

## **Environmental Monitoring Report**

Project Number: 47229-001

October 2016

Period: January 2016 - June 2016

## IND: Uttarakhand Emergency Assistance Project

Submitted by

Project implementation Unit -Tourism (Garhwal), UEAP, Dehradun

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## Asian Development Bank

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4/10/16

To,

The Country Director
Asian Development Bank
South Asia Department
India Resident Mission
4 San Martin Marg, Chanakyapuri
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Sub: ADB Loan No. 3055-IND, UEAP (Tourism Sector Subprojects) Submission of Semi-Annual Environmental Monitoring Report (January 2016 to June 2016)

Dear Madam,

Reference to the subject matter, kindly find enclosed herewith one copy in hard form and CD of "Semi-Annual Environmental Monitoring Report (January 2016 to June 2016)" for Uttarakhand Emergency Assistance Program (Tourism Sector Subprojects) for your information and record.

Yours Sincerely

Encl: As above

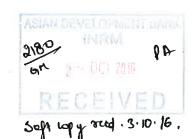
(Atul Kumar Gupta) Program Manager

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## UTTARAKHAND EMERGENCY ASSISTANCE PROJECT

Loan Number: 3055-INDIA

#### SEMI ANNUAL ENVIRONMENTAL MONITORING REPORT

(January-2016 to June-2016)



# IND: Uttarakhand Emergency Assistance Program (Tourism Sector)

<u>Prepared by: - Department of Tourism, Government of Uttarakhand, for the Asian Development Bank</u>

#### **TABLE OF CONTENTS**

CONTENT	Page No.
I. INTRODUCTION	2
Background	2
Project Objectives	2
Project Purpose	3
Project Profile	4
II. IMPLEMENTATION PROGRESS	10
Major Works and Progress	10
Compliance of Safeguard Loan Covenants	13
Environmental and Social Organization and Management along with Implementation Arrangements	14
III. ENVIRONMENTAL PROCEDURE REVIEW	16
Environmental Legal Requirement – Environmental Legislation and Pollution Control Acts	16
IV. IMPLEMENTATION STATUS OF ENVIRONMENT MEASURES	20
V. ENVIRONMENTAL MONITORING AND EVALUATION	25
VI. MAJOR PROJECT ISSUES AND PROBLEMS ENVIRONMENTAL CONTEXT	25
VII. CONSULTATIONS AND RECOMMENDATIONS ENVIRONMENTAL CONTEXT	25
VIII. GRIEVANCE REDRESSAL	25
IX. ISSUES AND ACTION PLAN	26
Annexure 1: Environment Forest and other Compliance (30th June, 2016)	28
Annexure 2: Environmental Baseline Monitoring (Jan-June, 2016)	29
Annexure 3: Environmental Monitoring Photographs	31
Annexure 4: Photographs of Progress of Work	33

#### **List of Figures**

	Page No
Figure 1: Figure 1. District of Uttarakhand depicting in Garhwal and	3
Kumaon regions	
Table 1: Status of Sub-project Implementation under UEAP- Tourism	4
Subprojects(Upto 30 <sup>th</sup> June 2016)	
Table 2: Details of Sub-project Implementation under UEAP-Tourism	9
Subprojects (Upto 30 <sup>th</sup> June 2016)	
Table 3: Status of the Sub project and Progress (Upto 30 <sup>th</sup> June 2016)	11
Table 4: Present Status of Environment, Forest & other clearances (Upto	
30 <sup>th</sup> June 2016)	18
Table 5: Summary Compliance status of Environment Management and	
Monitoring Plan (30 <sup>th</sup> June 2016)	20
Table 6: Suggestion & Action plan considered for satisfactory	
Environmental Compliance	

#### **ABBREVIATIONS**

ADB - Asian Development Bank BOD - Biological Oxygen Demand

CO - Carbon monoxide

CPCB - Central Pollution Control Board
DSC - Design and Supervision Consultant

EA - Executing Agency

EAC - Expert Appraisal Committee

EARF - Environment Assessment and Review Framework

EIA - Environmental Impact Assessment EMP - Environment Management Plan

ES - Environmental Specialist

FPIU - Field PIU

FRP - Fiber Reinforced Plastic GC - General Conditions

GMVN - Garhwal Mandal Vikas Nigam

Gol - Government of India

GoUK - Government of Uttarakhand

IDIPT - Infrastructure Development Investment Program for Tourism

IEE - Initial environmental examination

INR - Indian Rupee

KMVN - Kumaon Mandal Vikas Nigam
PUC - Pollution under Control Certificate

MLD - Million Liters per day

MoEF&

CC - Ministry of Environment, Forests and Climate Change

MFF - Multi- Tranche Financing Facility NGO - Non-Governmental Organization

NO<sub>x</sub> - Nitrogen oxide PD - Project Director

PIU - Project Implementation Unit

PM - Particulate Matter

PMU - Project Management Unit
PUF - Polyurethane Foam
RP - Resettlement Plan

RPM - Reparable Particulate Matter

SC - Scheduled Castes

SEAC - State Expert Appraisal Committee

SEIAA - State Environmental Impact Assessment Authority

SO<sub>2</sub> - Sulphur- di- oxide

SPM - Suspended Particulate Matter SPS - Safeguard Policy Statement

ST - Scheduled Tribe

**UEPPC** 

B - Uttarakhand Environmental Protection and Pollution Control

Board

UJS - Uttarakhand Jal Sansthan

#### I. INTRODUCTION

#### A. Background

- 1. Uttarakhand being a tourist and pilgrimage State attracts a large number of tourist and pilgrims. A major disaster during 15-17<sup>th</sup> June 2013 resulted in severe damages in several parts of Uttarakhand, which has a mountainous terrain and a fragile geology. Several towns have been washed away by the unprecedented flash floods and landslides, and a large number of houses, public buildings, roads, bridges, urban, rural, and tourism infrastructure, power generation and distribution facilities have been damaged. The impact on the affected population due to the loss of connectivity has been manifold.
- 2. Based on the request of India, a Rapid Joint Damage and Needs Assessment (RJDNA) was undertaken by Asian Development Bank (ADB) and the World Bank. ADB agreed to assist the Government of India (GOI) with reconstruction and rehabilitation efforts for which the Uttarakhand Emergency Assistance (Sector) Project (UEASP) has been formulated as a multi-sector emergency loan in sector loan modality. The executing agency (EA) for the UEASP (Tourism Sector) is Government of Uttarakhand (GOU) and State Disaster Management Authority (SDMA). The primary implementing agencies is Department of Tourism (DOT) through Kumaon Mandal Vikas Nigam Limited and Garhwal Mandal Vikas Nigam Limited for tourism infrastructure.
- 3. Under tourism sub project rehabilitation and reconstruction of affected tourism infrastructure in the 3 affected districts (Chamoli, Rudraprayag and Uttarkashi) of Garhwal Region were undertaken by Garhwal Manadal Vikas Nigam and in 2 districts (Bageshwar and Pithoragarh) of Kumoan region were undertaken by Kumoan Manadal Vikas Nigam in the state. The department of Tourism is responsible for planning financing, constructing, and maintaining Tourism infrastructure.

#### **B.** Project Objectives:

- 4. Tourism was worst hit in the state with destruction of tourism infrastructure on one hand and loss of livelihoods on the other due to heavy rains in June, 2013. The tragedy besides claiming thousands lives badly hit the industry stakeholders especially, those involved in Religious and Adventure Tourism on account of the major portion of the season of the Char Dham Yatra being washed out. According to estimates from the Uttarakhand Hotel and Restaurant Association, the floods washed away over 100 small hotels which were constructed right on the riverbanks.
- 5. As a part of Tourism Restoration Drive, it was decided to construct dwelling units in the form of cottages/ tented accommodation made of eco- friendly FRP material in disaster affected Districts. This would compensate for the loss of tourist accommodation units and would involve minimum concrete works thus saving time and would be in tune with the ecological balance of the region. It would also strengthen state's coping mechanism and help in reviving tourism in the affected region. Thus construction of environmentally sustainable, affordable accommodation for tourists with eco-friendly material would help in bridging the gap in the shortage of accommodation in the State during the tourist season. Provision of affordable accommodation to tourists at various destinations in the form of cottages which are aesthetically and eco-friendly designed, taking into consideration the natural landscape of the area will be a boost for tourism sector. These accommodation facilities would encourage tourists to stay at most frequented locations. These huts can be either extension to existing Tourist Rest Houses or new units, en route some popular destinations in the affected areas.



