Initial Environmental Examination

Project Number: 40648-034
August 2015

IND: Infrastructure Development Investment Program for Tourism - Tranche 3

Submitted by

Program Management Unit, Government of Uttarakhand, Dehradun

Asian Development Bank

8/8 BRD/SM/GM.

Govt. of Uttarakhand

Program Management Unit

Infrastructure Development Investment Program for Tourism

(ADB Assisted – Loan No. 2833, India)

Government of Uttarakhand

Pandit Deendyal Upadhaya Paryatan Bhawan,

Near ONGC Helipad Garhi Cantt, Dehradun -248003

Tel: 91-135-2559987, Fax: 91-135-2559988 E-mail: utdb.pmu@gmail.com

Uttarakhand
Simply Heaven!

Ref:२३१/2-10-ADB IDIPT/249/2014-15 Date: 30.07.2015

To

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

ASIAN DEVELOPMENT BANK
INRM
COUNTRY DIRECTOR'S OFFICE
07 AUG 2015
8573
RECEIVED

Sub: IDIPT UK Tranche III: Submission of IEE document for "Development of Tourism Infrastructure In Kartikeya Swami Circuit (Kartikeya Swami Temple)" sub project

Ref: IEE (based on SAR) submitted vide letter no. 1656/2-10-ADB IDIPT/249/2014-15 dt. 24.09.14

Respected Madam,

Kindly refer to the IEE document for "Development of Tourism Infrastructure In Kartikeya Swami Circuit sub project submitted vide this office letter dt. 24.09.14.

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

Yours Sincerely

Encl.:- As above

(R.K. Joshi)
Additional Program Director

ASIAN DEVELOPMENT BANK
INRM
DSS PD
GM 13 AUG 2015
RECEIVED

Deviation in Components from SAR to DPR stage

(i) Updated IEE (no major deviation in scope) for "Development of Tourism Infrastructure in Kartikeya Swami Circuit (Kartikeya Swami Temple)" is hereby submitted with following matrix as suggested by ADB vide mail dt. 05.02.15.

(ii) SAR and Initial IEE (based on SAR) was submitted for "Development of Tourism Infrastructure In Kartikeya Swami Circuit" which included Improvement of basic tourist infrastructure facilities at (i) Kartikeya Swami Temple, (ii) Durga dhari Temple and Tungeshwar Mahadev Temple and providing other facilities in consultation with Village Panchayat, Temple Trust/Committees and Forest department and (iii) Construction of tourism interpretation Centre including facilities at Rudraprayag

(iii) During the design stage, the project was subdivided into two packages (i) Development of Tourism Infrastructure in Kartikeya Swami (UK/IDIPT/III/DDN/01) (Durgadhari Temple and Tungeshwar Mahadev Temple) (ii) Development of Tourism Infrastructure in Kartikeya Swami Temple (UK/IDIPT/III/DDN/02) reason being delay expected in the Forest Clearance of Kartikeya Swami Temple, which lies in Reserve Forest area.

(iv) The last component "Construction of tourism interpretation Centre including facilities at Rudraprayag" was proposed in the SAR and initial IEE (during SAR stage) but omitted during the DPR stage owing to land issues.

(v) Since 01 IEE document was bifurcated into 02, respective components pertaining to the sites (i) Kartikeya Swami temple and (ii) Durgadhari Temple and Tungeshwar Mahadev Temple are covered in the respective IEEs along with impacts and mitigation measures.

(vi) The IEE for Development of Tourism Infrastructure in Kartikeya Swami Circuit, Durgadhari and Tungeshwar Temple (UK/IDIPT/III/DDN/01 package) has already been sent to ADB vide this office letter dt. 20/07/15.

(vii) **This IEE is for Development of Tourism Infrastructure in Kartikeya Swami Temple (UK/IDIPT/III/DDN/02 package)**

(viii) In the components of Kartikeya Swami Temple, only components added are (i) Firefighting works (Procurement and Provision of firefighting equipment/ extinguishers) (ii) Hill view Location Pointer and (iii) Rain Water Harvesting. Same has been reflected on page 19 and 20 of the IEE.

(ix) Table below shows deviation in components from SAR to DPR stage in Kartikeya Swami Temple Site

Kartikeya Swami *(All components subjected to Forest Clearance	**SAR**	**DPR**
Improvement of pedestrian pathway	✓	✓
Railing along the pathway on one side 3 Km length	✓	✓
Development of Viewpoints (4 nos) along the pathway	✓	✓
Development of Rest Shade	✓	✓
Development of breast wall length 2000 mtr x 750 mm wide (Average 1.5 m height) and Retaining wall 3 mtr height and 450 mtr length	✓	✓
Repair works for the roofs and existing structures	✓	✓
Seating arrangement near temple at available space & in between dharamshala & temple.	✓	✓
Sitting Arrangement Stone benches within the temple complex	✓	✓
Signage at strategic places –both informative and directional	✓	✓
Toilet facilities with Bio- Digestible Septic Tank (6 Nos) (2+2) near Dharamshala & 2 on the pathway.	✓	✓
Landscaping of the entrance areas near main road	✓	✓
Restoration of Temple premises	✓	✓
Entrance arch development near main road.	✓	✓
Site development of camping site	✓	✓
Solar lighting near temple & along pathway	✓	✓
Providing dustbins for solid waste	✓	✓
Hill View Location Pointer Model	X	✓
Fire Fighting Works	X	✓
Rain Water Harvesting	X	✓

Environmental Assessment Document

Initial Environmental Examination (IEE)
Loan No: 3223 IND
Updated July 2015

Infrastructure Development Investment Programme for Tourism, Uttarakhand

Subproject–Development of Tourism Infrastructure in Kartikeya Swami Circuit (Kartikeya Swami Temple)

TRANCHE III

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

ABBREVIATIONS

ADB	-	Asian Development Bank
CPCB	–	Central Pollution Control Board
CPR	-	Common property resources
DOT	-	Department of Tourism
DSC	-	Design Supervision Consultants
EA	-	Executing Agency
EIA	-	Environmental Impact Assessment
EMP	-	Environmental Management Plan
FSI	-	Forest Survey of India
GMVN	-	Garhwal Mandal Vikas Nigam
GoI	-	Government of India
GoU	-	Government of Uttarakhand
IA	-	Implementing Agency
IDIPT	-	Infrastructure Development Investment Program for Tourism
IEE	-	Initial Environmental Examination
IUCN	-	International Union for Conservation of Nature
MoEF	-	Ministry of Environment and Forests
NP	-	National Park
OM	-	Operations Manual
PA	-	Protected area
PD	-	Program director
PIU	-	Project Implementation Unit
PMC	-	Project Management Consultant
PMU	-	Project Management Unit
PUC	-	Pollution under Control
REA	-	Rapid Environmental Assessment
SEIAA	-	State Environment Impact Assessment Authority
SLEC	-	State-level empowered committee
SPCB	-	State Pollution Control Board
SPM	-	Suspended Particulate Matter
SPS	-	Safeguard Policy Statement
UNESCO	-	United Nations Educational Scientific and Cultural Organization
UTDB	-	Uttarakhand Tourism Development Board
UUSDIP	-	Uttarakhand Urban Sector Development Investment Program
WLS	-	Wildlife Sanctuary

CURRENCY EQUIVALENTS

(as of 13th November 2013)
Currency unit – Indian rupee (Rs)
Rs1.00 = $0.015738
$1.00 = Rs 63.5400

WEIGHTS AND MEASURES

dB (A) A-weighted decibel
ha - hectare
km - kilometer
km^2- square kilometer
µg - microgram
m - meter
m^2- square meter
MW (megawatt) - megawatt

LIST OF TABLES

LIST OF TABLES

LIST OF FIGURES

LIST OF ANNEXURES

EXECUTIVE SUMMARY

1. Background:

The India Infrastructure Development Investment Program for Tourism (IDIPT) envisages 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) loan from Asian Development Bank (ADB). IDIPT Project 2 includes the states of Uttarakhand and Tamil Nadu. Executing Agency is the Tourism Department of the Government of Uttarakhand; and the Implementing Agency is the Project Management Unit (PMU) of the Uttarakhand Tourism Development Board (UTDB).

This Initial Environmental Examination (IEE) has been prepared for the sub-project namely "Development of Tourism Infrastructure in Kartikeya Swami in Rudraprayag District **UK/IDIPT-III/DDN/01** as part of IDIPT Tranche 3 Uttarakhand. Kartikeya Swami (Murugan swami as known in Southern India) Temple is situated amidst serene environs of Himalayas. The shrine is dedicated to Lord Shiva's son Kartikeya and is situated on a big rock atop the highest cliff around known locally as 'Swaminath danda' (Swaminath-Kartik swami, Danda-Mountain in Garhwali).It is at an altitude of 3050 m above the sea level, in Rudraprayag District of Himalayan state of Uttarakhand. While going to Kartikeya Swami temple from Rudraprayag, it was found that there is lack of tourism infrastructure such as; midway facilities, toilet facilities, parking, signage, tourist reception centre and tourist interpretation centre.

2. Subproject will provide needed tourist infrastructure at Kartikeya Swami Temple, and will improve the environmental management and quality of the site towards preserving the ecological and cultural integrity. The place Kartikeya Swami is famous due to only one temple of lord Kartikeya (Son of Lord Shiva) in India. The temple has significant Heritage importance. The temple of Kartikeya swami is also KULDEVTA of 362 villages situated nearby. Local people have also shown interest in development in proposed activities.

3. Executing and implementing agencies: The executing agency is the Dept. of Tourism, UK. The implementing agency is Project Implementation Unit (PIU), to be supported by Design Supervision Consultant (DSC); Project Management Consultants (PMC) and in coordination with Project Management Unit (PMU). The asset owner is the

District Tourism Officer. A team of technical, administrative and financial officials, including safeguards specialists, are provided at the PMU to implement, manage and monitor project implementation activities. The PIUs are staffed by qualified and experienced officers and responsible for the day-to-day activities of subproject implementation in the field, and are under the direct administrative control of the PMU. Consultant teams are responsible for subproject planning and management and assuring technical quality of design and construction; and designing the infrastructure and supervising construction; and safeguards preparation.

4. **Categorization:** The environmental impacts of the subproject are not significant and subproject is categorized as Category B, as per ADB's Safeguards Policy Statement. The specific measures stated in the EMP will address all adverse environmental impacts due to the subproject. A detailed monitoring plan prepared as part of this IEE will further mitigate negative environmental impacts during implementation

5. **Subproject Scope:** The major scope of this subproject is Improvement of basic tourist infrastructure facilities at Kartikeya Swami Temple, and providing other amenities / tourist facilities in consultation with Village Panchayat, Temple Trust/Committees and Forest department.

6. **Description of Environment:** Subproject components are located at village & forest areas and at high altitude. Both air and noise parameters are within permissible level, since there is no significant source of pollution in the vicinity. Kartikeya Swami temple is located within the Reserve Forest. Forest Clearance is under process for the proposed components. However, The DFO and APCCF/ Nodal has recommended for the same. Recommendation letter received from forest department is attached.There are no heritage sites listed by Archaeological Survey of India (ASI) within the subproject area or in near vicinity. Similarly, no common property resources (CPR) such as public wells, water tanks, play grounds, common grassing grounds or pastures, market areas and community buildings will be affected by the proposed subproject.

7. **Environmental Management:** Negative impacts were identified in relation to construction and operation of the improved infrastructure. No impacts were identified as being due to the subproject design or location. EMP, proposed as part of this IEE includes (i) mitigation measures for adverse environmental impacts during (i) construction, (ii) implementation, (iii) environmental monitoring program, and the responsible entities for mitigation, monitoring, and reporting; (iii) public consultation and information disclosure; and

grievance redress mechanism. Mitigation measures have been developed to reduce all negative impacts to acceptable levels.

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

The project area being under Reserve Forest, only permissible activities shall be done, which shall least impact the environment both during construction and operation phase.

9. Majority of the impacts will occur during the construction phase and are generic to the construction activities. Key impacts during construction phase are envisaged on the following aspects: (i) drainage, (ii) quarry/borrow pit operations, (iii) dust generation, air and noise pollution from construction activities, (iv) handling of construction materials at site, (v) disposal of construction waste materials, and (vi) adoption of safety measures during construction. These are common impacts of construction and there are well developed methods for their mitigation. The project is relatively small in scale and involves straightforward construction/repair and restoration activities, so it is unlikely that there will be major impacts. Ground water will not be used for construction purposes and the problem of ground water contamination is not anticipated during the construction phase.

10. Few impacts both positive and negative are anticipated to be associated with the operation phase of the subproject. The positive impacts would help improve the condition of the temple, however well-developed mitigation measures to minimize negative impacts would be put in place. The safety of the tourists would be ensured and well developed safety measures and norms would be applied & practiced to minimize any risks.

11. Possible measures to reduce the amount of waste, during the operation phase are the use of environmentally friendly and biodegradable products, for example no canned drinks,

disposable bottles or packaged foodstuffs and avoidance of plastic packaging whenever possible; instead the use of containers, deposits on bottles etc - recycling of organic waste in the composting system of eating house - education of tourists in environmentally friendly behavior- education of staff.

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

13. The stakeholders were involved in developing the IEE through discussions on-site and public consultation, after which views expressed were incorporated into the IEE and in the planning and development of the subproject. The IEE will be made available at public locations in the town and will be disclosed to a wider audience via the ADB and Uttarakhand Tourism Development Board of Tourism websites. The consultation process will be continued and expanded during project implementation to ensure that stakeholders are fully engaged in the project and have the opportunity to participate in its development and implementation.

14. Positive impact is anticipated in terms of employment opportunity as many skilled, semi-skilled and un-skilled personnel will get direct and indirect employment during construction phase. After improvement of tourist facilities, number of tourists visiting Kartikeya Swami temple will increase. Increase in the number of tourists will result in more business activities / livelihood

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

16. Monitoring and Reporting: The PMU, PIU, PMC and DSC will be responsible for environmental monitoring. The PIU with support from the DSC will submit monthly, quarterly, semi-annual monitoring reports to the PMU. The PMU will consolidate the semi-annual report and will send it to ADB. ADB will post the environmental monitoring reports on its website.

17. Conclusion and Recommendation: 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 Environment Policy (2002) or Government of India (GoI) EIA Notification (2006).

INTRODUCTION

A. Background:

18. The India Inclusive Tourism Infrastructure Development Project (IITIDP) envisages an environmentally and culturally sustainable and socially inclusive tourism development, in the project states of Himachal Pradesh, Punjab, Tamil Nadu and Uttarakhand. The expected Impact of the Project in the four states is sustainable and inclusive tourism development in priority State tourism sub circuits divided into marketable cluster destinations that exhibit enhanced protection and management of key natural and cultural heritage tourism sites, improved market connectivity, enhanced destination and site environment and tourist support infrastructure, and enhanced capacities for sustainable destination and site development with extensive participation by the private sector and local communities. Uttarakhand comprises of 13 districts that are grouped into two regions (Kumaun and Garhwal) and has a total geographical area of 53,484 sq. km. The economy of the State primarily depends on agriculture and tourism. The State is home to some of the most important pilgrimage centers known as the "Char-Dham", i.e.The Gangotri, Yamunotri, Kedarnath and Badrinath, all of which are situated in the northern region. The state receives over 32 million tourists annually, a majority of whom visit the state during the peak summer season (May-July) for pilgrimage and recreation. About 90% of passenger and freight traffic in the State of Uttarakhand moves by road. Rail services offer freight and passenger connections to the neigh boring states through four rail heads in the State's so the low-lying plain region. The hilly and mountainous terrain that covers more than 90% of the State's land area would preclude the development of railway infrastructure catering to intra state services. The overall road net work in the State is 31929 km. The rich natural and cultural attractions of the state offer tremendous potential for tourism development. Accordingly tourism has been given high priority by the government of Uttarakhand since the creation of the state.

19. The India Infrastructure Development Investment Program for Tourism (IDIPT) envisages an environmentally and culturally sustainable and socially inclusive tourism development, in the project state of Uttarakhand.

20. The project uses a sector loan approach through a multi tranche financing facility modality likely in five tranches planned from 2011-2020. The expected impact of the Project in the state is sustainable and inclusive tourism development in priority State tourism sub circuits divided into marketable cluster destinations that exhibit enhanced protection and

management of key natural and cultural heritage tourism sites, improved market connectivity, enhanced destination and site environment and tourist support infrastructure, and enhanced capacities for sustainable destination and site development with extensive participation by the private sector and local communities.

21. The investment program outputs will be (i) improved basic urban infrastructure (such as water supply, sanitation, road and public transport, solid waste management, and environmental improvement) and incidental services (such as public toilets, street signage and lighting) at existing and emerging tourist destinations and gateways; (ii) improved connectivity to tourist attractions focusing on the improvement of last-mile connectivity; (iii) enhanced quality of natural and cultural tourist attractions to ensure convenience and safety for visitors; (iv) greater participation by local communities in tourism-related economic and livelihood activities; and (v) strengthened capacity of concerned sector agencies and local communities for planning, development, management, and marketing of tourist destinations and attractions, and promoting private sector participation and small businesses.

Location

22. The Propsed project is located at Rudraprayag District. Rudraprayag is located at 30°17′N78°59′E / 30.28°N 78.98°E. It has an average elevation of 895 metres (2,936 feet). Rudraprayag is a town and a municipality in Rudraprayag district in the Indian state of Uttarakhand. Rudraprayag is one of the Panch Prayag (five confluences) of Alaknanda River, the point of confluence of rivers Alaknanda and Mandakini. Kedarnath, a Hindu holy town is located 86 km from Rudraprayag. It is one of the most beautiful regions in the world, rich in deodar, pine, oak, spruce and Himalayan fir trees.

23. Rudraprayag lies on national highway NH 58 that connects Delhi with Badrinath and Mana Pass in Uttarakhand near Indo-Tibet border. Therefore all the buses and vehicles that carry pilgrims from New Delhi to Badrinath via Haridwar and Rishikesh in pilgrim season of summer months pass through Rudraprayag on the way to Joshimath and further north. Rishikesh is the major starting point for road journey to Rudraprayag and regular buses operate from Rishikesh bus station to Rudraprayag. The road distance from Rishikesh to Rudraprayag is 141 km (88 mi) via Devprayag and Srinagar.

24. Rudraprayag District was established on 16th September1997. The district was carved out from the following areas of three adjoining districts, a) Whole of Augustmuni & Ukhimath block and part of Pokhri & Karnprayag block from Chamoli District, b) Part of Jakholi and

Kirti nagar block from Tehri District.,c) Part of Khirsu block from Pauri District. Asof 2011 it is the least populous district of Uttarakhand (out of 13).

25. According to the 2011 census Rudraprayag district has a population of 236,857. This gives it a ranking of 585th in India (out of a total of 640). The district has a population density of 119 inhabitants per square kilometer (310 /sq m). Kartikeya Swami temple is the only temple dedicated to lord Murugan or Kartikeya in Uttarakhand. Kartikeya Swami is coming under Uttrakhand Tourism Zone 3.

Present Status

26. The sub project area falls under Rudraprayag District. The sub – project envisages improvement of basic tourist infrastructure facilities at Kartikeya Swami Temple, and providing other facilities in consultation with Village Panchayat, Temple Trust/Committees and Forest department. The site is important to be developed for the following reasons;

- ✓ Currently facing lack of world-class infrastructure.
- ✓ Need to create more economically vibrant and environmentally sustainable area.
- ✓ At present un- managed and non- clean site.
- ✓ To bring the destination on world map as popular destinations
- ✓ To Strengthen our cultural significance
- ✓ Enhance quality of life and environment.
- ✓ Promote tourism in the areas
- ✓ Create awareness among the locals, Indians and foreigners

27. The expected impact of the Project is sustainable and inclusive tourism development in and around Kartikeya Swami Temple that exhibit enhanced protection and management of temple, improved market connectivity, enhanced destination and site environment and tourist support infrastructure, and enhanced capacities for sustainable destination and site development with extensive participation by the private sector and local communities.

