस्त, 2014 के क्रम में कलैक्ट्रेट परिसर (मल्ला महल), अल्मोड़ा के जीर्णोद्धार/संरक्षण हेतु इस कार्यालय को कोई आपत्ति नही है।

दिनॉक:– 26 अगस्त, 2014

(विनोद कुमार सुमन),
जिला अधिकारी, अल्मोड़ा।

कार्यालय जिलाधिकारी, अल्मोड़ा।
संख्या 4668/नौ–30/2013–14, दिनॉक:26 अगस्त, 2014

प्रतिलिपि निम्नांकितों को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित:–

1– आयुक्त एवं सचिव, राजस्व परिषद, उत्तराखण्ड, देहरादून।
2– सचिव पर्यटन, उत्तराखण्ड शासन, पर्यटन विभाग, देहरादून।
3– आयुक्त, कुमाऊँ मण्डल, नैनीताल।
4– अपर सचिव, राजस्व अनुभाग–1, उत्तराखण्ड शासन, देहरादून।
5– परियोजना प्रबन्धक, पी0आई0यू0, भीमताल/डी0एस0सी0, भीमताल जिला नैनीताल।

26.08.14
जिला अधिकारी,
अल्मोड़ा।

ANNEXURE IV-B

Correspondence with District Administration

Correspondence from Project side for NOC for proposed works under the sub project

1. Letter from Program Director to DM, Almora
2. Letter from Program Director to Secretary Tourism for facilitating the shifting of DM Office, in the project interest
3. Letter from Secretary Tourism to DM, Almora & Champawat

Program Management Unit
Infrastructure Development Investment Program for Tourism
(ADB Assisted – Loan No. 2833,India)
Government of Uttarakhand
Pandit Deendyal Upadhaya Paryatan Bhawan, Near ONGC Helipad
Garhi Catt, Dehradun -248003
Govt. of Uttarakhand
Uttarakhand
Simply Heaven!
Tel: 91-135-2559987, Fax: 91-135-2559988
E-mail: utdb.pmu@gmail.com

पत्रांक: 1550/ 2-10-ADB (IDIPT)/208/2013-2014 दिनांक: 26 अगस्त 2014

प्रेषक,

कार्यक्रम निदेशक
ए0डी0बी0 परियोजना
पर्यटन, उत्तराखण्ड।

सेवा में,

जिलाधिकारी
अल्मोड़ा।

विषयः ए0डी0बी0 सहायतित, उत्तराखण्ड पर्यटन अवस्थापना विकास निवेश कार्यक्रम अन्तर्गत अल्मोडा के मल्लामहल (कलैक्ट्रेट परिसर) फोर्ट में किये जाने वाले जीर्णोद्धार कार्यों हेतु अनापत्ती प्रमाण पत्र के सम्बन्ध में।

महोदय,

जैसा कि आप अवगत है कि उत्तराखण्ड राज्य में पर्यटन विकास को बेहतर बनाने हेतु एशियाई विकास बैंक सहायतित "उत्तराखण्ड पर्यटन अवस्थापना विकास निवेश कार्यक्रम" चलाया जा रहा है। कार्यक्रम के अन्तर्गत आगामी तृतीय ट्रांच में अल्मोड़ा नगर स्थित मल्लामहल (कलैक्ट्रेट परिसर) फोर्ट में जीर्णोद्धार के कार्य प्रस्तावित हैं।

अतः आपसे अनुरोध है कि आप अपने स्तर से उक्त के सम्बन्ध में जीर्णोद्धार कार्यों हेतु अनापत्ती प्रमाण पत्र देने का कष्ट करें।

भवदीय,

(शैलेश बगोली, आई0ए0एस0)
कार्यक्रम निदेशक

Program Management Unit
Infrastructure Development Investment Program for Tourism
(ADB Assisted – Loan No. 2833,India)
Government of Uttarakhand
Pandit Deendyal Upadhaya Paryatan Bhawan, Near ONGC Helipad
Garhi Catt, Dehradun -248003
Govt. of Uttarakhand
Uttarakhand Simply Heaven!
Tel: 91-135-2559987, Fax: 91-135-2559988 **E-mail: utdb.pmu@gmail.com**