Figure 1. District of Uttarakhand depicting in Garhwal and Kumaon regions

#### C. Project Purpose

- 6. The purpose of the project is to improve, restore and reconstruct basic public and social infrastructure, disaster preparedness, project management and institutional. Under this about 1,800 km of state highways (SH) and major district roads (MDR); rehabilitation and capacity augmentation of the existing water treatment and reconstruct affected tourism infrastructure in 5 affected districts by which tourism facilities in surrounding towns and villages near the gateways to major
  - tourism facilities in surrounding towns and villages near the gateways to major destinations. For which the primary implementing agencies (IA) will be Public Works Department (PWD) for roads, bridges, urban roads, and trekking routes including ecotrails Department of Tourism (DOT) through Kumaon Mandai Vikas Nigam Limited, and Garhwal Mandai Vikas Nigam Limited for tourism infrastructure, Uttarakhand Civil Aviation Development Authority (UCADA) for helipads; and Uttarakhand Jal Sanstahan (UJS) for urban water supply, or any successor hereto. Some other state agencies such as Forest Department are likely to be entrusted with some works under UEAP under these primary IAs.
- 7. The nature of the sub-projects may change during their subsequent development, particularly during detailed design. This report is the

Environmental Monitoring Report (EMR) for tourism sector project to describe the implementation of the mitigation measures and monitoring recommended in the IEE and summary Initial Environmental Examination (SIEE) for the period of Jan 2016-June 2016.

#### D. Project Profile

8. At the end of June, 2016 out of 11 packages contracts for 10 packages have been signed. The construction work in these 10 packages is in different stages. **Table 1** shows the project components, and physical progress of all the packages.

Table 1: Status of Sub-project Implementation under UEAP- Tourism Subprojects (Upto 30<sup>th</sup> June 2016)

Location	Package Code	Sub Project	Physical Progress
Pithoragarh	UK/UEAPT(KMVN)NTL/01	Construction of 100 Prefabricated Fiber- reinforced Plastic (FRP) huts at 17 different locations in Dharchula and Munsyari Tehsil of District Pithoragarh.	Gunji- 10 numbers of FRP huts has been installed. Kalapani: Plinth work of 9 numbers of huts completed. Installation work is in progress. Nabhidhang: 10 numbers of FRP huts has been installed. Gala: 4 numbers of FRP huts have been installed including doors, windows & retaining wall. Kuti: Plinth work Completed. Martoli: Plinth work has been completed. Bufu: Plinth work has been completed. Budi: 4 numbers of FRP huts installed Malpa: 7 numbers of FRP huts has been installed. Narayan Ashram: 5 numbers of FRP huts has been installed. Sirkha: 6 numbers of FRP huts has been installed. Ganghar: Plinth work has been completed. Ralam: Plinth work has been completed. Dugtu: Plinth work Completed. Balling: Work is in progress. Bedang: Work is in progress. Tola: Plinth work has been completed.

Bageshwar	UK/UEAPT(KMVN)NTL/02	Construction of 45	Supi- 5 huts has been installed with	
	, ,	Prefabricated Fiber-	door and window. Two bathrooms	
		reinforced Plastic (FRP)	have also been installed.	
		huts at 9 different	Jhuni: 5 Huts has been installed	
		locations in Bageshwar	Jaikuni: 5 huts have been installed	
		District.	and septic tank has also been	
			completed.	
			Badiyakot: 5 huts have been	
			installed. Bathroom plinth and water	
			line work has also been completed.	
			Sorag: 7 huts have been installed	
			with door & window. Inner floor work	
			is in progress.	
			Bachham Tok Dhakuri: Ground	
		leveling work is in progress.		
			Sorag Tok Dhoor: 5 huts have been	
			installed. Septic tank, approach and	
		water line has also been comple		
			Phurkia: 3 huts have been installed.	
			Teekh: 5 huts have been installed.	
			Door & window has also been	
			installed.	

Location	Package Code	Sub Project	Physical Progress
Uttarkashi	UK/UEAPT(GMVN) DDN/03	Construction of FRP/ Hybrid huts in Uttarkashi, Garhwal Region.	
		Purola	Erection of steel structure, Fixing of PUF floor, wall and roof panels have been completed. Plinth Protection and painting work on MS Railing etc. is in progress.
		Barkot	Erection of steel structure, Fixing of PUF floor, wall and roof panels have been completed. Retaining Wall, Plinth Protection and painting work on MS Railing etc. is in progress.
		Phoolchatti	Erection of steel structure, Fixing of PUF floor, wall and roof panels in both huts have been completed. Works of Plinth Protection, Pathway and painting work on MS Railing etc. are in progress.
		Raithal	Erection of steel structure, fixing of PUF wall, roof and floor panel have been completed. Works of retaining wall, False ceiling and plinth protection are in progress.

		Barsu Harsil	Erection of steel structure, fixing of wall, floor & roof panel and plinth protection work of 5 Huts have been completed. Work of retaining wall and False ceiling are in progress. PCC work in 6 hut has been completed and RCC footing work is in progress. RR wall work is also in progress.  Erection of steel structure, fixing of floor, wall and roof panel have been completed.
			and roof panel have been completed. Finishing, sanitary and interior Work are being started.
Rudraprayag	UK/UEAP- T(GMVN)/DDN/04	Construction of Hybrid Huts in Rudraprayag Kanakchauri	Foundation work up to Plinth has been completed in both huts. Erection of vertical column and truss has been completed. Work of retaining wall has been completed. Work was stopped due to hindrance of forest department. The process of land transfer has been initiated and is under process.
Chamoli	UK/UEAP- T(GMVN)/DDN/05	Construction of Hybrid Huts in Chamoli	
		Pandukeshwar	Erection of steel structure, Fixing of PUF floor, wall and roof panels have been completed in all 3 huts. Retaining wall and site development works is in progress
		Joshimath	Internal electrification, plumbing, false ceiling and Plinth Protection works have been completed. Sanitary& furnishing work of 1 room has been completed.
		Auli	Erection of steel structure, Fixing of PUF floor, wall and roof panels have been completed in all 2 huts. Wall Panelling, False Ceiling, Plumbing, internal electrification and tile work in toilets of both huts is in progress.
		Deval	Erection of steel structure& fixing of PUF Wall, Roof& Floor Panels has been completed. Work of false ceiling, wall panelling, internal electrification and plinth protection is in progress.
		Lohjung	Erection of steel structure& fixing of PUF Wall, Roof& Floor Panels has been completed. Work of false ceiling, wall panelling, internal electrification and plinth protection is in progress.
Rudraprayag	UK/UEAP- T(GMVN)/DDN/06	Construction/Reconstruction of Tourism Assets in LGFs Structure in Various Locations at Rudraprayag District	
		Tilwara	Erection of LGFS Structure is completed in 11