28. As per the ADB's Environmental Assessment Guidelines, and in line with the Environment Assessment and Review Framework (EARF) for the project, the sub-project namely 'Development of Tourism Infrastructure in Kartikeya Swami' is categorized as B and an Initial Environmental Examination (IEE) prepared. This IEE assesses the environmental impacts due to the proposed development works and specifies measures towards addressing the impacts. The IEE was based on a review of sub-project site plans and

reports; field visits, and secondary data to characterize the environment and identify potential impacts; and interviews and discussions with stakeholders. Based on the findings of the IEE, an Environmental Monitoring Plan has been prepared, outlining the specific environmental measures to be adhered to during implementation of the sub-project. The REA checklist and environmental selection criteria as per EARF have been given in **Annexure 2** and **Annexure 3** respectively.

B. Purpose of the IEE:

29. 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

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

[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

potential impacts and potential impacts on human health and natural and man-made resources. Given that the sub-project is not covered in the ambit of the EIA notification, Environment clearance requirements from the GoI are not triggered.

Table 1: Environmental Regulatory Compliance

Sub-Project	Applicability of Acts/Guidelines	Compliance Criteria
Development of Tourism Infrastructure in Kartikeya Swami Temple	The EIA notification, 2006 (and its subsequent amendments in 2009) provides for categorization of projects into category A and B, based on extent of impacts.	The sub-project is not covered in the ambit of the EIA notification as this is not covered either under Category A or Category B of the notification. As a result, the categorization, and the subsequent environmental assessment and clearance requirements, either from the state or the GoI is not triggered. **Not Applicable**
	The Ancient Monuments and Archaeological Sites and Remains Act, 1958, and the rules, 1959 provide guidance for carrying out activities, including conservation, construction and reuse in and around the protected monuments.	The site of Kartikeya Swami Temple is not close to any ASI protected monument. Hence no permission is needed from ASI. **Not Applicable**
	Water (Prevention and control of pollution) Act, 1974 and Air (prevention and control of pollution) Act, 1981	Consent for Establishment (CFE) and Consent for Operation (CFO) from the Uttarakhand PCB for all sub-projects requiring, setting up of hot mix plants, wet mix plants, stone crushers and diesel generators.
	The Wildlife Conservation Act, 1972, amended in 2003 and 2006, provides for protection and management of Protected Areas.	No wildlife protected area nearby. **Not Applicable**
	Forest (Conservation) Act, 1980	This act provides guidelines for conservation of forests and diversion

Protection) Act, 1972, (ii) Critically Polluted areas as notified by the Central Pollution Control Board from time to time, (iii) Notified Eco-sensitive areas, (iv) inter-State boundaries and international boundaries

Sub-Project	Applicability of Acts/Guidelines	Compliance Criteria
		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. In the current case Kartikeya Swami Temple and pathway are located in Reserve Forest area, for which forest clearance is needed. **Correspondence with the Forest Dept. and Recommendation letter from Forest Department is enclosed in Annexure- 7.** **Works in the project will not be awarded until Forest Clearance is obtained.**
	ADB's Safeguard Policy Statement, 2009	Categorization of sub-project components into A, B, C, FI and developing required level of environmental assessment for each component. **Project is categorized as B (Ref Annexure 2)**

31. The above Table indicates 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.

32. 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[2] required to address the potential impacts. The Rapid

[2]As per SPS 2009 projects are assigned to one of the following four categories: (i) **Category A.** A proposed project is classified as category A if it is likely to have significant adverse environmental impacts that are irreversible, diverse, or unprecedented. These

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 sub-project has been categorized as B. Accordingly this IEE is prepared to address the potential impacts, in line with the recommended IEE content and structure for Category B projects. The IEE was based mainly on baseline data generation on environmental parameters and secondary sources of information and field reconnaissance surveys. Stakeholder consultation was an integral part of the IEE. An Environmental management plan (EMP) outlining the specific environmental measures to be adhered to during implementation of the sub-project has been prepared.

D. Review and Approval Procedure

33. 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.

E. Report Structure:

34. 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 & Monitoring Plan; (vi) Public consultation & Information Disclosure; (vii) Findings and Recommendations; and (viii) Conclusions.

---

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. Assessment of Existing Situation:

Project Location

35. The sub project area falls in Rudraprayag District. The sub project envisages improvement of basic tourist infrastructure facilities at Kartikeya Swami Temple and providing tourist facilities on track route in consultation with Village Panchayat, Temple Trust/Committees and Forest department.

36. Kartikeya Swami temple is 40km from Rudraprayag on Rudraprayag - Pokhari route.

Kartikeya Swami temple is located near Kanak Chauri village on Rudraprayag – Pokhari route in the Rudraprayag district of Uttarakhand. A mild 3km trek from Kanak Chauri village leads to Kartikeya Swami temple.

37. On the way there are some other famous shrines too, some of them are Nari devi temple in village Nari, tilted at angle of almost 30 degree, and Lord Tungeshwar temple in village Falasi. The same road is connected to Badrinath highway via Pokhri and meets it at Karanprayag also it connects to Kedarnath highway at Banswada via Mohankhal and Chandannagar.

38. Kartikeya Swami shrine is dedicated to Lord Shiva's son Kartikeya and is situated on a big rock atop the highest cliff around known locally as 'Swaminath danda' (Swaminath-Kartik swami,Danda-Mountain in Garhwali).It is at an altitude of 3050 m above the sea level, in Rudraprayag District of Himalayan state of Uttarakhand. This is only temple dedicated to lord Murugan or Kartikeya in Uttarakhand and one of only few in whole Northern India. There is a Bhairon temple just 100 meters before Kartikeya swami.

39. According to Hindu mythology, Lord Shiva (the destroyer) told his sons Ganesha and Kartikeya that one of them, who will be the first to take seven rounds of the universe, will have the privilege of being worshiped first.Ganesha took seven rounds around Shiva and Parvati, while Kartikeya faithfully circled the universe. Impressed by Ganesha, Shiva gave him the honor of being worshipped before anyone. Angered by this, Kartikeya sacrificed his

body and gave his bones to Lord Shiva as reverence. Chaukhamba peaks, Kedarnath peak are clearly visible from here.

40. Photo illustration of project sites attached as **Annexure 4.**

B. Proposed Subproject components:

41. The index map of the entire subproject sites is shown in **Figure-1**. Location of project site in satellite image is shown in **Figure 2**. Preserving the temple structure and upgrading the facilities to world class standards will ensure increase in the number of tourists which will help in generating more revenue on the other side. Appropriate re-designing and planning is required to retain the heritage of the temple complexes, along with accommodation for new spatial requirements of the increasing numbers of visitors.

Proposed sub Project Components as per DPR:

❖ **Kartikeya Swami Temple**

Sl. No.	Description
A	**Civil Work**
1	Pedestrian Pathway
2	Sitting Arrangement
3	Railing at Temple Premises Pathway
4	Renovation Existing Dharamshala
5	Rest Shelter
6	Retaining & Breast Walls
7	View Point
8	Pre-fabricated Small Size Toilet
9	Entrance Gate
10	Renovation of Lodging Facility
11	Furniture for Lodging Facility
12	Camping Site development
13	Renovation of Main Temple
14	Solar Lighting
15	Fire Fighting works
16	Additional items
17	Renovation of Existing Toilet
18	Toilet Block
19	Provision of Pathway Covering Shelter

20	Directional Signage
21	Informative Signage
22	Solar Power Plant (2KW)
23	Hill View location pointer model
B	**Electrical Work (Internal/External)**
C	**Provisional Sum for following components to other Govt. Department Agency to make payment on actual estimate to respective department**
a	Water Supply Connection
b	Electricity Connection
c	Rain Water Harvesting
D	Capacity building for Temple Committee members for O&M activities

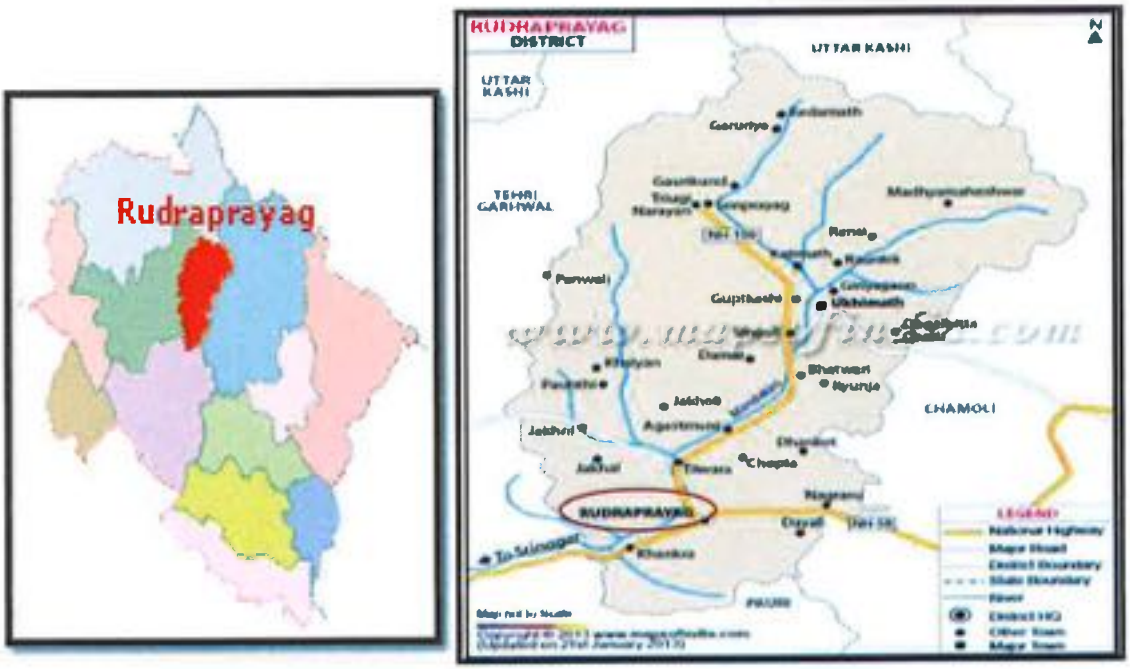


Figure 1: Rudraprayag District map showing the subproject sites

Figure 2: Location of Project Site in Satellite image

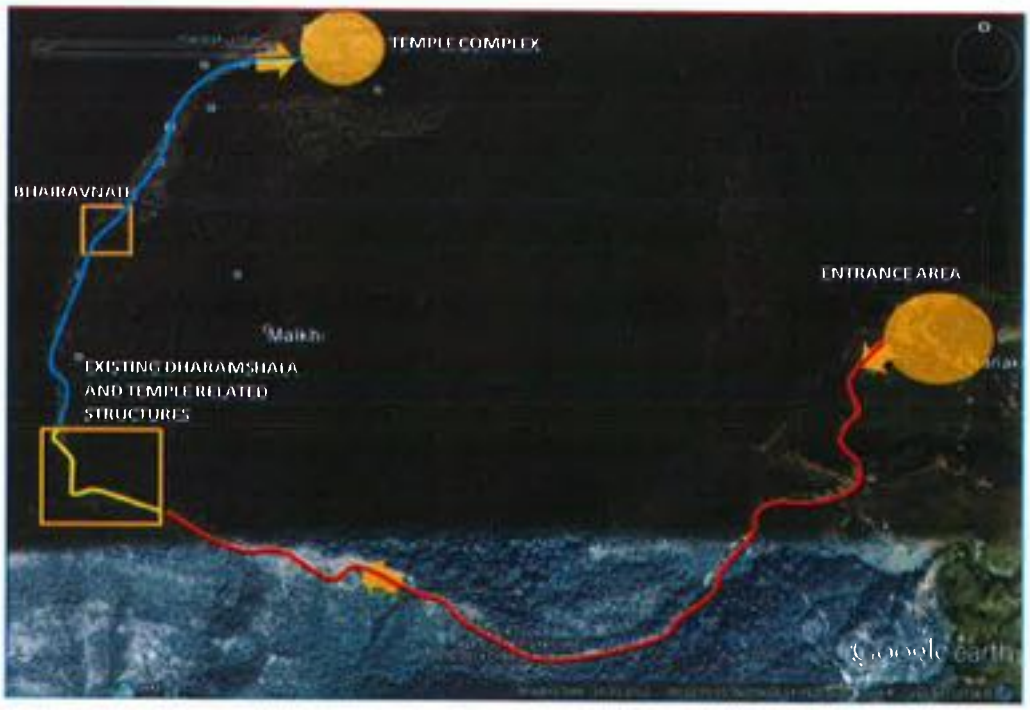


Figure 3- Kartikeya Swami Temple Site Plan

C. Implementation Schedule

42. The implementation period for the proposed subproject is 24 months and detailed project report completed in July 2015. Construction of all elements will begin in October 2015, and work will be completed in October 2017. The construction activities will exclude the months from December to March, which is the prime season of snow fall.

III. DESCRIPTION OF THE EXISTING ENVIRONMENT

43. This section presents a brief description of the existing environment, including its physical resources, ecological resources, socio-economic development and social and cultural resources. Broad aspects on various environmental parameters such as geography, climate and meteorology, physiographic, geology, seismology, ecology, socio-cultural and economic development parameters that are likely to be affected by the proposed subproject are presented. Secondary information was compiled from relevant government agencies like the Forest Department, State Environment Protection, and Pollution Control Board, and Meteorological Department.

A. Environmental Profile:

Air and Noise Quality

44. The air pollution level is well within the permissible limits because there are no major sources of pollution in the region. No point or non-point sources of air pollution were observed during the survey period. It was observed that the traffic on the roads is too low to cause unbearable air pollution due to vehicular exhaust. Finally, there are no industries recorded in or around the project site and hence any other source of atmospheric air pollution is not expected.

45. It was observed that ambient noise scenario in the study area is quite low in general. There are no industrial enterprises in and around the project area. As the traffic density is very low, the noise either from point or nonpoint sources is not expected in the project area. Moreover, there will be not much rise in the noise impacts due to the proposed activities, which are not major. There are no major settlements near the proposed site.

Climate

46. The elevation of the district ranges from 800 m. to 8000 m above sea level. The climate of the district depends on altitude. The winter season is from mid November to March. As most of the region is situated on the southern slopes of the outer Himalayas, monsoon currents can enter through the valley, the rainfall being heaviest in the monsoon from June to September.

Rainfall

47. Most of the rainfall occurs during the period June to September when 70 to 80 percent of the annual precipitation is accounted for in the southern half of the district and 55 to 65 percent in the northern half. The effectiveness of the rains is, among others, related to low

temperature which means less evapo transpiration and forest or vegetation cover. However, the effectiveness is neither uniform nor even positive in areas where either the vegetation cover is poor or / and has steep slopes or the soils have been so denuded that their moisture absorption capacity has become marginal.

Temperature

48. The details of temperature recorded at the meteorological observatories in the district show that the highest temperature was 34^{0}C and lowest below 0^{0}C. January is the coldest month after which the temperature begins to rise till June or July. Temperature varies with elevation. During the winter cold waves in the wake of western disturbances may cause temperature to fall appreciably. Snow accumulation in valleys is considerable.

Humidity

49. The relative humidity is high during monsoon season, generally exceeding 70% on the average. The driest part of the year is the pre monsoon period when the humidity may drop to 35% during the afternoon. During the winter months humidity increases toward the afternoon at certain high stations.

Cloudiness

50. Skies are heavily clouded during the monsoon months and for short spells when the region is affected by the passage of western disturbances. During the rest of the year the skies are generally clear to lightly cloud covered.

Winds

51. Owing to the nature of terrain local affect are pronounced and when the general prevailing winds not too strong to mask these effect, there is a tendency for diurnal reversal of winds, the flow being anabatic during the day and katabatic at night, the latter being of considerable force.

B. Biological Environment:

Forests

52. Kartikeya Swami Temple is under Reserve forest area and Forest Department (Copy of Nodal's report enclosed) has given recommendation letter for construction activity (formal forest clearance awaited). No tree cutting is envisaged. Main floral/ tree species in the area include, Quercus leucotrichophora, Lyonia ovalifolia, Myrica esculanta, Pinus roxburghii, Pyrus pashia, Rhododendron arboreum (Burans), Rhododendron anthopogon (Kodya), and Symplocus paniculata. Wild animals found here include Himalayan Black Bear, Leopard,

Guldar, Wild Boar, Jackal, Fox, Lynx, Himalayan Tahr, Ghoral, and Barking Deer. As per the Forest Dept.'s site inspection report, no rare/ endangered/ unique species of flora and fauna are found in the area.

Protected Areas

53. Project area is not located within any eco- sensitive zone, national park, wildlife sanctuary, biosphere reserve, tiger reserve or wildlife migration corridor etc.

54.

Figure 4 Forest Cover Map of Uttarakhand,

Source: http://www.mapsofindia.com/maps/uttaranchal/uttaranchal-forest-map.htm

55. The tourist arrival data for Rudraprayag district is given in **Table 2**. It is noted that tourist arrival has increased gradually.

Table 2: Tourist Arrival Data for Rudraprayag District for the Years 2007 to 2012

Sl. No.	Year	Indian	Foreign	Total
1.	2007 (January 01, 2007 to December 31, 2007)	851237	14389	865626
2.	2008 (January 01, 2008 to December 31, 2008)	867869	14793	882662

Sl. No.	Year	Indian	Foreign	Total
3.	2009 (January 01, 2009 to December 31, 2009)	871827	15329	887156
4.	2010 (January 01, 2010 to December 31, 2010)	898505	16103	914608
5.	2011 (January 01, 2011 to December 31, 2011)	912909	20533	933442
6.	2012 (January 01, 2012to December 31, 2012)	964380	15899	980279

Source: District Tourism Development Office, Rudraprayag

C. Economic Resources:

Industries

56. The State has very few industrial units mainly because of lack resources. In recent years, the government is encouraging private participation in all industrial activities in the State. The New Industrial Policy announced in 2003 indicates that private resources may be tapped while promoting integrated industrial estates in Uttarakhand. The State government provides assistance in establishing small and medium sized agro parks, food parks, and the likes which in turn are expected to provide common infrastructure facilities for storage, processing, grading, and marketing.

57. Rudraprayag has very few industries as industrial development here is still in its infancy stage. There is no large scale Industries or Public Sector undertakings in entire Rudraprayag district. Micro and small enterprises and artisan units exit in the District.

Infrastructural Facilities

Transportation

58. Rudraprayag is connected with Uttarakhand and rest of India through road network. National Highway 58 runs parallel to the North Western part of the Rudraprayag and connects it to rest of the world. Rudraprayag is also well connected by air transportation and railway line with entire country. Nearest Airport and railway station is Jolly Grant and Rishikesh railway Station respectively. Rudraprayag lies on national highway NH 58 that connects Delhi with Badrinath and Mana Pass in Uttarakhand near Indo-Tibet border.

Therefore all the buses and vehicles that carry pilgrims from New Delhi to Badrinath via Haridwar and Rishikesh in pilgrim season of summer months pass through Rudraprayag on the way to Joshimath and further north. Rishikesh is the major starting point for road journey to Rudraprayag and regular buses operate from Rishikesh bus station to Rudraprayag. The road distance from Rishikesh to Rudraprayag is 141 km (88 mi) via Devprayag and Srinagar.

Landuse

59. That majority of the district is under forest cover followed by land under cultivation and land under non-agricultural use. Together these three land use categories account for 94% of the total area. The cultivable barren land, total fallow land (current fallow and other fallow), pasture and other grazing land and land under gardens, bushes, groves etc. account for only 5%, which indicate that apart from the forest cover, remaining areas are primarily utilized for agricultural use.

