

Initial Environmental Examination

Project Number: 40648-034 April 2016

IND: Infrastructure Development Investment Program for Tourism - Tranche 3

Submitted by:

Program Management Unit, Government of Uttarakhand, Dehrdaun

This report has been submitted to ADB by the Program Management Unit, Government of Uttarakhand, Dehrdaun and is made publicly available in accordance with ADB's public communications policy (2011). It does not necessarily reflect the views of ADB.

This Initial Environment Examination report is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature. In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area

Asian Development Bank

for logging pls. NK SM.



Program Management Unit

Infrastructure Development Investment Program for Tourism (ADB Assisted - Loun No. 2833, India) Government of Uttarakhand Pandit Deendyal Upadhaya Paryatan Bhawan, Near ONGC Hellpad Garhí Cantt, Dehradun -248003 Tel: 91-135-2559987, Fax: 91-135-2559988 E-mail: utdb.pmu@gmail.com



Ref:3650/2-10-ADB IDIPT/249/2014-15

Date: 21.04.2016

To

Country Director, Indian Resident Mission (INRM), Plot no -4, San Martin Marg, Chanakyapuri, New Delhi 110021, PB No-53311 (HPO)

Sub: IDIPT UK Tranche 3: Submission of updated IEE document for "Restoration, Adaptive Reuse and Revitalization of Pithoragarh Fort (Phase II)" sub project

Ref: Updated IEE submitted vide letter no. 3609/2-10-ADB IDIPT/249/2014-15 dt. 02.04.16 and observations of ADB Safeguards Expert

Respected Madam,

Kindly refer to the updated IEE submission vide above referred letter and ADB Safeguard Expert's observations communicated on phone.

Updated IEE document along with change matrix between SAR and DPR stage is submitted for your kind perusal and approval.

Encl.:- As above

Yours Sincerely (R.K. Joshi)

Additional Program Director





Comments Compliance Matrix

S. No.	Details in IEE (SAB Stage)	Corresponding Details in	Remarks
1	(SAR Stage) Page no. 5: Sub Project Scope	IEE (DPR Stage) Sub Project Scope Para 13 of Ch II, Pg 8	There have been some changes in sub project scope. Scope proposed in SAR was curtailed and only (i) Construction of new multi level car parking (ii)Construction of Tourist Rest House by converting tehsil staff quarter in their present location in fort premises (iii) Construction of new tehsil office building and (iv) construction of living accommodation for rehabilitation of Tehsil Quarter Type-IV – 1 Nos. and Type-II – 6 Nos were taken
2	Page no 12 Project Implementation Schedule	Project Implementation Schedule Para 16 of Ch II, Pg 9	up. Project implementation period in the SAR stage was 12 months while in DPR total implementation period is 18 months. Construction of all elements will begin in the second quarter of the year 2016, and work will be completed in the end of 2017.
3	Page no. 12 Project Components	Project Components Para 4 of Executive Summary pg 1, Para 15 of Ch II, pg 9	Due to Changes in the scope as in 1 of this table
4	Page no. 20 Land Acquisition and Resettlement	Land Acquisition and Resettlement Para 44 of Ch IV, pg 19	Details updated

Changes in IEE Reports between SAR and DPR Stage

		Table 7 pg 19	Table updated as per DDR	
5	Page no. 16-17 Ambient Air Quality and Ambient Noise levels	Ambient Air Quality and Ambient Noise levels Para 34, 35 of Ch III, pg 14- 15	The baseline data has been updated (2015), however the parameters are within the permissible levels.	
6	Table14 Page no.72 Environmental Budget	Environmental Budget Table 14, Ch V, pg 52	Environmental Budget has reduced due to decrease in the components	
7	ANNEXURE -4 page no. 79 Photo illustration	Site photographs ANNEXURE 3(C), pg 77	Updated site photographs have been added	
8	ANNEXURE-5 page 81-83 Land Record and NOC	Land Record and NOC ANNEXURE 4, pg 78	NOC documents have been updated	
9	ANNEXURE-6 page 84-85 Monitoring Report	Monitoring Report ANNEXURE 5, pg 84-85	Monitoring Report has been updated	
	ADB Observations on IEE su	ubmitted on 04.04.16		
	Section	ADB observations	Compliance	
10	Para 3 of Executive Summary, pg 1	Is it part of Loan 2833. If not, kindly reframe the para accordingly	Para reframed	
11	Para 11 of Ch II, pg 9 Description Of Project Components	Please attach map showing all components	Attached at Annexure 3, pg 75	
12	Para 14 of Ch II, pg 9 Present Status	Please mention if it is an ASI Protected area	No, Pithoragarh Fort is not ASI Protected (mentioned in the appropriate para)	
13	Para 15 of Ch II, pg 10 Project Components	Please don't mention the components of other sub projects	Noted and removed accordingly	
14	Para 56 of Ch IV, pg 22 Design Impacts and Pre- Construction Impacts	Please reframe the sentences	Noted and complied	
16	Ch V, pg 33, Environment Management Plan	Please add the EMP tables of all phases	EMP table added – Table9, 10, 11 at pg 34 - 49	
17	Table 11 of Ch VI, pg 43 Consultation details	Please update consultation details	Consultation details updated - Table 15 pg 55 Photographs and news clip added	

Environmental Assessment Document

Initial Environmental Examination (IEE) Loan Number: 3223 IND Package No.:UK/IDIPT-III/BHT/07 Updated April 2016

Infrastructure Development Investment Program for Tourism, Uttarakhand

Subproject – Restoration and Adaptive Reuse of Pithoragarh Fort (Phase II)

TRANCHE III

Prepared by the Government of Uttarakhand for the Asian Development Bank

This Initial Environmental Examination is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature.

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
Gol	-	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- Trench 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

TABLE OF CONTENTS

EXE	CUTIVE SUMMARY	1
I.	INTRODUCTION	4
A.	BACKGROUND	4
B.	PURPOSE OF IEE	4
C.	ENVIRONMENTAL REGULATORY COMPLIANCE	5
D.	REPORT STRUCTURE	7
II.	DESCRIPTION OF PROJECT COMPONENTS	8
A.	PROJECT OVERVIEW	8
B.	PRESENT STATUS	8
C.	PROJECT COMPONENTS	9
D.	PROJECT IMPLEMENTATION SCHEDULE	9
III.	DESCRIPTION OF EXISTING ENVIRONMENT	10
A.	ENVIRONMENTAL PROFILE- PHYSICAL RESOURCES	10
B.	ECOLOGICAL RESOURCES AND BIODIVERSITY	12
C.	ECONOMIC RESOURCES	15
D.	SOCIAL AND CULTURAL RESOURCES	16
IV.	ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES	19
A.	LAND ACQUISITION AND RESETTLEMENT	19
B.	ENVIRONMENTAL IMPACTS	20
V.	ENVIRONMENTAL MANAGEMENT PLAN (EMP)	31
A.	INSTITUTIONAL ARRANGEMENTS	31
B.	ENVIRONMENTAL MANAGEMENT PLAN	32
C.	ENVIRONMENTAL MONITORING PLAN	48
D.	CAPACITY BUILDING	49
E.	ENVIRONMENTAL BUDGET	52
F.	ENVIRONMENTAL MONITORING AND REPORTING	53
VI.	PUBLIC CONSULTATION AND INFORMATION DISCLOSURE	55
A.	PROCESS FOR CONSULTATION FOLLOWED	55
B.	FUTURE CONSULTATION AND INFORMATION DISCLOSURE	56
C.	GRIEVANCE REDRESS MECHANISM	56
VII.	FINDINGS & RECOMMENDATIONS	59
VIII.	CONCLUSION	60

LIST OF TABLES

TABLE 1: ENVIRONMENTAL REGULATORY COMPLIANCE FOR RESTORATION AND ADAPTIVE I	RE
USE OF PITHORAGARH FORT (PHASE II)	5
TABLE 2: AMBIENT AIR QUALITY (24 HOURS BASIS)	14
TABLE 3: AMBIENT NOISE QUALITY AT PITHORAGARH FORT AREA	15
TABLE 4: DEMOGRAPHIC PROFILE OF PROJECT AREA	16
TABLE 5: LIST OF BASIC AMENITIES IN THE PROJECT AREA	17
TABLE 7 -: IMPACT OF LAND ACQUISITION AND RESETTLEMENT	19
TABLE-8: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES	25
TABLE 9: PRE CONSTRUCTION PHASE ENVIRONMENTAL MANAGEMENT PLAN	34
TABLE 10: CONSTRUCTION PHASE ENVIRONMENTAL MANAGEMENT PLAN	36
TABLE11: OPERATION PHASE ENVIRONMENTAL MANAGEMENT PLAN	47
TABLE 12: ENVIRONMENTAL MONITORING PLAN	48
TABLE 13: TRAINING MODULES FOR ENVIRONMENTAL MANAGEMENT	50
TABLE 14: ENVIRONMENTAL BUDGET	52
TABLE 15: CONSULTATIONS WITH STAKEHOLDERS	55

LIST OF ANNEXURES

ANNEXURE- 1 : COMPLIANCE WITH SUB PROJECT SELECTION CRITERIA	61
(AS PER EARF)	61
ANNEXURE- 2 : RAPID ENVIRONMENTAL ASSESSMENT (REA) CHECKLIST	69
ANNEXURE- 3 (A) PROJECT LOCATION MAP	75
ANNEXURE- 3 (B) : 3D FRONT VIEW OF PROPOSED MULTI LEVEL CAR PARKING	76
ANNEXURE 3(C) : PROJECT SITE PHOTOGRAPHS	77
ANNEXURE 4 : LAND RECORD AND NOC	78
ANNEXURE 5 : WATER AIR NOISE MONITORING REPORT	84
ANNEXURE 6- MINUTES OF MEETING	87
ANNEXURE 7- PUBLIC DISCLOSURE PHOTOGRAPHS AND ATTENDANCE SHEE	Г 94
ANNEXURE 8 PAPER CLIPPINGS	101

EXECUTIVE SUMMARY

- 1. 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 3 includes the states of Uttarakhand and Tamil Nadu.
- 2. This Initial Environmental Examination (IEE) has been prepared for "Restoration and Adaptive Re-use of Pithoragarh Fort (Phase II)" Uttarakhand under Tranche 3. The IEE has been prepared based on the primary, secondary data, field visits, reconnaissance survey and public and stake holder's consultations. The subproject is needed to strengthen the tourism potential of this area as this site is very popular among local visitors and visitors coming to Pithoragarh.
- 3. There were historically two forts in Pithoragarh. The present day Pithoragarh fort complex which is currently the tehsil office of the district is the only surviving fort remaining. As the fort is located on a raised mount it has a commanding view of the valley and the urban sprawl of Pithoragarh. Pithoragarh Fort complex is located in the older part of Pithoragarh town near Nagar Palika Office of Pithoragarh. By road it is 150kms north of Tanakpur and 210kms from Kathgodam railway terminals. The airport at Pithoragarh (Naini Saini) is not operational. The Fort is at an elevation of 5300 ft. and offers a fascinating view Surrounding hills and the town. Fort has cultural and historical values and recognizing this potential, subproject for Restoration and Adaptive Re-use of Pithoragarh Fort was proposed. The Fort is not an ASI protected site. Adaptive reuse and restoration of the Fort precinct is envisaged through this sub project. The Tehsil office (presently the Tehsil office is functioning from Collectorate office) and residence to attain the objectives of the subproject as the usage of the fort as Tehsil office was not conducive to create and sustain any form of cultural or historical association with the Fort.
- 4. The proposed subproject mainly comprises of the integrated development around Pithoragarh Fort and the key components are listed as below:
 - (i) Construction of new multi-level car parking facilities near Dev Singh Ground in Pithoragarh.
 - (ii) Construction of Tourist Rest House by converting tehsil staff quarter in their present location in fort premises.
 - (iii) Construction of new tehsil office building.
 - (iv) Construction of living accommodation for rehabilitation of Tehsil Quarter Type-IV 1 Nos. and Type-II – 6 Nos.
- 5. Construction of all elements will begin in the second quarter of the year 2016, and work will be completed in the end of 2017. Total implementation period is 18 months.
- 6. Pithoragarh town is a Nagar Palika Parishad and administratively divided into 15 wards. The

total population of Pithoragarh town is 56044 with 14036 households, mainly comprising of Brahmins, Rajputs, Scheduled castes and Scheduled tribes. The people of the town are dependent on trade, service and tourism based activities for their livelihoods. There is potential of tourism development in the area which will provide more employment to the local youth and improve the livelihoods security of local community.

- 7. 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.
- 8. As a part of IEE, a detailed impact assessment covering impacts due to location, design and pre-construction, construction, operation and maintenance have been assessed.
- 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)
- 10. A stakeholder discussion has been conducted. The project design incorporates the views of primary and secondary stakeholders including local communities and local officials who were all meaningfully consulted during IEE and project preparation
- 11. The environmental impacts associated with the conservation of the fort shall be largely construction related. Key construction stage impact mitigation measures shall include usage of appropriate materials for construction in the stabilization works, management of wastes during construction, planning of construction related activities to ensure minimal disruption of visitors to the monuments etc. During operation stage, adverse impacts shall result in the event of non-maintenance of facilities developed, solid waste management including the toilets and other tourist infrastructure developed. Strong and capable community institution is required to manage these assets in the future.
- 12. 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 sitting, specific selection criteria for procuring contractors with demonstrated experience; 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.
- 13.A Project Management Unit (PMU) is established in Dehradun for the overall project management and Project Implementation Units (PIU) is established at Bhimtal. A Safeguards Specialist 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 a Safeguards Specialist 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.

- 14. 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.
- 15. The subproject is unlikely to cause significant adverse impacts. The potential adverse impacts that are associated with design, construction, and operation can be mitigated to standard levels without difficulty through proper engineering design and the incorporation or application of recommended mitigation measures and procedures. Based on the findings of the IEE, the classification of the Project as Category "B" is confirmed, and no further special study or detailed EIA needs to be undertaken to comply with ADB SPS (2009) or Gol EIA Notification (2006).

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 heritage tourism sites, improved market connectivity, enhanced destination and site environment and tourist support infrastructure, and enhanced capacities for sustainable exhibit enhanced protection and management of key natural and cultural he destination and extensive participation by the private sector and local site development with 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 and Adaptive Re-use of Pithoragarh Fort (Phase II)" 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 primary and 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 and Adaptive Re-use of Pithoragarh Fort (Phase II)". This IEE assesses the environmental impacts due to the proposed subproject and specifies measures towards addressing the impacts. The IEE was based on a review of subproject site plans and reports; field visits, and secondary data to characterize the environment and identify potential impacts; and interviews and discussions with stakeholders. This IEE provides mitigation measures for impacts related to location and design, construction, operation, and maintenance. An EMP outlining the specific environmental measures to be adhered to during implementation of the subproject has been prepared.

C. Environmental Regulatory Compliance

5. 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.

Applicability of Acts/Guidelines	Compliance Criteria		
The EIA notification, 2006 (and its	These sub-projects are not covered in the ambit of the EIA		
subsequent amendments in	notification as they are not covered either under Category		
2009) provides for categorization	A or Category B of the notification. As a result, the		
of projects into category A and B,	categorization, and the subsequent environmental		
based on extent of impacts.	assessment and clearance requirements, either from the		
	state or the GoI is not triggered.		
The Water (Prevention and	The Act and Rules outlines the activities which are		
Control of Pollution) Act 1974 and	prohibited on account of their potential to cause water		
The Water (Prevention and	pollution. Pollution from various sources in this sub project		
Control of Pollution) Rules 1975	needs to be controlled as per this Act and Rules		
The Ancient Monuments and	Project site is not an ASI protected monument and there		
Archaeological Sites and	are no any monuments of this nature within the project		
Remains Act, 1958, and the rules,	influence zone.		
1959 provide guidance for			
carrying out activities, including			
conservation, construction and			
reuse in and around the protected	Therefore, the provisions of the act does not apply		
monuments.			

Table 1: Environmental Regulatory Compliance for Restoration and Adaptive Re-use of Pithoragarh Fort (Phase II)

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

Forest (Conservation) Act, 1980	This act provides guidelines for conservation of forests and diversion of forest land for non-forest 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.