			huts and outer wall covering in 10 huts, Fixing
			of membrane & roof shingle work has been completed in 9 Nos. huts. Wall cladding in 5 Nos. huts has been completed. Shuttering and reinforcement works for columns footing of Multi-Purpose hall is in progress. Erection work of MS plinth beam and vertical columns of Yoga Centre has been completed.
		Jakholi	Work of roof shingles, outer wall covering and membrane have been completed.
		Guptkashi	Construction of LGFS huts, 1 no. has been completed and made available for tourist use.
		Sonprayag	Earth work for site development in general cutting is in progress
		Triyuginarayan	Hill cutting work has been completed. Works of Erection of 1 no. of hut, outer internal wall covering and membrane has been completed. Erection of Plinth beams of 3 huts has also been completed.
		Gaurikund	The work of LGFS huts has been completed. Construction of front side retaining wall is in progress.
Rudraprayag	UK/UEAPT(GMVN) DDN/07	Rehabilitation & Restoration of Tourist Rest Houses in Various Locations at Rudraprayag District.	
	Lot -1 (Tilwara)	UK/UEAP- T(GMVN)/DDN/07/LOT 1	Stone Masonry work for chain link fencing has been completed. Construction of Retaining wall & internal pathways is in progress.
	Lot -2 (Jakholi)	UK/UEAP- T(GMVN)/DDN/07/LOT 2	Water proofing work in sunken portion of toilets of 5 rooms is in progress. Fixing of Sal wood door frames at first floor has been completed. Plumbing works is in progress. Beds & Linen have been transported to site.
	Lot -3 (Guptkashi Old)	UK/UEAP- T(GMVN)/DDN/07/LOT 3	The work of Plastering, vitrified tiles in flooring, aluminum windows, false ceiling and doors shatter of 8 rooms have been completed. The work of wall and floor in 8 toilets has been completed. Painting work in rooms and toilets is in progress. Fixing of sanitary fixtures in 8 rooms is in progress. Work of retaining wall is in progress.
	Lot -4 (Rampur)	UK/UEAP- T(GMVN)/DDN/07/LOT 4	Works of rehabilitation & restoration of 8 rooms have been completed and made available for tourist use.
	Lot -5	UK/UEAP-	Work is held up due to non-completion of

	(Triyuginarayan)	T(GMVN)/DDN/07R/LOT 5	LGFS huts by M/s Loom crafts.
	Lot -6 (Gaurikund)	UK/UEAP- T(GMVN)/DDN/07R/LOT 6	Rehabilitation & Restoration work in 6 rooms of CBRI wooden huts has been completed.
Chamoli	UK/UEAPT(GMVN) DDN/08	Renovation/Upgradation of Damaged Tourism Assets in disaster affected districts Chamoli and Uttarkashi	
	Lot C1 (Gauchar)	UK/UEAP- T(GMVN)/DDN/08/LOT C1	Up gradation of 3 toilets has been completed. Screeding on the terrace has been completed. Beds have been transported to site. The renovation work of TRH is being started at site.
	Lot C2 (Karnprayag)	UK/UEAP- T(GMVN)/DDN/08R/LOT C2	Up-gradation of two toilets has been completed. Beds & Linen have been transported to site. The renovation work of TRH is being started at site.
	Lot C3 (Gairsain)	UK/UEAP- T(GMVN)/DDN/08R/LOT C3	Dismantling of two toilets has been completed. Beds & Linen has been transported to site. The renovation work of TRH is being started at site.
	Lot C4 (Nandprayag)	UK/UEAP- T(GMVN)/DDN/08/LOT C4	Painting work in old block has been completed. Work of Septic Tank and manhole chambers has been completed. Bed has been transported to the site. The renovation work of TRH is being started at site.
	Lot C5 (Pipalkoti)	UK/UEAP- T(GMVN)/DDN/08R/LOT C5	Beds & Linen have been transported to site. The renovation work of TRH is being started at site.
	Lot C6 (Joshimath Old)	UK/UEAP- T(GMVN)/DDN/08/LOT C6	Fixing of sanitary fixtures in toilets of 3 rooms has been completed. Beds, linen, crockery, cutlery, deep freezer and DG set have been transported to site. The renovation work of TRH is being started at site.
	Lot C7 (Joshimath New)	UK/UEAP- T(GMVN)/DDN/08/LOT C7	Up gradation of 3 deluxe category rooms have been completed. Up gradation of two toilets and floor tiling work in Dining, reception & Corridor area has been completed. Beds & Linen have been transported to site. The renovation work of TRH is being started at site.
	Lot C8 (Hotel Devlok, Badrinath)	UK/UEAP- T(GMVN)/DDN/08R/LOT C8	Beds and Linen have been transported to site. The renovation work of TRH is being started at site.
Uttarkashi	Lot U1 (Uttarkashi)	UK/UEAP- T(GMVN)/DDN/08/LOT U1	Renovation and up gradation in 9 family suites has been completed and made available for tourist use. Beds, Linen and Kitchen equipments have been transported to site. The renovation work of TRH is being started at site.
	Lot U2 (Jankichatti)	UK/UEAP- T(GMVN)/DDN/08R/LOT U2	Beds & Linen have been transported to site. Painting work on front side boundary wall has been completed. The renovation work of TRH is being started at site.

Table 2: Details of Sub-project Implementation under UEAP-Tourism Subprojects (Upto 30<sup>th</sup> June 2016)

Locations	Sub-projects components (Package No.)	Expected Starting date of Implementation	Projected months of completion (as per Work order)	Schedule date of completion (Extended date of completion)	Physical progress
Pithoragarh	UK/UEAP- T(KMVN)NTL/01(R2)- Construction of FRP Huts in Pithoragarh district of Kumaon Region	7.02.2015	24	06.02.2017	40%
Bageshwar	UK/UEAP- T(KMVN)/NTL/02(R2)- Construction of FRP Huts in Bageshwar of Kumaon Region.	7.02.2015	24	06.02.2017	55%
Uttarkashi	UK/UEAP-T(GMVN)DDN/03 Construction of FRP And Hybrid Huts in Uttarkashi district of Garhwal Region.	10.10.2014	18	09.04.2016 08.06.2016 07.07.2016 06.10.2016	70%
Rudraprayag	UK/UEAP-T(GMVN)/DDN/04 Construction of Hybrid Huts in Rudraprayag district of Garhwal Region	10.10.2015	18	09.10.2016 07.07.2016	60%
Chamoli	UK/UEAP-T(GMVN)/DDN/05 Construction of Hybrid Huts in Chamoli district of Garhwal Region	10.10.2014	18	09.04.2016 08.06.2016 07.07.2016 06.10.2016	68%
Rudraprayag	UK/UEAP-T(GMVN)/DDN/06  Construction/Reconstruction of Tourism Assets in LGFS Structure in Various Locations at Rudraprayag District, Garhwal Region	09.09.2014	18	07.10.2016	45%
Rudraprayag	UK/UEAPT(GMVN) DDN/07 Rehabilitation & Restoration of Tourist Rest Houses in Various Locations at Rudraprayag District				
	Lot -1 (Tilwara)	28.01.2016	6	27.7.2016	20%
	Lot -2 (Jakholi)	12.02.2016	6	11.8.2016	25%
	Lot -3 (Guptkashi Old)	28.01.2016	6	27.7.2016	30%
	Lot -4 (Rampur)	12.02.2016	6	11.8.2016	30%

	Lot -5 (Triyuginarayan)	15.02.2016	6	14.08.2016	NIL
	Lot -6 (Gaurikund)	15.02.2016	6	14.08.2016	15%
Uttarkashi and Chamoli	UK/UEAPT(GMVN) DDN/08				
	Lot C1 (Gauchar)	15.02.2016	9	14.11.2016	8%
	Lot C2 (Karnprayag)	17.04.2016	9	16.01.2017	10%
	Lot C3 (Gairsain)	17.04.2016	9	16.01.2017	5%
	Lot C4 (Nandprayag)	15.02.2016	9	14.11.2016	10%
	Lot C5 (Pipalkoti)	17.04.2016	9	16.01.2017	8%
	Lot C6 (Joshimath Old)	15.02.2016	9	14.11.2016	20%
	Lot C7 (Joshimath New)	14.02.2016	9	13.11.2016	20%
	Lot C8 (Hotel Devlok, Badrinath)	25.03.2016	9	24.12.2016	12%
	Lot U1 (Uttarkashi)	14.02.2016	9	13.11.2016	25%
	Lot U2 (Jankichatti)	15.05.2016	9	14.02.17	5%

#### **II. IMPLEMENTATION PROGRESS**

#### E. Major Works and Progress

9. Under tourism sector till June, 2016 contracts of 10 sub-projects have been awarded, and works under all packages have started.