60. The proposed subproject site at Rudraprayag is located in Reserve Forest, for which process for forest clearance has been initiated and recommendations from the DFO/ Nodal Officer have been annexed with the document. NOCs for work have also been obtained from Temple Committee, since Temple Committee runs the temple. The copy of letter from Temple Committee mentioning no objection in handing over the land to Department of Tourism, GoUK is placed in **Annexure 1.**

Agricultural Development

61. Agriculture is the main occupation of the people. However, intensive cultivation is not possible as major part of the district is mountainous. Agricultural activities are common on gentle hill slopes and in relatively plain, broad river valleys of Bhagirathi, Bhilangana and Alaknanda basins. Rice, wheat, mandua, barley, maize and sawan are the principal crops grown in the district. Wheat is the major crop grown in 26962 ha (47.97% of the net sown area) followed by sawan (17488 ha), mandua (14630 ha) and rice (12642 ha). Apart from this, other important crops sown in the district are barley (2620 ha), maize (1641 ha) and urad dal (1524 ha).

Power source

62. Uttarakhand has an estimated hydro power potential of 20,200 MW. However, only 1,130 MW has been tapped at present. Meanwhile, 4,170 MW projects are under implementation and 3,800 MW projects are allotted to Central, State, and private sectors.

D. Social and Cultural Resources:

Population and Communities

63. According to the 2011 census Rudraprayag district has a population of 236,857.This gives it a ranking of 585th in India (out of a total of 640). The district has a population density of 119 inhabitants per square kilometer (310 /sq m).

Archaeological Resources

64. There are no heritage sites listed by Archaeological Survey of India (ASI) within the subproject area or in near vicinity. Similarly, no common property resources (CPR) such as public wells, water tanks, play grounds, common grassing grounds or pastures, market areas and community buildings will be affected by the proposed subproject.

IV. ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

A. Land Acquisition and Resettlement Impacts:

65. The sites of subproject components are reserve forest land, however Temple Committee has been running the temple. Forest Clearance has been applied and recommendation letter from DFO Forest department is enclosed in **Annexure-9**. No land acquisition is envisaged for any component.

B. Environmental Impacts:

66. The assessment of environmental impacts for the proposed interventions under this package has been carried out. An environmental assessment using ADB's Rapid Environmental Assessment (REA) checklist for urban development (**Annexure 2**) was conducted. The following are categories of impacts assessed:

- **Location impacts:** Impacts associated with site selection, including impacts on environment and resettlement or livelihood related impacts on communities
- **Design impacts:** Impacts arising from project design, including the technology used, Scale of operations etc.
- **Construction impacts:** Impacts resulting from construction activities including site Clearance, earthworks, civil works, etc.
- **O&M impacts:** Impacts associated with the operation and maintenance of the Infrastructure built in the project.

Design considerations to avoid environmental impacts.

67. The following are design considerations to avoid environmental impacts:

- Incorporation of adequate drainage provisions.
- Adoption of design compatible with the natural environment and suitable selection of material to enhance the aesthetic appeal and blend with the natural surroundings.
- Straight lines and simple geometry in the proposed landscape and architectural features.
- Use of subtle colures and simple ornamentation in the structures.
- Natural tree species in the proposed landscape.
- Use of local stone in the proposed walkways and built structures thus maintaining a rustic architectural character.

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

Assessment of Environmental Impacts

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

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

Pre-construction Impacts and Mitigation Measures

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

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

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

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

- Develop an erosion control and re-vegetation plan to minimize soil loss and reduce Sedimentation to protect water quality.
- Minimize the potential for erosion by balancing cuts and fills to the extent feasible.

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

74. Utilities. Interruption of services will be scheduled and intermittently related to localized construction activities. To mitigate impacts, PIU/DSC will:

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

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

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

76. Sites for construction work camps and areas for stockpile, storage and disposal

The priority is to locate these near the subproject sites. The contractor will be required to meet the following criteria for the sites:

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

77. Sources of construction materials

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

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

78. It will be the construction contractor's responsibility to verify the suitability of all material sources and to obtain the approval of DSC/PIU. If additional quarries are required after construction is started, then the contractor obtains written approval of PIU.

79. Access

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

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

80. Summary of pre-construction activities is presented in **Table 3**. The responsibilities, monitoring program and costs are provided in detailed in the EMMP (Section V). The contractor is required to update the information during detailed design phase.

Table: 3 Summary of Pre-Construction Mitigation Measures

Parameters	Mitigation Measures
Consents, permits, clearances, no objection certificate (NOC), etc.	Obtain all necessary consents, permits, clearance, NOCs, etc. prior to start of civil works. Acknowledge in writing and provide report on compliance all obtained consents, permits, clearance, NOCs, etc. Include in detailed design drawings and documents all conditions and provisions if necessary
Erosion control	Develop an erosion control and re-vegetation plan to minimize soil loss and reduce sedimentation to protect water quality. Minimize the potential for erosion by balancing cuts and fills to the extent feasible. Identify and avoid areas with unstable slopes and local factors that can cause slope instability (precipitation, seismic activity, slope angles, and geologic structure). Minimize the amount of land disturbed as much as possible. Use existing roads, disturbed areas, and borrow pits and quarries when possible. Minimize vegetation removal. Stage construction to limit the exposed area at any one time.
Utilities	Identify and include locations and operators of these utilities in the detailed design documents to prevent unnecessary disruption of services during the construction phase.

Parameters	Mitigation Measures
	Require contractors to prepare a contingency plan to include actions to be done in case of unintentional interruption of services. Obtain from the PIU and/or DSC the list of affected utilities and operators; Prepare a contingency plan to include actions to be done in case of unintentional interruption of services. If relocations are necessary, contractor will coordinate with the providers to relocate the utility.
Social and Cultural Resources	Consult Archaeological Survey of India or State Department of Archaeology to obtain an expert assessment of the archaeological potential of the site. Consider alternatives if the site is found to be of medium or high risk. Include state and local archaeological, cultural and historical authorities, and interest groups in consultation forums as project stakeholders so that their expertise can be made available. Develop a protocol for use by the construction contractors in conducting any excavation work, to ensure that any chance finds are recognized and measures are taken to ensure they are protected and conserved.
Sites for construction work camps, areas for stockpile, storage and disposal	Will not promote instability and result in destruction of property, vegetation and drinking water supply systems, etc. Residential areas will not be considered so as to protect the human environment (i.e., to curb accident risks, health risks due to air and water pollution and dust, and noise, and to prevent social conflicts, shortages of amenities, and crime). Disposal will not be allowed near sensitive areas which will inconvenience the community. The construction camp, storage of fuel and lubricants should be avoided at the river bank. The construction camp site for intake well should be finalized in consultation with DSC and PIU.
Sources of construction materials	Use quarry sites and sources permitted by government. Verify suitability of all material sources and obtain approval from PIU/DSC. If additional quarries are required after construction has started, obtain written approval from PIU/DSC. Submit to DSC on a monthly basis documentation of sources of materials.

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

Anticipated Construction Impacts and Mitigation Measures

81. Construction Schedule and Method

As per preliminary design, construction activities will cover 2 years, likely to start from the fourth quarter of 2015.

82. The infrastructure will be constructed manually according to design specifications. Trenches will be dug and supplemented by manual digging where necessary. Excavated soil will be placed nearby. Demolished materials will be reused to the maximum extent possible. Materials will be brought to site manually/mule and will be stored on unused areas within the temple complexes and nearby vacant areas. Any excavated road will be reinstated. The working hours will be 8 hours daily, the total duration of each stage depends on the soil condition and other local features.

83. There is sufficient space for material staging area, construction equipment, and stockpiling of materials. However, the contractor will need to remove all construction and demolition wastes on a daily basis.

84. Although construction of these project components involves quite simple techniques of civil work, the invasive nature of excavation and the subproject sites in built-up areas where there are a variety of human activities, will result to impacts to the environment and

sensitive receptors such as residents, businesses, and the community in general. These anticipated impacts are short-term, site-specific and within relatively small areas.

85. Erosion Hazards. Kartikeya Swami temple is in hill area, chances of erosion are there but the magnitude of works/ nature of activities is restorative kind which shall least disturb the stability. The contractor will be required to:

- Save topsoil removed during excavation and use to reclaim disturbed areas, as soon as it is possible to do so.
- Use dust abatement such as water spraying to minimize windblown erosion.
- Provide temporary stabilization of disturbed/excavated areas that are not actively under construction.
- Conduct routine site inspections to assess the effectiveness of and the maintenance requirements for erosion and sediment control systems.

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

- Schedule civil works during non-monsoon season, to the maximum extent possible.
- Ensure drainages and water bodies within the construction zones are kept free of obstructions.
- Keep loose soil material and stockpiles out of drains, flow-lines and watercourses.
- Avoid stockpiling of excavated and construction materials (sand, gravel, cement, etc.) unless covered by tarpaulins or plastic sheets.
- Re-use/utilize, to maximum extent possible, excavated materials.
- Dispose any residuals at identified disposal site (PIU/DSC will identify approved sites).
- Dispose waste oil and lubricants generated as per provisions of Hazardous Waste (Management and Handling) Rules, 1989.
- Develop a spill prevention and containment plan, educate workers about the plan, and have the necessary materials on site prior to and during construction.
- Refuel equipment within the designated refueling containment area away from drainages, *nallahs*, or any water body.

➢ Inspect all vehicles daily for fluid leaks before leaving the vehicle staging area, and repair any leaks before the vehicle resumes operation.

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

➢ Conduct regular water spraying on earth piles, trenches and sand piles.

➢ Conduct regular visual inspection along alignments and construction zones to ensure no excessive dust emissions.

➢ Maintain construction vehicles and obtain "pollution under control" certificate from UK Pollution Control Board

➢ Obtain CFE and CFO for diesel generators, etc., if to be used in the project.

88. Noise and Vibration Impacts. Noise- and vibration-emitting construction activities include earthworks, rock crushing, concrete mixing, movement and operation of construction vehicles and equipment, and loading and unloading of coarse aggregates. These impacts will be temporary, short-term, intermittent, and expected to be in the range of 80 to 100 dB(A).

89. The contractor will be required to:

✓ Limit construction activities in temple complexes and other important sites to daytime only.

✓ Plan activities in consultation with the PIU/DSC so that activities with the greatest potential to generate noise are conducted during periods of the day which will result in least disturbance.

✓ Minimize noise from construction equipment by using vehicle silencers and fitting jackhammers with noise-reducing mufflers.

✓ Avoid loud random noise from sirens, air compression, etc.

✓ Require drivers that horns not be used unless it is necessary to warn other road users or animals of the vehicle's approach.

✓ If specific noise complaints are received during construction, the contractor may be required to implement one or more of the following noise mitigation measures, as directed by the project manager:

✓ Locate stationary construction equipment as far from nearby noise-sensitive properties as possible.

✓ Shut off idling equipment.

✓ Reschedule construction operations to avoid periods of noise annoyance identified in the complaint.

✓ Notify nearby residents whenever extremely noisy work will be occurring.

✓ Follow Noise Pollution (Regulation and Control) Rules, day time ambient noise levels should not exceed 65 dB(A) in commercial areas, 55 dB(A) in residential areas, and 50 dB(A) in silence zone.[3]

✓ Ensure vehicles comply with Government of India noise limits for vehicles. The test method to be followed shall be IS: 3028-1998.

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

✓ Conduct site induction and environmental awareness.

✓ Limit activities within the work area.

✓ Replant trees in the area using minimum ratio of 2 new trees for every 1 tree cut, if any. Replacement species must be approved by PIU.

91. Impacts on Physical Cultural Resources

There may be inconvenience to tourists, and other local road users due to construction activities in the temple complexes. This potential impact is site-specific, short-term and can be mitigated. The contractor will be required to:

✓ Ensure no damage to structures/properties near construction zone.

✓ Provide walkways and metal sheets where required to maintain access of people and vehicles.

[3] Day time shall mean from 6.00 am to 10.00 pm. Silence zone is an area comprising not less than 100 meters around hospitals, educational institutions, courts, religious places or any other area which is declared as such by UK PCB.

✓ Provide sign boards to inform nature and duration of construction works and contact numbers for concerns/complaints.

✓ Increase the workforce in front of critical areas such as institutions, place of worship, business establishment, hospitals, and schools;

✓ Implement good housekeeping. Remove wastes immediately. Prohibit stockpiling of materials that may obstruct/slow down pedestrians and/or vehicle movement.

✓ Ensure workers will not use nearby/adjacent areas as toilet facility.

✓ Coordinate with DSC for transportation routes and schedule. Schedule transport and hauling activities during non-peak hours. Communicate road detours via visible boards, advertising, pamphlets, etc.

✓ Ensure heavy vehicles do not use narrow local roads, except in the immediate vicinity of delivery sites.

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

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

Prepare and implement a waste management plan. Manage solid waste according to the following hierarchy:

✓ Reuse, recycling and disposal. Include in waste management plan designated/approved disposal areas.

✓ Coordinate with DSC for beneficial uses of excavated soils/silts/sediments or immediately dispose to designated areas.

✓ Recover used oil and lubricants and reuse; or remove from the sites.

✓ Avoid stockpiling and remove immediately all excavated soils, excess construction materials, and solid waste (removed concrete, wood, trees and plants, packaging materials, empty containers, oils, lubricants, and other similar items).

✓ Prohibit disposal of any material or wastes (including human waste) into drainage, *nallah*, or watercourse.

93. Impacts on Occupational Health and Safety. Residential accommodation for workers is not proposed. Workers need to be mindful of occupational hazards which can

arise from excavation works. Exposure to work-related chemical, physical, biological and social hazard is typically intermittent and of short duration, but is likely to reoccur. Potential impacts are negative and long-term but reversible by mitigation measures. The contractor will be required to:

- Disallow worker exposure to noise level greater than 85 dBA for duration of more than 8 hours per day without hearing protection. The use of hearing protection shall be enforced actively.
- Develop comprehensive site-specific health and safety (H&S) plan. The overall objective is to provide guidance to contractors on establishing a management strategy and applying practices that are intended to eliminate, or reduce, fatalities, injuries and illnesses for workers performing activities and tasks associated with the project.
- Include in H&S plan measures such as: (i) type of hazards during excavation works; (ii) corresponding personal protective equipment for each identified hazard; (iii) H&S training for all site personnel; (iv) procedures to be followed for all site activities; and (v) documentation of work-related accidents.
- Provide H&S orientation training to all new workers to ensure that they are apprised of the rules of work at the site, personal protective protection, and preventing injury to fellow workers.
- Ensure that qualified first-aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the site as well as at construction camps.
- Provide medical insurance coverage for workers.
- Secure construction zone from unauthorized intrusion and accident risks.
- Provide supplies of potable drinking water.
- Provide clean eating areas where workers are not exposed to hazardous or noxious substances.
- Provide visitor orientation if visitors to the site can gain access to areas where hazardous conditions or substances may be present. Ensure also that visitor/s do not enter hazard areas unescorted.
- Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas.
- Ensure moving equipment is outfitted with audible back-up alarms.
- Mark and provide sign boards in the construction zone, and areas for storage and disposal. Signage shall be in accordance with international standards and be well known to, and easily understood by workers, visitors, and the general public as appropriate.

94. Impacts on Socio-Economic Activities. Manpower will be required during the 24 month's construction phase. This can help generate contractual employment and increase

in local revenue. Thus potential impact is positive and long-term. As per preliminary design, land acquisition and closure of roads are not required. However, construction activities may impede access of residents and customers to shops. The potential impacts are negative and moderate but short-term and temporary. The contractor will need to adopt the following mitigation measures:

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

95. Summary of Mitigation Measures during Construction. Table-4 provides summary of mitigation measures to be considered by the contractor during construction phase. The detailed mitigation measures, environmental monitoring and reporting requirements, emergency response procedures, related implementation arrangements, capacity development and training measures, implementation schedule, cost estimates, and performance indicators are provided in the EMP (Section 5).

Table 4: Summary of Mitigation Measures during Construction Phase

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

Potential Impact	Mitigation Measures
Impacts on water quality	Schedule civil works during non-monsoon season, to the maximum extent possible. Ensure drainages and water bodies within the construction zones are kept free of obstructions. Keep loose soil material and stockpiles out of drains, flow-lines and watercourses. Avoid stockpiling of excavated and construction materials (sand, gravel, cement, etc.) unless covered by tarpaulins or plastic sheets. Re-use/utilize, to maximum extent possible, excavated materials. Dispose any residuals at identified disposal site (PIU/DSC will identify approved sites). Dispose waste oil and lubricants generated as per provisions of Hazardous Waste (Management and Handling) Rules, 1989. Develop a spill prevention and containment plan, educate workers about the plan, and have the necessary materials on site prior to and during construction. Refuel equipment within the designated refueling containment area away from drainages, *nallahs*, or any water body. Inspect all vehicles daily for fluid leaks before leaving the vehicle staging area, and repair any leaks before the vehicle resumes operation.
Impacts on air quality	Conduct regular water spraying on earth piles, trenches and sand piles. Conduct regular visual inspection along alignments and construction zones to ensure no excessive dust emissions. Spreading crushed gravel over backfilled surfaces if re-surfacing of disturbed ROWs cannot be done immediately. Maintain construction vehicles and obtain "pollution under control" certificate from UK Pollution Control Board Obtain CFE and CFO for diesel generators, etc., if to be used in the project.
Noise and vibrations impacts	Limit construction activities in temple complexes and other important sites to daytime only. Plan activities in consultation with the PIU/DSC so that activities with the greatest potential to generate noise are conducted during periods of the day which will result in least disturbance. Minimize noise from construction equipment by using vehicle silencers and fitting jackhammers with noise-reducing mufflers. Avoid loud random noise from sirens, air compression, etc. Require drivers that horns not be used unless it is necessary to warn other road users or animals of the vehicle's approach. If specific noise complaints are received during construction, the contractor may be required to implement one or more of the following noise mitigation measures, as directed by the project manager: (i) locate stationary construction equipment as far from nearby noise-sensitive properties as possible; (ii) shut off idling equipment; (iii) reschedule construction

Potential Impact	Mitigation Measures
	operations to avoid periods of noise annoyance identified in the complaint; and/or (iv) notify nearby residents whenever extremely noisy work will be occurring. Follow Noise Pollution (Regulation and Control) Rules, day time ambient noise levels should not exceed 65 dB(A) in commercial areas, 55 dB(A) in residential areas, and 50 dB(A) in silence zone.[4] Ensure vehicles comply with Government of India noise limits for vehicles. The test method to be followed shall be IS:3028-1998.
Impacts on flora and fauna	Conduct site induction and environmental awareness. Limit activities within the work area. Replant trees in the area using minimum ratio of 2 new trees for every 1 tree cut, if any. Replacement species must be approved by DSC.
Impacts on physical resources	Ensure no damage to structures/properties near construction zone. Provide walkways and metal sheets where required to maintain access of people and vehicles. Provide sign boards to inform nature and duration of construction works and contact numbers for concerns/complaints. Increase the workforce in front of critical areas Implement good housekeeping. Remove wastes immediately. Prohibit stockpiling of materials that may obstruct/slow down pedestrians and/or vehicle movement. Ensure workers will not use nearby/adjacent areas as toilet facility. Coordinate with DSC for transportation routes and schedule. Schedule transport and hauling activities during non-peak hours. Communicate road detours via visible boards, advertising, pamphlets, etc. Ensure heavy vehicles do not use narrow local roads, except in the immediate vicinity of delivery sites. Provide instructions on event of chance finds for archaeological and/or ethno-botanical resources. Works must be stopped immediately until such time chance finds are cleared by experts.
Impacts on waste generation	Prepare and implement a waste management plan. Manage solid waste according to the following hierarchy: reuse, recycling and disposal. Include in waste management plan designated/approved disposal areas. Coordinate with DSC, Safeguard specialist for beneficial uses of excavated soils/silts/sediments or immediately dispose to designated areas. Recover used oil and lubricants and reuse; or remove from the sites. Avoid stockpiling and remove immediately all excavated soils, excess construction materials, and solid waste (removed concrete, wood, trees and plants, packaging materials, empty containers, oils, lubricants, and other

[4] Day time shall mean from 6.00 am to 10.00 pm. Silence zone is an area comprising not less than 100 meters around hospitals, educational institutions, courts, religious places or any other area which is declared as such by UK Pollution Control Board

Potential Impact	Mitigation Measures
	similar items). Prohibit disposal of any material or wastes (including human waste) into drainage, *nallah*, or watercourse.
Impacts on occupational health and safety	Comply with IFC EHS Guidelines on Occupational Health and Safety Disallow worker exposure to noise level greater than 85 dBA for a duration of more than 8 hours per day without hearing protection. The use of hearing protection shall be enforced actively. Develop comprehensive site-specific health and safety (H&S) plan. The overall objective is to provide guidance to contractors on establishing a management strategy and applying practices that are intended to eliminate, or reduce, fatalities, injuries and illnesses for workers performing activities and tasks associated with the project. Include in H&S plan measures such as: (i) type of hazards during excavation works; (ii) corresponding personal protective equipment for each identified hazard; (iii) H&S training for all site personnel; (iv) procedures to be followed for all site activities; and (v) documentation of work-related accidents. Provide H&S orientation training to all new workers to ensure that they are apprised of the rules of work at the site, personal protective protection, and preventing injury to fellow workers. Ensure that qualified first-aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the site as well as at construction camps. Provide medical insurance coverage for workers. Secure construction zone from unauthorized intrusion and accident risks. Provide supplies of potable drinking water. Provide clean eating areas where workers are not exposed to hazardous or noxious substances. Provide visitor orientation if visitors to the site can gain access to areas where hazardous conditions or substances may be present. Ensure also that visitor/s do not enter hazard areas unescorted. Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas. Ensure moving equipment is outfitted with audible back-up alarms. Mark and provide sign boards in the construction zone, and areas for storage and disposal. Signage shall be in accordance with international standards and be well known to, and easily understood by workers, visitors, and the general public as appropriate.
Impacts on socio-economic activities	Leave space for access between mounds of soil. Provide walkways and metal sheets where required to maintain access to shops/businesses along trenches. Consult businesses and institutions regarding operating hours and factoring this in to work schedules.