- 6. 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.
- 7. 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. Therefore, any further approvals or environmental clearances from the GoI or GoUK are not envisaged.

8. 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 2 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.

Review and Approval Procedure

9. For Category B projects the Draft Environmental Status report is reviewed by ADB's Regional Department sector division and Environment and Social Safeguards Division, and by the Executing Agency, and additional comments may be sought from project affected people and other stakeholders. All comments are incorporated in preparing the final documents, which are reviewed by the Executing Agency and the national environmental protection agency. The EA then officially submits the IEE report to ADB for consideration by the Board of Directors. Completed report is made available worldwide by ADB, via the depository library system and the ADB website.

D. Report Structure

 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

²As 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

- 11. The project Restoration and Adaptive-Reuse of Pithoragarh Fort (Phase II) is located in the middle of Pithoragarh town which is the district headquarters of the same name. The district forms the north-eastern part of the Kumaun Division and lies between Lat. 29°27'N and 30°49'N and Long. 79°50'E and 81°3'E, the length from north to south, being about 151 Km at its maximum, and the breadth from east to west, reaching its maximum at about 119 Km. It is bounded by Tibet on the north, Nepal on the east, district Almora on the south and the districts Almora and Chamoli on the west. The location of the project components is shown in Annexure 3(A), 3(B) and 3(C).
- 12. Pithoragarh is a small town that lies in the centre of the western half of the Soar Valley surrounded by four distinct hills Chandak, Dhwaj, Kumdar and Thal Kedar, and stretches in the southern flank to Jhulaghat demarcated by the Kali River adjoining the barren peaks of Nepal Hills. It is snuggled in the folds of four kots Bhatkot, Dungerkot, Udaikot and Unchakot.

13. The scope of this sub-project includes:

- 1. Construction of new multi level car parking facilities near Dev Singh Ground in Pithoragarh.
- 2. Construction of Tourist Rest House by converting tehsil staff quarter in their present location in fort premises.
- 3. Construction of new tehsil office building.
- 4. Construction of living accommodation for rehabilitation of Tehsil Quarter Type-IV 1 Nos. and Type-II – 6 Nos in same location as in 3 above.

B. Present Status

14. 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 any continuous/ appropriate usage of this historical edifice. The current usage of the fort as the Tehsil office is not conducive to create and sustain any form of cultural or historical association with the Fort. Despite being strategically located on a prominent rocky outcrop in the middle of the old town, new interventions in the areas surrounding the fort precinct have gradually led to obstructing the visibility of the fort in the surroundings area and hills. There is also a complete lack of clarity and grandness in the access to the Fort. Hence project for Restoration and Adaptive Reuse of the Fort was conceptualized, the components of which are detailed in para 15.

C. Project Components

- 15. Restoration, Adaptive Reuse and Revitalization of Pithoragarh Fort (Phase II) is proposed with following components:
 - 1. New multi-level car parking facilities near Dev Singh Ground in Pithoragarh.
 - 2. Tourist Rest House by converting tehsil staff quarter in their present location in fort premises.
 - 3. New tehsil office building at site around 300 mt from the Fort, adjacent to Nagarpalika office
 - 5. Construction of Accommodation for rehabilitation of Tehsil Quarter Type-IV 1 Nos. and Type-II 6 Nos in same location as in 3 above.

No objection certificate (NOC) from Tehsildar, District Administration, Nagar Palika, and Sports Authority are attached as **Annexure 4**.

D. Project Implementation Schedule

16. The implementation period for the proposed subproject is 18 months. Concept Plan preparation started in June 2014. Detailed design started in January 2015. Construction of all elements is expected to begin in the second quarter of 2016, and work will be completed in the third quarter of 2017.

III. DESCRIPTION OF EXISTING ENVIRONMENT

A. Environmental profile- Physical Resources

- 17. Uttarakhand became a separate state carved out of hill districts and sub Himalayan regions of Uttar Pradesh in the year 2000 and is the newly formed hill state in the Indian Himalayan Region. The geographical location (28°43' N to 31°27' N and 77°34' E to 81°02' E) resource setting of Uttarakhand is unique and shares its borders with China and Nepal. It borders the Tibet Autonomous Region on the north, Nepal on the east and the Indian states of Uttar Pradesh to the South, Haryana to the West and Himachal Pradesh to the North West. There are 13 districts in Uttarakhand which are grouped into two divisions: Kumaon division and Garhwal division. The Kumaon division includes six districts: (i) Almora, (ii) Bageshwar, (iii) Champawat, (iv) Nainital, (v) Pithoragarh, and (vi) Udham Singh Nagar. The Garhwal division includes seven districts: (i) Dehradun; (ii) Haridwar; (iii) Tehri Garhwal; (iv) Uttarkashi; (v) Chamoli; (vi) Pauri Garhwal (commonly known as Garhwal); and (vii) Rudraprayag.
- 18. Uttarakhand has a total geographical area of 51,125 km², of which 64% is covered by forest. A large part of the state is made mountainous. Most of the northern parts of the state are part of Greater Himalaya ranges, covered by the high Himalayan peaks and glaciers, while the lower foothills were densely forested. The difference in altitude between the lowest parts and the highest part (snow peaks of Nandadevi) is almost 7,000 meters.

Topography

- 19. Pithoragarh located at 29.58°N 80.22°E. It has is an average elevation of 1,514 metres (4,967 feet). Pithoragarh is a small town, which gives its name to the district. It lies in the centre of the western half of the Soar Valley which resembles the Kashmir valley on a miniature scale. It is prettily dotted with villages, generally placed on eminences. The view from some of the higher altitudes in Pithoragarh captures the snow-capped peaks of Panch Chulhi, Nanda Devi and Nanda Kot. The town is set in a valley popularly known as "Soar" (root meaning is Cool) and lies in the centre of four hills Chandak, Dhwaj, Kumdar and Thal Kedar, and stretches in the southern flank to Jhulaghat demarcated by the Kali river adjoining the barren peaks of Nepal Hills. It is snuggled in the folds of four kots Bhatkot, Dungerkot, Udaikot and Unchakot.
- 20. Pithoragarh is known as the gateway to the Himalayas from the north, as pilgrims trek through this town to the Kailash, Lake Mansarovar, and Om Parvat. The district is named after its headquarters town, Pithoragarh. Tradition has it that during the reign of the Chand rajas of Kumaon, one Piru, also called Prithvi Gosain, built a fort there and named it Prithvigarh which in, in course of time, got changed into Pithoragarh. According to another local legend, Pithora, a Gurkha raja, constructed a fort here and called theplace Pithoragarh. According to the 2011 census Pithoragarh district has a population of 485,993 with a population density of 69 inhabitants per square kilometre (180 /sq mi). Its population growth rate over the decade

2001–2011 was 5.13%. Pithoragarh has a sex ratio of 1021 females for every 1000 males, and a literacy rate of 82.93%. Native tribes in the district include the Van Rawats and Bhotiya (an exonym). Van Rawats are hunter-gatherers. Bhotiyas are traders. In Pithoragarh, the Bhotiya are divided into two main tribes – Johari Shauka and Rung. The Johari Shauka community inhabits the areas in Munsiyari while Rung tribe are spread among the three valleys of Darma, Chaundas, and Byans. Kandali Festival, celebrated once every 12 years by inhabitants of Chaundas Valley, is one of the major festivals in this area.

21. The Pithoragarh Fort is located in Pithoragarh town on a hill overlooking the city and has a commanding view of Pithoragarh town and Soar Valley. This fort was built by the Gorkhas in 1789 and the Tehsil office was introduced into the fort in 1881 by the British. Thus one can see the influence of colonial architecture in the buildings inside the fort. Fort is not ASI protected.

Geology

22. The district lies in the 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 probable date of commencement of the elevation of the Himalayas is about the close of the Mesozoic period. According to geological formations of the district, it may be divided into four broad belts, viz., (1) the innermost Siwalik hill ranges, (2) the lesser and middle Himalayas, (3) the inner Himalayas and (4) the thin belt bordering the Tibetan Himalayas, roughly tending east-south-east.

Climate

- 23. The elevation of the district ranges from 500 m. above sea level in the valleys in the south to over 7000 m. in the snow-bound Himalayas in the north and north-west. The climate, therefore, largely depends on altitude and varies according to aspect and elevation. Although tropical beat may be experienced in the southern valleys during the summer, the winters are severe. As most of the district is situated on the southern slopes of the Himalayas, monsoon currents penetrate through the deep valleys and rainfall is at the maximum in the monsoon season (June to September), particularly in the southern half of the district. The northern half of the district also gets considerable rain during the winter season which lasts from mid-November to March.
- 24. Pithoragarh town, being in a valley, is relatively warm during summer and cool during winter. During the coldest months of December and January, the tropical and temperate mountain ridges and high locations receive snowfall and have an average temperature of 5.5–8.0 °C (42–46 °F). Pithoragarh district has extreme variation in temperature due to the large variations in altitude. The temperature rises from mid-March through mid-June. The areas above 3,500 metres (11,500 ft) remain in a permanent snow cover. Regions lying at 3,000–3,500 metres (9,800–11,500 ft) become snow bound for four to six months. At places like the river gorges at Dharchula, Jhulaghat, Ghat and Sera, temperatures reach 40 °C (104 °F). The annual average rainfall is 36.7 cm (14.4 in). After June the district

receives monsoon showers. Winter is a time for transhumance – the seasonal migration of the Bhotiya tribe with their herds of livestock to lower, warmer areas.

Soils

25. The soil texture in the area varies from coarse loamy, to clayey loamy to silty clay depending on location in the catchment. The majority of forest soil belongs to brown forest soil category. Textural variation is high and within small area, sand content varies from 4.5 to 65%. Silt content ranged from 6.6 to 46.7% and clay content ranged from 3.1 to 56%. Variations are explained by the change of parent material. Sand, stones and shales occur side by side, where as limestone may be found erratically. Alluvium derives forms may vary within short distances depending on the nature of streams

Water Quality

26. There is no water body near the Pithoragarh Fort Complex and Dev Singh Stadium. Water supply by municipal corporation is being used for construction purpose for Phase-I. The same water source will be used for Phase-II also. The water quality for this water is given in **Annexure 5**. All the parameters of water are within permissible limit.

B. ECOLOGICAL RESOURCES AND BIODIVERSITY

Flora

- 27. The northern part of the district, comprising the larger portions of tehsils Munsyari and Dharchula, where there are high mountains and ridges, is rocky, bland and covered with perpetual snow. The forests are confined to the river valleys and the southern parts of the district. Taking into consideration the differences in the altitudes and the climatic conditions which obtain in the district, its flora may be divided into four main forest types i.e. the sal forest, chir forests, oak forests and the coniferous forests. The willow and older trees are, however, common everywhere in damp situations. The deodars are introduced plants in the district but have become wild. They are found in the southern part of the district around the temples where they had been planted for many generations, their magnificent groves being seen around Gangolihat.
- 28. Sal Forests: These forests occur in the southern part of the district and the chief tree, sal, is found up to a height of about 1,220 m. and as far as north as patti Malla Askot. On the hills the sal does not attain the height to which it grows in the plains. Other associated trees which also grow in these forests are the haldu, sain, kharik, and tun kharik, the last two being comparatively less common. The sal logs are chiefly used for building purposes. The bhyunl, an extremely useful tree, grows in the valleys and lower hilly slopes and is carefully protected, for its leaves afford excellent fodder for cattle, and the fibres of its young shoots are twisted into ropes. Up to heights of about 900 m., trees common in the plains, viz., the mango, pipal, banyan and, sissoo are very frequently in evidence.
- 29. Chir Forests: The chir is the principal component of forests up to altitudes of about 1,800 m., growing between 500m., when not unduly exposed to the sun, and 2,200 m. on a south aspect. Chir trees are usually found alone, for they appear to have the power of driving

away all other vegetation from the tract where they are found Chir is the staple building timber in the hills, while vast quantities of it are exported in the shape of sleepers. Torches are cut out of the living wood. Resin is also extracted from the tree. Its seeds are eaten.

- 30. Oak Forests: The principal varieties of oak found in the district are the banj, tilonj and the kharsu, each occupying a more or less distinct altitudinal zone. Banj begins to grow at heights of 1,800 m. and 2,450 m. The tree usually attains no great height. Its wood, being hard and gnarled, is used for agricultural implements and fuel. It has the capacity to establish itself on the highly unfavorable south aspect. Banj forests are usually dense on the north aspects but open on the south aspects. The other trees found in these forests are the rhododendron and ringal which occurs in clumps rising to about 4 m. to 6 m. and containing as many as one hundred shoots. Between the altitudes of 2,150m. and 2,450m. tilonj, is the chief species of the oak forest and between the altitudes of 2,450 m. and 3,550 m. kharsu is the dominant tree. The main associated trees of the tilonj and kharsu forests are the horse-chestnut and the syeamore. The tilonj and kharsu, the hardier oaks, resemble the banj and are used for the same purpose, but they are straighter and less knotted.
- 31. Coniferous Forests: Between the altitudes of 3,250 m. and 4,000 m. the dominant species are the conifers. The chief species are the deodar and the ragha (Himalayan silver fir) which mainly occurs between the heights of 3,250 m. above the sea-level. The blue pine (chil), the yew (thaner) and the cypress (surain) are also found in this region. The cypress sometimes attains an enormous size. The wood is hard, tough and durable and too heavy for floatation by itself. With these forests is found the variegated bush rhododendron with flowers of all colours, pink, purple, blue and pure white. The birch grows up to heights of about 4,000m. And its stems give the famous bhurjapatra of Bhoj-patra which in earlier times, was used as writing material before the invention of paper.

Fauna

- 32. Animal: The wild animals of the district have greatly declined in number and variety during the past few decades. Of the animals in the district, the sambur which is the most widely distributed of all the deer tribe is found up to an altitude of about 3,050 m. above sea-level. The kakar or barking deer is also met with up to the same height. The musk-deer (kastura) is found in the upper ranges above an altitude of 2,400 m. above sea level. The tiger found here is different from that found in the plains, being stouter in build and with longer and furrier hair and shorter and thicker tail. The bagh, baghera or panther is common throughout the district. It lives upon cattle, goats and sheep and is bold and bloodthirsty beast. The snow leopard is rare in the tract south of the snowy range. The Himalayan black bear is common throughout the district and is generally seen during the rains. The jackal is found up to a height of 2,150 m. and the wild pig up to that of 3,050 m. Monkeys and langurs are found throughout the district.
- 33. Birds: The district is very rich in birds. Birds of prey like eagles hawks, falcons and vultures, are very common. Among game-birds the lungi pheasant is found at an altitude of about 3,700 m. and the monal pheasant at elevations between 2,400 m. and 3,700 m. The kokla

or pokra is seen between heights of 1,800 m. and 3,700 and the chir pheasant is found between altitudes of 1,500 m. and 2,400 m. above sea-level. The kalij a common pheasant, and black partridge frequent the thick forests up to a height of about 2,400 m. The chakor is a very common bird among partridges. The snow partridges are rare. The Himalayan snow cock is found on or near the snowline. Among pigeons, the wood-pigeons are also seen in the higher ranges. Duck and teal occasionally rest on the rivers.

Ambient Air Quality

34. Ambient air quality measurements in Pithoragarh Fort area are shown in **Table 2**. (Details in **Annexure 5**) The monitoring was done on 23/05/2015. The PM₁₀ and PM_{2.5} level observed 54.2 μg/m³ and 24.5 μg/m³, which is well below the permissible limit of 100 and μg/m³ and 60 μg/m³ respectively. Likewise, Sulphur dioxide and Nitrogen dioxide too were well below the permissible limit. This is expected in an area with no major sources of air pollution.