Table 3: S	Table 3: Shows the environmental risk and mitigation measures under the work scope for all packages							
Location	Package Code	Listing of Work Under this Package	Expected changes from approved scope	Objectives-type	Key Assumption and risks that affect attainment on the objectives			
Pithoragarh	UK/UEAPT (KMVN)NTL/01	` '	such changes are expected from the	Strict application mitigation measure	No risk anticipated at present.			
Pithoragarh	UK/UEAPT (KMVN)NTL/02	Construction of 45 Prefabricated Fiber-reinforced Plastic (FRP) at 9 different location in Bageshwar District.	such changes are	Strict application mitigation measure	No risk anticipated at present.			
Uttarkashi	UK/UEAPT (GMVN)NTL/03	Construction of FRP/Hybrid huts (21 rooms) at 06 location in Uttarkashi, Garhwal Region	_	mitigation	No risk anticipated at present.			
Rudraprayag	UK/UEAPT (GMVN)NTL/04	Construction of FRP/Hybrid huts (8 rooms) at 01 location in Rudraprayag, Garhwal Region.	At this stage no such changes are expected from the approved scope	mitigation	No risk anticipated at present.			
Chamoli	UK/UEAPT (GMVN) DDN/05	Construction of hybrid huts in Chamoli district of Garhwal Region (5 Sites)	At this stage no such changes are expected from the approved scope	mitigation	No risk anticipated at present.			
Rudraprayag	UK/UEAPT (GMVN) DDN/06	Tourism Assets in LGFS Structure		Strict application mitigation measure	No risk anticipated at present.			
Rudraprayag	UK/UEAPT(GMV N) DDN/07	Rehabilitation & Restoration of Tourist Rest Houses in Various Locations at Rudraprayag District.						

	Lot -1 (Tilwara)  Lot -2 (Jakholi)  Lot -3 (Guptkashi Old)  Lot -4 (Rampur)  Lot -5 (Triyuginarayan)  Lot -6 (Gaurikund)	At this stage there is no such changes are expected from the approved scope	Strict application mitigation measure	No risk anticipated at present.
Chamoli	Renovation/ Upgradation of Damaged Tourism Assets in disaster affected districts Chamoli and Uttarkashi.  Lot C1 (Gauchar)  Lot C2 (Karnprayag)  Lot C3 (Gairsain)  Lot C4 (Nandprayag)  Lot C5 (Pipalkoti)  Lot C6 (Joshimath Old)  Lot C7 (Joshimath New)  Lot C8 (Hotel Devlok, Badrinath)	At this stage there is no such changes are expected from the approved scope	Strict application mitigation measure	No risk anticipated at present.
Uttarkashi	Lot U1 (Uttarkashi)  Lot U2 (Jankichatti)	At this stage there is no such changes are expected from the approved scope	Strict application mitigation measure	No risk anticipated at present.

## F. Compliance of Safeguard Loan Covenants

1. The status of compliance of ADB's major Loan Covenants related to Safeguard issues is shown below:

Serial no. as per loan agreement	Program Specific Covenants	Status / Issues
9	The Borrower shall ensure or cause the EA and IAs to ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project facilities comply with (i) all applicable laws and regulations of the Borrower and State relating to environment, health, and safety; (ii) the Environmental Safeguards of ADB; and (iii) all measures and requirements set forth in the EARF, EIA/ IEE as applicable, and the EMMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.  al Resources to Implement Safeguards Requirements	Being Complied
12	The Borrower shall ensure or cause the EA and relevant IA to ensure (a) that all necessary budgetary and human resources to fully implement the EMMP as required, are made available; and (b) designates at least one official each to supervise implementation of the EMMP, and RP if any.	Complied
	ated Provisions in Bidding Documents and Works Con	
Safeguards Monito	The Borrower shall ensure or cause the EA and each IA to ensure that all bidding documents and contracts for Works contain provisions that require contractors to:  (a) comply with the measures and requirements relevant to the contractor set forth in the EIA/IEE, the EMMP, and the RP and the IPP as applicable (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set out in a Safeguards Monitoring Report;  (b) make available a budget for all such environmental and social measures;  (c) provide the relevant IA with a written notice of any unanticipated environmental, resettlement or indigenous peoples risks if any, or impacts that arise during construction, implementation or operation of the project that were not considered in the EIA/IEE, the EMMP, and the RP or the IPP if any;  (d) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and  (e) fully reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.	Being Complied
14	The Borrower shall ensure or cause the EA and each IA	Being Complied
	to ensure the following; (a) submit quarterly/ semiannual Safeguards	23mg Compiled

Prohibited List of	Monitoring Reports, as applicable, to ADB through State and disclose relevant information from such reports to affected persons promptly upon submission;  (b) if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the project that were not considered in the EIA/IEE, the EMMP, and the RP or the IPP as applicable, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan;  (c) no later than award of Works contract/commencement of land acquisition and resettlement activities under first Subproject under any sector engage a qualified and experienced external expert or NGO under a selection process and terms of reference acceptable to ADB, to verify information produced through Project monitoring process, and facilitate the carrying out of any verification activities by such external expert/NGO for all Subprojects under the Project; and  (d) report any breach of compliance with the measures and requirements set forth in the EMMP, and the RP or the IPP if any, promptly after becoming aware of the breach.	
15	The Borrower shall ensure or cause the EA and each IA	Complied
	to ensure that no proceeds of the loan under the Project are used to finance any activity included in the list of prohibited investment activities provided in Appendix 5 of ADB's Safeguard Policy Statement (2009).	•
Other Social Mea		
16	The EA through each IA shall ensure that civil works contracts under the Project follow all applicable labor laws of the Borrower and State and that these further include provisions to the effect that contractors; (i) carry out HIV/AIDS awareness programs for labor and disseminate information at worksites on risks of sexually transmitted diseases and HIV/AIDS as part of health and safety measures for those employed during construction; and (ii) follow and implement all statutory provisions on labor (including not employing or using Children as labor, equal pay for equal work), health, safety, welfare, sanitation, and working conditions.	Being Complied

# G. Environmental and Social Organization and Management along with Implementation Arrangements

10. The institutional arrangements specify the arrangements for the implementation of environmental provisions of the proposed subproject. The Executing Agency (EA), State

Disaster Management Authority (SDMA) will work closely with the Implementing Agency (IA) Kumoan Mandal Vikas Nigam, KMVN (in district Bageshwar and Pithoragarh) and Garhwal Mandal Vikas Nigam, GMVN (in district Uttarkashi, Chamoli and Rudraprayag) for effective implementation of environmental safeguards related requirements of the sub projects. The institutional arrangements and responsibilities are detailed below.

- 11. The subproject will be implemented and monitored by GMVN & KMVN as implementing agency and implemented through its Field Engineer's supported by individual consultant and overall management support shall be provided by PMU, UEAP.
- 12. The Safeguard Staff of UEAP SDMA (EA) in PMU & IA will monitor the implementation of environmental covenants with assistance of individual consultant.
- 13. UEAP SDMA (EA) shall be responsible for ensuring compliance to environmental requirements of the ADB as well as central/state governments and reporting the same to ADB. A relevant portion of EMMP will be a part of contract with the civil works contractors engaged for execution of the works. The primary responsibility of implementation of EMMP is of the IA during pre-construction and operation and maintenance phases; and of the civil works contractor during the construction phase as defined in the EMMP. The responsibility of supervision of EMMP implementation is of the individual Environmental consultant; and it would guide the IA and the civil works contractors in this regard. Individual Environmental consultant with IA and EA, UEAP will act as monitoring agency as delegated in EMMP. All applicable statutory environmental clearances, consents, and/or permits (at national, state and local levels) as required for the implementation of the subproject would be obtained by the IA or by the civil works contractor in line with India's national/state/local laws and regulations, and in accordance with ADB's SPS 2009 requirements. Redressal of grievances shall be the responsibility of UEAP SDMA (EA). Apart from the mechanism for the grievances receiving and redressal at the level of EA, the provision shall be kept in the EMP of the subprojects wherein the contractor will depute one Environmental Safeguard Officer who shall be responsible for implementation of EMP, reporting and grievance redressal on day-to-day basis. The grievances/complaints received at the level of contractor shall be recorded on the Complaints Register and the same shall be forwarded to the individual Environmental consultant within 48 hours along with the details of action taken to redress the grievance. The FPIU shall immediately try to resolve the issues and forward the details to the PIU / IA. If the action taken by Contractor and individual Environmental consultant is found to be inadequate, then necessary instructions shall be issued by the FPIU/IA for implementation of rectification measures.