Potential Impact	Mitigation Measures
	Provide sign boards for pedestrians to inform nature and duration of construction works and contact numbers for concerns/complaints. Employ at least 50% of the labor force, or to the maximum extent, local persons within the 2-km immediate area if manpower is available. "Mobility Plan" has to be chalked out in consultation with the District Administration prior to start of work.

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

C. Post-Construction Impacts and Mitigation Measures:

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

- Backfill any excavation and trenches, preferably with excess excavation material generated during the construction phase.
- Use removed topsoil to reclaim disturbed areas.
- Reestablish the original grade and drainage pattern to the extent practicable.
- Stabilize all areas of disturbed vegetation using weed-free native shrubs, grasses, and trees.
- Restore access roads, staging areas, and temporary work areas.
- Restore roadside vegetation.
- Remove all tools, equipment, barricades, signs, surplus materials, debris, and rubbish. Demolish buildings/structures not required for O&M. Dispose in designated disposal sites.
- Monitor success of re-vegetation and tree re-planting. Replace all plants determined to be in an unhealthy condition.

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

98. Impacts on environmental conditions associated with the O&M of the components pertain to impacts related to increased tourists in the areas resulting to increased vehicular

movement along the roads, increased demands for services, and increased solid waste generation. These impacts can be mitigated by:

99. Increased vehicular movement along the Rudraprayag Pokhri State Highway. speed restrictions, provision of appropriate road signage and well located rest points for pedestrians shall minimize impacts on safety of the people

100. Increase demands for services – addressed through the subproject design

101. Increase solid waste generation – addressed through the subproject design and will be maintained by the Temple Committee during the Operation Phase

V. ENVIRONMENT MANAGEMENT AND MONITORING PLAN (EMMP)

A. Institutional Arrangements:

102. 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) & Project Implementation Unit (PIU)

103. The Department of Tourism, Government of Uttarakhand is the Executing Agency (EA). Project Management Unit (PMU) established in Dehradun for the overall project management and Project Implementation Units (PIU) established for each of the three circuits. The proposed sub-project will be implemented by the PIU, Dehradun. A Safeguards Specialist within the PMU will be responsible for implementation of the resettlement and environmental safeguard provisions. A Forest Conservation Specialist is also proposed in PMU and DSC to look the matters of forests in all the projects.

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

104. Project Management Consultants (PMC) and Design and Supervision Consultants (DSC) are 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 and revision of the Environmental Assessment documents in line with the EARF and supervise the implementation of the EMP provisions in the various sub-projects. The PMU, will oversee the implementation of the environmental provisions related to subproject implementation, its responsibilities include preparation and updating of IEEs consistent with the ADBs Environmental Assessment Guidelines and the environmental compliance requirements of the Government of Uttarakhand and the Government of India.

105. The DSC's Safeguards Specialist will support environmental management functions including updating sub-project IEEs in respect to environmental management plans, assisting in preparation of 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.

106. Towards addressing the environmental issues in the project components during design and implementation, the DSC will include provisions for inputs of an Environmental Specialist. In addition to addressing the issues related to environmental management in the project, the Environmental Specialist will play a central role in ensuring capability building on Environmental Management of the PMU/PIU, Contractor and Line Departments. Specific and specialized responsibilities are,

Responsibilities of Contractors- Strict implementation of EMP and Supervision

- Abide by the environmental laws formulated by the community institution
- Regularly remove trash from the site on daily basis.
- From construction workers affecting lake ecology and biodiversity.
- The 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
- It will be ensured by the contractor that the top soil will not be unnecessarily trafficked either before stripping or when in stockpiles. Such stockpiled top soil will be returned to cover the disturbed area and cut slopes.
- The Contractor with support of the PIU will carry out dissemination of these information and circulation plan at key entry points to the respective destinations
- The 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 cold potable water to be provided and maintained.
- The Contractor will ensure that construction activities not result in any contamination of land, water or air quality by polluting substances
- Contractor will ensure that no trees or shrubs or vegetation are felled or harmed except those required to be cleared for execution of work. The Contractor will protect tree and

vegetation from damage to satisfaction of the engineer.

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 and explain how to protect bio-diversity during construction works
- Regular site visit and reporting during construction works to check whether objectives of EMP being

107. Responsibilities for EMP Implementation: The following agencies will be responsible for EMP Implementation:

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

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

Responsibility for updating IEE during detailed design

109. Responsibility for monitoring. During construction, DSC's Environmental Specialist and the designated representative engineer of the PIU will monitor the contractor's environmental performance. During the operation phase, monitoring will be the responsibility of the contractor and during operation phase o and M will be with temple committee.

110. Responsibility for Reporting

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

B. Environmental Management Plan

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

- Abide by all existing Environmental regulations and requirements of the Government of Uttarakhand and Government of India, during implementation,
- Compliance with all mitigation measures and monitoring requirements set out in the Environmental Management Plan (EMP)
- Submission of a method statement detailing how the subproject EMP will be complied with as per the schedule of monitoring given in subsequent paragraphs.
- Monitoring of project environmental performance and periodic submission of monitoring reports.
- Compliance with all measures required for construction activities in line with the regulatory requirements and the guidelines set forth in the management plans for these areas.

- Compliance of all safety rules and regulations applicable at work, and provision of adequate health and safety measures such as water, food, sanitation, personal protective equipment, workers insurance, and medical facilities.

112. The detailed provisions for specific environmental issues shall be as outlined in the EIMM table on impacts and mitigation measures. **Table 5 and 6** show the potential adverse environmental impacts, proposed mitigation measures, responsible parties, and cost of implementation. This EMP will be included in the bid documents and will be further reviewed and updated during implementation.

Table 5: Pre-Construction EMP Tables

Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds to Implement Mitigation Measures
Consents, permits, clearances, no objection certificate (NOC), etc.	Obtain all necessary consents, permits, clearance, NOCs, etc. prior to start of civil works. Kartikeya swami temple trust received recommendation letter from Forest Department for construction path way, rest sheds, and sitting benches and facility toilet and renovation	Consents, permits, clearance, NOCs, etc.	PIU/DSC	PMU/PMC	Check CFEs permits, clearance, prior to start of civil works	PMU
	Acknowledge in writing and provide report on compliance all obtained consents, permits, clearance, NOCs, etc.	Records and communications	PIU/DSC	PMU/PMC	Acknowledge upon receipt Send report as specified in CFE, permits, etc.	PMU
	Include in detailed design drawings and documents all conditions and provisions if necessary	Detailed design documents and drawings	Contractor	PMU and PMC PIU and DSC	Upon submission by contractor	Contractor
Establishment of baseline environmental conditions	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	Records	Contractor	PMU and PMC PIU and DSC	field visit	PMU

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

Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds to Implement Mitigation Measures
	quarries when possible. Minimize vegetation removal. Stage construction to limit the exposed area at any one time.					
Utilities	Identify and include locations and operators of these utilities in the detailed design documents to prevent unnecessary disruption of services during the construction phase. Require contractors to prepare a contingency plan to include actions to be done in case of unintentional interruption of services. Obtain from the PIU and/or DSC the list of affected utilities and operators; If relocations are necessary, contractor will coordinate with the providers to relocate the utility.	List and maps showing utilities to be shifted Contingency plan for services disruption	- DSC to prepare preliminary list and maps of utilities to be shifted - During detailed design phase, contractor to (i) prepare list and operators of utilities to be shifted; (ii) contingency plan	PMU and PMC PIU and DSC	field visit	DSC – preliminary design stage Contractor – detailed design stage
Social and Cultural Resources	Consult Archaeological Survey of India (ASI) or UK State Archaeology Department to obtain an expert assessment of the archaeological potential of the site. Consider alternatives if the site is found to	Chance find protocol	- PMC to consult ASI or UK State Archaeology Department	PMU	field visit	PMC

Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds to Implement Mitigation Measures
	be of medium or high risk. Include state and local archaeological, cultural and historical authorities, and interest groups in consultation forums as project stakeholders so that their expertise can be made available. Develop a protocol for use by the construction contractors in conducting any excavation work, to ensure that any chance finds are recognized and measures are taken to ensure they are protected and conserved.		- PMC to develop protocol for chance finds			
Sites for construction work camps, areas for stockpile, storage and disposal	Will not promote instability and result in destruction of property, vegetation, and drinking water supply systems, etc. Residential areas will not be considered so as to protect the human environment (i.e., to curb accident risks, health risks due to air and water pollution and dust, and noise, and to prevent social conflicts, shortages of amenities, and crime). Disposal will not be allowed near sensitive areas which will inconvenience the community.	List of pre-approved sites for construction work camps, areas for stockpile, storage and disposal Waste management	- DSC to prepare list of potential sites - DSC to inspect sites proposed by contractor if not included in pre-approved sites	PMU PIU	field visit	DSC

Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds to Implement Mitigation Measures
	The construction camp, storage of fuel and lubricants should be avoided near water source	plan				
Sources of construction materials	Use quarry sites and sources permitted by government. Verify suitability of all material sources and obtain approval from PIU. If additional quarries are required after construction has started, obtain written approval from PIU. Submit to DSC on a monthly basis documentation of sources of materials.	Permits issued to quarries/sources of materials	Contractor PMC and DSC to verify sources (including permits) if additional is requested by contractor	PMU and PIU	Upon submission by contractor	PMC and DSC
Access	Plan transportation routes so that heavy vehicles do not use narrow local roads, except in the immediate vicinity of delivery sites. Schedule transport and hauling activities during non-peak hours. Locate entry and exit points in areas where there is low potential for traffic congestion. Keep the site free from all unnecessary obstructions. Drive vehicles in a considerate manner.	Traffic management plan	Contractor	PIU and DSC	field visit	Contractor

Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds to Implement Mitigation Measures
	Coordinate with the Traffic Police Department for temporary road diversions and for provision of traffic aids if transportation activities cannot be avoided during peak hours. Notify affected sensitive receptors by providing sign boards with information about the nature and duration of construction works and contact numbers for concerns/complaints. Traffic management will be required at Rudraprayag where Interpretation center will be constructed.					
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	Health and safety (H&S) plan	Contractor	PMU and PMC PIU and DSC	field visit	Contractor

Parameters	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of monitoring	Source of Funds to Implement Mitigation Measures
	with the project. Include in H&S plan measures such as: (i) corresponding personal protective equipment for each identified hazard; (ii) H&S training for all site personnel; (iii) procedures to be followed for all site activities; and (iv) documentation of work-related accidents and (v) provide medical insurance coverage for workers.					
Public consultations	Continue information dissemination, consultations, and involvement/participation of stakeholders during project implementation.	- Disclosure records - Consultations	PMU and PMC PIU and DSC Temple administrators Contractor	PMU and PMC	- During updating of IEE Report - During preparation of site- and activity-specific plans as per EMP Prior to start of construction - During construction	PMU Contractor to allocate funds to support

Table 6: EMP Table During Construction Phase

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
Erosion hazards	Save topsoil removed during excavation and use to reclaim disturbed areas, as soon as it is possible to do so. Use dust abatement such as water spraying to minimize windblown erosion. Provide temporary stabilization of disturbed/excavated areas that are not actively under construction. Apply erosion controls (e.g., silt traps) along the drainage leading to the water bodies. Maintain vegetative cover within road ROWs to prevent erosion and periodically monitor ROWs to assess erosion. Clean and maintain drainage ditches, and culverts regularly. Conduct routine site inspections to assess the effectiveness of and	Erosion control and re vegetation plan	Contractor	PIU and DSC PIU to submit EMP monitoring report to PMU	- daily visual inspection by contractor supervisor and/or environment specialist - weekly visual inspection by DSC (more frequent during monsoon season and if corrective action is required) - random inspection by PMU, PIU,	Contractor

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	the maintenance requirements for erosion and sediment control systems.				PMC and/or DSC	
Impacts on water quality	Schedule construction activities during non-monsoon season, to the maximum extent possible.	Work schedule	Contractor	PIU and DSC PIU to submit EMP monitoring report to PMU	- daily inspection by contractor supervisor and/or environment specialist - weekly visual inspection by DSC (more frequent during monsoon season and if corrective action is required)	Contractor
	Ensure drainages within the construction zones are kept free of obstructions.	Visual inspection				
	Keep loose soil material and stockpiles out of drains and flow-lines.	Visual inspection				
	Avoid stockpiling of excavated and construction materials (sand, gravel, cement, etc.) unless covered by tarpaulins or plastic sheets.	Visual inspection				
	Re-use/utilize, to maximum extent possible, excavated materials.	condition in waste management plan				

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	Dispose any residuals at identified disposal site (PIU/DSC will identify approved sites).	condition in waste management plan			- random inspection by PMU, PIU, PMC and/or DSC	
	Dispose waste oil and lubricants generated as per provisions of Hazardous Waste (Management and Handling) Rules, 1989.	condition in waste management plan				
	Refuel equipment within the designated refueling containment area away from drainages, *nallahs*, or water body.	condition in list of pre-approved sites for construction work camps, areas for stockpile, storage and disposal				
	Inspect all vehicles daily for fluid leaks before leaving the vehicle staging area, and repair any leaks before the vehicle resumes operation.	Vehicle inspection report				

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
Impacts on air quality	Conduct regular water spraying on stockpiles.	Visual inspection No complaints from sensitive receptors Records	Contractor	PIU and DSC	- daily inspection by contractor supervisor and/or environment specialist - weekly visual inspection by DSC (more frequent during dry season and if corrective action is required) - random inspection by PMU, PIU, PMC and/or DSC	Contractor
	Conduct regular visual inspection in the construction zones to ensure no excessive dust emissions.	Visual inspection				
	Maintain construction vehicles and obtain "pollution under control" certificate from Uttrakhand Pollution Control Board.	PUC certificates				
Noise and vibrations	Limit construction activities in temple complexes and other	Work schedule	Contractor	J and DSC	- daily inspection by	Contractor

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
impacts	important areas to daytime only. Plan activities in consultation with PIU/DSC so that activities with the greatest potential to generate noise are conducted during periods of the day which will result in least disturbance.				contractor supervisor and/or environment specialist - weekly visual inspection by DSC (more frequent during noise-generating activities and if corrective action is required) - random inspection by PMU, PIU, PMC and/or DSC	
	Minimize noise from construction equipment by using vehicle silencers and fitting jackhammers with noise-reducing mufflers.	Report on ambient noise level monitoring within direct impact zones				
	Avoid loud random noise from sirens, air compression, etc.	zero incidence				
	Require drivers that horns not be used unless it is necessary to warn other road users or animals of the vehicle's approach.	feedback from receptors within direct and direct impact zone				
	If specific noise complaints are received during construction, the contractor may be required to implement one or more of the following noise mitigation measures, as directed by the	-Complaints addressed satisfactory - GRM records				

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	project manager: Locate stationary construction equipment as far from nearby noise-sensitive properties Shut off idling equipment. Reschedule construction operations to avoid periods of noise annoyance identified in the complaint. Notify nearby residents whenever extremely noisy work will be occurring.					
Impacts on flora and fauna	Conduct site induction and environmental awareness at Kartikya swami	Records	Contractor	PIU and DSC	- daily inspection by contractor supervisor and/or environment specialist - weekly visual inspection by DSC (more	Contractor
	Limit activities within the work area.	Barricades along excavation works				

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
					frequent if corrective action is required) - random inspection by PMU, PIU, PMC and/or DSC	
Impacts on physical cultural resources	Ensure no damage to structures/properties adjacent to construction zone.	- Visual inspection - any impact should be addressed by project resettlement plan	Contractor Coordination with PIU and DSC for any structures within WTP site and construction zone	PIU and DSC	-daily inspection by contractor supervisor and/or environment specialist - weekly visual inspection by DSC (more frequent if corrective action is required) - random	Contractor
	Provide sign boards to inform nature and duration of construction works and contact numbers for concerns/complaints.	-no complaints received - photo-documentation				
	Implement good housekeeping. Remove wastes immediately.	Visual inspection No stockpiled/ stored wastes				
	Ensure workers will not use	No complaints				

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	nearby/adjacent areas as toilet facility.	received Sanitation facilities for use of workers			inspection by PMU, PIU, PMC and/or DSC	
	Coordinate with PIU/DSC for transportation routes and schedule. Schedule transport and hauling activities during non-peak hours. Communicate road detours via visible boards, advertising, pamphlets, etc. This will be taken care during construction of Interpretation center at Rudraprayag	- Approved routes in traffic management plan				
	Provide instructions on event of chance finds for archaeological and/or ethno-botanical resources. Works must be stopped immediately until such time chance finds are cleared by experts.	condition in chance find protocol				
	Prepare and implement a waste management plan. Manage solid	condition in waste management plan				

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	waste according to the following hierarchy: reuse, recycling and disposal. Include in waste management plan designated/approved disposal areas. Coordinate with PIU/DSC for beneficial uses of excavated soils or immediately dispose to designated areas. Recover used oil and lubricants and reuse; or remove from the site. Prohibit disposal of any material or wastes (including human waste) into drainage, *nallah*, or watercourse.					
Impact due to waste generation	Comply with IFC EHS Guidelines on Occupational Health and Safety	- Visual inspection - Records	Contractor	PIU and DSC	- daily inspection by contractor supervisor and/or environment	Contractor

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
					specialist - weekly visual inspection by DSC (more frequent if corrective action is required) - random inspection by PMU, PIU, PMC and/or DSC	
Impacts on occupational health and safety	Disallow worker exposure to noise level greater than 85 dBA for a duration of more than 8 hours per day without hearing protection. The use of hearing protection shall be enforced actively.	- Visual inspection - Work schedule - Noise level monitoring in work area	Contractor	PIU and DSC	- daily inspection by contractor supervisor and/or environment specialist - weekly visual inspection by DSC (more	Contractor
	Provide H&S orientation training to all new workers to ensure that they are apprised of the rules of work at the site, personal	- Records - Condition in UK plan				