पत्रांक: 1577/ 2-10-ADB (IDIPT)/236/2013-2014 दिनांक: 01/09 2014

प्रेषक,

कार्यक्रम निदेशक
ए0डी0बी0 परियोजना
पर्यटन, उत्तराखण्ड।

सेवा में,

सचिव, पर्यटन
उत्तराखण्ड शासन।

विषयः ए0डी0बी0 सहायतित, कार्यक्रम अन्तर्गत "अल्मोड़ा के मल्लामहल तथा चम्पावत के राजभुंगा किले को पर्यटन विभाग को हस्तान्तरित किये जाने के सम्बन्ध में।"

महोदय,

जैसा कि आप अवगत है कि ए0डी0बी0 सहायतित "उत्तराखण्ड पर्यटन अवस्थापना विकास निवेश कार्यक्रम" के अन्तर्गत आगामी तृतीय ट्रांच में मा0 मुख्यमंत्री, उत्तराखण्ड राज्य के निर्देशानुसार जनपद अल्मोड़ा के मल्लामहल तथा जनपद चम्पावत के राजभुंगा किले का जीर्णोद्धार कार्य सम्मिलित किया गया है। उक्त के क्रम में दोनों किलों के जीर्णोद्धार व पुर्नउपयोग हेतु निम्नानुसार दो उप–परियोजनाएं विकसित कर ए0डी0बी0 को प्रेषित की जा चुकी हैं।

1- Almora Fort (Malla Mahal) Historic Precincts' Preservation, Re-use Strategy & Revitalization for Enhancement of Visitor Experience. (attached)
2- Champawat Fort (Rajbhunga Fort) Preservation, Re-use Strategy & Revitalization for Enhancement of Visitor Experience. (attached)

इस सम्बन्ध में ए0डी0बी0 का सुझाव है कि यह राज्य की सांस्कृतिक धरोहरें हैं तथा भविष्य में उक्त उप–परियोजनाओं पर किये जा रहे निवेश का समुचित लाभ प्रदेश को तभी प्राप्त हो सकता है जब इन किलों का इनकी महत्ता के दृष्टिगत पर्यटन स्थल की तरह पूर्ण सदुपयोग किया जाय।

इस सम्बन्ध में अवगत कराना है कि उक्त किलों के भीतर वर्तमान में सरकारी कार्यालयों का संचालन होने के कारण इन सांस्कृतिक धरोहरों का उचित रख–रखाव नहीं हो पा रहा है तथा पर्यटकों की आमद न के बराबर है। यदि ये सरकारी कार्यालय किले के भीतर ही अवस्थित रहे तो भविष्य में उक्त को एक पर्यटक स्थल के रूप में विकसित किए जाने में कठिनाई होगी। अतः इन कार्यालयों को किला परिसर से किसी दूसरे स्थान पर

स्थानान्तरित करने की आवश्यकता प्रतीत हो रही है जिससे उक्त क्षेत्रों में पर्यटकों की आवाजाही बढ़ेगी तथा राज्य कं. आर्थिकी में भी योगदान रहेगा।

अतः आपसे अनुरोध है आप अपने स्तर से सरकारी कार्यालयों को दूसरे स्थानों पर स्थानान्तरित करने तथा उक्त परिसम्पत्तियों को पर्यटन विभाग को हस्तान्तरित करवाने हेतु राजस्व विभाग से अनुरोध करना चाहें।

संलग्नकः उपरोक्तानुसार।

भवदीय,

(शैलेश बगोली, आई0ए0एस0)
कार्यक्रम निदेशक

उत्तराखण्ड शासन
पर्यटन विभाग
संख्याः 99 / /नि0स0/स0पर्य0/2014
देहरादून : दिनांकः 23 जुलाई, 2014

प्रेषक,

डा0 उमाकान्त पंवार
सचिव पर्यटन

सेवा मे,

जिलाधिकारी
अल्मोडा

जिलाधिकारी
चम्पावत

विषय : चम्पावत के राजबुंगा व बाणासुर किले और अल्मोडा के मल्ला महल के जीर्णोद्धार / संरक्षण के संदर्भ में