#### III. ENVIRONMENTAL PROCEDURE REVIEW

#### H. Environmental Legal Requirement – Environmental Legislation and Pollution Control Acts

14. The Government of India has formulated various policy guidelines; acts and regulations aimed at the sustenance of environment in general, which are briefly summarized and few applicable acts with the project, are described in the following sub-sections.

SI.	Sources	Legislation				
No						
1	EIA Notification	The Ministry of Environment and Forests has revised				
		the EIA notification, 1994, and issues the revised EIA				
		notification on 14th September 2006				
2	Environment	The Environment (Protection) Act, 1986				
3	Forest/ Tree resources	The Forest (Conservation) Act, 1980				
	Water Pollution	The Water (Prevention and Control of Pollution)				
		Act, 1974, as amended in 1988				
	Air Pollution	The Air (Prevention and Control of Pollution) Act,				
		1981, as amended by Amendment Act, 1987				
	Noise Pollution	The Noise Pollution (Regulation and Control)				
		Rules, 2000				
	Public Liability	The Public Liability Insurance Act, 1991				
	Conservation, construction and	The Ancient Monuments and Archaelogical Sites				
	reuse in and around the	and Remains Act, 1958, and the rules, 1959				
	protected monuments					
	Hazardous Waste	Hazardous Waste (Management and				
		Handling) Rules, 1989				
		Manufacture, Storage and Import of				
		Hazardous Chemical Rules, 1989				
		Emergency Planning Preparedness and				
		Response for Chemical Disasters Rules, 1995				
		Hazardous Microorganisms and Genetically				
		Modified Organisms (Manufacture, Use Import				
		Expert and Storage) Rules, 1999				
	Use and Management of	The Explosives Act, 1884 and the Explosives				
	Explosive	Rules, 1983				

15. Prominent acts are discussed below:-

#### 16. The Environment Protection act, 1986 and the EIA Notification, 2006

The Environmental (Protection) Act, 1986 is the umbrella legislation providing for the protection of environment in the country. This Act provided for the Environment (Protection) Rules, which have been formulated under the act "The Environmental Impact Assessment Notification, 1994 and the Amendments / Revised EIA notification on 14<sup>th</sup> September 2006".and Year 2009.

# 17. The Water (Prevention and Control of Pollution) Act 1974 as amended in 1988 AND AIR (Prevention and Control of Pollution) Act, 1981 as amended by Amendment Act, 1987.

The water (Prevention and Control of Pollution) Act, 1974 resulted in the establishment of the Central and State level Pollution Control Boards whose responsibilities include managing water quality and effluent standards, as well as monitoring water quality, prosecuting offenders and issuing licenses for construction and operation of certain facilities. The SPCB is also empowered to set air quality standards and monitor and prosecute offenders under the air (Prevention and Control of Pollution) Act, 1981.

#### 18. The Noise Pollution (regulation and control) rules, 2000, as amended

Use of heavy machinery and vehicles ambient noise levels may increase during the construction phase. It is considered necessary to regulate and control noise producing and generating sources with the objective of maintaining the ambient air quality standards in respect of noise. The occupier of subprojects have to take measures for abatement of noise pollution ensuring that the existing noise levels do not exceed the standards specified under the Noise Pollution (regulation and control) rules, 2000, as amended.

#### 19. The Forest (Conservation) Act, 1980

The Forest (Conservation) Act, 1980 pertains to the cases of diversion of forest area and felling of roadside plantation. Depending on the size of the tract to be cleared, clearances are applied for at the following levels in the governments:

- If the area of forests to be cleared or diverted exceeds 20 ha (or, 10ha in hilly area), the prior permission of the Central Government is required;
- If the area of forest to be cleared or diverted is between 5 to 20 ha, the Regional Office of Chief Conservator of Forests is empowered to approve;
- If the area of forest to be cleared or diverted is below or equal to 5 ha, the State Government can give permission;
- and If the area to be clear-felled has a forest density of more than 40%, permission to undertake any work is needed from the Central Government, irrespective of the area to be cleared.
- 20. The specific requirements to ensure compliance by these components and subprojects are shown in **Compliance with Environmental Regulations.**
- 21. Clearance status for subprojects is given in **Table 5** below.
- 22. Environmental compliance status for the running project is enclosed in Annexure 1.

Table 4: Present Status of Environmental, Forest & other clearances (Till June2016)								
Work (Package No.)	Applicable Legislation/ Type of clearance	Subject / Issue	Clearance given by and date	Remarks/ Action needed				
1- UK/UEAP- T(KMVN)NTL/01(R2) Construction of FRP Huts in Pithoragarh district of Kumaon Region. Construction of 100 Prefabricated Fiber-reinforced Plastic (FRP) at 17 different location in District Pithoragarh of Kumaon region.	The Environment Protection act, 1986 and the EIA Notification, 1994. The water (Prevention and Control of Pollution) Act, 1974 AIR (Prevention and Control of Pollution) Act, 1981 The Water (Prevention and Control of Pollution) Act 1974. The Noise Pollution (regulation and control) rules, 2000, as amended		During the preparation of IEE and EMMP it was observed that no statutory and legislative clearance is required.	Till date none of the packages under Tourism sector require consent to operate under Water (Prevention and Control of Pollution) Act, 1974 and amendments.  Till date none of the subproject under UEAP falls within protected area and required Environmental Impact Assessment under "The				
2- UK/UEAP- T(KMVN)/NTL/02(R2) Construction of FRP and Hybrid Huts in Bageshwar of Kumaon Region. Construction of 45 Prefabricated Fiber-reinforced Plastic (FRP) at 9 locations				Environmental Impact Assessment Notification, 1994 and the Amendments				
3- UK/UEAP T(GMVN)DDN/03- Construction of FRP and Hybrid Huts in Uttarkashi, Gharwal Region. Construction of FRP/ Hybrid huts (21Rooms) at 6 locations in Uttarkashi, Garhwal Region.			During the preparation of IEE and EMMP it was observed that no statutory and legislative clearance is required	CTE/CTO is not required During implementation of project PUC for vehicles, Labour License, Workmen compensation, land owner				
4- UK/UEAP- T(GMVN)/DDN/04 Construction of Hybrid Huts in Rudraprayag district of Garhwal Region. Construction of Hybrid Huts (8 Rooms) at one location in Rudraprayag, Garhwal Region	Package No: UK/UEAP- T(GMVN)/DDN/04 require forest clearances under The Forest (Conservation) Act, 1980.		Proposal for forest clearance is being prepared.	consent is being obtained and Safety measures, Muck disposal, Environmental monitoring is being carried out as per agreed				
5- UK/UEAP- T(GMVN)/DDN/05 Construction of Hybrid Huts in Chamoli district of Garhwal Region.			During the preparation of IEE and EMMP it was observed that no statutory and legislative	EMMP. All the provision of EMMP and contractual stipulation with respect to environment				

	Т		
		clearance was required	safeguards are being
		required	implemented.
6- UK/UEAP-		During the	Contractors have
T(GMVN)/DDN/06		preparation of	been directed to
Construction/Reconstruction		IEE and EMMP	submit
of Tourism Assets in LGFS		it was observed	mandatory
Structure in Various		that no	statutory
Locations at Rudraprayag		statutory and	clearances /
District, Garhwal Region		legislative	documents as
		clearance was	required.
		required	Implementation
			of the project will
			not have any
			bearing on
			ecology and
			environment of
			the locality. Since
			the structure will be constructed in
			vacant Tourism
			Department land,
			Revenue land,
			government
			lands it will not
			involve any
			displacement of
			people or disruption of any
			economic
			activity.
			,
7-UK/UEAP-T(GMVN)/DDN/07	The Environment	During the	All the
Rehabilitation & Restoration of Tourist Rest Houses in	Protection act,	preparation of	infrastructure
Various Locations at	1986 and the EIA	IEE and EMMP	units are
Rudraprayag District .	Notification, 1994.	it was observed	proposed to be
	The water (Prevention and	that no statutory and	constructed outside
8.Renovation/Upgradation of Damaged Tourism Assets in disaster affected districts	Control of	legislative	ecological
disaster affected districts	Pollution) Act,	clearance is	sensitive area.
Chamoli and Uttarkashi	1974	required	The design and
	AIR (Prevention		constructions are
	and Control of		consistent with
	Pollution) Act,		the surrounding
	1981 The Water		landscape. The construction
	(Prevention and		activity will
	Control of		involve only
	Pollution) Act		minor building
	1974.		foundation
	The Noise		excavation which
	Pollution		will be filled up
	(regulation and		with soil after the construction. The
	control) rules, 2000, as		project will not
	amended		influence the
	amondou		flora or fauna of
			the locality in any
			way

#### IV. IMPLEMENTATION STATUS OF ENVIRONMENT MEASURES

23. Field activities in both Garhwal region under GMVN and Kumaon region (KMVN) have started but the physical progress is in different stages. Application of EMP will be commenced as per IEE report. The compliance monitoring format for application of mitigation measures against impacts on air, water, soil environment, and social and safety aspects is enclosed in **Annexure 2**. Format for summary compliance status of EMP application and actions/ corrective measures presented in **Table 5** below.