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	protective protection, and preventing injury to fellow workers.				frequent if corrective action is required) - random inspection by PMU, PIU, PMC and/or DSC	
	Ensure that qualified first-aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the site as well as at construction camps.	- Visible first aid equipment and medical supplies - Condition in UK plan				
	Provide medical insurance coverage for workers.	Records				
	Secure construction zone from unauthorized intrusion and accident risks.	- Area secured - Trenches barricaded				
	Provide supplies of potable drinking water.	- Supply of water				
	Provide clean eating areas where workers are not exposed to hazardous or noxious substances.	- Workers area				
	Provide visitor orientation if visitors to the site can gain access to areas where hazardous	- Records - Condition in UK plan				

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	conditions or substances may be present. Ensure also that visitor/s do not enter hazard areas unescorted.					
	Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas.	- Visual inspection - Condition in UK plan				
	Ensure moving equipment is outfitted with audible back-up alarms.	-Construction vehicles - Condition in UK plan				
	Mark and provide sign boards in the construction zone, and areas for storage and d sposal. Signage shall be in accordance with international standards and be well known to, and easily understood by workers, visitors, and the general public as	- Visible and understandable sign boards in construction zone - UK plan includes appropriate signs for each hazard				

Potential Impact	Mitigation Measures	Parameter/ Indicator of Compliance	Responsible for Implementation	Responsible for Supervision	Frequency of Monitoring	Source of Funds
	appropriate.	present				
Impacts on socio-economic activities	Provide sign boards for pedestrians to inform nature and duration of construction works and contact numbers for concerns/complaints.	Visible and understandable sign boards in construction zone	Contractor	PIU and DSC	-daily inspection by contractor supervisor and/or environment specialist - weekly visual inspection by DSC (more frequent if corrective action is required) - random inspection by PMU, PIU, PMC and/or DSC	Contractor
	Employ at least 50% of the labor force, or to the maximum extent, local persons within the 2-km immediate area if manpower is available.	Employment records				

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

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

Table 7: Site- and Activity-Specific Plans/Programs as per EMP

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

To be Prepared During	Specific Plan/Program	Purpose	Responsible for Preparation	Responsible for Implementation
Detailed Design Phase	Waste / Spoil management plan	Mitigate impacts due to waste generation	Contractor	Contractor
Detailed Design Phase	Traffic management plan	Mitigate impacts due to transport of materials and pipe laying works	Contractor	Contractor
Detailed Design Phase	H &S plan	Occupational health and safety	Contractor	Contractor
Detailed Design Phase	Spill prevention and containment plan	Mitigate impacts of accidental spills of oil, lubricants, fuels, concrete, and other hazardous materials	Contractor	Contractor

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

114. Table 8 provides the environmental monitoring plan which includes relevant environmental parameters, with a description of the sampling stations, frequency of monitoring, applicable standards, and responsibility. This may be updated during detailed design to ensure EMP and monitoring program is commensurate to the impacts of the subproject.

Table 8: Environmental Monitoring Plan

	Field	Phase		Parameters	Location	Frequency	Responsibility
	A. In and around Temple premises (works), Parking area,						
1.	Air quality	Detailed design phase to establish baseline		Particulate matter	In and around the temple premises	24 hours (once)	Contractor
		Construction		Particulate matter	In and around the temple premises	24 hours (one sampling during dry season)	Contractor
2.	Noise level	Detailed design phase to establish baseline		Day time dB(A)	In and around the temple premises	Once dry season	Contractor
		Construction		Day time dB(A)	In and around the temple premises	During noise-generating activities	Contractor

C. Capacity Building:

115. The Environmental Specialist of the DSC will provide the basic training required for environmental awareness followed by specific aspects of infrastructure improvement Projects along with Environmental implications for projects. Specific modules customized for the available skill set will be devised after assessing the capabilities of the members of the Training Programme and the requirements of the project. The entire training would cover basic principles of environmental assessment and management; mitigation plans and programmes, implementation techniques, monitoring methods and tools. The proposed training program along with the frequency of sessions is presented in **Table 9** below. This training program is intended for the entire destination and is not just specific to this package.

Table 9: Training Modules for Environmental Management (common for entire project)

Program	Description	Participants	Form of Training	Duration/ Location	Training Conducting Agency
A. Pre-Construction Stage					
Sensitization Workshop	Introduction to Environment: Basic Concept of environment Environmental Regulations and Statutory requirements as per Govt. of India and ADB	Tourism / Forest / Roads / Culture Department Officials, Project Director (PD) and Environmental Specialist (ES) of the PMU/PIU	Workshop	½ Working Day	Environmental Specialist of the PMC and DSC
B. Construction Stage					
Module 1	Roles and Responsibilities of officials / contractors / consultants towards protection of environment Implementation Arrangements	Engineers and staff of line depts. of GoUK, and PMU/PIU (including the ES)	Lecture / Interactive Sessions	½ Working Day	Safeguards Specialist of the PMC and DSC
Module 2	Monitoring and Reporting System	Engineers and staff of implementing agencies and PMU/ PIU (including ES)	Lecture / Interactive Sessions	½ Working Day	Safeguards Specialist of the PMC and DSC

D. EMP Implementation Cost:

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

117. This is a small construction project and it is not expected to cause much significant air, water and noise pollution. The main EMP cost will arise from monitoring of environmental parameters (air and noise) and training.

118. The costs of water sprinkling for dust suppression and providing personal protective equipment's to construction workers shall borne by contractor as part of conditions of contract. In addition the sources of funds for Mitigation measures during construction stage including monitoring during construction stage are also to be borne by the contractor. These are deemed to be included as part of the contract price amount quoted by the contractor for the works. The costs of components for monitoring in operation stage and the capacity building costs are to be funded by the PMU. The EMP cost is given in the **Table 11** below.

Table 10: Environmental Budget (INR)

S.N.	Particulars	Stages	Unit	Total No.	Rate (INR)	Cost (INR)	Source of fund
A. Monitoring Measures							
1	Air quality monitoring	Construction	Per sample	4	10,000	40,000	Contractor budget
2	Noise Levels – silence zones	Construction	Per location	4	4,000	16,000	Contractor budget
3	Ambient Air Quality	Operation	Per Sample	4	10,000	40,000	PMU
4	Ambient Noise Quality	Operation	Per Sample	4	4,000	16,000	PMU
Sub- Total (A)						**112,000**	
B.	**Capacity Building – Training cost**						
1	Sensitizati	Pre-	L.S	2		100,000	PMU

S.N.	Particulars	Stages	Unit	Total No.	Rate (INR)	Cost (INR)	Source of fund
	on Workshop	Construction					
2	Training Session I	Construction	L.S	2		100,000	PMU
3	Training Session II	Construction	L.S	2		100,000	PMU
Sub -Total (B)						**3,00,000**	
Total (A+B) INR						**4,12, 000/-**	

E. Environmental Monitoring and Reporting :

119. The PMU will monitor and measure the progress of EMP implementation. PIU will undertake site inspections and document review to verify compliance with the EMP and progress toward the final outcome. DSC will submit monthly monitoring and implementation reports to PIU, who will take follow-up actions, if necessary. PIU will submit quarterly monitoring and implementation reports to PMU. The PMU will submit semi-annual monitoring reports to ADB. Monitoring reports will be posted in a location accessible to the public.

120. 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.

VI. PUBLIC CONSULTATION AND INFORMATION DISCLOSURE

A. Process For Consultations Followed:

121. This subproject does not involve any elements, which could have an adverse impact on the community. There is no deprivation of any sort for the residents or displacement of any groups. Particularly, with regard to environmental impacts the subproject can be characterized as innocuous.

122. In view of this, the need for holding a public hearing is not perceived at this stage. However in compliance with the ADB's guidelines, focused public consultations were undertaken during the site visits in the sub project areas. Residents of the area were informed about the proposed sub-project and their views were obtained. During the preparation of this IEE, consultations have been held with the officials of Uttarakhand Tourism Department, District collector, Forest Department, and other Stakeholders and agencies in Rudraprayag district. The local level consultations were also carried out on February 08, 2014 by the other subject experts and Environmental expert DSC. The Team Leader DSC and Environmental Expert of DSC also had consultations with the District Collector Development Officer on February, 2014 for his comments and suggestions for the successful implementation of the project. The consultants further explained the department people, tourism people and Mandir committee in the meeting.

123. The process of consultations was taken up as an integral part of the sub-project in accordance with ADB Guidelines and following objectives:

- ✓ To educate the general public, specially potentially impacted or benefited communities / individuals and stakeholders about the proposed sub project activities;
- ✓ To familiarize the people with technical and environmental issues of the sub project for better understanding;
- ✓ To solicit the opinion of the communities / individuals on environmental issues and assess the significance of impacts due to the proposed development;
- ✓ To foster co-operation among officers of PIU, the community and the stakeholders to achieve a cordial working relationship for smooth implementation of the sub project;
- ✓ To identify the environmental issues relating to the proposed activity.

124. During the consultations local residents and other stakeholders of subproject area opined that there are limited tourism infrastructures in the region and the tourist inflow is minimal. The subproject implementation will help improvement in infrastructures and publicity about the region. They demanded fast implementation of the subproject.

Entrance gate to Kartikeya Swami temple

Consultation at Kartikeya swami with shopkeepers

Consultation at Kartikeya swami with shopkeepers

Meeting with Mandir Pujari

B. Future Consultation and Information Disclosure:

125. 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 redressed cell will be set up within the PIU 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 and the communities in the vicinity of the subproject location, an extensive project awareness campaigns will be carried out.

Information disclosure

126. 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. On demand, any 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.

127. The PMU will issue notification on the disclosure mechanism in local newspapers, ahead of the initiation of implementation of the project, providing information on the project, as well as the start dates, etc. The notice will be issued by the PMU in local newspapers one month ahead of the implementation works. This will create awareness of the project implementation among the public.

C. Grievance Redress Mechanism:

128. 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.

129. 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

130. Local Grievance Committee.(LGC) – The local LGC will comprise of an NGO representative, Line Agency, representative of Gram Panchayat ,Special invitee.

131. 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.

132. 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

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

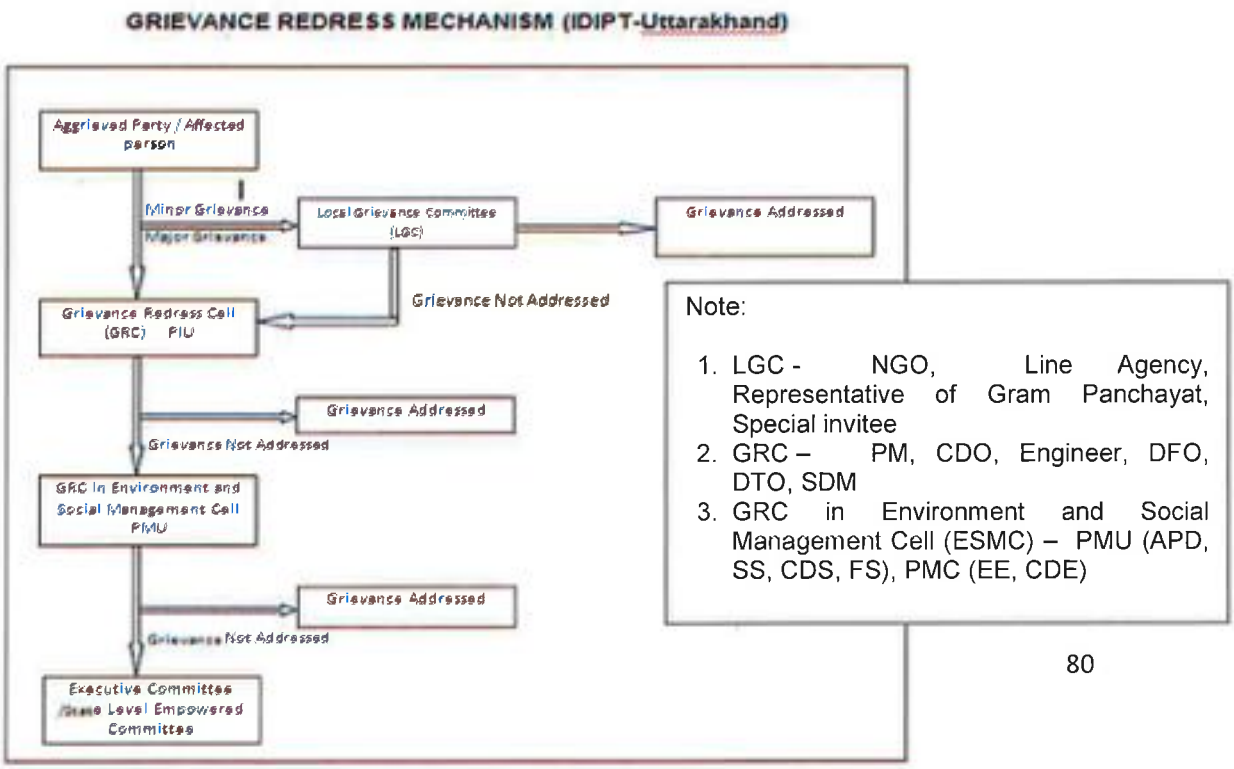
a) Web based: A separate corner will be developed at the program website so that public / community/ affected person can register their complaint in the online column.

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.

134. The grievance redress mechanism has also been shown in **Figure-5 below**.

Figure 5: Grievance Redress Mechanism in IDIPT, Uttarakhand



VII. FINDINGS AND RECOMMENDATION

135. The proposed subproject components involve construction/ renovation activities in temple complex and pathway located in reserve forest areas. Proposed interventions are in sync with the natural and cultural character and have less significant (direct/indirect) environmental impacts. It is expected that the proposed subproject will enhance economic growth and provision of livelihood opportunities for local communities through tourism infrastructure development with a focus on preservation and development of natural and cultural heritage and incidental services. The proposed Project under the Facility is provided to support the State of Uttarakhand, to enhance and develop the tourism sector as a key driver for economic growth.

136. This IEE has identified minor likely impacts on water, air and noise during construction and operation period and has defined mitigation measures. Those mitigation measures will be implemented and monitored during the sub-project execution. Further, the provision of environmental infrastructure, including access to sanitation and waste management facilities within the tourist areas, will better the environmental conditions and minimize the pollution thereby improving the aesthetic quality of the sites which is bound to deteriorate in the absence of tourism infrastructure.

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

VIII.CONCLUSIONS

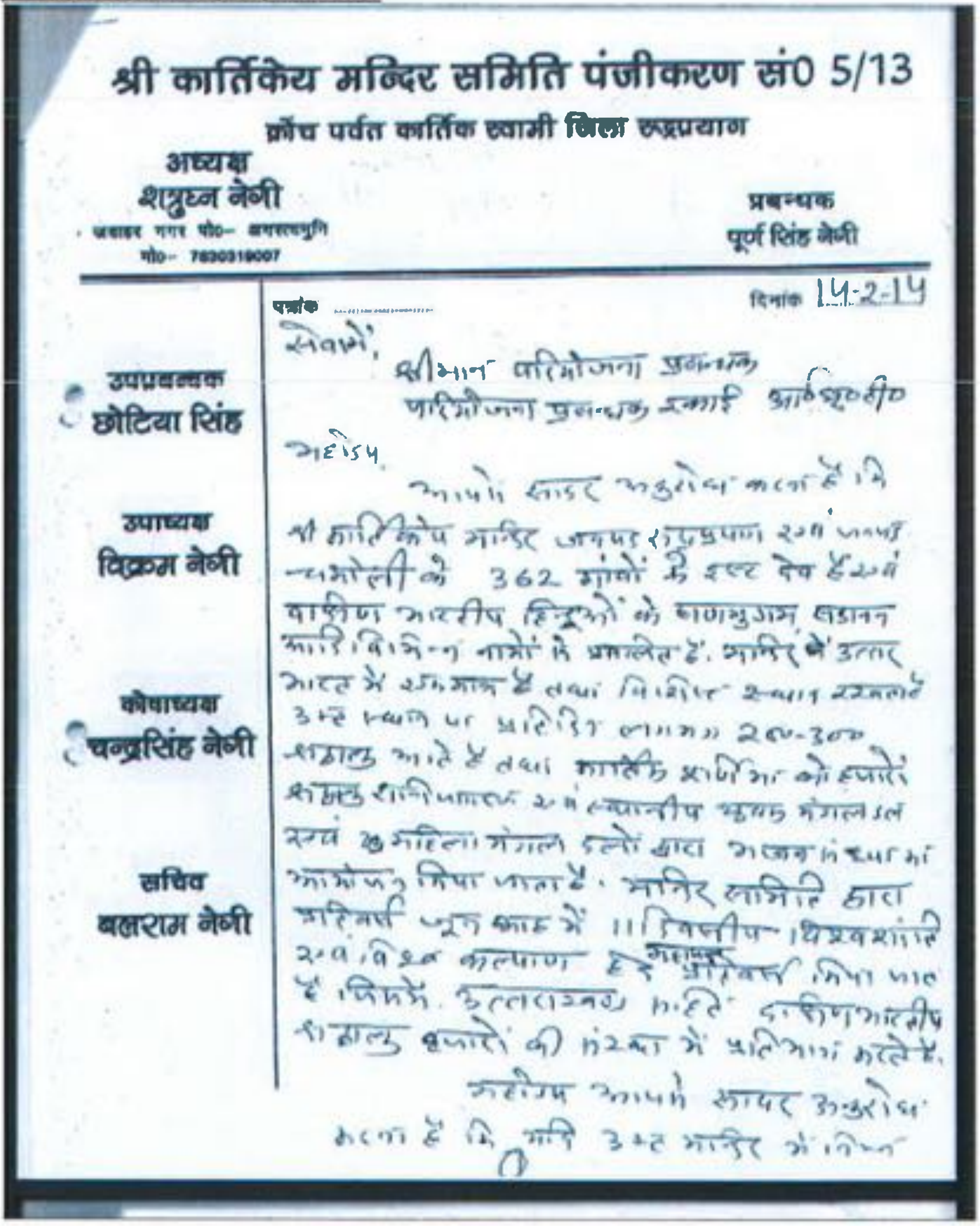
138. On the basis of the IEE It is expected that the proposed project components have only minor, negative, localized, temporary and less significant environmental impacts. These impacts can be easily mitigated through adequate mitigation measures and regular monitoring during the Design, Construction and Post Construction Phase of the project. It is recommended that UTDB along with the temple committees should have monitoring responsibility in environmental issues of all program components during operational phase to ensure the environmental sustenance.

139. In conclusion, the sub-project will have overall beneficial impacts after completion in terms of tourism development. Negative impacts on water, air quality and noise levels during civil works & operation phase, which will be appropriately monitored and adequately mitigated. This report has not identified any comprehensive, broad, diverse or irreversible adverse impacts caused by the sub project. It is recommended that project can be implemented with proper mitigation measures to protect the environment.

140. Based on the findings of the IEE, the classification of the subproject as Category "B" is confirmed, and no further special study or detailed EIA needs to be undertaken to comply with ADB SPS (2009).

