



Environmental Monitoring Report

Project Number: 47229-001

November 2016

Period: July 2015 - December 2015

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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Dated: 30-06-2016

To,

Country Director
South Asia Department
India Resident Mission
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New Delhi – 110021, India



Sub : ADB Loan No. 3055-IND, UEAP (Tourism Sector Subprojects) Submission of Semi-Annual Environmental Monitoring Report (July 2015 to Dec 2015)

Dear Madam,

Reference to the subject matter, kindly find enclosed herewith one copy in hard form and CD of "Semi-Annual Environmental Monitoring Report (July 2015 to Dec 2015)" for Uttarakhand Emergency Assistance Program (Tourism Sector Subprojects) for your information and record.

Yours Sincerely

Encl: As above

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PIU-Tourism (Garhwal), UEAP

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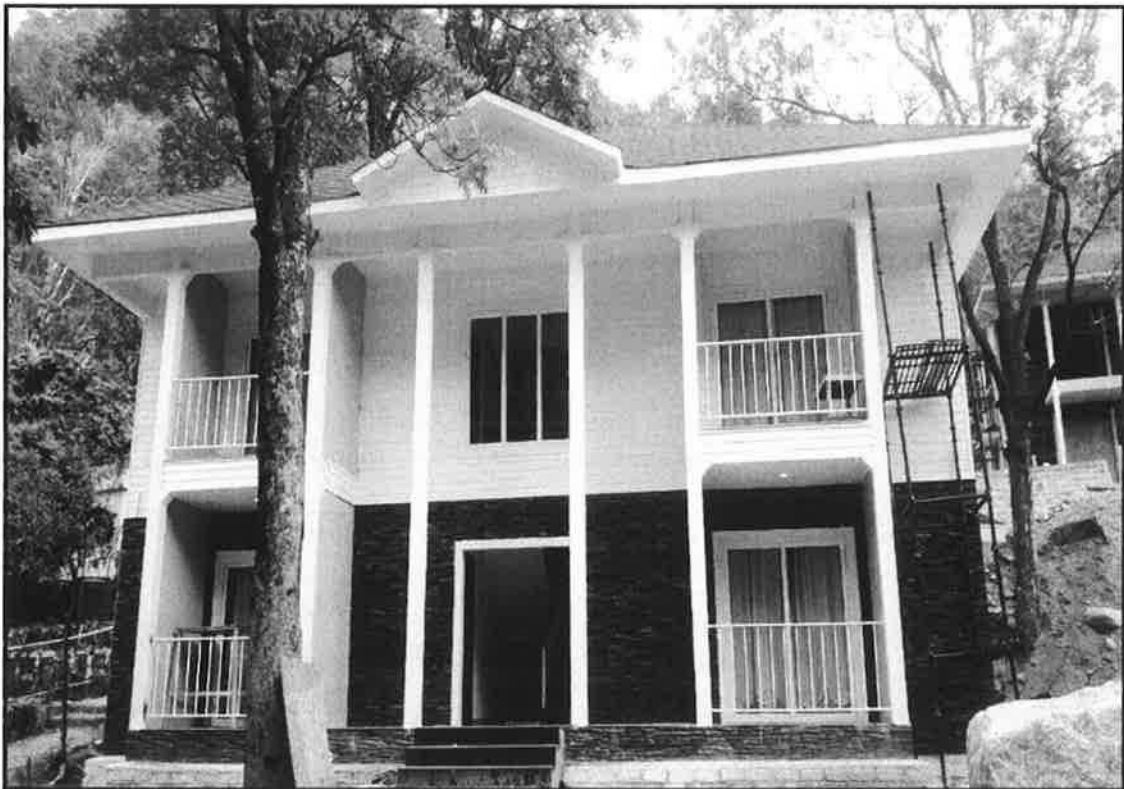
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UTTARAKHAND EMERGENCY ASSISTANCE PROJECT