Table 5: Summary Compliance status of Environment Management and Monitoring Plan (30th

June, 2016)

June, 201		1		
Location	Name of Sub project	EMP being implemen ted Yes/no	Overall Status of EMP Implementation (Excellent/ Satisfactory/ Partial Satisfactory/Below Satisfaction/Poor/ Very Poor)	Actions Proposed or continued/Additional Corrective Measures Required
Pithoragarh	UK/UEAP- T(KMVN)NTL/01(R2) Construction of 100 Prefabricated Fiber- reinforced Plastic (FRP) at 17 different location in District Pithoragarh of Kumaon region.	Yes	Satisfactory	<ul> <li>Labour licence &amp; workmen compensation obtained</li> <li>PUC certificate obtained</li> <li>Complete use of PPE</li> <li>Labour camp to be established</li> <li>Site not barricaded properly</li> <li>First aid box kept at site</li> </ul>
Bageshwar	UK/UEAP- T(KMVN)/NTL/02(R2) Construction of 45 Prefabricated Fiber- reinforced Plastic (FRP) at 9 locations in district Bageshwar	Yes	Satisfactory	<ul> <li>Labour licence &amp; workmen compensation obtained</li> <li>PUC certificate obtained</li> <li>Complete use of PPE</li> <li>Labour camp to be established</li> <li>Site not barricaded properly</li> <li>First aid box kept at site</li> </ul>
Uttarkashi	UK/UEAP- T(GMVN)DDN/03- Construction of FRP/ Hybrid huts (21Rooms) at 6 locations in Uttarkashi, Garhwal Region.	Yes	Satisfactory	<ul> <li>Labour licence &amp; workmen compensation expire and directions have been given to the contractor to renew the same</li> <li>Contractor directed to submit PUC certificate</li> <li>Complete use of PPE</li> <li>Rented accommodation provided for laborers</li> <li>Site not barricaded properly</li> <li>First aid box kept at site</li> </ul>
Rudraprayag	UK/UEAP- T(GMVN)/DDN/04 Construction of Hybrid Huts (8 Rooms)at one location in Rudraprayag, Garhwal Region	Yes	Satisfactory	Labour licence & workmen compensation expire and directions have been given to the contractor to renew the same     Contractor directed to submit PUC certificate     Complete use of PPE     Rented accommodation provided for laborers     Site not barricaded properly

				First aid box kept at site
Chamoli	UK/UEAP- T(GMVN)/DDN/05 Construction of hybrid huts (32 Rooms) at 5 locations in Chamoli, Garhwal Region	Yes	Satisfactory	<ul> <li>Labour licence expire and directions have been given to the contractor to renew the same</li> <li>Workmen Compensation obtained.</li> <li>Contractor directed to submit PUC certificate</li> <li>Complete Use of PPE</li> <li>First aid box kept at site</li> </ul>
Rudraprayag	UK/UEAP- T(GMVN)DDN/06- Construction/Reconstr uction of Tourism Assets in LGFS Structure in Various Locations at Rudraprayag District, Garhwal Region	Yes	Satisfactory	Labour licence &workmen compensation obtained     Labour camp established     Contractor directed to submit PUC certificate     Complete use of PPE     Site not barricaded properly     First aid box kept at site
Rudraprayag	UK/UEAP- T(GMVN)/DDN/07 Rehabilitation & Restoration of Tourist Rest Houses in Various Locations at Rudraprayag District.	Yes		
	Lot -1 (Tilwara)		Satisfactory	<ul> <li>Labour licence obtained.</li> <li>Workmen Compensation obtained.</li> <li>Contractor directed to submit PUC certificate</li> <li>Complete use of PPE</li> <li>Rented accommodation provided for laborers</li> <li>Site not barricaded properly</li> <li>First aid box kept at site</li> </ul>
	Lot -2 (Jakholi)		Satisfactory	Labour licence not obtained contractor given instructions & workmen compensation obtained     Contractor directed to submit PUC certificate     Complete use of PPE     Rented accommodation provided for laborers     Site not barricaded properly     First aid box kept at site
	Lot -3 (Guptkashi Old)		Satisfactory	<ul> <li>Labour licence obtained.</li> <li>Workmen Compensation obtained.</li> <li>Contractor directed to submit PUC certificate</li> <li>Complete use of PPE</li> <li>Rented accommodation provided for laborers</li> </ul>

	Ī	1	1	Otto mod to a decide to
				<ul> <li>Site not barricaded properly</li> <li>First aid box kept at site</li> </ul>
	Lot -4 (Rampur)		Satisfactory	Labour licence not obtained contractor given instructions & workmen compensation obtained     Contractor directed to submit PUC certificate     Complete use of PPE     Rented accommodation provided for laborers     Site not barricaded properly     First aid box kept at site
	Lot -5 (Triyuginarayan)		Satisfactory	<ul> <li>Labour licence obtained.</li> <li>Workmen Compensation obtained.</li> <li>Contractor directed to submit PUC certificate</li> <li>Complete use of PPE</li> <li>Rented accommodation provided for laborers</li> <li>Site not barricaded properly</li> <li>First aid box kept at site</li> </ul>
	Lot -6 (Gaurikund)		Satisfactory	Labour licence not obtained contractor given instructions & workmen compensation obtained     Contractor directed to submit PUC certificate     Complete use of PPE     Rented accommodation provided for laborers     Site not barricaded properly     First aid box kept at site
	UK/UEAPT(GMVN) DDN/08 Renovation/Upgradati on of Damaged Tourism Assets in disaster affected districts Chamoli and Uttarkashi			or a.a son representa
Chamoli	Lot C1 (Gauchar)	Yes	Satisfactory	<ul> <li>Labour licence obtained.</li> <li>Workmen Compensation obtained.</li> <li>Contractor directed to submit PUC certificate</li> <li>Complete use of PPE</li> <li>Rented accommodation provided for laborers</li> <li>Site not barricaded properly</li> <li>First aid box kept at site</li> </ul>
			Satisfactory	<ul><li>Labour licence not obtained.</li><li>Workmen Compensation not</li></ul>

[] [] [] [] []		T
Lot C2 (Karnprayag)		<ul> <li>obtained.</li> <li>Contractor directed to submit PUC certificate</li> <li>Complete use of PPE</li> <li>Rented accommodation provided for laborers</li> <li>Site not barricaded properly</li> <li>First aid box kept at site</li> </ul>
Lot C3 (Gairsain)	Satisfactory	<ul> <li>Labour licence not obtained.</li> <li>Workmen Compensation not obtained.</li> <li>Contractor directed to submit PUC certificate</li> <li>Complete use of PPE</li> <li>Rented accommodation provided for laborers</li> <li>Site not barricaded properly</li> <li>First aid box kept at site</li> </ul>
Lot C4 (Nandprayag)	Satisfactory	<ul> <li>Labour licence obtained.</li> <li>Workmen Compensation obtained.</li> <li>Contractor directed to submit PUC certificate</li> <li>Complete use of PPE</li> <li>Rented accommodation provided for laborers</li> <li>Site not barricaded properly</li> <li>First aid box kept at site</li> </ul>
Lot C5 (Pipalkoti)	Satisfactory	Labour licence not obtained contractor given instructions & workmen compensation obtained     Contractor directed to submit PUC certificate     Complete use of PPE     Rented accommodation provided for laborers     Site not barricaded properly     First aid box kept at site
Lot C6 (Joshimath Old)	Satisfactory	<ul> <li>Labour licence not obtained contractor given instructions &amp; workmen compensation obtained</li> <li>Contractor directed to submit PUC certificate</li> <li>Complete use of PPE</li> <li>Rented accommodation provided for laborers</li> <li>Site not barricaded properly First aid box kept at site</li> </ul>