Parameters measured	Unit	At Pithoragarh Fort	Allowable Limit*
Respirable Particulate Matter (PM10)	µg/m³	54.2	100
Respirable Particulate Matter (PM2.5)	µg/m³	24.5	60
Sulphur Dioxide (SO ₂)	µg/m³	08	80
Nitrogen Dioxide (NO ₂)	µg/m³	18	80
Carbon Monoxide (CO)	mg/m ³	0.1	For 08 hrs is 02 and for 01 hrs is 04

 Table 2: Ambient Air Quality (24 hours basis)

*Allowable Limit = National Ambient Air Quality Standards as per CPCB Notification New Delhi, 18 Nov, 2009, Date of sampling= 23.05.2015

Ambient Noise Levels

35. Ambient noise quality has been monitored during preparation of this report. The data of noise monitoring are shown in **Table 3 (Details in Annexure 5).** The day time equivalent noise level ranged from 52.00 to 61.10 dB (A), which is well below the permissible limit.

Table 3: Ambient Noise Quality at Pithoragarh Fort area

S.No.	Location	Unit	Measured values	Allowable limits
			(*Leq Values)	/Specification
				(CPCB)/Leg (dB (A)
1.	At Pithoragarh Fort	dB(A)	55.74	65.00

*Leq Values = Equivalent Continuous Sound Pressure Level Date of sampling= 23.05.2015

C. Economic Resources

Livestock

36. Livestock is mainly reared for milk production and compost agriculture is the project area is closely integrated with forests and animal husbandry. The agriculture is predominantly subsistence based and majority of population is dependent on market fall grains, pulses, vegetables and milk. Tourism and allied activities are the main occupation of local community. Due to closeness from the block and district headquarters and being a tourist destination the project has almost all infrastructure facilities like road, electricity, education, drinking water, health banks, post office, market, police station etc. within a periphery of 5 kms.

Livelihood and Employment

- 37. The Pithoragarh fort is situated in the centre of Pithoragarh town which is a Nagar Palika Parishad and district headquarter. The population of the town is dependent mainly on trade, service and tourism based activities for their livelihood. There is potential of tourism development in the area, which can provide more employment opportunities to the local persons for improving the livelihood security of local community.
- 38. The rural economy is largely agriculture and tourism based with almost 100% practice agricultural and allied activities like horticulture, and livestock, Non-farm economic activities like restaurant, selling of fuel wood, wild edibles etc, skilled and unskilled labour in construction works, Government service, private jobs, shop-keeping, tailoring, transport service etc.
- 39. The women are the backbone of rural economy. The women face the challenge of doing maximum households chores and most of the agricultural tasks. The time use analysis shows that on average women spend 17, 15 and 14 hours per day in various households and agricultural works during summers, winters and rainy season respectively.

D. Social and Cultural Resources

Demography

40. The subproject area lies in Pithoragarh sub division and Bin block of Pithoragarh District. Pithoragarh town is a Nagar Palika Parishad and administratively divided into 15 wards. The total population of Pithoragarh town is 56044 with 14036 households, mainly comprising of Brahmins, Rajputs, Scheduled castes and Scheduled tribes. The people of the town are dependent on trade, service and tourism based activities for their livelihoods. There is potential of tourism development in the area which will provide more employment to the local youth and improve the livelihoods security of local community. The key demographic figures of Pithoragarh town as per Census data of 2011 are summarized in the following table.

Ward	Total	Total	Total	Total	Total	Total ST	Total
No.	Househ	Populat	Male	Female	SC	Populatio	literate
	olds	ion	Populat	Population	Populat	n	populati
			ion		ion		on
1	1028	4207	2202	2005	1028	2005	3576
2	945	3775	1960	1815	945	1815	3064
3	1016	3817	1835	1982	1016	1982	3104
4	591	2581	1345	1236	591	1236	2085
5	831	3435	1984	1451	831	1451	2614
6	1193	4801	2450	2351	1193	2351	3834
7	998	4031	2042	1989	998	1989	3167
8	996	3939	2067	1872	996	1872	3260
9	397	1772	915	857	397	857	1416
10	449	1981	1052	929	449	929	1653
11	909	3509	1846	1663	909	1663	2928
12	1303	4985	2513	2472	1303	2472	4218
13	975	3895	1953	1942	975	1942	3251
14	1142	4592	2641	1951	1142	1951	3531
15	1263	4724	2322	2402	1263	2402	4003
Total	14036	56044	29127	26917	14056	26917	45704

Table 4: Demographic profile of Project Area

Basic Amenities and Infrastructure

41. Due to closeness from the block and district headquarters, the project has almost all basic infrastructure facilities but their management is poor. All the villages are accessible by motorable roads, electricity and telephone/mobile-phone. The primary and secondary education facility are available in the project area, but the nearest primary health facilities are available at Pithoragarh. Bank and postal services are also available in the project area. Pithoragarh is the main market of the project area. The details of basic amenities and infrastructure available in the project area is given in the Table 5

S. No.	Basic amenities and Infrastructure	Location & Distance (km)
1	Primary Health Centre	Pithoragarh
2	Intermediate School	Pithoragarh
3	Post Graduate College	Pithoragarh
4	Post Office	Pithoragarh
5	Bank	Pithoragarh
6	Petrol Pump	Pithoragarh
7	Main Market	Pithoragarh
8	Mandi/market for selling of produce	Pithoragarh
9	Police Station	Pithoragarh

Table 5: List of Basic Amenities in the project area

SWOT Analysis

42. The SWOT analysis of Pithoragarh region as a tourist destination was done with the objective of assessing its tourism potential and possibilities for sustainable tourism development in the next decade. The study of SWOT analysis shows that the important and accepted livelihood option is tourism based. The strengths, weakness, opportunities and threats of which are summarized in **Table-6**.

.

l able 6:	SWOT Analysis
Strengths:	Opportunities:
 Availability of Pithoragarh and Munsiyari tourist destination which attracts millions of tourists every year 	• The Government of India has given special attention to eastern Uttarakhand tourism circuit.
 Climate and geographical conditions are soothing and abundance of natural endowments 	• ADB has supported the state for tourism development in this region of Uttarakhand.
	There is potential for private sector
 Himalayan view, rich cultural heritage and bio diversity of the region 	investment in tourism projects
	 Besides Intra regional tours there are
 Availability of KMVN as a government enterprise to promote tourism in Kumaon 	opportunities for promoting cross border towns to neighboring countries like Nepal

region	
 Weaknesses: Underutilized infrastructural facilities of the government owned TRH's 	Threats:Competition from other tourism destinations like Kausani, Chaukori etc
 Lack of effective marketing of tourism based products 	 Threats from uncontrolled urbanization and tourism development
 Poor industrial capacity and lack of proper training. 	 Environmental concerns like pollution, overcrowding, landslides etc
 Underutilized network and synergy among public and private organization of the region 	

IV. ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

- 43. 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:
 - ✓ Location impacts: Impacts associated with site selection, including impacts on environment and resettlement or livelihood related impacts on communities and wildlife
 - ✓ **Design impacts and Pre-construction impact:** Impacts arising from project design, including the technology used, scale of operations, discharge standards etc
 - ✓ **Construction impacts:** Impacts resulting from construction activities including site clearance, earthworks, civil works, etc.
 - ✓ O&M impacts: Impacts associated with the operation and maintenance of the infrastructure built in the project.

A. Land Acquisition and Resettlement

- 44. The locations considered for the subproject are outside areas demarcated for habitat protection and conservation. Resettlement and rehabilitation is not required for the subproject. No objection certificates in this regard from Tehsildar, District Administration, Nagar Palika, and Sports Authority are enclosed as **Annexure 4**.
- 45. Most of the works would be undertaken within the existing Pithoragarh Fort precinct and its premises. A site near Dev Singh Ground has been earmarked for construction of multistoried parking and Govt. land which is approx. 200 metres from the Fort Precinct is selected for Construction of New Tehsil Office Building. All requisite NOC's have been obtained and annexed as part of this IEE.
- 46. As per the design, it would not impact the structures (residential and commercial), and common properties. No social impact during implementation is perceived. Therefore, it is proposed that works are carried out in phases, so that disturbances are minimized. The proposed project does not have any adverse impact on women and/or girls or to widen gender inequality. The subproject would not have any physical or economic displacement. Details on each component and its impact (table from DDR) are given in the Table 7, below:

SI. No.	Name of the Components/Works	Impact on La acquisition a resettlement	and and	Remarks
		Permanent	Temporary	
1.	Construction of new Multi Level Car Parking Facilities near Dev Singh Ground in Pithoragarh.	No	No	Near Dev Singh Ground in Pithoragarh
2.	Construction of Tourist Rest House by converting tehsil staff quarters in	No	No	Within the Pithoragarh Fort

Table 7 –:	Impact of	Land Acc	uisition a	and Re	settlement
	inipact of	Lana Aug			octionion

	their present location in fort			Precinct
	premises.			
3.	Construction of New Tehsil Office Building.	No	No	Near Nagar Palika opp. To Holiday Home Hotel app. 200 mt from Fort
4.	Construction of living accommodation for rehabilitation of Tehsil Quarters Type-IV – 1 No and Type-II – 6 Nos.	No	No	As in 3. above

B. Environmental Impacts

Design Impacts and Pre-Construction Impacts

- 47. 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, adversely impact the aesthetic appeal of the surroundings. The results of interventions are unobtrusive and are integral part of the overall ambience so as to avoid impacts on the aesthetics of the site. Structural designs are worked out in such a manner that over ground structures do not affect the aesthetics of the area. All component designs have been worked out to minimize any impacts on the adjoining properties, and the drainage and sewerage connections on the road.
- 48. 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.

49. Energy efficiency measures shall be observed wherever possible

- Use of LED lighting to reduce energy cost, maintenance cost.
- All electric equipments 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

Construction Impacts

- 50. All construction activities to be undertaken at the site will be approved by PIU and before start of any such activity in the vicinity of the site so that the history and sanctity as well as the usability of the site are not hampered. The construction stage impacts due to the proposed project components are generic to the construction activities. The EMP emphasizes on the construction impacts and necessary mitigation measures to be strictly followed by the contractor and supervised by the DSC and PIU. The key impacts are covered in the following paragraphs.
- 51. *Impacts due to stock piles of waste and top soil:* Improper stockpiling of construction materials and top soil can obstruct drainage, disturb public movement etc. Due consideration will be given for material storage and construction sites such that it doesn't cause any hindrance to tourists movement within the site. Stock piles will be covered to protect from dust and erosion.
- 52. **Disposal of construction waste:** The unscientific disposal of construction waste could lead to problem in the project area. In the proposed subproject, it is mandatory for the contractor involved in construction activities for purpose disposal of the construction waste at the disposal site as designated by the PIU and DSC. It is to be ensured that no construction waste is disposed in the project area and the site is stabilized with proper leveling and landscaping.
- 53. *Impacts due to disposal of demolition waste*: The removal of obsolete and inappropriate additions and demolitions would lead to generation of waste.
 - Stock and re-use all dismantled rock/rubble to make new walls/steps.
 - Remove and stockpile all dismantled material for re-use: stone rubble to be used for new random-rubble masonry walls.
 - All serviceable materials, including broken concrete and other granular waste, should be salvaged for reuse (for fill or preparation of base, etc.).
 - Concrete and other appropriate waste building material from demolished elements should be utilized as back-fill in rampart, and other platform/flooring etc.
- 54. The waste shall be reused to the extent possible, and the remaining waste shall be disposed at a designated site, selecting in consultation with district administration.
- 55. *Quarry/Borrow pits operations:* No new quarry is proposed to be opened for the project. No quarrying/borrow pit operation are required. The construction material required shall be procured for market areas. If some stone/rock material is required, then the same shall be taken from existing licensed quarries. Hence there are no impacts in this subject.
- 56. *Impacts on drainage pattern:* Proper care has been taken for location of construction sites. Hence, no impact is expected on drainage pattern in the area. Design of proposed components enable efficient drainage at the project site and maintain natural drainage patterns

- 57. *Impacts due to sewage disposal:* About 30-50 labor and technical staff are likely to be involved in the project construction activities. The labor is locally available but depending on the requirement at parking site and new Tehsil building site, labour camp may be required to establish. For works within the Fort precinct and parking site, existing toilet facilities shall be utilized. Toilets will be constructed near construction sites, where required. The sewage generated by labor population during their working hours at construction site will be treated in a septic tank, prior to disposal.
- 58. *Increase in noise levels:* Noise levels in the immediate proximity of work sites are expected to increase during construction. This exposure represents temporary, localized, adverse residual effect of low to moderate significance for affected receptors. While building damage due to ground vibrations is unlikely, there may be annoyance to spatially located receptors during construction. Noise will be generated from construction activities like equipment and vehicles engaged in transportation of construction materials. However, the duration of this exposure will be relatively brief and transportation of construction materials will be confined to the requirement per day, depending upon extent of construction activity. Further the noise associated with the equipments shall be reduced with the application of the lubricant.
- 59. *Impacts on biodiversity during construction phase:* Since activities are confined within Fort precinct and vacant land, no impacts are expected on the biodiversity during the construction phase.
- 60. **Disturbance to traffic during construction phase**: At the time of construction there will be disturbance and inconvenience for the movement of the public and vehicles due to project construction activities, particularly during transportation of construction materials. These impacts will be temporary in nature and last for a very short period. Demarcation of the construction area shall be done with proper fencing and circulation plan shall be prepared for public movement which shall be prepared in due consideration of public movement and will be circulated.
- 61. **Impacts on cultural properties**: The Fort is not an ASI protected site. The proposed project shall not affect any sites of religious, historical and/or cultural significance.

Operation and Maintenance Impacts

62. The most significant beneficial impact on the environment is through improvement of infrastructure at Pithoragarh Fort Complex. 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.

ENVIRONMENTAL MITIGATION MEASURES

63. The specific measures stated in the EMP will address all adverse environmental impacts due to the sub project. A detailed monitoring plan prepared as part of this IEE will ensure negative environmental impacts during implementation are mitigated. The EMP will be appended to the respective contract document to enable integration of environmental provisions in the contract. Based on the environmental baseline conditions, planned project activities and impacts assessed earlier, the set of measures to be adopted to ameliorate the adverse impacts are listed in following paragraphs.

64. *Measures to Mitigate Location Impacts*

- In accordance with the provisions in the subproject selection criteria, the subproject design includes adequate provisions for ensuring effective maintenance and protection of the assets created so as to ensure the long term sustainability of the sites.
- The design guidelines for the project components conform to Uttarakhand architecture.

65. Measures to Mitigate Design Impacts

- Design of proposed components enables efficient drainage at the project site and maintenance of natural drainage patterns.
- Designs have been worked out in such a manner that exposed steel and concrete structures are avoided. The design brief for all components proposed conform to the Uttarakhand architecture.

66. Measures to Mitigate Impacts due to Pre-construction Activities

- Obtain all necessary Consent Clearance No Objection Certificate (NOC) prior to start the construction activities.
- Prior to commencement of site activities and mobilization on ground, the Contractor will prepare and get approved by the PIU and DSC, circulation plan during construction for safe passage of tourists during construction stage, including development of alternative access routes, traffic regulations, signage, etc. during construction.
- The commencement of site clearance activities will be undertaken with due permission from PIU/DSC consultant to minimize environmental impacts.
- All sites used for temporary construction operations will be subject to complete restoration to their former condition with appropriate rehabilitation procedures.
- Location of disposal sites will be finalized by PIU/DSC so that disposal of the material does not impact natural drainage courses or surface water bodies or low-lying areas

67. Measures to Mitigate Construction Impacts

- Due consideration will be given for material storage and construction sites such that it doesn't cause any hindrance to public movement within the site.
- stock piles will be covered with gunny bags or tarpaulin.
- Slope protection measures will be undertaken along slopes of the parking area. The work will consist of measures as per design, or as directed by the Engineer to control soil erosion, sedimentation and water pollution.
- The contractor will take every precaution to reduce the levels of dust at construction

sites to the satisfaction of the Engineer. All earthworks to be protected/covered in a manner acceptable to the satisfaction of the engineer to minimize dust generation. Clearance will be affected immediately by manual sweeping and removal of debris, or if so directed by the Engineer.