Loan Number: 3055-INDIA

SEMI ANNUAL ENVIRONMENTAL MONITORING REPORT

(July -2015 to December-2015)



IND: Uttarakhand Emergency Assistance Program (Tourism Sector)

**Prepared by: - Department of Tourism, Government of Uttarakhand, for the Asian
Development Bank**

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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, Kumaon Mandal Vikas Nigam
FRP	-	Fiber Reinforced Plastic
GC	-	General Conditions
GMVN	-	Garhwal Mandal Vikas Nigam
GoI	-	Government of India
GoUK	-	Government of Uttarakhand
IDIPT	-	Infrastructure Development Investment Program for Tourism
IEE	-	Initial environmental examination
INR	-	Indian Rupee
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 _x	-	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 ₂	-	Sulphur- di- oxide
SPM	-	Suspended Particulate Matter
SPS	-	Safeguard Policy Statement
ST	-	Scheduled Tribe
UEPPCB	-	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 15-17th 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 Garhwa 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 destinations. For which the primary implementing agencies (IA) will be Public Works Department (PWD) for roads, bridges, urban roads, and trekking routes including eco-trails 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 Sansthan (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 2015-June 2015.

D. Project Profile

8. At the end of December, 2015 out of six packages contracts for six packages have been signed. The construction work in these six packages is in different stage. 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 31st December 2015)

Locations	Package Code	Sub-project	Physical progress
Pithoragarh	UK/UEAP-T(KMVN)NTL/01(R2)	Construction of 100 Prefabricated Fiber-reinforced Plastic (FRP) at 16 different location in Dharchula and Munsyari Tehsil.	Gunji -Plinth work of 10 nos. of HUT is completed. Kalapani - Plinth work of 5 nos. of completed. Nabhidhang - Plinth work of 6 huts has been completed and PCC of 6 huts has been completed. Gala - 4 nos. FRP huts & Retaining wall completed. Doors & Window is installed all in the 4 nos. of Huts. Malpa/Lamari - 5 nos. of FRP HUT is installed.
Bageshwar	UK/UEAP-T(KMVN)NTL/02(R2)	Construction of 45 Prefabricated Fiber-reinforced Plastic (FRP) at 9 locations.	Supi -5 Huts has been completed. In current bathroom plinth work is in progress Jhooni -Ground leveling completed and plinth work in progress. Badiyakot - 5 hut installed at badiyakot and inner floor work has been complete approach road work in progress.
Uttarkashi	UK/UEAP-T(GMVN)DDN/03	Construction of FRP/Hybrid huts (21Rooms) at 6 locations in Uttarkashi, Garhwal Region.	Purola : Foundation work up to Plinth has been completed. The work of retaining wall, drain and erection of steel structure are in progress. Wall Panel, Roof Panel & Floor Panel transported to site.

Locations	Package Code	Sub-project	Physical progress
			<p>Barkot: Foundation work up to Plinth has been completed. The work of retaining wall and erection of steel structure are in progress. Wall Panel, Roof Panel & Floor Panel transported to site.</p> <p>Phoolchatti: Foundation work up to Plinth has been completed in both Blocks. Site development work is in progress. Wall Panel, Roof Panel & Floor Panel transported to site.</p> <p>Raithal: Foundation work up to Plinth has been completed in both huts. Hill cutting work has been completed and work of retaining wall is in progress. Wall Panel, Roof Panel & Floor Panel transported to site.</p> <p>Barsu: Foundation work up to Plinth for 5 Huts has been completed. Hill cutting work has been completed and work of retaining wall is in progress. Wall Panel, Roof Panel & Floor Panel transported to site.</p> <p>Harsil: In 1st hut foundation work up to Plinth and erection of Steel structure has been completed. 2nd hut shifted to Barsu. Site planning for one additional hut at Barsu is in progress. Wall Panel, Roof Panel & Floor Panel transported to site.</p>
Rudraprayag	UK/UEAP-T(GMVN)/DDN/04	Construction of Hybrid Huts (8 Rooms) at one location in Rudraprayag,	Kanakchauri : Erection of vertical steel column & steel truss have been completed. Retaining wall work is in progress. Wall, Roof & Floor