	Lot C7 (Joshimath New)	Satisfactory	<ul> <li>Labour licence and workmen compensation not obtained.</li> <li>Contractor directed to submit PUC certificate</li> <li>Complete use of PPE</li> <li>Rented accommodation provided for laborers</li> </ul>
	Lot C8 (Hotel Devlok, Badrinath)	Satisfactory	Site not barricaded properly      Labour licence not obtained contractor given instructions & workmen compensation
	,		obtained     Contractor directed to submit PUC certificate     Complete use of PPE     Rented accommodation provided for laborers     Site not barricaded properly     First aid box kept at site
Uttarkashi	Lot U1 (Uttarkashi)	Satisfactory	<ul> <li>Labour licence not obtained.</li> <li>Workmen Compensation not obtained.</li> <li>Contractor directed to submit PUC certificate</li> <li>Complete use of PPE</li> <li>Rented accommodation provided for laborers</li> <li>Site not barricaded properly</li> <li>First aid box kept at site</li> </ul>
	Lot U2 (Jankichatti)	Satisfactory	<ul> <li>Labour licence not obtained contractor given instructions &amp; workmen compensation obtained</li> <li>Contractor directed to submit PUC certificate</li> <li>Complete use of PPE</li> <li>Rented accommodation provided for laborers</li> <li>Site not barricaded properly</li> <li>First aid box kept at site</li> </ul>

#### V. ENVIRONMENTAL MONITORING AND EVALUATION

For effective monitoring, selected environmental parameters have been identified as indicators which will be qualitatively and quantitatively measured and compared over a period of time in order to assess/ensure the compliance of EMP. The environmental performance indicators are physical, biological and social characteristics identified as most important in affecting the environment at critical locations all along the subproject locations. The parameters identified as performance indicators are:

- Air, noise and water quality
- Compliance to EMP
- Compliance to local/state/national environmental regulations
- 24. During implementation process, performance monitoring fact sheet is being prepared against each possible environmental impact and attached with the monitoring report.

  Annexure 3 shows the Performance Fact Sheet for implementation of EMMP.
- 25. Base line air and noise quality monitoring will be carried out at working areas as per scope of work. Base line monitoring format of ambient air quality data is presented in **Table 6**.
- 26. In case of involvement of water source as working components water quality monitoring will also be conducted at project locations.
- 27. "During construction" monitoring will be carried out as per Environment Management and Monitoring Plan.

#### VI. MAJOR PROJECT ISSUES AND PROBLEMS ENVIRONMENTAL CONTEXT

29. Field activity of the Garhwal sub-projects and Kumaon sub-projects was started.

Till date, no major issues and problems have been encountered with, at the sub project locations.

#### VII. CONSULTATIONS AND RECOMMENDATIONS ENVIRONMENTAL CONTEXT

30. For protection of local environment during construction phase, application of mitigation measures will be done as per specified EMMP. Pubic consultation during construction/implementation phase will be planned as per the requirement. **Annexure 4** shows the blank consultation format for recording.

#### **VIII. GRIEVANCE REDRESSAL**

31. A joint social and environmental redress mechanism will be implemented under the project. Grievances and suggestions from local and affected people may come-up related to inappropriate implementation of the project and components of EMP. The expected range of grievances to be handled through this mechanism will encompass but not limited to the following: i) nuisance from noise, dust, and temporary blocking of access; ii) contamination of receiving water from runoff; iii) emissions from increase

- vehicular traffic and stationary sources like construction machineries; iv) conflict between local residents and migrant workers; v) ownership of vegetation for clearing; and vi) damage compensation.
- 32. These issues will be addressed through acknowledgement, evaluation and corrective action and response approach. Grievances from public or stakeholders concerning the project and EMP implementation will be received by the concerned Executive Engineer of UEAP division. The Executive Engineer shall refer the application to Individual Environmental Consultant who then assess the grievances/suggestions and if they are found to be genuine and acceptable, will be resolved at division level itself within 15 to 30 days from the date of receipt. In case, the issue is unable to be resolved, the matter will be forwarded to the PMU, UEAP (Head quarter). This mechanism is non-judicial in nature and does not preclude the affected people coursing their grievances to the courts. The corrective action will be started as per the action plan indicated to the stakeholder. The action taken and the outcome shall form a part of quarterly report to ADB.
- 33. Besides GRCs have been formulated in each district of Uttarakhand State (Annexure-5.) to resolve the complaints related to project implementation.

#### IX. ISSUES AND ACTION PLAN

- 34. Tourism is a one of the fastest growing industries and a major driver of economic growth and livelihood promotion in Uttarakhand. The contribution of tourism to the State Gross Domestic Product is about 22.48%. The sector witnesses active participation of the private sector and the local host communities and is a major source of employment and income/revenue generation. Uttarakhand needs to be reconstruct and restore damaged tourism assets at important locations where large numbers congregate regularly in the name of tourism. Tourists must be dispersed throughout the state and across the year by promoting more tourism.
- 35. As a part of Tourism Restoration Drive, construction of FRP/Hybrid huts are proposed in the five disaster affected districts and to provide improved accommodation facilities to the tourist/pilgrims visiting this area. Thus construction of environmentally sustainable, affordable accommodation for tourists with eco-friendly material would help in bridging the gap in the shortage of accommodation in the State during the tourist season. Provision of affordable accommodation to tourists at various destinations in the form of cottages which are aesthetically and eco-friendly designed, taking into consideration the natural landscape of the area will be a boost for tourism sector.

- 36. It is important to mention in this context that the final detailed engineering\* design in each sub project of UEAP have been prepared keeping in mind to avoid or minimize social and environmental impact as far as possible.
- 37. With the development of project the action plan will be considered for timely and satisfactory environmental compliance. Sample suggestion & action plan format is shown in **Table 6.**

Table 6: Suggestion & Action plan considered for satisfactory Environmental Compliance

S. No	Issue	Suggestion and recommendation	Action to taken by	Time Frame
1	Application of EMP	Continue on regular basis	Contractor association with PIU	Continue process submission of monthly format
2	Health and Safety – complete use of PPE	Complete use of PPE	Contractor	Continue Process
3	Pollution Under Control Certificate	Collection of PUC for vehicle and equipment	Contractor	Continue Process
4	Arrangement of camp/labour rented house for contractor	Arrangement as per requirement	Contractor	Before starting of construction work
5	Restoration of the construction area	At earliest as possible	Contractor	-
6	Social relationship and public safety	Arrangement of safety tape and public consultation	Contractor, PIU	Continue Process
7	Training Worker	Regular tool box training for labourer Safeguard orientation training for Contractor	Contractor, PIU	Continue Process

## Annexure 1: Environment Forest and other Compliance (30<sup>th</sup> June, 2016)

Package	EIA Clearance	Wet Land	Forest Clearance	Wild life act applicability	Tree Cutting permission	Permission From State/ National	CTE/ CTO	Authorizati on	Ground Water Permission	PUC	Environment Monitoring
UK/UEAP- (KMVN)NTL/01 (R2)] Pithoragarh	NR	NR	NR	NR	NR	NR	NR	NR	NR	Required	Environment monitoring done.
UK/UEAP- (KMVN)/NTL/0 2(R2) Bageshwar	NR	NR	NR	NR	NR	NR	NR	NR	NR	Required	Environment monitoring done.
UK/UEAP- T(GMVN)DDN/ 03- Uttarkashi	NR	NR	NR	NR	NR	NR	NR	NR	NR	Required	Environment monitoring done.
UK/UEAP- T(GMVN)/DDN/ 04 Rudraprayag	NR	NR	Required	NR	NR	NR	NR	NR	NR	Required	Environment monitoring done.
UK/UEAP- T(GMVN)/DDN/ 05 Chamoli	NR	NR	NR	NR	NR	NR	NR	NR	NR	Required	Environment monitoring done.
UK/UEAP- T(GMVN)/DDN/ 06 Rudraprayag	NR	NR	NR	NR	NR	NR	NR	NR	NR	Required	Environment monitoring done.
UK/UEAP- T(GMVN)/DDN/0 7	NR	NR	NR	NR	NR	NR	NR	NR	NR	Required	Environment monitoring done.
UK/UEAP- T(GMVN)/DDN/0 8	NR	NR	NR	NR	NR	NR	NR	NR	NR	Required	Environment monitoring done.