ANNEXURE: 1

Letter of Temple Trust for providing land for infrastructure development works at Kartikeya Temple premises



श्री कार्तिकेय मन्दिर समिति पंजीकरण सं0 5/13

क्रौंच पर्वत कार्तिक स्वामी जिला रुद्रप्रयाग

अध्यक्ष
शत्रुघ्न नेगी
[illegible] नगर पो0- अगस्त्यमुनि
मो0- 7830319007

प्रबन्धक
पूर्ण सिंह नेगी

उपप्रबन्धक
छोटिया सिंह

उपाध्यक्ष
विक्रम नेगी

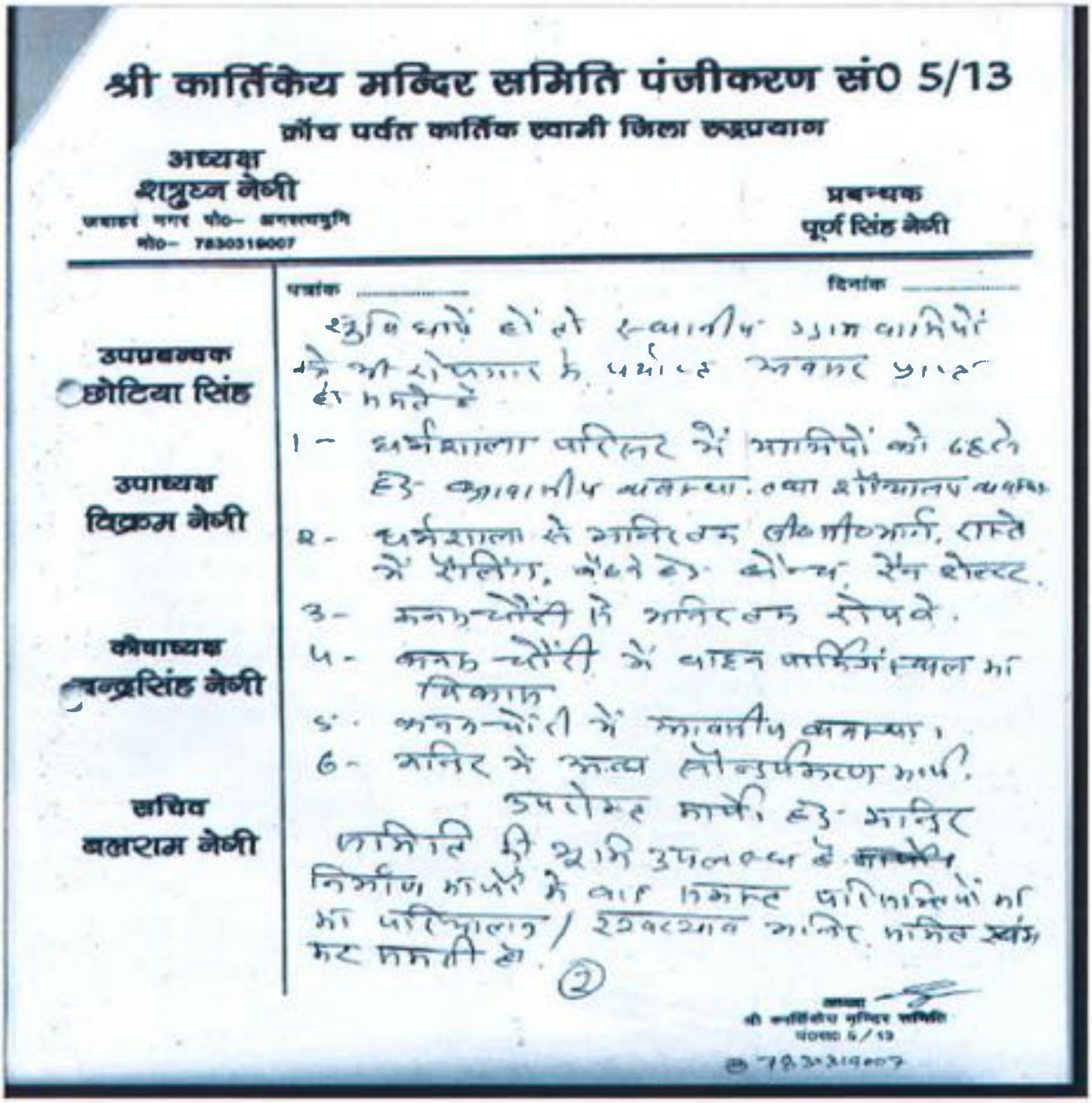
कोषाध्यक्ष
चन्द्रसिंह नेगी

सचिव
बलराम नेगी

पत्रांक .... दिनांक 14-2-14

सेवा में,
श्रीमान परियोजना प्रबन्धक
परियोजना प्रबन्धक इकाई [illegible]

महोदय,
आपसे सादर अनुरोध करना है कि
श्री कार्तिकेय मन्दिर जनपद रुद्रप्रयाग एवं जनपद
चमोली के 362 गांवों के इष्ट देव हैं एवं
दक्षिण भारतीय हिन्दुओं के कार्तिकेय, षडानन
आदि विभिन्न नामों से प्रचलित हैं. मन्दिर की उत्तर
भारत में एकमात्र है तथा निर्धारित स्थान रमणीक
उक्त स्थान पर प्रतिदिन लगभग 200-300
श्रद्धालु आते हैं तथा कार्तिक पूर्णिमा को हजारों
श्रद्धालु रात्रि जागरण एवं स्थानीय भजन मंडलियों
एवं महिला मंगल दलों द्वारा भजन कीर्तन का
आयोजन किया जाता है. मन्दिर समिति द्वारा
प्रतिवर्ष जून माह में 11 दिवसीय विश्वशांति
एवं विश्व कल्याण हेतु महायज्ञ आयोजित किया जाता
है जिसमें उत्तराखण्ड सहित दक्षिणभारतीय
श्रद्धालु हजारों की संख्या में प्रतिभाग करते हैं.
महोदय आपसे सादर अनुरोध
करना है कि यदि उक्त मन्दिर में निर्माण
(1)



श्री कार्तिकेय मन्दिर समिति पंजीकरण सं0 5/13

क्रौंच पर्वत कार्तिक स्वामी जिला रुद्रप्रयाग

अध्यक्ष
शत्रुघ्न नेगी
मो0- 7830319007

प्रबन्धक
पूर्ण सिंह नेगी

उपप्रबन्धक
छोटिया सिंह

उपाध्यक्ष
विक्रम नेगी

कोषाध्यक्ष
चन्द्रसिंह नेगी

सचिव
बलराम नेगी

पत्रांक .... दिनांक ....

सुविधायें होने से स्थानीय ग्राम वासियों के भी रोजगार के पर्याप्त अवसर प्राप्त हो सकते हैं

1 - धर्मशाला परिसर में यात्रियों को ठहरने हेतु आवासीय व्यवस्था तथा शौचालय व्यवस्था
2 - धर्मशाला से मन्दिर तक टीनशेड, रास्ते में रेलिंग, बैठने की व्यवस्था, रेन शेल्टर।
3 - कनकचौरी से मन्दिर तक रोपवे।
4 - कनकचौरी में वाहन पार्किंग स्थल का निर्माण
5 - कनकचौरी में आवासीय व्यवस्था।
6 - मन्दिर के अन्य सौन्दर्यीकरण कार्य।

उपरोक्त कार्यों हेतु मन्दिर समिति की भूमि उपलब्ध है। निर्माण कार्यों के बाद निर्माण परिसम्पत्तियों का भी परिपालन/रखरखाव मन्दिर समिति स्वयं कर सकती है।

(2)

अध्यक्ष
श्री कार्तिकेय मन्दिर समिति
पंजीकरण 5/13
7830319007

Transcription

Letter from Kartikeya Swami Temple Trust to Project Director, IDIPT for providing infrastructure facilities at Kartikeya Swami temple and its vicinity. Request has been made for construction of Rest house, Toilets blocks, Sitting arrangement, rain shelters from Rest house to Temple, Parking and Beautification of temple etc

ANNEXURE 2: RAPID ENVIRONMENTAL ASSESSMENT (REA) CHECKLIST

Instructions:

Natural, Heritage & Cultural

1. The project team completes this checklist to support the environmental classification of a project. It is to be attached to the environmental categorization form and submitted to the Environment and Safeguards Division (RSES) for endorsement by Director, RSES and for approval by the Chief Compliance Officer.

2. 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.

3. 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: IITIDP – Development of tourist facilities at Kartikeya Swami Temple.

Sector Division: SAUD

Screening Questions	Yes	No	Remarks
A. Project Siting Is the project area adjacent to or within any of the following areas:			
▪ Underground utilities		√	No underground activity within the temple premises.
▪ Cultural heritage site		√	Site is temple but not coming within ASI protected area.
▪ Protected Area		√	Kartikeya swami Temple located within the Reserve forest land. Forest Clearance is under process
▪ Wetland		√	
▪ Mangrove		√	NA
▪ Estuarine		√	NA
▪ Buffer zone of protected area		√	Project site is not coming under buffer zone
▪ Special area for protecting biodiversity		√	There is no special area for protecting biodiversity within the project area.

Screening Questions	Yes	No	Remarks
▪ Bay		√	NA
B. Potential Environmental Impacts Will the Project cause.			
▪ Encroachment on historical/cultural areas?		√	Project is not encroaching the historical and cultural area
▪ Encroachment on precious ecology (e.g. sensitive or protected areas)?		√	Kartikeya swami temple is located in Reserve forest land No sensitive/ protected area in vicinity
▪ Impacts on the sustainability of associated sanitation and solid waste disposal systems?		√	These impacts shall result in the event of the sanitation and solid waste systems not being developed in the proposed area.
▪ Dislocation or involuntary resettlement of people?		√	No re-settlement issue
▪ Disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?		√	No such impact envisaged
▪ Accident risks associated with increased vehicular traffic, leading to loss of life?		√	Development is proposed on 3 km trek route to temple and within temple premises. No accident risks envisaged.
▪ Increased noise and air pollution resulting from increased traffic volume?	√		Adoption of the mitigation measures shall effectively address such impacts during construction and post construction.
▪ Occupational and community health and safety risks?		√	Proper precaution will be taken on occupational and community health during implementation time.
▪ Risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during project construction and operation?		√	No risk and vulnerable to occupational health.
▪ Generation of dust in sensitive areas during construction?	√		Envisaged during the construction activities. Adoption of the mitigation measures shall effectively
▪ Requirements for disposal of fill, excavation, and/or spoil materials?	√		

Screening Questions	Yes	No	Remarks
▪ Noise and vibration due to blasting and other civil works?		√	address such impacts during construction.
▪ Temporary silt runoff due to construction		√	During construction time, contractor will ensure proper silt runoff. Also there is no major construction activity
▪ Long-term impacts on groundwater flows as result of needing to drain the project site prior to construction?		√	There is no major construction activity, so ground water will not be affected.
▪ Long-term impacts on local hydrology as a result of building hard surfaces in or near the building?		√	
▪ Large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?		√	Exiting water supply and sanitation system will support population influx during project construction and operation period
▪ Social conflicts if workers from other regions or countries are hired?		√	50% labour is proposed to be engaged from the local area/project site and rest may be from the other regions.
▪ Risks to community safety caused by fire, electric shock, or failure of the buildings safety features during operation?		√	There is no high tension electric line within the project sites.
▪ Risks to community health and safety caused by management and disposal of waste?		√	Very minor waste will be generated and that will not affect community health.
▪ 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?		√	Proper precaution will be taken by the implementing agency during executing the project.

A Checklist for Preliminary Climate Risk Screening

Country/Project Title: IITIDP: Uttarakhand, Development of tourism infrastructure at Kartikeya Swami

Sector: Tourism

Division/Department: SAUW (South Asia Urban Development and Water Division)

Screening Questions		Score	Remarks[5]
Location and Design of project	Is siting and/or routing of the project (or its components) likely to be affected by climate conditions including extreme weather related events such as floods, droughts, storms, landslides?	1	Blockage of road due to landslides expected.
	Would the project design (e.g. the clearance for bridges) need to consider any hydro-meteorological parameters (e.g., sea-level, peak river flow, reliable water level, peak wind speed etc)?	0	No such structures planned
Materials and Maintenance	Would weather, current and likely future climate conditions (e.g. prevailing humidity level, temperature contrast between hot summer days and cold winter days, exposure to wind and humidity hydro-meteorological parameters likely affect the selection of project inputs over the life of project outputs (e.g. construction material)?	0	No climatic conditions likely to affect selection of project inputs
	Would weather, current and likely future climate conditions, and related extreme events likely affect the maintenance (scheduling and cost) of project output(s)?	1	The extreme weather conditions will affect maintenance scheduling
Performance of project outputs	Would weather/climate conditions, and related extreme events likely affect the performance (e.g. annual power production) of project output(s) (e.g. hydro-power generation facilities) throughout their design life time?	0	Not applicable

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

Options for answers and corresponding score are provided below:

Response	Score
Not Likely	0
Likely	1
Very Likely	2

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

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

Other Comments: **None**

ANNEXURE 3: Environmental Selection Criteria (as per EARF table 6)

Component	Criteria	Remarks
Overall selection criteria	**1.** Will be fully consistent with management plans or master plans for the area	No specific Management plan for the area. But, Kartikeya Swami has tremendous potential to become a national hub for eco-tourism. UNWTO master plan for Tourism also suggests development and promotion of tourism around Kartikeya swami Temple. • Enhanced livelihood opportunities with increase in tourist flow once basic infrastructure and services improved. • Enhanced opportunities for small restaurants/dhaba's owners, Hotel/lodges, local guides, local produce etc. • Villagers will be engaged in the maintenance work of the structures at Kartikeya Swami. • Income of the MandirSamittee will increase due to halting of number of tourists • Interpretation centre at Rudraprayag and at other three locations will give employment to staff like receptionist, guides, managers, care takers etc. • Specific soft measures (training, formation of self help groups, etc.) for community benefit have been taken care of under Rural Tourism sub project in which villages around Kartikeya Swami temple will be covered.

Component	Criteria	Remarks
	2. Will avoid resettlement/relocation. If unavoidable the extent of resettlement will be minimized.	No such impact anticipated.
	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.	Kartikeya Swami Temple lies within the Reserve forest land. No protected area in 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	The sub project will promote tourism related activities in reserve forest areas subject to clearance from forest department
	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	Location of temple is not close to any Archaeological Survey of India (ASI) notified archaeological monument or heritage 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	Yes, construction of pathways will not involve any major works within prohibited and regulated areas as no ASI notified monument/heritage site exists in the vicinity.
	8. Will reflect inputs from public consultation and disclosure for site selection	Meaningful public consultations have been done from planning phase and inputs have been considered in the project design
	9. Will not introduce any elements or components that are invasive upon the sanctity and significance of the cultural heritage site, including large scale commercial activities or creation of	The sub project will not introduce any element or components that are invasive upon sanctity of cultural heritage site.

Component	Criteria	Remarks
	new land uses with potential to trigger induced development and land use changes around the sites	
	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 includes only native species.
	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	Provisions for O&M have been made in the EMP and responsibility entrusted to the executing department to ensure environment management sustainability.
	12. Will reflect inputs from public consultation and disclosure for site selection	Inputs from major stakeholders like Forest Dept., District Authorities,and local population residing close to subproject site have been incorporated in the designs and planning.
Conservation measures and excavation measures-in and around Cultural properties and protected Monuments/ Structures.	**13.** 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.	Effort has been made to provide a feeling of the glorified history of the region. The proposed structure shall be constructed in in sync with Uttarakhand architecture
	14. 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.	No protected Monument/ cultural heritage site in vicinity, therefore, this is not applicable
	15. Will ensure that intervention be minimal. Every intervention proposed shall have clear objectives and use tried and proven methods and materials.	Interventions in the temple and pathway are minimal and also subject to forest clearance as site is in reserve forest.

Component	Criteria	Remarks
	16. Will ensure that physical remains are conserved in their historic condition without loss of evidence. 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	Design interventions are planned so as to retain the original fabric/ architectural character.
	17. 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	*Not applicable*
Component	Criteria	
	18. 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. The construction and operation of temple campus will not have any impact traditional technology and craftsmanship.
	19. 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	*NA*
	20. Will ensure that during archaeological excavation care be taken to conserve the physical remains. A practical plan for the conservation of a site-both during and after excavation-should be submitted for all site Programmed for excavation	*NA*

Component	Criteria	Remarks
	21. Will ensure that treatment of the cultural heritage site and its environs is a comprehensive measure to prevent damage form natural processes and human actions, to reveal the historic condition of a site, and to allow its rational use. Service building should be as far as possible form the principal area of the site. Landscaping should aim to restore the site to its historic state and should not adversely affect the site: contemporary gardening and landscape concepts and designs should not be introduced.	*NA,* as the site is not a cultural heritage site Proposed subproject entails renovation of temple infrastructure.
Conservation and habitat protection measures- in and around the natural heritage assets and protected areas.	**22.** 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.	Kartikeya Swami Temple lie within the reserve forest land. Recommendation letter from forest department enclosed.
	23. 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
	24. 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 within Reserve Forest. Recommendation letter from Forest department enclosed.
	25. Will ensure that the areas of significant habitat diversity habitats are conserved in their natural condition.	No significant habitat diversity noticed in the area
	26. The results of intervention should be unobtrusive when compared to the original fabric or to previous	It is tried to retain the architectural character of the temple through proposed

Component	Criteria	Remarks
	treatments, but still should be distinguishable	interventions.
	27. 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 proposed to be used.
	28. Service buildings should be as far as possible from the principal area of the site.	*NA*
Water supply	**29.** Will be taken up from existing potable treatment systems nearby, unless no such systems are available in the vicinity.	Water for construction and operation phase will be taken from existing system only.
	30. 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 system.
	31. Will ensure adequate protection from pollution of intake points	Not Applicable, as no new intake point or water supply infrastructure is to be created as part of this sub project.
	32. Will not result in unsatisfactory raw water supply (e.g. supply with excessive pathogens or mineral constituents)	Not envisaged. Provision has been kept in the DPR to provide water supply to the temple from related Water Supply Dept./ Line agency
	33. Will ensure proper and adequate treatment and disposal facilitates for increased volumes of wastewater generation	Not much waste water generation envisaged. Septic tanks/sock pits of sufficient capacity are proposed
Sanitation and toilet facilities	**34.** 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	Sites for Septic tank have been selected and no interference with water intake or water usage points is envisaged
	35. Will ensure that sanitation improvements proposed do not result in pollution of groundwater.	Environmental Management and Monitoring Plan (EMMP) has been prepared and this will ensure no impact on ground

Component	Criteria	Remarks
		water quality.
	36. Will not interfere with other utilities and block access to buildings, cause nuisance to neighbouring areas due to noise, smell, and influx of insects, rodents, etc.	Will be ensured and since it is a tourism project, no such nuisance envisaged during the construction and operation phases of the sub project.
	37. Will not impair downstream water quality due to inadequate sewage treatment or release of untreated sewage,	Not envisaged as septic tank/sock pits of adequate capacity have been designed.
	38. Will not cause overflows and flooding of surroundings, especially around the heritage sites with raw sewage.	Proposed septic tanks/ sock pits are of adequate capacity, overflow and flooding not anticipated. The septic tank will be emptied every quarter through proper means, when required. The responsibility of septic tank cleaning lies with the Temple Committee.
Solid waste management	**39.** 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. Both types of solid wastes will be disposed off in consultations with local civic authorities.
	40. 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 also has provisions for landscaping and maintenance of rich green belt with native species in the vacant space of temple
	41. Will ensure that for composting pits for protected areas, the locations are devoid of any wildlife population, especially wild boars, porcupines	It will be ensured.

Component	Criteria	Remarks
	42. Will ensure any on site waste management done in compliance with government regulations and in coordination with municipal authorities.	It will be ensured
Roads	**43.** Will ensure minimal clearing of vegetation	Clearing of vegetation not envisaged. The roads circulation plan planned to be integrated with the local road network.
	44. Will ensure on dislocation and involuntary resettlement of people living in right of way.	No dislocation and involuntary resettlement envisaged.
	45. 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.	Erosion from construction sites will be controlled as per EMMP provisions.
Drainage and flood protection	**46.** 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
	47. Will ensure adequacy of outfall of proposed drainage works, to avoid any impacts associated with flooding in downstream areas, or areas not covered	NA
	48. Will ensure effective drainage of the monument area, and provide for improved structural stability of the monuments	Not Applicable
Development of parking and other tourist infrastructure amenities	**49.** 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 **50.** 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.	Any new growth or expansion will be within the regulations of Uttarakhand Tourism Development Board and local Civic authorities.