- The discharge standards promulgated under the Environmental Protection Act will be strictly adhered to. All vehicles, equipment and machinery used for construction will conform to the relevant Standard.
- All vehicles, equipment and machinery used for construction will be regularly maintained to ensure that pollution mission levels comply with the relevant requirements.
- Noise level for construction equipment used in this project(measured at one meter from the edge of the equipment in free field)such as compactors, rollers, front loaders, concrete mixers, cranes(moveable),vibrators and saws will not exceed75dB (A). Notwithstanding any other conditions of contract, noise level from any item of plant(s) will comply with the relevant legislation for levels of noise.
- All workers employed on cement, lime mortars, concrete etc., will be provided with protective footwear and protective goggles.
- Cut material generated because of cutting of slopes will be utilized for construction of retaining walls, and as filling material. Remaining material if any will be disposed off safely at the disposal sites.
- All reasonable precaution will be taken to prevent danger of the workers and the public from fire, any mishap etc.
- All necessary steps will be taken for prompt first aid treatment of all injuries likely to be sustained during the course of work.
- 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 filled in and effectively sealed off and the site left clean and tidy, at the Contractor's expense ,to the entire satisfaction of the Engineer.

68. Measures to Mitigate O&M Impacts

- In line with the Government targets of coverage of all urban and rural areas with environmentally safe solid waste management systems, tourist destinations will be covered with integrated waste management facilities, including treatment and disposal, in line with the Solid Waste Handling Rules, 2000.
- Dept. will carry out monitoring to ensure parameters are within permissible levels.

69. Responsibilities of Contractors

- Abide by the environmental laws formulated by the community institution.
- Circulation plan and providing signage and wall writings along the road side.
- Regularly remove trash from the site (on daily basis).
- Report campfires or other inappropriate human use surrounding area, and inappropriate behavior from construction workers affecting ecology and biodiversity of the surrounding area.

- Area should be declared as plastic free, smoking free and silence zone and sign boards for the purpose should be displayed at work site and workers should be made aware about it by training
- Cutting and collection of fuel wood by the construction workers from the nearby forest should be strictly prohibited
- Contractor with support of the PIU will carry out dissemination of these information and circulation plan at key entry points to the respective destinations
- Contractor will be responsible for arrangement of water in every workplace at suitable and easily accessible place for the whole construction period.
- Sufficient supply of 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.
- Contractor will ensure that construction activities not result any contamination of land, water or air by polluting substances

70. Responsibilities of PIU&DSC

- Sponsor seminars and/or distribute educational materials to contractors and visitors about environmentally beneficial conservation procedures
- Organize workers' training program for the contractors for environmental management during construction works
- Educate the contractors regarding the eco-sensitivity of the area Regular site visit and reporting during construction works to check whether objectives of EMP being followed

The summary of Environmental Impacts and Mitigation Measures to be followed in this project are given in **Tables 8**.

	Environmenta	Duration/	Magnitude	Mitigation Measures	Responsi
	l issues	Extent			bility
1.	Location Impac	cts			
1.1	Lack of sufficient planning to assure long term sustainability of the improvements and ensure protection of the assets created and the architectural character of	Permanent	Major	In accordance with the provisions in the subproject selection criteria, the subproject design includes adequate provisions for ensuring effective maintenance and protection of the assets created so as to ensure the long term sustainability of the sites. The designs are to be worked out and implemented in accordance with the provisions. The design guidelines for the project components strictly conform to Uttarakhand architecture.	PIU/DSC

Table-8: Summary of Environmental Impacts and Mitigation Measures

	the				
2.	Design Impacts				
21	Increased	Permanent	Minor	Design of proposed components	
2.1	storm water runoff from alterations of the site's natural drainage patterns due to additional structures and landscaping works in the area.			enable efficient drainage of the sites and maintain natural drainage patterns.	
2.2	Selection of materials and construction technologies, if not carefully chosen, will adversely impact the aesthetic appeal of the destinations	Permanent	Moderate	Designs to be worked out in such a manner that exposed steel and concrete structures are avoided. The design brief for all components proposed strictly conform to the Uttarakhand architecture. Landscaping elements will only utilize native species to protect local biodiversity.	PIU/DSC
2.3	Integration of energy efficiency and energy conservation programs in design of subproject components	Permanent	Minor	The detailed designs for the subproject components will ensure energy efficiency	PIU/DSC
3. Pre	-construction Ac	ctivities			
3.1	Circulation plan during construction in the tourist Destinations	Temporary	Moderate	Prior to commencement of site activities and mobilization on ground, the Contractor will prepare and get approved by the Engineer, circulation plan during construction	Contractor / DSC/PIU

				for safe passage of tourists during construction stage, including development of alternative access routes, traffic regulations, signage, etc., during construction. The Contractor with support of the PIU will carry out dissemination of these information and circulation planet key entry points to the respective destinations.	
3.2	Site clearance activities, including delineation of construction areas	Temporary	Moderate	The commencement of site clearance activities will be undertaken with due permission from the DSC consultant to minimize environmental impacts. All areas used for temporary construction operations will be subject to complete restoration to their former condition with appropriator habilitation procedures.	Contractor / DSC
3.3	Drinking water availability and water arrangement	Temporary	Major	The contractor will be responsible for arrangement of water in every work place at suitable and easily accessible place for the whole construction period. Sufficient supply of potable water to be provided and maintained. If drinking water is obtained from an intermittent public water supply then, storage tanks will be provided.	Contractor /DSC
3.4	Identification of sites for disposal of construction and demolition work	Permanent	Major	Location of disposal sites will be finalized by the DSC so that disposal of the material does not impact natural drainage courses	Contractor /DSC
3.5	Sources of construction materials	Permanent	Major	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.	Contractor /DSC

				Submit to DSC on a monthly basis	
				documentation of sources of materials.	
4. Co	nstruction Impac	ts			
4.1	Improper stockpiling of construction materials cause impacts starting from obstruction of drainage, disturbance/saf ety hazard to tourists, etc.	Temporary	Moderate	Due consideration will be given for material storage on construction sites so that it doesn't cause any hindrance to movement within the site. Stock piles will be covered to protect from dust and erosion.	Contractor /DSC
4.3	Soil Erosion	Temporary	Minor	Slope protection measures will be undertaken along slopes of the parking area and other sites vulnerable to soil erosion. The work will consist of measures as per design, or as directed by the Engineer to control soil erosion, sedimentation and water pollution.	Contractor /DSC
4.4	Soil and Water Pollution due to fuel and lubricants, construction waste	Temporary	Minor	The fuel storage will be stationed such that fuel discharge does not spill on the ground or drain	Contractor /DSC
4.5	Generation of Dust	Temporary	Minor	The contractor will take every precaution to reduce the levels of dust at construction sites to the satisfaction of the Engineer. All earthworks to be protected/covered in a manner acceptable to the satisfaction of the engineer to minimize dust generation. Clearance will be affected immediately by manual sweeping and removal of debris, or if so directed by the Engineer	Contractor /DSC
4.6	Emission from construction vehicles,	Temporary	Minor	All vehicles, equipment and machinery used for construction will be regularly maintained to ensure	Contractor /DSC
	equipment and			that pollution emission levels comply	
-----	--	-----------	-------	--	--------------------
	machinery			with the relevant requirements.	
4.7	Noise from construction equipment	Temporary	Minor	Maintenance of vehicles, equipment and machinery will be regular and to the satisfaction of the Engineer, to keep noise at minimum. All vehicles and equipment used for construction will be fitted with exhaust silencers. During routine servicing operations, the effectiveness of exhaust silencers will be checked and if found to be defective will be replaced. Noise limits for construction equipment used in this project(measured at one meter from the edge of the equipment in free field)such as compactors, rollers, front loaders, concrete mixers, cranes(moveable),vibrators and saws will not exceed75dBA	Contractor /DSC
4.8	Material Handling at Site	Temporary	Minor	All workers employed on mixing asphaltic material, cement, lime 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. Workers engaged in stone breaking activities will be provided with protective goggles and clothing and will be seated at sufficiently safe intervals.	Contractor /DSC
4.9	Disposal of Construction Waste/Debris/ Cut Material	Temporary	Minor	Safe disposal of construction wastes, extraneous material will be ensured in the pre-identified disposal locations. In no case, any construction waste will be disposed around the project site indiscriminately. Cut material generated because of cutting of hill slopes will be utilized for construction of retaining walls,	Contractor /DSC

				embankments and as filling material.	
				Remaining material it any will be	
				sites.	
4.10	Safety	Temporary	Moderate	Personal Protective Equipment for	Contractor
	Measures			workers on the project ad adequate	/DSC
	During			safety measures for workers during	
	Construction			taken up. The contractor has to	
				comply with all regulations regarding	
				safe scaffolding ladders working	
				platforms, gangway, stairwells,	
				excavations, trenches and safe	
				means of entry and egress.	
4.11	Risk caused by	Temporary	Minor	All reasonable precautions will be	Contractor
	Force Majeure			taken to prevent danger of the	/DSC
				workers and the public from fire,	
				other misnaps etc. All necessary	
				aid treatment of all injuries likely to	
				be sustained during the course of	
				work.	
4.12	Malaria Risk	Temporary	Minor	The Contractor will, at his own	Contractor
				expense, conform to all anti-malaria	/DSC
				instructions given to him by the	
5 08	M Impacts			Engineer.	
5.00		Tamparan	Madarata	The tourism depertment will	Tauriana
J. I	Conditions	remporary	woderate	undertake seasonal monitoring of	departmen
	Conditions			air water and noise through an	t
				approved monitoring agency. The	
				parameters to be monitored,	
				frequency and duration of	
				monitoring as well as the locations	
				to be monitored will be as per the	
5 0	A de autoto	Democrat	N dia an	Monitoring Plan prepared.	T evuri
5.2	Adequate	Permanent	winor	efficient flow of surface water and	i ourism departmon
	area			prevent water logging along the side	t/ PWD
				of the roads and parking lots	

V. ENVIRONMENTAL MANAGEMENT PLAN (EMP)

A. Institutional Arrangements

73. 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)

74. 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 is 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)

- 75. 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 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.
- 76. 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 supported by the DSC- Safeguards Specialist.

B. Environmental Management Plan

- 77. 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:
 - 1. Abide by all existing Environmental regulations and requirements of the local level, Government of Uttarakhand and Government of India, during implementation.
 - 2. Compliance with all mitigation measures and monitoring requirements set out in the Environmental Management and Monitoring Plan (EMMP).
 - 3. Submission of a method statement detailing how the subproject EMMP will be complied with. This shall include methods and schedules of monitoring.
 - 4. Monitoring of project environmental performance including performance indicators defined therein, and periodic submission of monitoring reports.
 - 5. 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.

The detailed provisions for specific environmental issues are as outlined in the **Table 8**. Key clauses are given below.

Debris Disposal

 The contractor will, prior to start of construction operations, identify potential sites for disposal of construction debris, sites for general construction wastes. The contractor will obtain approval on identified sites from the Engineer of PIU and Supervision Consultant and disposal will be only after consent from the Engineer.

Precautions for protection of Environmental Measures

- The Contractor shall ensure that construction activities do not result in any contamination of land or water by polluting substances.
- Unless otherwise provided in the specifications, the Contractor shall ensure that no trees
 or shrubs or other vegetation are felled or harmed except those required to be cleared for
 execution of the works. The Contractor shall protect trees and vegetation from damage to
 the satisfaction of the Engineer.
- In the conduct of cleaning activities and operation of equipment, the Contractor will utilize such practicable methods and devices as are reasonably available to control, prevent and otherwise minimize air/noise pollution.

Noise and Air Pollution

- All works will be carried out without unreasonable noise and air pollution. Subject and without
 prejudice to any other provision of the Contract and the law of the land and its obligation as
 applicable, the Contractor will take all precautions outlined in the EMP to avoid the air and
 noise pollution.
- The Contractor shall monitor the environmental parameters periodically as specified in the monitoring plan and report to the Engineer. The Contractor shall reduce the dust emission due to construction activities by regular water sprinkling in the affected areas.
- All the construction equipment and vehicles shall have Pollution Under Control (PUC) Certificate to ensure that no air pollution may be caused due to operation of their equipment and vehicles. All the construction equipment and vehicles should remain all time in good conditions up to satisfaction of site engineers.
- The Contractor shall indemnify and keep indemnified the Employer from and against any liability for damages on account of noise or other disturbance created while carrying out the work, and from and against all claims, demands, proceedings, damages, costs, charges, and expenses, whatsoever, in regard or in relation to such liability.

Occupational Health and Safety During Construction

- The Contractor shall, in accordance with the safety and health provisions specified in the EMP, provide workers with a safe and healthy working environment, in the work areas, through application of preventive and protective measures consistent with international good practice, as reflected in internationally recognized standards such as the ADB's Environment, Health and Safety Guidelines. The borrower/client will take steps to prevent accidents, injury, and disease arising from, associated with, or occurring during the course of work by-
 - Providing preventive and protective measures, including modification, substitution, or elimination of hazardous conditions or substances;
 - Providing appropriate equipment to minimize risks and requiring and enforcing its use;
 - Training workers and providing them with appropriate incentives to use and comply with health and safety procedures and protective equipment;
 - > Documenting and reporting occupational accidents, diseases, and incidents; and
 - > Having emergency prevention, preparedness, and response arrangements in place.
 - Provide first aid facilities in all the work sites and workers camp and having qualified first aider to give first aid at the time of any accident.
 - Contractor shall provide safe drinking water, clean eating and resting.
 - Contractor shall have prepared emergency response plan with full details and methods of emergency response during any accident and shall have and display the emergency Contact numbers at site.
 - Contractor should follow all the applicable rules and regulations for workers safety.

Post Construction Clearance

78. On completion of work, wherever applicable, the Contractor shall clear away and remove from the sites all constructional plant, surplus materials, rubbish, scaffoldings, and

temporary works of every kind and leave the whole of the sites and works in a clean condition to the satisfaction of the Engineer.

79. Environment Management Plan for the Pre Construction phase, Construction phase and Operation phase has been given in table 9, 10 and 11 below.

SI. No.	Environmental Issues	Mitigation Measures	Parameter /Indicator for Compliance	Responsible for Implementation	Responsible for Supervision
1	Lack of sufficient planning to assure long term sustainability of the improvements and ensure protection of the assets created.	Design has included provisions for ensuring effective maintenance and protection of the assets to be created so as to ensure the long term sustainability. The long term sustainability has been ensured by taking into consideration appropriate Bureau of Indian Standards Codes (BIS) for design, Seismic Zone V coefficient, appropriate wind load factor (corresponding to 39 m/s wind speed), and detailed design after carrying geotechnical investigations and topographic survey.	Verification of design parameters	DSC	PMU/PMC
2	Increased storm water runoff from alterations of the site's natural drainage patterns due to landscaping, excavation works, construction of parking lots, and addition of paved surfaces	Design of proposed components enables efficient drainage of the sites and maintains natural drainage patterns. The storm water generated will be diverted to local drain through a properly constructed drainage system.	Arrangement for proper diversion of storm water runoff	PIU/DSC	PMU/PMC
3	Selection of				

 Table 9: Pre Construction Phase Environmental Management Plan

SI. No.	Environmental Issues	Mitigation Measures	Parameter /Indicator for Compliance	Responsible for Implementation	Responsible for Supervision
	materials and construction technologies, if not carefully chosen, will adversely impact the aesthetic appeal of the destinations				
4	Integration of energy efficiency and energy conservation programs in design of sub- project components	The detailed designs for the sub-project have ensured that environmental sustainability principles, including energy efficiency, resource recycling, waste minimization, etc. The design considers the following energy efficiency measures : • Usage of recyclable materials like wood substitutes. • Installation of BEE certified equipments • Usage of energy efficient lighting fixtures (LED and solar) • Provision of P-V cells on roof.	Specifications of rain water harvesting structures, electrical fixtures, details of water heating system	PIU/DSC	PMU/PMC
5	Consents, permits, clearances, no objection certificate (NOC), etc.	Obtain all necessary consents, permits, clearance, NOCs, etc. prior to start of civil works. Acknowledge in writing and provide report on compliance all obtained consents, permits, clearance, NOCs, etc.	Consents, permits, clearance and NOCs Records and communications	PIU	PMU
6	Public	Continue information dissemination, consultations, and	-Disclosure records	PMU and PMC PIU and DSC	PMU and PMC

SI. No.	Environmental Issues	Mitigation Measures	Parameter /Indicator for Compliance	Responsible for Implementation	Responsible for Supervision
		involvement/participation of stakeholders during project implementation.	- Consultations	Contractor	