**Annexure 2- Environmental Baseline Monitoring (Jan-June, 2016)** 

Pkg. No.	Date of monitoring	Location	Air	Water	Noise	Soil
UK/UEAP- (KMVN)NTL/01(R2)	10.03.16-15.03.16	Srikha	Yes	Yes	Yes	Yes
	16.04.16-21.04.16	Budhi	Yes	Yes	Yes	Yes
	24.03.16-29.03.16	Narayan Ashram	Yes	Yes	Yes	Yes
	16.04.16-21.04.16	Dugtu	Yes	Yes	Yes	Yes
	16.04.16-21.04.16	Baling	Yes	Yes	Yes	Yes
Pithoragarh	17.04.16-22.04.16	Martoli	Yes	Yes	Yes	Yes
	17.04.16-22.04.16	Tola	Yes	Yes	Yes	Yes
	17.04.16-22.04.16	Ganghar	Yes	Yes	Yes	Yes
	19.04.16-22.04.16	Barfu	Yes	Yes	Yes	Yes
	19.04.16-22.04.16	Ralam	Yes	Yes	Yes	Yes
UK/UEAP-	09.03.16-14.03.16	Jaikuni	Yes	Yes	Yes	Yes
	09.03.16-14.03.16	Pindari	Yes	Yes	Yes	Yes
(KMVN)/NTL/02(R2)	09.03.16-14.03.16	Sorag	Yes	Yes	Yes	Yes
Bageshwar	09.03.16-14.03.16	Dhakuri-Dhoor	Yes	Yes	Yes	Yes
	09.03.16-14.03.16	Teekh	Yes	Yes	Yes	Yes
	08.02.16	Tilwara	Yes	Yes	Yes	Yes
UK/UEAP-	16.02.16	Jakholi	Yes	Yes	Yes	Yes
T(GMVN)/DDN/07	17.02.16	Guptkashi	Yes	Yes	Yes	Yes
	16.02.16	Rampur	Yes	Yes	Yes	Yes
Rudraprayag	01.3.16	Triyuginarayan	Yes	Yes	Yes	Yes
	12.02.16	Gaurikund	Yes	Yes	Yes	Yes
UK/UEAP- T(GMVN)/DDN/08 Chamoli & Uttarkashi	05.03.16	Gauchar	Yes	Yes	Yes	Yes
	18.04.16	Karanprayag	Yes	Yes	Yes	Yes
	21.04.16	Gairsain	Yes	Yes	Yes	Yes
	05.03.16	Nandprayag	Yes	Yes	Yes	Yes
	05.05.16	Pipalkoti	Yes	Yes	Yes	Yes
	09.02.16	Joshimath Old	Yes	Yes	Yes	Yes
	04.05.16	Joshimath New	Yes	Yes	Yes	Yes
	16.02.16	Hotel Devlok Badrinath	Yes	Yes	Yes	Yes
	07.05.16	Uttarkashi	Yes	Yes	Yes	Yes

## **Environmental Monitoring Construction Phase**

kg. No.	Date of monitoring	Location	Air	Water	Noise	Soil
UK/UEAP-	15.06.16-18.06.16	Srikha	Yes	Yes	Yes	Yes
	15.06.16-18.06.16	Gala	Yes	Yes	Yes	Yes
	15.06.16-18.06.16	Malapa	Yes	Yes	Yes	Yes
	15.06.16-18.06.16	Gunji	Yes	Yes	Yes	Yes
	15.06.16-18.06.16	Kalapani	Yes	Yes	Yes	Yes
	15.06.16-18.06.16	Budhi	Yes	Yes	Yes	Yes
	15.06.16-18.06.16	Nabhidang	Yes	Yes	Yes	Yes
(KMVN)NTL/01(R2)	15.06.16-18.06.16	Narayan Ashram	Yes	Yes	Yes	Yes
Pithoragarh	18.06.16-21.06.16	Dugtu	Yes	Yes	Yes	Yes
	18.06.16-21.06.16	Baling	Yes	Yes	Yes	Yes
	17.06.16-20.06.16	Martoli	Yes	Yes	Yes	Yes
	18.06.16-21.06.16	Tola	Yes	Yes	Yes	Yes
	17.06.16-20.06.16	Ganghar	Yes	Yes	Yes	Yes
	17.06.16-20.06.16	Barfu	Yes	Yes	Yes	Yes
	17.06.16-20.06.16	Ralam	Yes	Yes	Yes	Yes
UK/UEAP-	18.06.16-23.06.16	Supi	Yes	Yes	Yes	Yes
	18.06.16-23.06.16	Jhooni	Yes	Yes	Yes	Yes
	18.06.16-23.06.16	Jaikuni	Yes	Yes	Yes	Yes
(KMVN)/NTL/02(R2)	22.06.16-27.06.16	Pindari	Yes	Yes	Yes	Yes
Bageshwar	20.06.16-25.06.16	Badiakot	Yes	Yes	Yes	Yes
	20.06.16-25.06.16	Sorag	Yes	Yes	Yes	Yes
	20.06.16-25.06.16	Dhakuri-Dhoor	Yes	Yes	Yes	Yes
	22.06.16-27.06.16 20.05.16	Teekh Jakholi	Yes	Yes	Yes	Yes
			No	Yes	Yes	Yes
UK/UEAP-	16.05.16	Guptakashi	Yes	Yes	Yes	Yes
T(GMVN)DDN/06	17.05.16	Sonprayag	Yes	No	Yes	Yes
Rudraprayag	17.05.16	Triyujuginarayan	Yes	Yes	Yes	Yes
	02.05.16	Gaurikund	Yes	Yes	Yes	Yes
UK/UEAP-	13.04.16	Tilwara	Yes	Yes	Yes	Yes
T(GMVN)/DDN/07 Rudraprayag	19.04.16	Jakholi	Yes	Yes	Yes	Yes
	15.06.16	Guptkashi	Yes	Yes	Yes	Yes
	19.04.16	Rampur	Yes	Yes	Yes	Yes
	16.04.16	Gaurikund	Yes	Yes	Yes	Yes
	23.06.16	Karanprayag	Yes	Yes	Yes	Yes
UK/UEAP- T(GMVN)/DDN/08 Chamoli & Uttarkashi	22.06.16	Gairsain	Yes	Yes	Yes	Yes
	18.06.16	Nandprayag	Yes	Yes	Yes	Yes
	09.04.16	Joshimath Old	Yes	Yes	Yes	Yes
	19.04.16	Hotel Devlok Badrinath	Yes	Yes	Yes	Yes

#### **Annexure 3: Environmental Monitoring Photographs**













## Annexure 4: Photographs of progress of work





Purola



Barkot



Phoolchatti



Raithal



Barsu Harsil

## Package 4



Kanakchauri







**Joshimath** 







Deval



## Lohjung





Jakholi







Triyuginarayan



Gaurikiund

Sonprayag





Tilwara

Jakholi





Guptkashi

Rampur



#### Gaurikund





Gauchar



Karnprayag



Gairsain

Nandprayag



Pipalkoti



Joshimath old





Joshimath new



Uttarkashi

Jankichatti

## Photographs of KMVN sites in district Pithoragarh & Bageshwer