ANNEXURE 4: Photo Illustration
Photos: Kartikeya Swamy

pathway to the main shrine, Kartikey swami Temple

Temple complex, Kartikey swami Temple

View of , Kartikey swami Temple

pathway to the main shrine, Kartikey swami Temple

Temple trust land for parking

Available Trust land

ANNEXURE-5 Meeting minutes of the meeting held at Rudraprayag on 22nd February 2014

दिनांक 22 फरवरी 2014 को जिलाधिकारी, रुद्रप्रयाग की अध्यक्षता में एशियन डेवलपमेंट बैंक द्वारा वित्त पोषित उप परियोजना के SAR की प्रथम बैठक की कार्यवाही का कार्यवृत्त

उपस्थिति –

1– श्री एम0एस0 राणा, मुख्य विकास अधिकारी, रुद्रप्रयाग।
2– श्री अजय शर्मा, उप प्रभागीय वनाधिकारी, रुद्रप्रयाग।
3– श्री रवीन्द्र निराला, वन क्षेत्राधिकारी, केदारनाथ वन्यजीव प्रभाग, गोपेश्वर–चमोली।
4– श्री इन्द्रजीत डोरा, अधिशासी अभियन्ता, लोक निर्माण विभाग, रुद्रप्रयाग।
5– श्रीमती सीमा नौटियाल, प्र0 जिला पर्यटन विकास अधिकारी, रुद्रप्रयाग।
6– श्री रंजन मलिक, ई0एस0ए0एस0।
7– पल्लवी, आर्टिस्ट इको टूरिज्म प्लानर, डी0एस0सी0।
8– श्री विनोद कुमार चमोली, इन्चार्ज डिजाइन सुपरविजन कन्सल्टेन्ट(डी0एस0सी0)।
9– श्री नरेश चमोली, पी0एम0यू0 आई0डी0आई0बी0टी0, देहरादून।
10– श्री यशवन्त सिंह नेगी, कोषाध्यक्ष, मन्दिर समिति फलासी।
11–श्री योगम्बर नेगी पूर्व अध्यक्ष छात्र संघ अगस्त्यमुनि।
12–श्री शत्रुघ्न नेगी अध्यक्ष, श्री कार्तिकेय मन्दिर समिति।
13–श्री वीरेन्द्र सिंह रावत उपाध्यक्ष, महाकवि कालीदास समिति कविल्ठा।
14–श्री सुरेशानन्द गौड, महामंत्री महाकवि कालीदास जन्म भू स्मारक समिति कविल्ठा।
15–श्री वीरपाल सिंह नेगी, सामाजिक कार्यकर्ता ग्राम क्यूडी।
16–श्री कुलदीप सिंह बर्त्वाल, सामाजिक कार्यकर्ता, कुण्डा चानकोट।
17–श्री सूरज सिंह नेगी, पूर्व प्रदेश प्रवक्ता, उत्तराखण्ड युवा कॉंग्रेस।

सर्वप्रथम जिला पर्यटन विकास अधिकारी, द्वारा बैठक में सभी अधिकारियों, डी0एस0सी0 टीम, जनप्रतिनिधियों व आगन्तुकों का अभिवादन एवं स्वागत किया गया तथा बैठक में उपस्थित समस्त सदस्यों का परिचय प्राप्त किया गया। जिलाधिकारी महोदय द्वारा डी0एस0सी0 टीम से जानकारी चाही गयी कि किन–किन योजना पर कार्य किया जाना है। जिस पर श्री विनोद चमोली इन्चार्ज डी0एस0सी0 द्वारा अवगत कराया गया कि ए0डी0बी0 के अन्तर्गत जनपद में कार्तिक स्वामी एवं तुंगनाथ ट्रैकिंग रूट का विकास, मन्दिरों का सौन्दर्यीकरण, एवं इन स्थलों पर आने वाले ग्रामों को रूरल टूरिज्म के रूप में विकसित किया जाना है, जिस पर बैठक में निम्न कार्यों को किये जाने हेतु प्रस्ताव रखे गये –

1– कार्तिक स्वामी का पर्यटन विकास – कार्तिक स्वामी में निम्न कार्य किये जा सकते हैं –

- कनकचौरी से कार्तिक स्वामी तक 3.5 किमी0 खण्डिंजा मार्ग का निर्माण।
- रास्ते पर जगह–जगह रैलिंग का निर्माण।
- पैदल मार्ग पर बैंचेज की स्थापना।
- मन्दिर से 150 मीटर नीचे यू–प्वाइंट एवं रैन सैल्टर का निर्माण।
- कार्तिक स्वामी मन्दिर समिति की धर्मशाला का जीर्णोद्धार एवं शौचालय की व्यवस्था।
- कार्ती स्वामी में पेयजल की व्यवस्था।
- कार्तिक स्वामी मन्दिर परिसर एवं रास्ते में सोलर लाइट की स्थापना।

जिला पर्यटन विकास अधिकारी, द्वारा अवगत कराया गया कि कार्तिक स्वामी में 04 सोलर लाइट जिला योजना 2013–14 में प्रस्तावित है, किन्तु शासन से अनुमोदित धनराशि के सापेक्ष

धनराशि अवमुक्त न होने के कारण वर्ष 2014–15 में मन्दिर परिसर में 04 सोलर लाइट स्थापित की जायेगी।

उप प्रभागीय वनाधिकारी, रूद्रप्रयाग द्वारा अवगत कराया गया कि कार्तिक स्वामी वन क्षेत्रान्तर्गत है, जिस कारण कार्तिक स्वामी क्षेत्र में पक्का निर्माण नहीं किया जा सकता है तथा कार्तिक स्वामी को विकसित करने हेतु किसी अन्य कार्यदाई संस्था से भी कार्य नहीं किया जा सकता है, कार्तिक स्वामी में वन अधिनियम के अन्तर्गत ही इको फ्रैण्डली निर्माण वन विभाग द्वारा किया जा सकता है।

(कार्य0 –प्रोजेक्ट मैनेजमेन्ट यूनिट डी0एस0सी, वन प्रभाग रूद्रप्रयाग, जिला पर्यटन विकास अधिकारी, रूद्रप्रयाग)

2– चोपता–तुंगनाथ का पर्यटन विकास – चोपता–तुंगनाथ को विकसित किये जाने हेतु निम्न कार्य किये जा सकते हैं –

- तुंगनाथ में भी चोपता से तुंगनाथ तक निर्मित खण्डिजा मार्ग का जगह–जगह पर निर्माण व रैलिंग का निर्माण।
- रास्ते व मन्दिर परिसर में सोलर लाइट की स्थापना।
- व्यू–प्वाइंट एवं रैन सैल्टर का निर्माण।
- पैदल मार्ग पर बैंचेज की स्थापना।
- श्री तुंगनाथ मन्दिर में स्थित श्री बद्री–केदार मन्दिर समिति की धर्मशाला का जीर्णोद्धार।
- शौचालय की स्थापना।
- दुगलबिट्टा में पी0डब्ल्यू0डी0 का गेस्ट हाउस का पुर्नद्धार।

श्री रवीन्द्र निराला, वन क्षेत्राधिकारी, गुप्तकाशी (वन्य जीव प्रभाग गोपेश्वर–चमोली) द्वारा अवगत कराया गया कि चोपता श्री तुंगनाथ क्षेत्र वन्य जीव प्रभाग गोपेश्वर–चमोली के अन्तर्गत है, जिसमें पक्का निर्माण न कर इको फ्रैण्डली निर्माण कार्य किया जा सकता है व सेन्च्युरी क्षेत्र के अन्तर्गत होने के कारण भारत सरकार वन मंत्रालय की अनुमति ली जानी आवश्यक है।

जिला पर्यटन अधिकारी द्वारा अवगत कराया गया कि पूर्व में भारत सरकार ग्रामीण पर्यटन योजना के अन्तर्गत वर्ष 2004–05 में रू0 45.00 लाख की धनराशि प्रदान की गयी थी, जो उप वन संरक्षक वन्य जीव प्रभाग गोपेश्वर–चमोली को उपलब्ध कराई गयी थी जिसमें वन विभाग द्वारा सारी एवं देवरियाताल में इन्टरप्रटेक्शन सेन्टर व रिसेप्शन सेन्टर का निर्माण भी किया गया है। जिलाधिकारी महोदय द्वारा डी0एफ0ओ0 टीम को सुझाव दिये गये कि सेन्च्युरी क्षेत्र में किये जाने वाले कार्यों में कार्यदाई संस्था उप वन संरक्षक वन्य जीव प्रभाग गोपेश्वर–चमोली से प्रस्ताव एवं आंगणन प्राप्त कर कार्यवाही की जाय।

(कार्य0 पी0एम0यू0, डी0एस0सी0, उप वन संरक्षक वन्य जीव प्रभाग गोपेश्वर–चमोली, जिला पर्यटन विकास अधिकारी, रूद्रप्रयाग)

3– ग्रामीण पर्यटन का विकास – ग्रामीण पर्यटन को विकसित किये जाने के सम्बन्ध में इन्चार्ज डी0एस0सी0 द्वारा अवगत कराया गया कि प्रथम चरण में 10 ग्रामों को विकसित किया जाना है। कार्तिक स्वामी व कालीमठ क्षेत्रान्तर्गत आने वाले ग्रामों का उनके द्वारा सर्वेक्षण किया जा चुका है व जिसमें कालीमठ, फाटा, कविल्ठा, ऊखीमठ, फलासी धिमतोली कनकचौरी का निरीक्षण किये गये।

जनप्रतिनिधि श्री सूरज नेगी द्वारा अवगत कराया गया कि रूद्रप्रयाग से कार्तिक स्वामी मार्ग पर ग्राम चोपता पड़ता है, जिसे ग्रामीण पर्यटन के रूप में विकसित किया जा सकता है व चोपता से पैदल 600 मीटर फलासी गाँव में तुंगनाथ जी का प्राचीन मन्दिर है, जिसको शंकराचार्य जी ने जीर्णोद्धार किया था का भी सौन्दर्यीकरण करवाया जाय। जिससे वहाँ देशी पर्यटकों के साथ–साथ विदेशी पर्यटक भी आयें। चोपता,स्वांरी–ग्वांरा मोटर मार्ग पर व्यू प्वाइन्ट का निर्माण व ग्वांरा से कार्तिक स्वामी तक 3.5 किमी0 ट्रैक रूट का निर्माण किया जाय।

जिलाधिकारी, महोदय द्वारा चौमासी को पर्यटन ग्राम के रूप में विकसित करने का सुझाव दिया गया, यह ग्राम श्री केदारनाथ मार्ग पर स्थित है व 16/17 जून 2013 आई भीषण आपदा के समय श्री केदारनाथ से ग्राम बुग्याल होते हुए इस रास्ते कुछ यात्री सुरक्षित बचे व भविष्य में इस मार्ग को भी विकसित किया जाना है। जिला पर्यटन विकास अधिकारी द्वारा अवगत कराया गया कि कालीमठ नगर पंचायत के अंतर्गत है इसके स्थान पर चौमासी को पर्यटन ग्राम के रूप में विकसित किया जा सकता है। डी0ए0सी0 द्वारा यह भी प्रस्ताव रखा गया कि पर्यटन ग्राम में पड़ने वाले अन्य स्थलों पर पार्किंग, व्यू-प्वाइन्ट, दुर्गाधार में दुर्गा माता का मन्दिर सौन्दर्यीकरण, खड़पतिया हैलीपैड के निकट व्यू-प्वाइन्ट का निर्माण किया जाना है। जिस पर जिलाधिकारी द्वारा सरवनी भूमि उपलब्ध करवाये जाने हेतु सहमति दी गयी।

बैठक में यह निर्णय लिया गया कि जनपद में पर्यटन ग्राम के अन्तर्गत फाटा, कालीमठ, कविल्ठा, चौमासी, चोपता फलासी, घिमतोली को विकसित किया जाय।

(कार्य0- पी0एम0यू0, डी0ए0सी0, वन विभाग, जिला पर्यटन विकास अधिकारी, रूद्रप्रयाग)

अन्त में बैठक धन्यवाद के साथ समाप्त की गयी।

ह0/-
(डॉ राघव लंगर)
I.A.S.
जिलाधिकारी,
रूद्रप्रयाग।

कार्यालय : जिलाधिकारी, रूद्रप्रयाग।

पत्रांक 453 /ए0डी0सी0/2013-14 दिनांक 6 फरवरी 2014
कृ0प0सं0 : /सदृदिनांकित/2013।

प्रतिलिपि-
1. सचिव पर्यटन, उत्तराखण्ड शासन, देहरादून को सादर सूचनार्थ प्रेषित।
2. मुख्य कार्यकारी अधिकारी, उत्तराखण्ड पर्यटन विकास परिषद, देहरादून को सादर सूचनार्थ प्रेषित।
3. परियोजना प्रबन्धक, पी0एम0यू0,उत्तराखण्ड पर्यटन विकास परिषद, देहरादून को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित
4. डिजाइन सुपरविजन कन्सलटेन्ट, देहरादून को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।

जिलाधिकारी,
रूद्रप्रयाग।

Transcript

Meeting was held under the chairmanship of Dist Collector at Rudraprayag on 22 February 2014 for the proposed works at Kartikeya Swami,Durgadhari and Tungeshwar temple and its vicinity under ADB assisted IDIPT program.All the stakeholders(Forest Dept,Temple Trust members,Panchayat Samiti members,NGO representatives,Tourism dept officials etc was present in the meeting. Instruction was given by the chairmen to other stakeholders to provide all support to the executing agency for further implementation of this sub-project.Decision was also taken to cover more villages under this program such as Patha,Kalimath,Kaviltha,Choupta,Ghimtoli.

Details of Consultation

The basic objectives of this stakeholders' consultation were:

- **(i)** To inform the stakeholders on the proposed work
- **(ii)** To seek the views of stakeholders on the proposed work
- **(iii)** To ensure their participation in planning of sub-project and its operation and maintenance.
- **(iv)** Scope of livelihood generation after the sub-project execution.

Key stakeholders identified for consultation were:

- **(I)** Temple Trust Committee
- **(II)** Village Panchayat
- **(III)** Local Villagers
- **(IV)** Shopkeepers and Business Bodies
- **(V)** Civil Society/Govt. Officials

Summary of discussion and views of stakeholders:

S.NO.	Date	Location	Persons Consulted	Issues Discussed
	12-15 Feb. 2014	Kartikeya swami,	Villager and Mandir samittee	Stakeholders were happy to know that initiative has been taken by Tourism Department with ADB loan for the infrastructure development works in Kartikeye swami, Durgadhari and Tungeshwar Temple and its vicinity. They expected that Tourist inflow will be increased after the execution of this sub-project, the present site lacks basic amenities in all the proposed locations. During consultation, Temple and Village Panchayat has given assurance to provide all kind of support and were happy to know that proposed design was being worked out in regular consultation with them. Stakeholders also agreed that design is so good and after execution it may attract more tourists for a longer duration of time. So, there seems to be a strong possibility for a better business.
	21.06.14	Kartikeya Swami	Mandir samitte members and gram sabha members	Discussion: Land issues, NOC and O&M issues with Mandir samitte members and gram sabha members and they said they don't have any problem to provide land for the development to the site, infact they are happy if Tourism Department is going to develop this site. They also said mandir samitte and gram sabha is ready to do operation and maintenance of the development work. mandir samitties said they will help during the implementation period wherever required.

Annexure-6

PMU

परियोजना प्रबन्धन इकाई
पर्यटन संरचना विकास निवेश कार्यक्रम
(एशियाई विकास बैंक- लोन सं० 2833 इंडिया)
उत्तराखण्ड शासन
प० दीनदयाल उपाध्याय पर्यटन भवन, नियर ओ०एन०जी०सी० हैलिपैड
गढ़ी कैन्ट, देहरादून– 248003

Govt. of Uttarakhand

फोन : 91-135-2559985, फैक्स : 91-135-2559985 ई-मेल : utdb.pmu@gmail.com

पत्रांक/SPP-10/पी०एम०यू०/ए०डी०बी०/145/आई०डी०आई०पी०टी०/ /2014-15 दिनांक 13/08/2014

सेवा में,

प्रभागीय वनाधिकारी
रूद्रप्रयाग

विषय : जनपद रूद्रप्रयाग में एशियन डेवेलपमेन्ट बैंक द्वारा सहायतित प्रोजेक्ट के अंतर्गत कार्तिक स्वामी मन्दिर के सौन्दर्यकरण के लिए प्रस्तावित कार्यो हेतु अनापत्ती प्रमाण पत्र के संबंध में।

संदर्भ – 1) मुख्य सचिव उत्तराखण्ड की अध्यक्षता में द्वितीय एस०एन०आई०सी० की 8 नवम्बर 2013 को हुई बैठक की कार्यवाही का कार्यवृत।(संलग्न)

2) जिलाधिकारी रूद्रप्रयाग की अध्यक्षता में दिनांक 22 फरवरी 2014में हुई बैठक की कार्यवाही का कार्यवृत की पत्रांक सं० 433/ए०डी०बी०/2013–14 दिनांक 6 मार्च 2014.(संलग्न)

महोदय,

कृपया उपरोक्त का संदर्भ ग्रहण करना चाहें जिसके अंतर्गत एशियन डेवेलपमेन्ट बैंक द्वारा सहायतित प्रोजेक्ट के अंतर्गत पर्यटन विभागीय स्तर में कार्तिक स्वामी मंदिर के निम्न कार्य प्रस्तावित किये गए हैं जो आपके अन्तर्गत आता है ।

1. कनकचौंडी से मंदिर तक 3 किमी पैदल मार्ग का मरम्मत कार्य एंव जगह–जगह रेलिंग लगाना।
2. मंदिर परिसर का सुधारीकरण एंव सौन्दर्यकरण कार्य ।
3. पुरानी दीवारो का मरम्मत कार्य।
4. सूचना पट लगाना।
5. मंदिर परिसर एंव पैदल मार्ग में बायो डिग्रेडेबल प्री फैब्रीकेटेड शौचालयों बनाना।

विभाग इस परिपेक्ष्य के संतुष्टि करता है कि –

- इन कार्यो के दौरान वृक्षों की कोई क्षति नही होगी एंव पर्यावरण के नियमों को ध्यान में रखकर कार्य किये जायेंगें।
- परियोजना में लोकल सामग्री जो की इकोफ्रेन्डली है उसी का उपयोग किया जायेगा एंव वन से पत्थर, लकडी, आदि का दोहन नही किया जायेगा तथा उसे बाहर से लाया जायेगा ।
- ये कार्य मूलतः मरम्मत सुधारीकरण एंव सौन्दर्यकरण से संबंधित हैं। कोई नया कार्य इसमें नही कराया जायेगा।

अतः आपसे अनुरोध है कि प्रस्तावित उपरोक्त कार्यो को कराने हेतु अनापत्ती प्रमाण पत्र उपलब्ध कराने की कृपा करें ताकि मंदिर का सौन्दर्यकरण कार्य किया जा सके एंव धार्मिक पर्यटन को बढ़ावा दिया जा सकें।

संलग्नक–यथोपरि

भवदीय

([illegible] जोशी)
अपर कार्यक्रम निदेशक

प्रतिलिपि–

1. सचिव पर्यटन, उत्तराखण्ड देहरादून को सादर सूचनार्थ प्रेषित।
2. मुख्य वन संरक्षक, गढ़वाल पौड़ी को सादर सूचनार्थ प्रेषित।
3. जिलाधिकारी रूद्रप्रयाग को सादर सूचनार्थ एंव अपने स्तर से अनापत्ति प्रमाण पत्र हेतु आवश्यक सहयोग की अपेक्षा।