Table 10: Construction Phase Environmental Management Plan

SI. No.	Environmental Issues	Mitigation Measures	Parameter /Indicator for Compliance	Responsible Implementation	Responsible Supervision
1.	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 and Photographs	Contractor	PIU/DSC
2.	Construction Camps - Location, Selection, Design and Layout	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 new Tehsil location Location for stockyards for construction materials shall be identified in	Construction camps site, and locations of material storage areas, sanitation facilities	Contractor	DSC/ PIU

SI. No.	Environmental Issues	Mitigation Measures	Parameter /Indicator for Compliance	Responsible Implementation	Responsible Supervision
		consultation with DSC engineer Construction sanitation facilities shall be adequately planned in view of water availability and sanitation measures available			
3.	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	PIU
4.	Access	Plan transportation routes so that heavy vehicles do not use narrow local roads, except in the immediate vicinity of sites. Schedule transport and hauling activities during non-peak hours. Locate entry and exit points in areas where there is low potential	Traffic management plan	Contractor	PIU and DSC

SI. No.	Environmental Issues	Mitigation Measures	Parameter /Indicator for Compliance	Responsible Implementation	Responsible Supervision
		for traffic congestion. Keep the site free from all unnecessary obstructions. Drive vehicles in a considerate manner. Coordinate with the Traffic Police Department for temporary road diversions and for provision of traffic aids if transportation activities cannot be avoided during peak hours.			
5.	Occupational health and safety	Comply with IFC EHS Guidelines on Occupational Health and Safety Develop comprehensive site- specific health and safety (H&S) plan. The overall objective is to provide guidance to contractors on establishing a management strategy and applying practices that are intended to eliminate, or reduce, fatalities, injuries and illnesses for workers performing activities and tasks associated with the project. Include in H&S plan measures such as: (i) type of hazards in the intake wells site; (ii) corresponding personal protective equipment for each	Health and safety (H&S) plan	Contractor	PMU and PMC PIU and DSC

SI. No.	Environmental Issues	Mitigation Measures	Parameter /Indicator for Compliance	Responsible Implementation	Responsible Supervision
		identified hazard; (iii) H&S training for all site personnel; (iv) procedures to be followed for all site activities; and (v) documentation of work- related accidents. Provide medical insurance coverage for workers.			
6.	Sanitation facilities at construction camps	The contractor shall provide sanitation facilities at camp site. These facilities will include dust bins in adequate numbers for solid waste collection, and separate toilets for male and females. These toilets facilities shall be maintained and septic tanks/soakpits shall be provided at the toilets. The dust bins shall be regularly emptied and waste from camp site shall be disposed off at designated locations.	Construction camp sanitation facilities	Contractor	DSC/PIU
7.	Circulation plan during construction	Prior to commencement of site activities and mobilization on ground, the Contractor will prepare and get approved by the Engineer, circulation plan during construction for safe passage during construction stage, including development of alternative access	Safe movement of public	Contractor	DSC/PIU

SI. No.	Environmental Issues	Mitigation Measures	Parameter /Indicator for Compliance	Responsible Implementation	Responsible Supervision
		routes during construction. The Contractor with support of the PIU will carry out dissemination of these information and circulation plan.			
8.	Site clearance activities, including delineation of construction areas	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 subjected to complete restoration to their former condition with appropriate rehabilitation procedures. The photographic records shall be maintained for the temporary sites used for construction. These will help in proper restoration.	Pre construction records of sites and vegetation in area of construction	Contractor	DSC / PIU
9.	Drinking water availability at Construction camp and construction sites	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. For this contractor will submit	Water supply source and availability of water , permission of local authority if obtained for local spring	Contractor	DSC/PIU

SI. No.	Environmental Issues	Mitigation Measures	Parameter /Indicator for Compliance	Responsible Implementation	Responsible Supervision
		his plan how availability of drinking water shall be assured. In case it is obtained from the natural spring then permission from local authorities shall be obtained.			
10.	Waste disposal	The pre-identified disposal location shall be part of Comprehensive Waste Disposal Plan. Solid Waste Management Plan to be prepared by the Contractor in consultation with local civic authorities. 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 natural streams in the surroundings of site and along the access path.	Waste Disposal sites, waste management plan	Contractor	DSC/PIU
1'	Stockpiling of construction materials	Stockpiling of construction materials will be done in such a way that it does not impact and obstructs the drainage. The stockpiles will be covered to protect from dust and erosion.	Subproject stockpiling sites	Contractor	DSC / PIU
12	Arrangement for	(i) The Contractor shall provide a list of	Water availability at identified water	Contractor	DSC/PIU

SI. No.	Environmental Issues	Mitigation Measures	Parameter /Indicator for Compliance	Responsible Implementation	Responsible Supervision
	Construction Water	locations and type of sources from where water for construction shall be acquired. (ii)To avoid disruption/ disturbance to other water users, the Contractor shall extract water from fixed locations and consult DSC before finalizing the locations.	source locations		
13	Soil Erosion	Slope protection measures will be undertaken as per design to control soil erosion	Locations of slope protection along access path	Contractor	PIU/DSC
14	Water Pollution from Construction Wastes	The Contractor shall take all precautionary measures to prevent entering of wastewater into any local stream during construction.	Subproject sites	Contractor	PIU/DSC
15	Water Pollution from Fuel and Lubricants	The Contractor shall ensure that all construction vehicle parking locations, fuel/ lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located at least 500 m away from the natural streams. Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling shall be carried out in such a	Vehicle parking, refueling sites, Oil interceptor functioning	Contractor	PIU/DSC

SI. No.	Environmental Issues	Mitigation Measures	Parameter /Indicator for Compliance	Responsible Implementation	Responsible Supervision
		manner that spillage of fuels and lubricants does not contaminate the ground. Waste water from vehicle parking, fuel storage areas, workshops, wash down and refueling areas shall be treated in an oil interceptor before discharging it on land or into surface water bodies or into other treatment system.			
16	Soil Pollution due to fuel and lubricants, construction wastes	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.	Vehicle maintenance and parking area, soil quality monitoring results	Contractor	PIU/DSC
17	Generation of dust	The contractor will take every precaution to reduce the levels of dust at construction sites. All filling works to be protected/ covered in a manner to minimize dust generation.	Subproject site, air quality monitoring results	Contractor	PIU/DSC
18	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	PUC certificates of vehicles and machinery	Contractor	PIU/DSC

SI. No.	Environmental Issues	Mitigation Measures	Parameter /Indicator for Compliance	Responsible Implementation	Responsible Supervision
		Protection Act, 1986 shall be strictly adhered to. The silent/quiet 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.			
15	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).	Certificates of vehicles conforming noise standards, noise monitoring results	Contractor	DSC/PIU
20	Material	Workers employed on	Data on available	Contractor	DSC/PIU

SI. No.	Environmental Issues	Mitigation Measures	Parameter /Indicator for Compliance	Responsible Implementation	Responsible Supervision
	Handling at Site	mixing cement, lime 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. Workers engaged in stone breaking activities will be provided with protective goggles and clothing. 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 day's 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		
2	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.	Disposal site	Contractor	PIU/DSC
22	Safety Measures	Adequate safety measures for workers	Records of availability of	Contractor	PIU/DSC

SI. No.	Environmental Issues	Mitigation Measures	Parameter /Indicator for Compliance	Responsible Implementation	Responsible Supervision
	During Construction	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 accidental injuries, 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.	personal protective equipment, availability of first aid kits		
2:	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 Engineer	Restoration plan, and records of pre-construction of temporary sites	Contractor	PIU/DSC

SI. No.	Environmental Issues	Mitigation Measures	Parameter /Indicator for Compliance	Responsible Implementation	Responsible Supervision
1	Environmental Conditions	The periodic monitoring of the ambient air quality, noise level, surface water quality, in the subproject area as suggested in the monitoring plan through an approved monitoring agency.	Monitoring results and relevant standards	Tourism department through Pollution Monitoring Agency	PIU
2	Adequate drainage of site area	Efficient flow of surface water and prevent water logging along the side of the roads and parking lots.		Tourism department	PIU

Table11: Operation Phase Environmental Management Plan

C. Environmental Monitoring Plan

80. 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 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 **12** 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.

S.	Attributes	Stage	Parameters to be	Location	Frequency	Responsibili
No.			Monitored			ty
1	Debris /Constructio n materials disposal	Constru ction Stage	Safe disposal of construction wastes including bituminous wastes	All 03 construction sites	Random checks	Contractor
2	Dust suppression	Constru ction Stage	No. of tankers for water sprinkling, Timing of sprinkling, Location of sprinkling, Log Book	All 03 construction sites	Random checks	Contractor
3	Ambient Air Quality	Constru ction Stage	PM ₁₀ , PM _{2.5} , SO ₂ , NO _x , CO	All 03 construction sites	Once in a season (except monsoons) for the entire construction period	Contractor, to be monitor through engagement of agency approved under NABL Accreditation norm
3	Water quality	Constru ction stage	Colour, odour, pH, taste, Turbidity, TDS Faecal Coliform,	All 03 Construction sites	Once in a season (except monsoons) for the entire construction period	Contractor, to be monitor through engagement of agency approved under NABL Accreditation norm
4	Noise Levels	Constru ction	Equivalent Day & Night Time Noise	All 03 Construction	Once in a season	Contractor, to monitor

Table 12: Environmental Monitoring Plan

S.	Attributes	Stage	Parameters to be	Location	Frequency	Responsibili
No.			Monitored			ty
		and	Levels	sites	during	through on
		Operati			construction	approved
		on			and	Monitoring
		Stage			operation	Agency
					stages	
5	Supply of	Constru	Provision of PPE on	All 03	Continuous	Contractor
	PPE	ction	site, adequacy of	Construction		
		Stage	equipment	sites		
6	Establishing	Constru	Access to health	All 03	Continuous	Contractor
	Medical	ction	facilities for the	Construction		
	facilities	Stage	construction workers	sites		
7	Accident	Constru	No. of fatal	All 03	Continuous	Contractor
	record	ction	accidents, No. of	construction		
		Stage	injuries, No. of	sites		
			disabilities			
8	Post	Post	Whether temporary	All 03	Post	Contractor
	construction	constru	locations for workers	Construction	construction	
	clearance of	ction	camp, site office,	sites		
	site		batching plant and			
			other construction			
			locations are			
			restored to pre-			
			project conditions			

D. Capacity Building

Institutional Strengthening

81. The Department of Tourism, Government of Uttarakhand is the Executing Agency (EA). Project Management Unit (PMU) will be established in Dehradun for the overall project management. This sub-project will be implemented by the PIU, Bhimtal. A Safeguards Specialist is proposed within the PMU, and will be responsible for implementation of the resettlement and 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.

Training and Capacity Building

82. 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 13.

Programme					Training
	Description	Participants	Form of	Duration/	Conducting
		•	Training	Location	Agency
A. Pre-Constr	uction Stage	I			0,
Sensitization	Introduction to Environment:	Tourism / Forest /	Workshop	1	Environmental
Workshop	Basic Concept of	Roads / Culture		Working	Specialist of the
	environment Environmental	Department		Day	PMC
	Regulations and Statutory	Officials, Project			
	requirements as per	Director (PD) and			
	Government of	Environmental			
	India and ADB	Specialist (ES) of			
		the			
		PMU/PIU			
Session I			•		
Module I	Introduction to Environment:	PMU/PIU (including	Lecture	1Working	Safeguards
	Basic Concept of	the ES) and		Day	Specialist of the
	environment Safeguards	Engineering staff of			PMC
	Regulations and Statutory	the implementing			
	requirements as per Govt. of	agencies			
	India and ADB Guidelines				
	on cultural resources,				
	Environmental				
	considerations in planning,				
	design and implementing				
	projects				
Module II	Environmental components	PMU/ PIU (including	Workshop	1	Safeguards
	impacted in construction	the ES) and		Working	Specialist of the
	and operation stages	Engineering staff of		Day	PMC
	Activities causing pollution	Tourism dept			
	during construction and				
	operation stages				
	Environmental Management				
	Environmental Provisions				
	Implementation				

Table 13: Training Modules for Environmental Management

	Arrangements Methodology				
	of Assessment Good				
	engineering practices to be				
	integrated into contract				
	documents				
Module III	Improved Co-ordination with	PMU/PIU (including	Lecture /	1Workina	Safequards
	Other Departments	the ES) and	Interactive	Dav	Specialist of the
	Statutory Permissions –	Engineering staff of	Sessions	20.9	PMC
	Procedural Requirements	Tourism dept			
	Co-operation & Coordination				
	with other Departments				
Module IV	Environmental	PMI I/PII I (including	Lecture /	2 Working	Safequards
Woodale IV	considerations	the ES) and	Interactive	davs	specialist of
	in planning, designing and	Engineering staff of	Sessions	uays	the PMC with
	implementing beritage	Tourism dept	and site		support from the
	buildings and conservation	rounsin dept.	vieite		Conservation
	projects		VISILS		conservation
	projects				the PMC
Module V	Environmental principles of	Local Community	Lecture /	1	Specialist from
Wodule v	eco tourism (as per		Interactive	Working	
	Litterakband eco tourism	Gloups, NGOS	Sessions	Day	
	policios) and training and		365510115	Day	
	policies) and training and				
	management aspects of the				
D. Construct	area.				
B. Construct	ion Stage				
Session II		En electron and	1 /		Osfernanda
Module VI	Role during Construction-	Engineers and	Lecture /	1	Safeguards
	Roles and Responsibilities	staff of line	Interactive	Working	Specialist of the
	of officials / contractors /	departments of the	Sessions	Day	DSC
	consultants towards	Government of			
	protection of environment	Uttarakhand, and			
	Implementation	PMU/PIU (including			
	Arrangements Monitoring	the ES)			
	mechanisms				
Module VII	Monitoring and Reporting	Engineers and	Lecture /	1	Safeguards
	Morntoning and Reporting	Engineers and			0
1	System	staff of implementing	Interactive	Working	Specialist of the
	System	staff of implementing agencies and	Interactive Sessions	Working Day	Specialist of the DSC
	System	staff of implementing agencies and PMU/PIU (including	Interactive Sessions	Working Day	Specialist of the DSC
	System	staff of implementing agencies and PMU/PIU (including the ES)	Interactive Sessions	Working Day	Specialist of the DSC
Session III	System	staff of implementing agencies and PMU/PIU (including the ES)	Interactive Sessions	Working Day	Specialist of the DSC
Session III Module VIII	System Skill upgrade on ecotourism	staff of implementing agencies and PMU/PIU (including the ES)	Interactive Sessions Site visits,	Working Day 2	Specialist of the DSC Tourism
Session III Module VIII	System Skill upgrade on ecotourism and nature guides	staff of implementing agencies and PMU/PIU (including the ES) Youth in the villages in the periphery, and	Interactive Sessions Site visits, interactive	Working Day 2 working	Specialist of the DSC Tourism department
Session III Module VIII	System Skill upgrade on ecotourism and nature guides Hospitality, Interpretational	staff of implementing agencies and PMU/PIU (including the ES) Youth in the villages in the periphery, and other NGOs in the	Interactive Sessions Site visits, interactive sessions	Working Day 2 working days	Specialist of the DSC Tourism department
Session III Module VIII	System Skill upgrade on ecotourism and nature guides Hospitality, Interpretational skills, micro- planning,	Staff of implementing agencies and PMU/PIU (including the ES) Youth in the villages in the periphery, and other NGOs in the district	Interactive Sessions Site visits, interactive sessions	Working Day 2 working days	Specialist of the DSC Tourism department
Session III Module VIII	System Skill upgrade on ecotourism and nature guides Hospitality, Interpretational skills, micro- planning, Biodiversity etc	staff of implementing agencies and PMU/PIU (including the ES) Youth in the villages in the periphery, and other NGOs in the district	Interactive Sessions Site visits, interactive sessions	Working Day 2 working days	Specialist of the DSC Tourism department

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

E. Environmental Budget

- 83. As part of good engineering practices in the project, there have been several measures as erosion prevention, dust suppression, 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.
- 84. The main EMP cost will arise from monitoring of environmental parameters (air, water and noise) which is essential part of the monitoring plan.
- 85. 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 14**

S. No.	Particulars	Stage	Unit	Total number	Rate (INR)	Cost (INR)	Source of fund
A. Mor	nitoring Measures During	Construction I	Period				
1	Drinking Water quality	Construction	Per sample	3*x5	8,000	1,20,000	Contractor
2	Air quality monitoring	Construction	Per sample	3*x5	9,000	1, 35,000	Contractor
3	Noise Levels	Construction	Per Sample	3*x5	3,000	45,000	Contractor
B. Mor	nitoring Measures During	Operation Pha	se				
1	Air quality	Operation	Per Sample	Once at 2 locations, parking and Fort	9,000	18,000	Implementin g Agencies
2	Noise Levels	Operation	Per Sample	Once at 2 locations parking and Fort	9,000	18,000	cost
3	Water quality	Operation	-	Once at 2 locations parking and Fort	8,000	16,000	
Sub -Total (A+B) 3,52,000							

Table 14: Environmental Budget

1	Sensitization Workshop	Pre-	L.S				
		Construction					
2	Training Session I	Pre-	L.S				PMU/DSC
		Construction					
3	Training Session II	Construction	L.S			6,00,000	
4	Training Session III	Construction	L.S				
				Sub -T	otal (C)	6,00,000	
	Total Rupees Nine lakhs and fifty two thousand only (A+B+C) 9,52,000						
02 com quarter	02 components of the proposed scope Tehsil building and accommodation for rehabilitation of Tehsil quarters are in same location, hence total locations for monitoring are 03						

F. Environmental Monitoring and Reporting

- 86. 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.
- 87. 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 PD. The PMU will submit semi-annual monitoring reports to ADB. Project budgets will reflect the costs of monitoring and reporting requirements. For subprojects likely to have significant adverse environmental impacts during operation, reporting will continue at the minimum on an annual basis. Monitoring reports will be posted in a location accessible to the public.
- 88. 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.
- 89. 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.