महोदय,

अवगत कराना है कि दिनांक 24 मई 2014 को मा0 मुख्यमंत्री जी, उत्तराखण्ड की अध्यक्षता में पर्यटन विभाग की समीक्षा बैठक आहूत की गयी। बैठक में समीक्षा के उपरान्त मा0 मुख्यमंत्री जी ने अन्य कार्यो के साथ चम्पावत के राजबुंगा व बाणासुर किले और अल्मोडा के मल्ला महल के जीर्णोद्धार व संरक्षण के भी निर्देश दिये गये जिसका उदेश्य पर्यटन क्षैत्र को बढावा देना और समग्र विकास करना है। बैठक मे उक्त कार्यो को पर्यटन विभाग के माध्यम से ए0डी0बी0 (आई0डी0आई0पी0टी0) के द्वारा सम्पन्न करने का भी निर्णय लिया गया ।

उपरोक्त के संदर्भ मे यह भी अवगत कराना है कि ए0डी0बी0 (आई0डी0आई0पी0टी0) के अधीनस्थ पी0आई0यू0 भीमताल और डी0एस0सी0 भीमताल इस संबंध मे आवश्यक कार्यवाही कर रहे है ।

अतः आपसे अनुरोध है कि उपरोक्त कार्यो के सुचारू रूप से सम्पादन हेतु पी0आई0यू0 भीमताल/डी0एस0सी0 भीमताल को अनापत्ति पत्र व अन्य यथासंभव सहायता प्रदान करने के लिए संबन्धित को आवश्यक दिशा निर्देश जारी करने का कष्ट करें ।

भवदीय,

(डा0 उमाकान्त पंवार)
सचिव पर्यटन

तिलिपि :

1. आयुक्त कुमाऊ मण्डल – कृपया सूचनार्थ हेतु प्रेषित ।
2. ए0डी0बी0 (आई0डी0आई0पी0टी0) – कृपया सूचनार्थ एवं अग्रिम आवश्यक कार्यवाही हेतु प्रेषित।

सचिव पर्यटन

ANNEXURE- V

Minutes of Meeting

दिनांक 11.08.2014 को सॉय 5 बजे जिलाधिकारी अल्मोड़ा की अध्यक्षता में ए0डी0बी0 द्वारा सहायतित योजनाओं के अर्न्तगत नन्दा देवी फोर्ट (कलैक्ट्रेट कार्यालय) अल्मोड़ा को पर्यटन की दृष्टि से जीर्णोद्धार एवं विकसित करने के संबंध में आहूत बैठक का कार्यवृत्त :–

स्थान – कलैक्ट्रेट कार्यालय अल्मोड़ा का सभागार।
अध्यक्ष– जिलाधिकारी महोदय, अल्मोड़ा।
उपाध्यक्ष– अपर जिलाधिकारी,एस0डी0एम0 अल्मोड़ा।

उपस्थितिः–

1. श्री प्रकाश चन्द्र जोशी, अध्यक्ष, नगर पालिका परिषद, अल्मोड़ा।
2. श्री बलवन्त सिंह, परियोजना प्रबन्धक।
3. श्री लोकेश ओहरी, हैरिटेज कन्जरवेट विशेषज्ञ।
4. श्री राजेश विष्ट, अध्यक्ष होटल एसोसिएशन अल्मोड़ा।
5. श्री हरीश चन्द्र जोशी, सचिव होटल एसोसिएशन अल्मोड़ा।
6. श्री अरूण वर्मा, उपसचिव होटल एसोसिएशन अल्मोड़ा।
7. श्री अजय अग्रवाल, सदस्य होटल एसोसिएशन अल्मोड़ा।
8. डा0 ज्ञान प्रकाश तिवाड़ी, संस्कृति विभाग अल्मोड़ा।
9. श्री चन्दन सिंह विष्ट, प्रशासनिक अधिकारी, क्षेत्रीय पर्यटक कार्यालय, अल्मोड़ा।
10. श्री पी0सी0 तिवाड़ी, पत्रकार।
11. श्री वी0डी0 पालीवाल, ए0इ0आर0आई0ई0एस0।
12. श्री आशुतोष, अधिशासी अभियन्ता, ग्रामीण अभियन्त्रण सेवा, अल्मोड़ा।