([illegible] जोशी)
अपर कार्यक्रम निदेशक

Letter to Divisional Forest Officer, Rudraprayag for providing NOC for proposed works in Kartikeya Swami temple requesting that nature of works is renovation and restoration, and eco-friendly material will be utilized and does not entail any tree felling or damage to the environment

ई. मेल :- dforudraprayag @gmail. Com
फोन/ फैक्स नं :- 01364 – 233505::
पता :- बद्री की गढ़ी निकट जवाड़ी बाईपास रूद्रप्रयाग

कार्यालय प्रभागीय वनाधिकारी, रूद्रप्रयाग वन प्रभाग, रूद्रप्रयाग।

पत्रांक 504 /12-1(2) दिनांक 6/9 /2014::

सेवा में,

परियोजना प्रबन्धन ईकाई
पर्यटन संरचना विकास निवेश कार्यक्रम
(ए.डी.बी. साहयित–लोन नं0 2833–इंडिया)
उत्तराखण्ड शासन
प.दीनदयाल उपाध्याय पर्यटन भवन, निअर ओ0एन0जी0सी0हैलिपैड
गढ़ी कैन्ट देहरादून–248003

विषय :- जनपद रूद्रप्रयाग मैएशियन डेवेलपमेन्ट बैंक द्वारा सहायतित प्रोजेक्ट के अन्तगर्त कार्तिक स्वामी मन्दिर के सौन्दर्यकरण के लिए प्रस्तावित कार्यो हेतु अनापत्ति प्रमाण पत्र के सम्बन्ध में।

सन्दर्भः– आपका पत्रांक 1510/2–10/पी0एम0यू0/ए0डी0बी0/145/ आई0डी0पी0आई0 टी0/ 2014 – 15 दिनांक /08

महोदय,

उपरोक्त सन्दर्भित पत्र में क्रम में आज दिनांक 4.09.2014 को प्रभागीय वनाधिकारी रूद्रप्रयाग के अध्यक्षता में प्रभागीय कार्यालय रूद्रप्रयाग वन प्रभाग रूद्रप्रयाग में पर्यटन संरचना विकास निवेश कार्यक्रम के अधिकारियों एवमं कर्मचारियों के साथ एक बैठक आयोजित की गयी जिसमें पर्यटन संरचना विकास निवेश की ओर से श्री नरेश घमोली फोरेस्ट कन्जरवेशन स्पेशलिस्ट, पी0एम0यू0,आई0डी0आई0जी0टी0 देहरादून तथा श्री अवनिश गोयल, साइट इन्जीनियर(सिविल), डी0एस0सी0देहरादून तथा वन विभाग की ओर से श्री अजय कुमार शर्मा उपप्रभागीय वनाधिकारी, श्री मुरारी लाल वन्क्षेत्राधिकारी अगस्त्यमुनि एवंम श्री ललित मोहन सिंह नेगी वनक्षेत्राधिकारी रूद्रप्रयाग सम्मलित थे। बैठक में कार्तिक स्वामी मन्दिर के सौन्दर्यीकरण हेतु निम्न निर्णय लिया गया।

जैसा कि उपप्रभागीय वनाधिकारी रूद्रप्रयाग द्वारा दिनांक 22 फरवरी 2014 को जिलाधिकारी रूद्रप्रयाग की अध्यक्षता में एशियन डवमपेन्ट बैंक द्वारा वित्तपोषित उप परियोजना के एस0 ए0आर0 की प्रथम बैठक अवगत कराया गया था कि कार्तिक स्वामी मन्दिर आरक्षित वन क्षेत्रान्तर्गत है, जिस कारण कार्तिक स्वामी क्षेत्र मे निर्माण कार्य नहीं किया जा सकता है वन अधिनियमों एवमं उच्चतम न्यायालय द्वारा दिये गये निर्देशों के क्रम में कार्तिक स्वामी क्षेत्र को विकासित करने हेतु किसी अन्य कार्य दाई संस्था द्वारा कार्य करवाना सम्भव नहीं है, केवल वनविभाग द्वारा वानिकी कार्य कराये जा सकते है।

अतः प्रस्तावित कार्यो को करने हेतु इस स्तर से अनापत्ति प्रमाण पत्र निर्गत करना सम्भव नहीं है।

भवदीय

प्रभागीय वनाधिकारी,
रूद्रप्रयाग वन प्रभाग,रूद्रप्रयाग।

संख्या / दिनांकित।

प्रतिलिपि :- जिलाधिकारी रूद्रप्रयाग को उनके पत्रांक 433/ए0डी0 बी0/2013–14 दिनांक 6.03.2014 के क्रम सूचनार्थ प्रेषित ।

प्रभागीय वनाधिकारी,
रूद्रप्रयाग वन प्रभाग,रूद्रप्रयाग।

Letter from Divisional Forest Officer, Rudraprayag in response to the request for NOC for proposed works in Kartikeya Swami temple stating that the area being reserve Forest and as per directions of Supreme Court and the provisions of Forest Act, NOC from the DFO level can't be given to any other implementing agency besides Forest Dept.

Annexure- 7 Recommendation Letter from Forest Department

267

कार्यालय अपर प्रमुख वन संरक्षक एवं नोडल अधिकारी, वन संरक्षण,
इन्दिरानगर फोरेस्ट कालोनी, उत्तराखण्ड, देहरादून।
संख्या : 2705/1जी-FP/UK/ROAD/8580/2014 देहरादून: दिनांक: 27 मार्च, 2015

सेवा में,
अपर सचिव, वन
उत्तराखण्ड शासन

विषय:- जनपद रूद्रप्रयाग में कार्तिकेय स्वामी सर्कीट में पर्यटन का विकास – 0.94 हे0 आरक्षित वन भूमि हस्तांतरण (FP/UK/OTHERS/8580/2014)

महोदय,

उपरोक्त विषयक वन भूमि हस्तांतरण प्रस्ताव संस्तुति सहित शासन को ऑनलाइन प्रेषित किया गया है जिसकी हार्ड कॉपी आवश्यक अग्रेतर कार्यवाही हेतु संलग्न कर विशेष पत्रवाहक के माध्यम से प्रेषित किया जा रहा है।

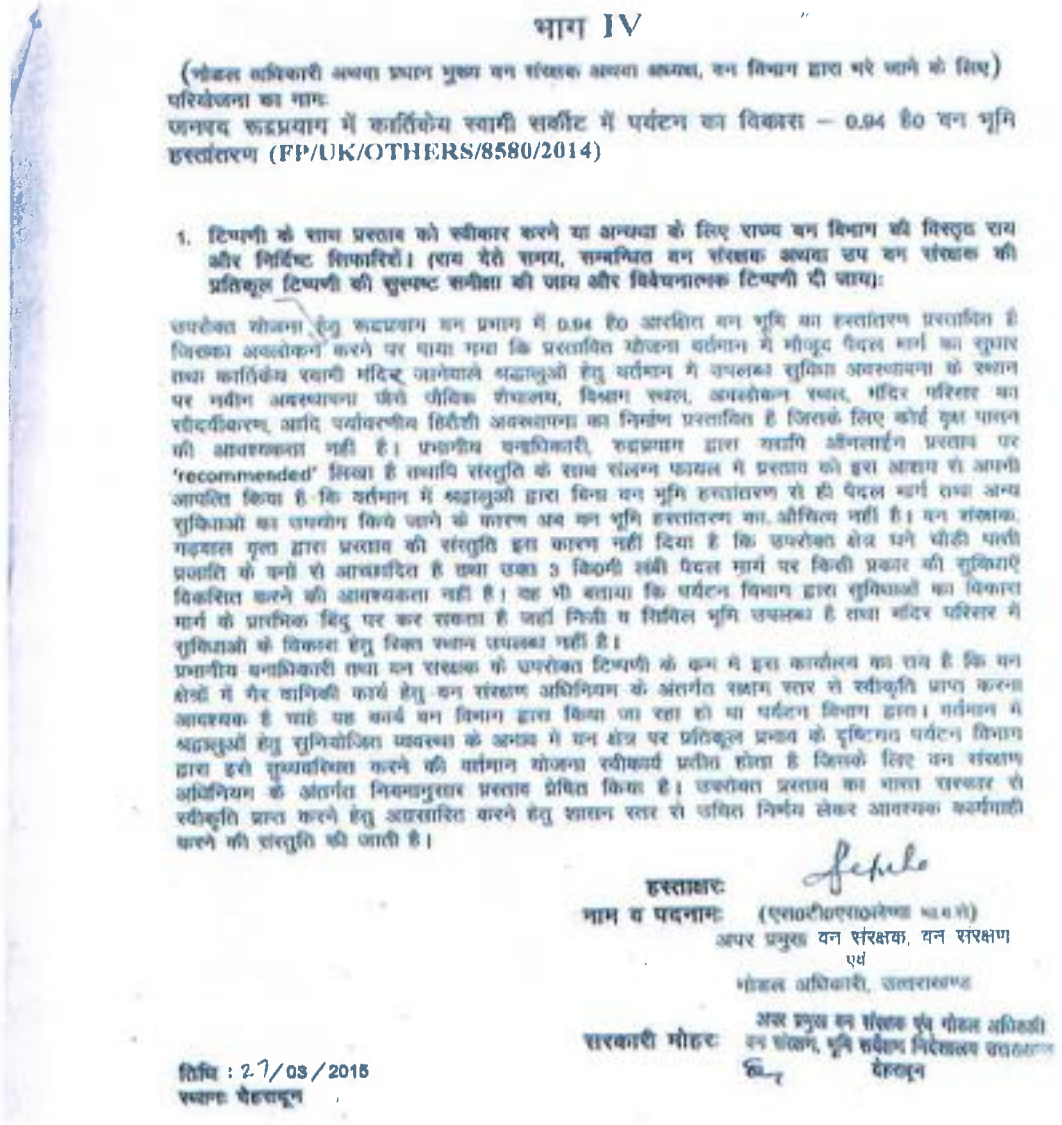
भवदीय,
(एस.टी.एस.सेमवाल)
अपर प्रमुख वन संरक्षक
एवं नोडल अधिकारी

संलग्नक: उपरोक्तानुसार

संख्या : /1जी-FP/UK/ROAD/8580/2014 तद्दिनांकित

प्रतिलिपि:
1. प्रमुख वन संरक्षक, उत्तराखण्ड
2. मुख्य वन संरक्षक, गढ़वाल, पौड़ी
3. सचिव, पर्यटन, उत्तराखण्ड शासन
4. वन संरक्षक, गढ़वाल वृत्त, पौड़ी
5. प्रभागीय वनाधिकारी, रूद्रप्रयाग वन प्रभाग
6. अपर परियोजना निदेशक, उत्तराखण्ड पर्यटन विकास परिषद, ओएनजीसी हेलीपैड के निकट, गढ़ी कैन्ट, देहरादून

(एस.टी.एस.सेमवाल)
अपर प्रमुख वन संरक्षक
एवं नोडल अधिकारी



भाग IV

(मौकाल अधिकारी अथवा प्रधान मुख्य वन संरक्षक अथवा अध्यक्ष, वन विभाग द्वारा भरे जाने के लिए)

परियोजना का नाम:
जनपद रुद्रप्रयाग में कार्तिकेय स्वामी सबीट में पर्यटन का विकास – 0.94 है0 वन भूमि हस्तांतरण (FP/UK/OTHERS/8580/2014)

1. टिप्पणी के साथ प्रस्ताव को स्वीकार करने या अन्यथा के लिए राज्य वन विभाग की विस्तृत राय और निर्दिष्ट सिफारिशें। (राय देते समय, सम्बन्धित वन संरक्षक अथवा उप वन संरक्षक की प्रतिकूल टिप्पणी की सुस्पष्ट समीक्षा की जाय और विवेचनात्मक टिप्पणी दी जाय):

उपरोक्त योजना हेतु रुद्रप्रयाग वन प्रभाग में 0.94 है0 आरक्षित वन भूमि का हस्तांतरण प्रस्तावित है जिसका अवलोकन करने पर पाया गया कि प्रस्तावित योजना वर्तमान में मौजूद पैदल मार्ग का सुधार तथा कार्तिकेय स्वामी मंदिर जानेवाले श्रद्धालुओं हेतु वर्तमान में उपलब्ध सुविधा अवस्थापना के स्थान पर नवीन अवस्थापना जैसे यौगिक शौचालय, विश्राम स्थल, आवलोकन स्थल, मंदिर परिसर का सौंदर्यीकरण, आदि पर्यावरणीय हितैषी अवस्थापना का निर्माण प्रस्तावित है जिसके लिए कोई वृक्ष पातन की आवश्यकता नहीं है। प्रभागीय वनाधिकारी, रुद्रप्रयाग द्वारा स्वयं ऑनलाईन प्रस्ताव पर 'recommended' लिखा है तथापि संस्तुति के साथ संलग्न फायल में प्रस्ताव को इस आशय से आपत्ति किया है कि वर्तमान में श्रद्धालुओं द्वारा किस वन भूमि हस्तांतरण से ही पैदल मार्ग तथा अन्य सुविधाओं का उपयोग किये जाने के कारण अब वन भूमि हस्तांतरण का औचित्य नहीं है। वन संरक्षक, गढ़वाल मूल द्वारा प्रस्ताव की संस्तुति इस कारण नहीं दिया है कि उपरोक्त क्षेत्र घने चौड़ी पत्ती प्रजाति के वनों से आच्छादित है तथा उक्त 3 किमी लंबी पैदल मार्ग पर किसी प्रकार की सुविधाएँ विकसित करने की आवश्यकता नहीं है। यह भी बताया कि पर्यटन विभाग द्वारा सुविधाओं का विकास मार्ग के प्रारंभिक बिंदु पर कर सकता है जहाँ निजी व सिविल भूमि उपलब्ध है तथा मंदिर परिसर में सुविधाओं के विकास हेतु स्थान उपलब्ध नहीं है।
प्रभागीय वनाधिकारी तथा वन संरक्षक के उपरोक्त टिप्पणी के क्रम में इस कार्यालय का मत है कि वन क्षेत्रों में गैर वानिकी कार्य हेतु वन संरक्षण अधिनियम के अंतर्गत राजाग स्तर से स्वीकृति प्राप्त करना आवश्यक है चाहे यह कार्य वन विभाग द्वारा किया जा रहा हो या पर्यटन विभाग द्वारा। वर्तमान में श्रद्धालुओं हेतु सुनियोजित व्यवस्था के अभाव में वन क्षेत्र पर प्रतिकूल प्रभाव के दृष्टिगत पर्यटन विभाग द्वारा इसे सुव्यवस्थित करने की वर्तमान योजना स्वीकार्य प्रतीत होता है जिसके लिए वन संरक्षण अधिनियम के अंतर्गत नियमानुसार प्रस्ताव प्रेषित किया है। उपरोक्त प्रस्ताव का भारत सरकार से स्वीकृति प्राप्त करने हेतु अग्रसारित करने हेतु शासन स्तर से उचित निर्णय लेकर आवश्यक कार्यवाही करने की संस्तुति की जाती है।

हस्ताक्षर:
नाम व पदनाम: (एस0डी0एस0सेमवाल भा0व0से)
अपर प्रमुख वन संरक्षक, वन संरक्षण
एवं
मौकाल अधिकारी, उत्तराखण्ड

सरकारी मोहर: अपर प्रमुख वन संरक्षक एवं मौकाल अधिकारी वन संरक्षण, भूमि सर्वेक्षण निदेशालय उत्तराखण्ड देहरादून

दिनांक : 27/03/2015
स्थान: देहरादून

Transcript

Proposal of Forest Clearance for 0.94 hec Reserve Forest land was scrutinized and it was found that tree felling is not required for pathway development and other components in the project, which are eco friendly. Although, The DFO has recommended the online proposal yet objected in the attachment file that presently the site is used by the devotees and hence interventions are not required. The CF, Garhwal circle has not recommended as the area is covered with broad leaved varieties of trees and there is no need for development of any amenities on the 3 km pathway. The same facilities could be developed at the start point of the pathway, where private land/ Civil land is available. There is no space in the Temple Campus.
In reference to the comments of the DFO and CF, this Office suggests that it is necessary to obtain clearance from the Competent Authority as per FC Act, for diversion of forest area for non forestry activities.
At present, in the absence of proper facility for the devotees adversely impacting the forests, the Tourism Dept.'s proposal seems acceptable.
The above proposal is recommended for forwarding to the Govt. of India after decision from the state Govt.

ई. मेल :- dforudraprayag@gmail.com
फोन/फैक्स नं0 – 01364-233505::
[illegible]

कार्यालय, प्रभागीय वनाधिकारी, रूद्रप्रयाग वन प्रभाग, रूद्रप्रयाग।

पत्रांक 2644 / 12-1(2) दिनांक 04-6-/2015::

सेवा में,

वन संरक्षक,
गढ़वाल वृत्त उत्तराखण्ड,
पौड़ी।

विषय :- *कार्तिक स्वामी मन्दिर परिसर एवं कनकचौरी तक पैदल मार्ग का सुदृढ़ीकरण एवं सौन्दर्यीकरण हेतु आरक्षित वन भूमि हस्तान्तरण के संबंध में।*

महोदय,

उपरोक्त विषयक वन भूमि हस्तान्तरण प्रकरण के सम्बन्ध में मा0 विधायक श्रीमती शैलारानी रावत, सभा सचिव, आपदा प्रबन्धन एवं पुनर्वास (केदारघाटी) बाल विकास एवं पी0एम0जी0एस0वाई0 (लो0नि0वि0) उत्तराखण्ड शासन ने अपने पत्र संख्या- मैमो/2015 दिनांक 21.05.2015 के द्वारा सूचित किया है कि कार्तिक स्वामी मन्दिर परिसर एवं परिसर से कनकचौरी तक पैदल मार्ग का सुदृढ़ीकरण एवं सौन्दर्यीकरण किया जाना आवश्यक है। क्षेत्र के विकास के लिए जनहित में भूमि हस्तान्तरण होना नितान्त आवश्यक है। यह पौराणिक मन्दिर क्षेत्रीय लोगों का आस्था का केन्द्र एवं दर्शनीय स्थान है, जनप्रतिनिधि एवं मन्दिर समिति के पदाधिकारियों द्वारा विश्वास व्यक्त किया गया है कि हम पर्यावरणीय सन्तुलन क्षेत्र की इकोलोजी को कायम रखने के साथ-साथ समय-समय पर सम्बन्धित क्षेत्र में पूर्व की भांति पौधा रोपण करते रहेंगे।

अतः यात्रियों की सुविधा एवं जन भावनाओं को मध्य नजर रखते हुये जनहित में भूमि हस्तान्तरण की संस्तुति की जाती है।

भवदीय,

प्रभागीय वनाधिकारी,
रूद्रप्रयाग वन प्रभाग,
रूद्रप्रयाग।

संख्या 2644 / दिनांकित।

प्रतिलिपि- श्रीमती शैलारानी रावत, मा0 विधायक, केदारनाथ विधानसभा, सभा सचिव, आपदा प्रबन्धन एवं पुनर्वास (केदारघाटी) बाल विकास एवं पी0एम0जी0एस0वाई0 (लो0नि0वि0) उत्तराखण्ड शासन, विधान भवन, देहरादून को उनके उक्त सन्दर्भित पत्र के क्रम में सूचनार्थ प्रेषित।

प्रभागीय वनाधिकारी,
रूद्रप्रयाग वन प्रभाग,
रूद्रप्रयाग।

Transcript

Subject:-Regarding The Transfer of Reserved forest Land for Development & beautification of Kartikrya Swami Temple to Kanakchauri.

Letter Details:- We are ready to transfer the Reserved forest land for the Development & beautification of Pathway from Kartikeya swami temple Premises to Kanakchauri because the humber of Pilgrims are increasing Day by day and this temple has cultural Significance for local people also.

Local Leaders and Mandir Samittee is also ready to maintain the area and will keep Plantation in the area.