VI. PUBLIC CONSULTATION AND INFORMATION DISCLOSURE

A. Process for Consultation followed

- 90. During Project preparation, consultations were held with the District Administration, Nagar Palika, Forest Department, Department of Tourism, public representatives of project area, Hotel Owners, on project orientation, issues pertaining to Restoration and Adaptive Reuse of Pithoragarh Fort – Phase-II, and addressing the current gaps in provision of basic services and improvement of tourist infrastructure. These consultations (Table-15) provided inputs in identification of the felt needs of the communities, and the relevant stakeholders. Photographs of consultations are attached as **Annexure 6** with this report.
- 91. Meaningful consultations have been done during entire planning phase of the project and components have also been declared during Chief Minister's programs as detailed below and other events launched by the Tourism Dept. Public is very happy with the project and feels that the project will be beneficial for the overall progress of the town due to increased tourist facilities and a designated parking facility.

S. No	Place	Date	Consulted persons/ Community	Issues discussed / Output Received
1.	Pithoragarh	14 November 2014	SDM and ADM	Discussion regarding parking facility and Tehsil Quarter in Pithoragarh Town and obtaining of NOC from Nagar Palika Attached as Annexure 4 (a)
2.	Pithoragarh	26 December 2014	ADM and SDM	Discussion regarding parking facility and Tehsil Quarters in Pithoragarh Town and obtaining of Minutes of Meeting Attached as Annexure 6 (a)
3.	Pithoragarh	13 June 2015	CM Janta Darbar	Dept. progress was reviewed and discussed
4.	Pithoragarh	23 June 2015	 Executive Engineer Nagar Palika Parishad 	Discussion regarding parking facility in Pithoragarh Town and obtaining of NOC from Nagar Palika Attached as Annexure 4 (b)
5.	Pithoragarh	11 Sep 2015	Project Review Meeting by DM, ADM and line agencies, DSC	Sub project components were discussed
6.	Pithoragarh	26 Oct 2015	 Project Review Meeting by DM, ADM and line agencies, DSC 	Discussion on all IDIPT Sub project in Pithoragarh and project components

Table 15:	Consultations	with	Stakeholders
-----------	---------------	------	--------------

S.	Place	Date	Consulted persons/	Issues discussed / Output
No			Community	Received
-				
7.	Pithoragarh	01 Jan	Chief Minister's	Sub project components were
		2016	Program	declared by the CM in presence
				of community of Pithoragarh and
				District Administration
				(Annexure)
8.	Pithoragarh	13 Jan	 International 	Besides launching the
		2016	Paragliding	Paragliding program, sub project
			Program	components were presented by
				the Secretary Tourism in
				presence of community of
				Pithoragarh and tourists

B. Future Consultation and Information Disclosure

- 92. 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.
- 93. 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, Pithoragarh 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 Pithoragarh, 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

94. 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.

95. 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

- 96. Local Grievance Committee. (LGC) In this LGC has worked with NGO, SHG, Line Agency, representative of Gram Panchayat, Special invitee.
- 97. 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.
- 98. **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

- 99. Affected person/aggrieved party can approach to GRC for redress of his/their grievances through any of the following modes-
- (a) 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.
- (b) 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.
- (c) 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 1: Grievance Redress Mechanism in IDIPT, Uttarakhand

Note:

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

VII. FINDINGS & RECOMMENDATIONS

- 100. The proposed components of the project are in line with the sub-project selection criteria for the IDIPT. The subproject conforms to all GoI, GoUK and ADB regulations, policies, and standards including all necessary government permits and clearances.
- 101. 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.
- 102. 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. CONCLUSION

103. 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-1: COMPLIANCE WITH SUB PROJECT SELECTION CRITERIA

Component		Criteria	Remarks
Overall	1.	Will be fully consistent with management	Sub project selected based on
selection criteria		plans or master plans for the area	the Uttarakhand Tourism
ontond			Uttarakhand. Sub project area comes in zone 5 of the said master plan.
	2.	Will avoid resettlement/relocation. If unavoidable the extent of resettlement will be minimized.	No Resettlement is required.
	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
	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	Not an ASI Site
	8.	Will reflect inputs from public consultation	Meaningful public consultations have been done from planning

(AS PER EARF)

Component	Criteria	Remarks
	and disclosure for site selection	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	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 too rapid urban population growth, commercial and industrial activity, and increased waste generation
	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.
Conservatio n measures and excavation measures-in and around Cultural properties and protected Monuments/ Structures.	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 measures.	Proposed interventions shall encourage the restoration and adaptive reuse of the Fort and shall not alter the historic condition.
	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.	Project is designed for restoration and adaptive reuse of the building and hence will promote in situ conservation.
	14. Will ensure that intervention be minimal. Every intervention proposed shall have clear objectives and use tried and proven	Not ASI protected site.

Component	Criteria	Remarks
	methods and materials.	
	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	Not ASI protected site.
	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 Pithoragarh Fort Restoration, Adaptive Reuse and Revitalization project offers to protect, sustainably develop and reconnect people to the rich historic, cultural resources of Pithoragarh 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 used after they have been tried and proven, and should in no way cause damage to site.	Project designs are based on guidelines conforming to Uttarakhand architecture. Structures like construction Tehsil building, Residence and Parking shall be as per technical requirements and the DPR.
	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	Is being ensured
	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	Not ASI site, however chance finds protocol shall be observed if any chance finds are found.

Component	Criteria	Remarks			
	all site programmed for excavation				
	20. Will ensure that treatment of the cultural heritage site and its environs is a comprehensive measure to prevent damage from natural processes and	Project has been designed for restoration and adaptive reuse of the Fort.			
	human actions, to reveal the historic condition of a site, and to allow its rational use. Service building should be as far as possible from the principal area of the site. Landscaping should aim to restore the	No new species or landscaping concepts shall be introduced.			
	site to its historic state and should not adversely affect the site: contemporary gardening and landscape concepts and designs should not be introduced.				
Conservatio n 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.	NA Not near protected area and no significant biodiversity noticed in and around the site			
	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.	NA The site is not close to the protected area			
	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.	Site is not in core or buffer zone of any protected area			
	24. Will ensure that the areas of significant habitat diversity habitats are conserved in their natural condition.	NA			
	25. The results of intervention should be unobtrusive when compared to the original fabric or to previous treatments,	It is tried to retain the architectural character of the old heritage structure			
Component	Criteria	Remarks			
--	---	--	--	--	--
	but still should be distinguishable				
	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.			
	29. Will not result in excessive abstraction of ground water or result in excessive groundwater pumping impairing ground water quality	Not envisaged as water requirements are to be met from existing water supply system.			
	30. Will ensure adequate protection form pollution of intake points	Not Applicable			
	 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 within the Fort precinct and construction of new septic tanks/sock pits in the Tehsil building site.			
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	The locations of Septic tank at proposed facilities will be finalised at safe area with no chance of contamination of soil and water. The design of the septic tanks has been done to ensure that there is a difference of at least 1.5m between the bottom bed of the			

Component		Criteria	Remarks			
			septic tank			
	34.	Will ensure that sanitation improvements proposed do not result in pollution of groundwater.	Ensured and forms part of EMMP			
	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 managemen t	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 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			

Component		Criteria	Remarks
	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 Pithoragarh Nagar Palika 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	No vegetation removal is envisaged during the construction activity.
	43.	Will ensure no dislocation and involuntary resettlement of people living in right of way.	No dislocation and involuntary resettlement envisaged. Activities planned in consultation with stakeholders including community and all NOCs available and annexed in IEE.
	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	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

Component	Criteria	Remarks
		causing damage to the foundation and wall of the buildings.
Developme nt of parking and other tourist infrastructur e 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	The sub project shall lead to improved environmental conditions by supplementing the inadequate sanitation system.
	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, construction materials etc.	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 beauty of the site and add to the visitor experience, since it is an extension of Restoration and Adaptive Reuse of Pithoragarh Fort Phase I, and will support the project through provision of separate parking facility, new Tehsil building and staff residence (since it was not in sync with the architectural character of the Fort)

ANNEXURE-2: 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 Pithoragarh Fort

SC	CREENING QUESTIONS	Yes	No	REMARKS				
A. P	A. Project Siting:							
Is the	e project area adjacent to or wi	thin any	of the f	ollowing areas?				
• D	ensely populated?	~		The fort, Dev Singh ground and new tehsil and staff quarter location lies in the centre of the Pithoragarh town with dense population				
• H ad	leavy with development ctivities?	*		The fort, Dev Singh ground and new tehsil and staff quarter location lies in the centre of the Pithoragarh town with dense population. Therefore heavy with development activities. It is surrounded with residential, official and commercial buildings.				
• A ei ai	djacent to or within any nvironmentally sensitive reas?		~					
• C	cultural heritage site	~		It is a historical fort built by Gorkhas in 1789 with influence of colonial architecture.				
• P	rotected Area	\checkmark		Although not protected by ASI, It is a historical fort built by Gorkhas in				

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

				1789.
•	Wetland		✓	
•	Mangrove		\checkmark	
•	Estuarine		\checkmark	
•	Buffer zone of protected area		\checkmark	
•	Special area for protecting biodiversity		~	
•	Вау		~	
B. Wi	Potential Environmental Impa	icts		
•	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 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?	~		Minor impact envisaged during the construction and post construction activity due to regular functioning of compressors. Adoption of mitigation measures shall effectively address such impact during construction.
•	Traffic disturbances due to construction material transport and wastes?	•		Minor impact envisaged during construction near Dev Singh ground adjacent to the road. Due care will be taken during

				construction to avoid traffic disturbances
•	Temporary silt runoff due to construction?	*		Due to construction activities in the fort premises, Dev Singh ground and new tehsil and staff quarter location 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, ponies dung 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 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?		~	
•	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 Qu	estions	
Th inc	e following questions are luded in this checklist to help ide	not for e ntify pote	nvironm ential cli	nental categorization. They are mate and disaster risks.
•	Is the Project area subject to hazards such as earthquakes, floods, landslides, tropical cyclone winds, storm surges, tsunami or volcanic eruptions and climate changes	√		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.
•	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-3 (A) PROJECT LOCATION MAP



Location Proposed for Tourist Rest House & Multi level car Parking



- A. Pithoragarh Fort
- B. Multi-Level Car Parking Near Dev Singh Ground
- C. Tourist Rest House
- D. Tehsil Building
- E. Tehsil Staff Quarters

ANNEXURE- 3 (B) : 3D FRONT VIEW OF PROPOSED MULTI LEVEL CAR PARKING



ANNEXURE 3(C) : PROJECT SITE PHOTOGRAPHS



1.Existing Tehsil Quarters2: Existing Patwari Office(Both will be relocated to new locations and adaptive reuse of the Quarters will be done by
converting to heritage guest house)



3: Existing Car Stand at Proposed Multi Storied Car Parking Site

4. Dev Singh Ground Stadium that shares common boundary with proposed parking

ANNEXURE 4 : LAND RECORD AND NOC



REQUEST LETTER FROM PIU TO NAGAR PALIKA PARISHHAD, PITHORAGARH REGARDING ISSUANCE OF NOC

and the second पर्यटन सरचना विकास निवेश कार्यकम उत्तराखण्ड शासन Uttarakhand Govt. of Uttarakhand Tourism विकास भवन, भीमताल- 263136 जनपद- नैनीताल (उत्तराखण्ड) फोन न0 : 05942- 247390 ई-मेल : piubhimtal@gmail.com पत्रांक स0: .602..Gen Corp./PIU-Bhimtal/.6.6./1-B/2014/15 दिनांक: 13.03.2015 सेवा में. श्रीमान अधिशासी अधिकारी नगर पालिका, परिषद पिथौरागढ। विषयः देवसिंह मैदान के पास राष्ट्रीय राजमार्ग के साथ (तीनमंजिला) पार्किंग के निर्माण हेतु अनापत्ति प्रमाण पत्र संबंधित। महोदय, निवेदन इस प्रकार है कि पी.आई.यू. भीमताल (आई.डी.आई.पी.टी.) पर्यटन विभाग (उत्तराखण्ड) द्वारा ए.डी.बी. सहायतित परियोजना के अर्न्तगत देवसिंह ग्राउण्ड के पास पार्किंग निर्माण का कार्य प्रस्तावित है। पूर्व में आपके कार्यालय द्वारा पत्रांक 765/एन.पी./3– निर्माण 14–15 दिनांक 14.11.14 को अनापत्ति दी गयी है। वर्तमान में सर्वे का कार्य पूर्ण करने के बाद स्थल पर निर्मित संरचनायें प्रभावित हो रही है। जिनको तोड़ने के उपरान्त ही पार्किंग का निर्माण सम्भव है। संरचनायें जो प्रभाव में आ रही है निम्न प्रकार से है – (1) विदेशी मदिरा की दुकान। (2) सुलभ शौचालय। (3) पार्किंग हेत् वनायी गयी आर.सी.सी. संरचना। (4) गैस एजेन्सी का कार्यालय। अतः महोदय से निवेदन है कि उपरोक्त संरचनाओं को तोड़ने तथा पार्किंग निर्माण हेतु अनापत्ति प्रमाण पत्र देने की कृपा करेंगें। ताकि परियोजना सम्बन्धित डी०पी०आर० तैयार की जा सके। धन्यवाद योजना प्रबन्धक पी.आई.यू., भीमताल संलग्न :ड्राइंग।

From **District Magistrate** Pithoragarh To, The Program Director IDIPT, Dehradun RE.NO. 875/1X-29 (RA) /2013-14 Date Junj2,2014 Sub: Shifting of Tehsil Office from Pithoragarh Fort to appropriate Govt. Land. Sir, Please refer to the meeting held on 30.4.2014 with IDIPT officials and consultants, where District Administration requested to provide resettlement cost of Tehsil Office (point no.3), which is currently administrating in Pithoragarh Fort. We would like to inform that appropriate land and resettlement cost is available with District Administration. Therefore no such budgetary provisions are required from the program side for resettlement of the Tehsil Office. Sincerely, de un **District Magistrate** u Pithoragarh 4

NOC FROM DISTRICT ADMINISTRATION

ANNEXURE 4 (a)