कार्यवृत्त

बैठक का शुभारम्भ करते हुये अपर जिलाधिकारी महोदय द्वारा आई0डी0आई0पी0टी0 के प्रतिनिधियों को प्रस्तावित योजना के बारे में जानकारी देने के लिये निर्देशित किया गया। तदोपरान्त हैरिटेज कन्जरवेटिव विशेषज्ञ द्वारा पी0पी0टी0 प्रेसन्टेशन प्रस्तुत किया गया।

अल्मोड़ा एक सांस्कृतिक शहर है इसके सांस्कृतिक विरासत को आज बचाना अत्यन्त आवश्यक है। नन्दा देवी फोर्ट (कलैक्ट्रेट कार्यालय) अल्मोड़ा उन प्राचीन विरासतों में से एक है जिसकी वर्तमान दशा जीर्ण–क्षीर्ण है। इसको बचाने के सुझाव दिये गये। विश्वभर में आज प्रत्येक देश आर्थिक, सांस्कृतिक, वैज्ञानिक एवं सैन्य क्षेत्र में विकास कर आगे बढ़न की होड़ में है, भारत भी इन क्षेत्रों में विकास कर विश्व के अन्य देशों के साथ आगे बढ़ने हेतु महत्तपूर्ण कार्य कर रहा है। जिसके फलस्वरूप आगामी कुछ वर्षो में प्रत्येक राज्य के एक शहर को सांस्कृतिक राजधानी के रूप में विकसित किया जाना होगा। वर्तमान में कलैक्ट्रेट भवन का कार्यालय नन्दा देवी फोर्ट में शहर के मध्य में तथा कुछ ऊँचाई पर बसा है, मुख्य मार्ग से वाहन द्वारा इस कार्यालय होने के कारण Disaster Managemant Plan जैसे एम्बुलैंस, पुलिस एवं अग्निशमन आदी वाहन का अतिशीघ्र उपलब्ध हो पाना कठिन है। इसलिए इस कार्यालय को अन्यत्र स्थानान्तरित कर इस भवन को सांस्कृतिक केन्द्र के साथ–साथ पर्यटन को बढ़ावा देने हेतु यथासंभव प्रयास किये जाने चाहिए।

जिलाधिकारी महोदय, जनपद अल्मोड़ा के निर्देशानुसार इस भवन में कलैक्ट्रेट कार्यालय काफी लबें समय से रहा है, अतः नन्दा देवी फोर्ट के साथ कोस्टक मे कलैक्ट्रेट भवन का उल्लेख किया जना सुनिश्चित किया जाए। पूर्व में कलैक्ट्रेट कार्यालय को स्थानान्तरण करने के प्रस्ताव पारित हुए थे, शहर की जनता द्वारा विरोध होने पर यह कार्य सम्पापदित न हो सका, अन्यथा कलैक्ट्रेट भवन के लिये चिन्हित जमीन विकास भवन में उपलब्ध है। जिलाधिकारी महोदय के अनुसार

उपरोक्त विरोध के मध्यनजर सम्पूर्ण नन्दा देवी फोर्ट (कलैक्ट्रेट कार्यालय) दो भागों में बॉटकर एक भाग को सांस्कृतिक केन्द्र के रूप में विकसित किया जाए तथा दूसरे भाग में कलैक्ट्रेट कार्यालय को स्थानान्तरित किया जाए।

आई0डी0आई0पी0टी0 के प्रतिनिधियों द्वारा जानकारी एवं सुझाव दिया कि सम्पूर्ण नन्दा देवी फोर्ट (कलैक्ट्रेट कार्यालय) परिसर को दो भागों में बॉटे जाने पर पर्यटकों तथा कार्यालय में कार्यरत कर्मचारी, जनसमूह एवं जुलूस आदि में प्रतिभागियों का आने व जाने का एक ही मार्ग प्रयोग में लायी जायेगी इसके अतिरिक्त एक ही परिसर में एक महत्तपूर्ण कार्यालय कलैक्ट्रेट कार्यालय का होना तथा पर्यटन की दृष्टि से सांस्कृतिक केन्द्र को होना उपरोक्त दोनों के लिये उचित व्यवहारिक नहीं लगता है। अतः कलैक्ट्रेट कार्यालय का अन्यत्र स्थानान्तरित कर विरासत में मिली इस धरोहर को संरक्षित करते हुये सांस्कृतिक केन्द्र (पर्यटन की दृष्टि) विकसित किया जाना उचित होगा। अल्मोड़ा शहर मानसरोवर यात्रियों का एक महत्तपूर्ण पड़ाव है, इस जनपद के अन्दर स्थित जागेश्वर मंदिर समूह एवं जनसुविधाओं जैसे शौंचालय एवं पैदल मार्ग आदि का इस योजना द्वारा प्रस्तावित है, जिसको उत्तराखण्ड़ सरकार द्वारा संस्तुति प्राप्त हो चुकी है, इस योजना को अग्रिम चरण में कियान्वित किया जाना है। मंदिर समिति जागेश्वर की तरफ से समिति के अध्यक्ष , जिलाधिकारी अल्मोड़ा द्वारा अनापत्ति प्रमाण पत्र दिये जाने की बारे में आश्वासन दिया गया है, जो कि अतिशीघ्र प्राप्त कर लिया जायेगा।

पर्यटको एवं यात्रियो को अल्मोड़ा में रूकने की अवधि बढ़ाने हेतु अल्मोड़ा स्थित नन्दा देवी फोर्ट (कलैक्ट्रेट कार्यालय) का जीर्णोद्धार करते हुये पर्यटन एवं सांस्कृतिक केन्द्र के रूप मे विकसित किया जाना उचित होगा। ए0डी0बी0, विताय देय संस्था के प्रतिनिधि तथ्य की जानकारी हेतु माह सितम्बर 2014 में अल्मोड़ा जागेश्वर में निरीक्षण के लिये आने का कार्यकम प्रस्तावित है। उससे पूर्व जनप्रतिनिधि, स्टेक होल्डर द्वारा अनापत्ति प्रमाण पत्र व सहमति दिया जाना अति आवश्यक है, जिसके बिना कार्यदायी संस्था द्वारा कार्य किया जाना संभव नहीं हो पायेगा।

उप जिलाधिकारी अल्मोड़ा द्वारा दये गये सुझाव अतयन्त महत्तपूर्ण एवं सराहनीय थे उनके अनुसार हर बदलाव के पीछे प्रारम्भ में विरोध होना स्वामाविक है, भले ही बदलाव कितनी ही अच्छाईयों के लिये क्यों न हो रहा हो। मानसरोवर यात्रियों का महत्तपूर्ण पड़ाव होने के कारण इस प्रकार के प्रस्ताव प्रशंसनीय है, यात्रियों एवं पर्यटको को अल्मोड़ा में रूकने की अवधि को बढ़ाने के लिये लाईट एवं साउड़ शो भी इस योजना में सम्मिलित किया जाए। जिसके द्वारा उत्तराखण्ड़ के इतिहास, सांस्कृतिक विरासत, एवं मुख्य तीर्थ स्थलों का उल्लेख किया जा सके। गुजरात का उदाहरण देते हुये उप जिलाधिकारी महोदय, अल्मोड़ा ने जानकारी दी कि भारत के अन्य राज्यों में इस तरह की परियोजनाओं को प्रोत्साहित किया जा रहा है।

होटल एसोसिएशन अल्मोड़ा, द्वारा दिये गये सुझाव श्री राकेश विष्ट, अध्यक्ष होटल एसोसिएशन अल्मोड़ा द्वारा अवगत कराया गया कि विकास भवन अल्मोड़ा में स्थानीय जनता को अपने महत्तपूर्ण कार्यो हेतु जाना पड़ता है, तथा तदोपरान्त उन्हें कलैक्ट्रेट अल्मोड़ा भी अपने कार्यो को निपटाने हेतु जाना पड़ता है, जिससे उन्हें अनायास काफी कठिनाईयों का सामना करना पड़ता है। इससे उचित होगा कि कलैक्ट्रेट परिसर अल्मोड़ा को विकास भवन में स्थानान्तरित किया जाए । जिससे आने वाले स्थानीय गरीब एवं बाहरी व्यक्तियों को आने –जाने की कोई परेशानी न हो तथा उनके समय एवं धन की बचत भी की जा सके। तथा नन्दा देवी फोर्ट (कलैक्ट्रेट कार्यालय) अल्मोड़ा को सांस्कृतिक केन्द्र के रूप में पर्यटन की दृष्टि से विकसित किया जाए।