NOC FROM NAGARPALIKA PARISHAD PITHORAGARH

कार्यालय नगरपालिका परिषद पिथौरागढ़।

पत्रांक 7657एन.पी./3- निर्माण/2014-15 दिनांक/ 9-11-19

सेवा में,

श्रीमान् परियोजना प्रबन्धक. पी0आई0यू0 उत्तराखण्ड पर्यटन भीमताल।

विषयः-- देवसिंह ग्राउण्ड के पास पार्किंग बनाने हेतु अनापत्ति प्रमाण पत्र दिये जाने संबंधी।

महोदय,

कृपया उपरोक्त विषयक ए0डी0बी0सहायतित परियोजना उत्तराखण्ड पर्यटन के अन्तर्गत देवसिंह ग्राउण्ड के पास बहुमॉजला पार्किंग बनाने में नगरपालिका परिषद पिथौरागढ़ को कोई आपत्ति नहीं है। इस पार्किंग निर्माण में नगरपालिका अपना सहयोग प्रदान करेंगी।

भवदीय. a Th अधिशासी अधिकारी, नगरपालिका परिषद पिथौरागढ।

Letter from Nagar Palika Parishad Pithoragarh, stating no objection for construction of multi storey parking near Dev Singh ground and the Nagar Palika Parishad assures to provide cooperation in Parking construction

कार्यालय जिला क्रीड़ा अधिकारी, पिथौरागढ़। संख्या- 59 / देवसिंह मैदान पत्रा0/2015-16/पिथौ0 दिनांक अप्रैल 17 , 2015 सेवा में. परियोजना प्रबन्धक. पी.आई.यू., भीमताल, (नैनीताल)। विषय :- देवसिंह मैदान के पास राष्ट्रीय राजमार्ग के साथ (तीन मंजिला) पार्किंग के निर्माण हेर अनापत्ति प्रमाण पत्र सम्बन्धित। महोदय. उपर्युक्त विषयक आपके पत्रांक-601/GenCorp./Piu-Bhimtal/607/1-B/2014-15 दिनांक 13 मार्च, 2015 के क्रम में ए.डी.बी. सहायतित परियोजना के अर्न्तगत पी.आई.यू., भीमता (आई.डी.आई.पी.टी.) पर्यटन विभाग द्वारा पिथौरागढ़ में देवसिंह मैदान के नीचे मुख्य सड़क के सा प्रस्तावित बहुमंजिला पार्किंग के निर्माण कार्य हेतु अनापत्ति इस प्रतिबन्ध/शर्त के साथ दी जाती कि उपरोक्त कार्य के दौरान खेल मैदान की निर्धारित सीमा के अन्तर्गत पुरानी रिटेनिंग दीवार व मरम्मत एवं फेन्सिंग की मरम्मत/बदलाव के अतिरिक्त कोई भी निर्माण कार्य न कराया जाय। Letter from District Sports Officer Pithoragarh, stating no objection for construction of multi storey parking near Dev Singh ground with condition that no other works other than repair of the retaining wall should be done within the boundary of Sports Ground 1041 54 1014 11441 प्रतिलिपि :-- निम्नलिखित को सादर सूचनार्थ प्रेषित। 1. निदेशक खेल निदेशालयं, उत्तराखण्ड, देहरादून। 2. जिला अधिकारी, पिथौरागढ़। जिला क्रीडा अधिकारी. पिथौरागढ।

ANNEXURE 4 (b)



Letter from Nagar Palika Parishad Pithoragarh, stating no objection for construction of multi storey parking near Dev Singh ground in anticipation of approval in the Board meeting. The car parking is included in the Hon'ble Chief Minister's declaration

ANNEXURE 5 : WATER AIR NOISE MONITORING REPORT



Newcon Consultants & Laboratories

An ISO 9001 : 2008, ISO 14001 : 2004,OHSAS 18001 : 2007 Certified Laboratory NABL ISO/IEC 17025 : 2005 [Chemical Testing, Cert. No. T-176], Biological Testing, Cert. No. T-3285], Accreditated Laboratory, Recognised with MOEF & U.P. Pollution Control Board



Website : www.newconlab.com TEST CERTIFICATE

WATER SAMPLE ANALYSIS REPORT

	(ESSENTI	AL TEST AS PER IS:10500-2004)		Page	1	Of	1
TEST REPORT NO : NCI	_/WLJN/UD-384/05/2015	DATE C	OF REPORT : 30/05/2	015		-	_
Name And Address Of C	Customer	WAPCOS LTD. H.NO.54/1,SAI NIWAS,DOON ESTATE,BHIMTAL , ,NAINITAL,UTTRAKHAND, INDIA					
702		SAMPLING DETAILS				_	
Analysis Start Date	26/05/2015	Analysis End Date	30-05-2015				
Date of Sampling	23/05/2015	Sampling ID No.	384/07				
Time of Sampling	12:50:00						
Sampling Done By	NCL						
Sampling Description	DRINKING WATER						
Sampling Location	WATER TAP						
Sampling Protocol	IS:3025(Part-I)	Sampling Quantity	ONE Lt				
Packing Condition	Sealed -	Packed In	PVC CANE				
		TEST RESULT					

S.No.	Parameter	Unit	Protocol	Result	Drinking Wate Limit (IS :10	r Standards /)500 2004)
					Desirable Limit	Permissible Limit
1	Colour	Hazen	APHA-2120 (C)	< 5	5 max.	25 max.
2	Odour	1.22	IS:3025 (P-5)	UNOBJECTIONABLE	Unobjectionable	No Relaxation
3	Taste	177	IS:3025 (P-8)	AGREEABLE	Agreeable	No Relaxation
4	Turbidity	NTU	APHA-2130 (B)	<1	5 max.	10 max.
5	pH		APHA-4500 (H+B)	7.12	6.5-8.5	No Relaxation
6	Total Hardness	mg/L	APHA-2340 (C)	94.2	300 max.	600 max.
7	Iron (Fe)	mg/L	APHA-3111 (B)	0.08	0.3 max.	1.0 max.
8	Chloride (Cl)	mg/L	APHA-4500 (B)	24.9	250 max.	1000 max
9	Residual free Chlorine	mg/L	APHA-4500 (B)	< 0.2	0.2	No Relaxation
10	Sulphates (SO4) (SO)	mg/L	APHA-4500 (C)	11.9	200 max	400 max
11	Total Alkalinity	mg/L	APHA-2320 (B)	147.6	200 max	600 max
12	Total dissolved Solids (TDS)	mg/L	APHA-2540 (C)	289	500 max	2000 max
13	Total Coliform	MPN	APHA-9215	<2	<10/100 ml	<10/100 ml
14	Faecal Coliform		IS:1622-1981	ABSENT	Ahsent	Abcant
15	Flouride (F)	mg/L	APHA-4500 (F)	0.24	1.0 max.	1.5 max.

**** End Of Report****

FOR NEWCON CONSULTANTS & LABORATORIES sipathe Dr. Ramesh C. Tripathi M.Sc. Ph.D. Environmental Science

GNATORY

CHECKED BY

Format no NCL/QSP-28/TC-DWT/FMT-05 Rev.No.1 Date 18.07.2011 NOTE : 1. The Results reported above pertains to the Tested parameters only. Endorsement of the same is neither infected nor implied. 2. All disputes subject to

GHAZIABAD JURISDICTION: 3. The Report shall not be reproduced except in full without the permission of CHIEF ANALYST. 4. Our liability is limited to invoiced value only. Laboratory : 8th K.M. Stone, Delhi Meerut Road, Morta (Opp. Manan Dham Mandir) GHAZIABAD - 201 003 (U.P.) Telefax : (0120) 2675225, Mobile : 9810430345 E-mail : info@newconlab.com, newconlab@gmail.com



Newcon Consultants & Laboratories

An ISO 9001 : 2008, ISO 14001 : 2004,OHSAS 18001 : 2007 Certified Laboratory NABL ISO/IEC 17025 : 2005 (Chemical Testing, Cert. No. T-1761, Biological Testing, Cert. No. T-3285), Accreditated Laboratory, Recognised with MOEF & U.P. Pollution Control Board Website : www.newconlab.com



TEST CERTIFICATE

AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Sampling Done By

Wind Direction

1 Of 1 Page TEST REPORT NO : NCL/WLJN/UA-385/05/2015 DATE OF REPORT : 30/05/2015 WAPCOS LTD. H.NO.54/1, SAI NIWAS, DOON ESTATE, BHIMTAL , NAINITAL, UTTRAKHAND, INDIA SAMPLING DETAIL Analysis End Date 30/05/2015

NCI

East To West

Time Of Sampling	10:00 AM 23	05/2015 To	06:00 PM	23/05/2015	
Sampling Location	AT PITHORAG	ARH FORT N	EAR TEHSIL		
Sampling Protocol	IS:5182(PART-	5) AS PER CF	CB GUIDEL	INES	
Sample Flow Rate For SPM(Average)	1.14 mtr ³ /min		Samp	oling Machine d At Height (Fro	1.5 mtr om
Sample Flow Rate For	1.0 LPM		Groui	nd)	
Gas			Samp	le Duration	8 HRS
Equipments Used	BLRDS-002/Sr	No. 0903092	PM 2.5 sam	pler model DEMI	P 2 5)

PHYSICAL OBSERVATIONS

Ambient Temperature 41°C Weather Condition

Name And Address Of Customer

26/05/2015

23/05/2015

Analysis Start Date

Date Of Sampling

		Т	EST RESUL	Т		
S.No.	Parameter		Unit	Protocol	Result	Specification/ Limit (As Per CPCB)
1	Particulate Matters (Size Less That	n 10µm) (PM ₁₀)	µg/m³	IS:5182 (Part 23)	54.2	For 24 Hrs=100
2	Particulate Matters(Size Less Than	12.5 µm) (PM)	µg/m³	Grav.Method	24.5	For 24 Hrs 60
3	Sulphur Dioxide	(SO2)	µg/m³	IS:5182 (Part 2)	14.3	For 24 hrs= 80
4	Nitrogen Dioxide	(NO ₂)	µg/m³	IS:5182 (Part 6)	18.4	For 24 hrs=80
5	Carbon Monoxide (CO)		mg/m³	IS:5182 (Part 10)	0.03	For 08 Hrs= 02 For 01 Hrs=04

**** End Of Report****

FOR NEWCON	CONSULTANTS & LABORATORIES
Magen	Dr. Ramesh C. Tripathi
CHECKED BY	M.Sc. Ph.D. Enuironmental Science

AUTHOR IGNATORY

Format no NCL/QSP-28/TC-AAQ/FMT-02 Rev.No.1 Date 18.07.2011

NOTE : 1. The Results reported above pertains to the Tested parameters only. Endorsement of the same is neither interred nor implied. 2. All disputes subject to GHAZIABAD JURISDICTION. 3. The Report shall not be reproduced except in full without the permission of CHIEF ANALYST. 4. Our lability is limited to invoiced value only.

Laboratory : 8th K.M. Stone, Delhi Meerut Road, Morta (Opp. Manan Dham Mandir) GHAZIABAD - 201 003 (U.P.) Telefax : (0120) 2675225, Mobile : 9810430345 E-mail : info@newconlab.com, newconlab@gmail.com



Newcon Consultants & Laboratories

An ISO 9001 : 2008, ISO 14001 : 2004,OHSAS 18001 : 2007 Certified Laboratory NABL ISO/IEC 17025 : 2005 {Chemical Testing, Cert. No. T-1761, Biological Testing, Cert. No. T-3285}, Accreditated Laboratory, Recognised with MOEF & U.P. Pollution Control Board Website : www.newconlab.com



TEST CERTIFICATE

NOISE MONITORING REPORT

TEST REPORT NO : N	ICL/WLJ	N/UN-383	3/05/2015	5			DA	TE OF R	EPORT :	30/05/2015
Name And Address C	f Custon	ner		1	WAPCO	S LTD.				
					H.NO.54	/1,SAI NI AL,UTTR	WAS,DO	ON EST	ATE,BHI	MTAL,
				SAM	PLING D	ETAILS				
Analysis Start Date	23-05	5-2015			An	alysis Er	nd Date	23/	05/2015	
Date of Monitoring	23-05	5-2015			Mo	nitoring	Done By	NC	L	
Equipment Used	SL-4	010								
Monitoring Duration	10 M	IN								
Place Of Monitoring	PITH	ORAGA	RH FORT	AT TEH	SIL					
Time Of Monitoring	12:20	0:00 PM								
Category Of Area	COM	MERCIA	L AREA							
Sampling Protocol	CPCI	B method	- PCLS/	06/2000-	01					
			12	O	BSERVA	TIONS				
Observation No.	1	2	3	4	5	6	7	8	9	10
Reading dB(A)	61.10	55.20	58.10	54.30	52.80	52.00	53.70	56.90	57.10	54.20

222			2011	1000	7.72	
TE	ST	RE	SL	ILT		-

S.No.	Description Noise Level dB(A)	Result	Ambient Noise Standards/ Specification (CPCB/Factories Act) Leq dB(A)
1	Average	55.54	
2	Maximum	61.10	
3	Minimum	52.00	
4	Leq dB(A)	55.74	65.00

FOR NEWCON CONSULTANTS & LABORATORIES

npathi Dr. Ramesh C. Tripathi M.Sc. Ph.D. Enuironmental Science

CHECKED BY

Format no NCL/QSP-26/TC-NOI/FMT-03 Rev.No.01 Date 18.07.2011

**** End Of Report****



NOTE : 1. The Results reported above pertains to the Tested parameters only. Endorsement of the same is neither inferred nor implied. 2. All disputes subject to GHAZIABAD JURISDICTION. 3. The Report shall not be reproduced except in full without the permission of CHIEF ANALYST. 4. Our liability is limited to invoiced value only. Laboratory : 8th K.M. Stone, Delhi Meerut Road, Morta (Opp. Manan Dham Mandir) GHAZIABAD - 201 003 (U.P.) Telefax : (0120) 2675225, Mobile : 9810430345

ANNEXURE 6- MINUTES OF MEETING

Meeting regarding ADB Assisted IDIPT Project

Date: 13-10-2014

Chaired by: Sh. Prasant Arya, ADM, Pithoragarh

Participated by:

- 1. Sh. Anurag Arya, SDM, Pithoragarh
- 2. Dr. Jagat Sontiyal, PIU, Bhimtal
- 3. Dr. Suresh Mathpal, DSC, Bhimtal
- 4. Sh. Manoj Joshi, Dist. Tourism Office

Minutes of Meeting:

- PIU and DSC Officials informed about the progress of Pithoragarh sub- projects running under IDIPT and discussed the issues related to Land Availability for proposed Car Parking and Shifting of Tehsil Office from Pithoragarh Fort.
- The SDM assured that both the land identified for the Car Parking are Nazool land and encumbrance free land will be handed over to Tourism Dept. for the proposed work by the end of Oct. 2014.
- 3. The SDM informed that the contractor can start the work phase wise. A land area of 6.5 Nali has been identified for the new Tehsil Building including the staff quarters, but no fund have been allotted yet. The District Administration also requested for allocation of fund to build new Tehsil building.