अंत में जिलाधिकारी महोदय, द्वारा अपनी व्यक्तिगत राय देते हुए सुझावित किया गया कि अल्मोड़ा शहर के बढते हुये विस्तार को मध्यनजर रखते हुये कलैक्ट्रेट अल्मोड़ा को अन्यत्र स्थानान्तरित होना अतिआवश्यक है। लेकिन व्यापार मंडल, जनप्रतिनिधियों एवं अल्मोड़ा के वरिष्ठ सम्भ्रान्त व्यक्तियों का सुझाव के बाद ही कलैक्ट्रेट परिसर अल्मोड़ा को अन्यत्र स्थापित किये जाने हेतु तथा एन0ओ0सी0 दी जानी संभव हो पायेगी । जिसे हेतु जिलाधिकारी महोदय, द्वारा अपर जिलाधिकारी महोदय, अल्मोड़ा को एक आवश्कीय बैठक दिनांक 20.08.2014 समय 3.00 बजे आहूत किये जाने हेतु निर्देश दिये गये है।

दिनांक 20.08.2014 को सॉय 3.00 बजे जिलाधिकारी अल्मोड़ा की अध्यक्षता में ए0डी0बी0 द्वारा सहायतित योजनाओं के अर्न्तगत नन्दा देवी फोर्ट (कलैक्ट्रेट कार्यालय) अल्मोड़ा को पर्यटन की दृष्टि से जीर्णोद्धार एवं विकसित करने के संबंध में आहूत बैठक का कार्यवृत्त :–

सभी सदस्यो का समय पर सुचना न पहुचने के कारण आहुत बैठक को स्थगित करना पड़ा। तथा अगली बैठक 22.08.2014 को सुनिश्चित किये जाना तय हुआ।

दिनांक 22.08.2014 को समय 4:30 बजे जिलाधिकारी अल्मोड़ा की अध्यक्षता में ए0डी0बी0 द्वारा सहायतित योजनाओं के अर्न्तगत नन्दा देवी फोर्ट (कलैक्ट्रेट कार्यालय) अल्मोड़ा को पर्यटन की दृष्टि से जीर्णोद्धार एवं विकसित करने के संबंध में आहूत बैठक का कार्यवृत्त :

उपरोक्त 22.08.2014 के आहुत बैठक में समय का आभाव होने के कारण पी0आई0यू0, भीमताल बैठक में प्रतिभाग नही कर सका अध्यक्ष महोदय को इस सन्दर्भ में सूचित कर दिया गया था। दिनांक 26.08.2014 को कार्यकम निदेशक के द्वारा प्रेषित पत्र का संज्ञान लेते हुये जिलाधिकारी महोदय द्वारा अनापत्ति प्रमाण पत्र जारी किया गया तथा मौखिक वार्ता में अद्योहस्ताक्षरित को अवगत कराया कि 80% उपस्थिति सदस्यों द्वारा कलैक्ट्रेट कार्यालय को अन्यत्र स्थानान्त्रित कर परियोजना को सहमति दी गयी।

प्रवांक: 374 Gen Corp /PIU-Bhimtal/IOEPT/382/03/2014-15 दिनांक: 03-09-14

धन्यवाद,

भवदीय,

परियोजना प्रबंधक
पी0आई0यू0, भीमताल

प्रतिलिपि:– सेवा में सूचनार्थ हेतु प्रेषित–
सचिव, पर्यटन उत्तराखण्ड़।
कार्यकम निदेशक, (आई.डी.आई.पी.टी.) देहरादून।
अपर कार्यकम निदेशक, (आई.डी.आई.पी.टी.) देहरादून।

परियोजना प्रबंधक
पी0आई0यू0, भीमताल