Additional District Magistrate Pithoragarh

> **अपर** जिलाधिकारी पिधौरागढ

संयुक्त निरीक्षण रिपोर्ट

उपजिलाधिकारी महोदय पिथौरागढ़ के आदेश दिनांक 12.05.2014 के परिपालन में माननीय मुख्यमंत्री जी की उत्तराखण्ड सरकार द्वारा पिथौरागढ़ शहर में बहुमंजिला कार पार्किंग के निर्माण की घोषणा होने से शहर अन्तर्गत भूमि चयन हेतु आज दिनांक 15.05.2014 राजस्व विभाग पिथौरागढ़ एवं नगरपालिका परिषद पिथौरागढ़ के अधिकारी, कर्मचारी के साथ संयुक्त निरीक्षण किया गया। संयुक्त निरीक्षण करने पर पिथौरागढ शहर अन्तर्गत बहुमंजिली कार पार्किंग हेतु जिला चिकित्सालय पिथौरागढ़ के सामने वन विभाग के वनाधिकारी आवास के समीप की सड़क से नीचे खाली पड़ी रिक्त नजूल भूमि को उपयुक्त पाया गया है। प्रस्तावित भूमि मौके पर बंजर है। वन विभाग द्वारा चाहरीदीवारी/तारबाड कर घेराबंदी की है। जिस पर 8 पेड़ देवदार, के तथा 2 पेड अन्य प्रजाति के हैं। प्रस्तावित भूमि की संयुक्त रुप से नापजोख की गई। बंदोबस्त खेत नम्बर 7 मध्ये खाली एवं रिक्त पड़ी भूमि जिसका क्षेत्रफल 750.80 वर्ग मीटर (3 नाली 12 मुटठी) भूमि को बहुमंजिली कार पार्किंग हेतु प्रस्तावित किया गया है। प्रस्तावित भूमि का नक्शा खसरा राजस्व उपनिरीक्षक नजूल के द्वारा प्रस्तुत किया जाएगा।

संयुक्त निरीक्षण रिपोर्ट प्रेषित है।

राजस्वे उपनिरीक्षक

राजस्व उपानसंब चण्डाक

अधिशासी अधिकारी अवर अभियंता न0पा० पिथौरागढ न0पा0 पिथौरागढ

119 पिथौरागढ

in the second se

जिलाधिकारी, पिथाँरागढ।

सेवा में

सचिव, पर्यटन, उत्तराखण्ड शासन, देहरादून।

अपर अदिव औद्योगिक विकास अनुमार उत्तराखण्ड शासन, देवरादन।

संख्या :1105/तेईस-19/ 2016 - 14

दिनांक अगस्त 13 , 2014

विषयः माननीय मुख्यमंत्री घोषणा संख्या 250/2014 के सम्बन्ध मा

महोदय,

उपरोक्त विषयक कृपया शासन के पत्र संख्या 207 / 1V (2)- राजीक 14-12 (मु०म०घो०) / 14 दिनांक 03 मार्च, 2014 के माध्यम से पिथौरागढ़ शहर में तहुमजिल लाग पर्वतान के निर्माण हेतु प्रस्ताव उपलब्ध कराने हेतु निर्देशित किया गया है।

2- इस संदर्भ में अधिशासी अधिकारी, नगरणकिला जिल्ला किंदा हैं जिल्लाधिकारी, पिथौरागढ के माध्यम से जॉच करायी गयो। इस जिस्ता में जान आनका परिषद, पिथौरागढ की स्थान भाटकोट तिराहे के समीप ग्रेफ की खड़क से ताजी नजाल भूमि/प्लाट संख्या 1099, 1100, 1101 मध्ये क्षेत्रफल 401.78 वर्गमीटर भूमि नघट निवल विकित्सालय, पिथौरागढ के सामने की 750.00 वर्गमीटर भूमि को वहनों की प्राक्रिंग तो वयनित विकित्सालय, पिथौरागढ के सामने की 750.00 वर्गमीटर भूमि को वहनों की प्राक्रिंग तो वयनित विकित्सालय, पिथौरागढ के सामने की 750.00 वर्गमीटर भूमि को वहनों की प्राक्रिंग तो वयनित विकित्सालय, पिथौरागढ के सामने की 750.00 वर्गमीटर भूमि को वहनों की प्राक्रिंग तो वयनित किया गया है। चयनित स्थलों पर पार्किंग बनाये जाने में कोई आजन्ति नहीं हैं। व्यस ताले वयनित की निर्माणएवं रखरखाव का दायित्व नगरपालिका परिषद, पिथौरागढ का होता। उच्चलेत रघल का नजरी नक्शा एवं जॉच आख्या मूल में अग्रेत्तर कार्यवाही हेतु संलग्न वह है के जा तो ते। संलग्न उपलेह को न्या से गाये से जाने का नकरी नकरा के नजरी ते कार्या के अग्रेत्तर कार्यवाही हेतु संलग्न वह है के लगते ते।

Houtton Wh (इस) सीट सम्मानन

ितमाधेकारा, गोमजनाज सूचनार्थ प्रेषित। सूचनार्थ प्रेषित।

(FL (R) (M))+



Meeting regarding ADB Assisted IDIPT Project

Date: 13-10-2014

Chaired by: Sh. Prasant Arya, ADM, Pithoragarh

Participated by:

- 1. Sh. Anurag Arya, SDM, Pithoragarh
- 2. Dr. Jagat Sontiyal, PIU, Bhimtal
- 3. Dr. Suresh Mathpal, DSC, Bhimtal
- 4. Sh. Manoj Joshi, Dist. Tourism Office

Minutes of Meeting:

- PIU and DSC Officials informed about the progress of Pithoragarh sub- projects running under IDIPT and discussed the issues related to Land Availability for proposed Car Parking and Shifting of Tehsil Office from Pithoragarh Fort.
- The SDM assured that both the land identified for the Car Parking are Nazool land and encumbrance free land will be handed over to Tourism Dept. for the proposed work by the end of Oct. 2014.
- 3. The SDM informed that the contractor can start the work phase wise. A land area of 6.5 Nali has been identified for the new Tehsil Building including the staff quarters, but no fund have been allotted yet. The District Administration also requested for allocation of fund to build new Tehsil building.

Additional District Magistrate Pithoragarh

51पर जिलाधिकारी पिथौरागढ

ANNEXURE 6 (a)

Minutes of meeting held on 26 th December 2014 with S.D.M. and A.D.M. Pithoragarh
Meeting held on dated 26 December 2014 with S.D.M. and A.D.M. Pithoragarh regarding finalization of scope of works of Pithoragarh fort of Phase-II (Tranche-III). Prepared drawings based on discussion held dated 14 th November, 2014, have been shown and following points have been further discussed in detailed lengths which are as under-
 Tehsil Building: (a) Ramp should be provided for the handicapped and very old people. (b) Urinal should be provided in gent's toilets and one Indian and one European type water closet should be provided in ladies toilets at each floor. (c) Toilet should be provided in Nayab Tehsildar room /court.
 (d) A.O. and S.O. office should be provided in first free instance in the first free instance in retring room. (e) S.O., A.O. and sitting area should be converted into a hall. Partition if required in future, Govt. will do necessary modification at their own level. (f) Toilet European type and urinal to be provided in meeting hall at second floor.
 Car Parking: (a) Security cabin should be provided at each entry point (b) Barrier should be provided at each entry and exit point. (c) Emergency generator of minimum capacity of 125 K.V.A. with room for operator should be provided as a power backup for electricity (d) Number plate reader C.C.T.V camera should be provided in each floor. (e) Toilets should be provided in each floor for ladies and gents. (f) One capsule elevator of minimum capacity of 5 people should be provided separately with common entry.
Finally it has been decided that drawings will be modified, detailed project report including BoQ will be prepared by WAPCOS Limited and submitted to Tourism Department Dehradun.
Y.K. Bhatt Field Engineer DSC Bhimtal
Sub Divisional Magistrate
Philo agaio
Additional District Magistrate Pithoragarh

Govt, of Uttarakhand

Program Management Unit Infrastructure Development Investment Program for Tourism (ADB Assisted - Loan No. 2833,India) Government of Uttarakhand PanditDeendyalUpadhayaParyatanBhawan, Near ONGC Helipad Garhi Catt, Dehradun -248003 Tel: 91-135-2559987, Fax: 91-135-2559988 E-mail: utdb.pmu@gmail.com

Date:5 -09-2014

Ref: 1597/2-10-ADB (IDIPT)/5/2013-2014

To,

The District Magistrate Pithoragarh

Sub: Transfer of Revenue Land to Tourism Department for Development of Multilevel Car Parking under ADB assisted IDIPT

Ref: Letter No. 1105/तेईस -18/2013-14 Dated: 13th August 2014 DM Pithoragarh

Sir,

This has reference to your above stated letter, where it was informed that Multilevel Car Parking needs to be developed at two locations (near Bhatkot Tiraha and opposite District Hospital) in Pithoragarh City as compliance of the declaration of Hon'ble Chief Minister of Uttarakhand.

In this regard a joint visit was made by our program officials along with SDM, Pithoragarh on 4th August 2014, where it was requested to take up the "Development of both the Parking Spots" under Asian Development Bank assisted IDIPT program.

For further necessary action on the project kindly arrange NOC if the land is of another Govt. agency or transfer the encumbrance free land to Tourism Department at the earliest.

erelv

Shailesh Bagauli, IAS (Program Director)

CC: to The Secretary, Tourism, Govt. of Uttarakhand for kind information. The Project Manager, PIU- Bhimtal for follow-up action. The Team Leader, DSC- Bhimtal for follow-up action.

(Program Director)

Annexure 7- Public Disclosure Photographs And Attendance Sheet

CM's program in Pithoragarh on 01.01.16 where sub project components were declared to the Public by Hon'ble CM

International Paragliding event on 13.03.16 where all sub project components in Pithoragarh were presented by Secy. Tourism

Public Consultation Meeting

Attendance Sheet of Some Consultation/ Awareness programs

v	Fublic Consultat	and such and	Date 14-0314
ġ.	चाम	ग्राम संस्थान व जोनन	हस्तंष्ट्यर
0	and the second second	and the state of the second second	4
1	L.M. Bhett Tehnildor	Tehnil	M
3.	2 শত হা হা হ ব	पु.जिला पर्यटन आहिकारी	SEMO
	0 9 9		SC
3.	युगादन जामा	प्रसग्रालपाधास्	15 July
ч.	Some Francis	·AT CAND	hit
5.	कार-एम बिच्ट	2-04 21291101	Trul
4-	N - ala - ala	at mar sugar	01
2	Stale Sur	केवासि सम्पा	PA
1	जम् जावा	dolle acoll	
2	312 314-1 -1-3 812	षुमस ध्रायतम	Storienz
9-	Gills EINT	20-346 nectime	
io	RajaJoshi	PIUBhembal c	DY.
11.	V ARUN DEX	DSC Blimtal (PM)	Van
N	\$9-100-21 mm	LOM. Rithigh "	Dring
1.1	entremptorpress	Theread sure diditionil	S
15	वा॰ का॰ रावत (२१० ३७०)	May STANDARS, STANIST	Xans 1
16	अर्थधाना देवी	gui. AIRCHIT	GIVAN Sta
12	13) 001 00 102	Gay MIAZIMIN	sent
18	ET BE BEC	Tales ZIS TYCURISG	2
19-	2147 3/ det 10/ 152/102	5 ATZ 1441 7 1016	OIL
	אוצורצור לא איציות		- VE
20	হাঞ্চাত চেলায়	HREPHIN GOSTA	The he
au	Trottout	215 ADria Depian	And
00	Let Mah CI	An Die Din	Q.
22	and the second	A all	L
23	Smill ENT	TIONED MANE TAL	3
24	Sloklinger	עודיון אוואס אווע אוענטא	()
25-	रनीमा मन्द जोश	E.O. MORE TIGAT	14. 10/
		73	

		Page	NiD.
as.	नाम्	संस्थान / ग्राज	EFERTHE
26	50 paran . Cursh	Harrand Harrand An)	1ave
27	उग . हे . हे . गीड .	बार्तास मारे निर्दे	13 1×4.
· 28	मनेन् मरनान का का	स्वित स्रेला संभिति पियोङ्	1000
29.	पंकज बोहरा	हरेला सामिति ापेथी.	enti
30	Raketh Seclar	Hot il Holdoy Home	
31.	Lelit Khattoi	Nagar Seva Samity.	Jalli
32.	Maken Mathdia	Obel Com Soury	2
33.	Shivam Kanayar	SP Jain Snottate of Mynot, Humbai	the
34.	Aman Mathie	SP Jain Institute of Mornet Man	the an
35.	Shefali Kaneal	SP Jain Postitute of Manuel	Re; John Ed.
36.	Vishe Agramal	n 1 UNus	their the
37	Anuj Kumer	6P Jan Inst of Mugt Else M	undozi Amy
38.	Himanshy Kumar	St Jain Sost of Management	demon !
39	SHAIMICILITE	and Research, Mumbas	ONTORYSOD
		BIT, dinories Conserver	strug -
40.	Elun Luci	35101 dimin	Duri
41.	Kinta ant	and a miner with a	Ade
42.	G.C. Bhatt	JE KIMIVIN PLA	the
43.	Jerloon Punetha	JE H.M.V.N Path.	The
44.	Barryater	מולה הות הבות כבי בגווצ	(14)
45	Ohankor Sink	Himleyon Parglichy Cant	Shang
46.	पगत सिंह	(100)	eze
47.	1 of i Ever 1	E MILL MUTHEL	sore

	-		
2040	नाम	संस्थान / ग्राम	हस्ताझर्
48.	Mukesh Pandey -	Chundaly -	Monito
49.	and Edgi and	charadak .	dian
50.	H.C. pandit	Chandrak	wer .
51.7	AMIT SINGH CHAUDHARY	TAKANA RHET	At
52.	N. D. Pomera	And Lin Ruhmania	An Que
53	Sh. Jav Bharat Sin	sh SAM Pithonara	1 - Hall
54.	Jaget Sontivel	C DO PIU	B
55.	8000	0	T
56.	आगोरधी देवी	अरमनी	www.aliga
51	मजू बिंहर	गहियागव	Rest
58.	alari are	राज दुराख्या	Birt
59.	मिर जान नहरात	राभ छोलाह	TLA
60.	Tell Run a	DILL SENT DA	792
61.	रमेवा छिंह किए	मानसी कोटी स्टरिया	Frient
62.	N.S. Bisht	DID	AL
63.	"Janak Joshi	See Udhipg vyapa mande	04
64.	Pavan Kr. Jonhi	Nyaper Mandled Ronnight	A_
65	from Decyp	vannune	1º
66.	Mansei Bisht	Mostomanus	St-
67.	Labit Sharma	Go .	₩.
68.	Engink RAE	Dhuce	Ensingine
69.	Jogehebe hends Tosh	Mosteman	Remardly
70.	Min Rola buday	mostonen	CO
71.	विविन क्रमाट	सितेमा लाईत	Caller
721	Banna	-	A
73	19514981	ETVNEWS	we
74	भव क जोगी	कामाचार ट्रम	Der
75	HOLE E B (DEL	साहात। न्यूज	talh
76-			
and the second se			

き む・	नाम-	गावः / संस्थान	हस्ताक्षर्
76	Crist joshi	Jain TV/Shinces	Gal
77-	M.L. Verma	AO COOqui	SAV
78	Bhupendor S. Maharo .	Rom Cili Ki-	10
791-	Sirchaf Singh Adhikan	Ramileela Committee	dey/
80 -	pt. C. Tarpacifhi	4 1	Atco
81-	H.M. Paul-	2 Server to be and	Horant-
82 1	Mr. Kailakh John	PIU-Bhimtal	Ba
83-	Jeeron Singh Behors	ESL/Pradham time .	- And
185 195 2 100		9897965285	13 8 1
04	Kishor Joshi	TV. 24	Besc
		9760997302	
85	Naxanda Singh	तमा मातार मिन्दरागड	-16-7182
86	aals fie	TECRITY	0.A2
ALC: A DECK	I I STATE CALLER AND I STATE		

1	ए.डी.बी. सहाय	ित पर्यटन योजना क	5
	समीहना केर	SCL Date	11-09-15
	विकास जवन, मिधोर	Page N	10.
90	0114	yangeing fitering.	हसाक्षर
1.	र्डा विनोद गोखामी	Broni legan X	-54-
2	8/0 an. a. 12 8/1	34 (5107) (2012)	te
3,	र्हा हरी के राम	CERTAIL	m
4.	हार आंद. एस. स्टेरी	DTDO	BOT
2	\$17 201mm- 2 61121	E.O. Magurralit	R
6.	डा. जगत सांहियाल	ul. 311 E. 2. Swin	
7.	אשר יששי וב לוא	J.E. Nagarpetikg	(a)-
8	रागक कियोर नह	Field Engineer DSC Bhinto	
9.	THAM KyE love 5	स्तिहित्वेनी महन्द्रातृ हे मेरा	maist
d	हेम-चन्द्र तिवाही	M/s Dagmo Riba	Allian
11	21511 61211	PILL. Bhintal	3.5
12	amara Rie Paoz	PIL. Bhimtal	Elvet
13	B17604 612M	9412908675	A
Annexure 8 Paper Clippings





Sub project components declared by the Hon'ble CM (highlighted) during Program on 1st Jan, 2016