Locations	Package Code	Sub-project	Physical progress
		Garhwal Region	Panel transported to site.
Chamoli	UK/UEAP-T(GMVN)/DDN/05	Construction of hybrid huts (32 Rooms) at 5 locations in Chamoli, Garhwal Region.	<p>Pandukeshwar : Hill cutting work & Excavation in foundation work in 1st & 2nd Block is in progress. PCC & RCC work in foundation of column footing in 1st & 2nd Block are in progress. Wall, Roof & Floor Panel transported to site.</p> <p>Auli: Hill Cutting work has been completed & Retaining wall work is in progress. Wall, Roof & Floor Panel transported to site. Fixing of wall, floor and roof panel is in progress.</p> <p>Joshimath: Erection of Wall, Roof & Floor Panel is in progress.</p> <p>Deval: Erection of steel structure of Hut has been completed. Wall, Roof & Floor Panel transported to site.</p> <p>Lohjung: Erection of steel structure of Hut has been completed. Wall, Roof & Floor Panel transported to site. Breast wall & retaining wall work are in progress.</p>
Rudraprayag	UK/UEAP-T(GMVN)/DDN/06+A10-	Construction/Reconstruction of Tourism Assets in LGFS Structure in six Locations in Rudraprayag Distt.	<p>Tilwara: Foundation work up to Plinth has been completed in 13 Nos. Huts. Erection of LGFS Structure for 7 Huts have been completed & one in progress. Outer wall covering (OSB board & membrane) of 5 Huts have been completed. Construction of retaining wall is in progress.</p> <p>Jakholi: Erection of LGFS Structure has been completed. Outer wall covering (OSB board & membrane) have been completed.</p> <p>Guptkashi: Erection of Steel Plinth beam & fixing of floor board has been completed. Rebating of wall LGFS Structure</p>

Locations	Package Code	Sub-project	Physical progress
			<p>is under progress.</p> <p>Triyuginarayan: Hill cutting work has been completed and Foundation work up to Plinth for 4 Huts has been completed. Erection of 1 LGFS Structure has been completed. Outer wall covering (OSB board & membrane) have been completed.</p> <p>Gaurikund: Foundation work up to Plinth has been completed. Erection of LGFS Structure and construction of retaining wall work is in progress.</p> <p>Sonprayag: Base architectural drawing has been approved & sent to contractor for submission of structural drawing. Earth work in general cutting under Site development work has been completed.</p>

**Table 2: Details of Sub-project Implementation under UEAP-Tourism
Subprojects (Upto 31st December 2015)**

Locations	Sub-projects components (Package No.)	Expected Starting date of Implement ation	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	6.02.2017	25%
Bageshwar	UK/UEAP-T(KMVN)NTL/02(R2)- Construction of FRP Huts in Bageshwar of Kumaon Region.	7.02.2015	24	6.02.2017	30%
Uttarkashi	UK/UEAP-T(GMVN)DDN/03 Construction of FRP and Hybrid Huts in Uttarkashi district of Garhwal Region.	10.10.201 4	18	9.04.2016	45%
Rudraprayag	UK/UEAP-T(GMVN)DDN/04 Construction of Hybrid Huts in Rudraprayag district of Garhwal Region	10.10.201 5	18	9.10.2016	60%
Chamoli	UK/UEAP-T(GMVN)DDN/05 Construction of Hybrid Huts in Chamoli district of Garhwal Region	10.10.201 4	18	9.04.2016	35%
Rudraprayag	UK/UEAP-T(GMVN)DDN/06 Construction/Reconstruction of Tourism Assets in LGFS Structure in Various Locations at Rudraprayag District, Garhwal Region	09.09.201 4	18	8.04.2016	33%

II. IMPLEMENTATION PROGRESS

E. Major Works and Progress

9. Under tourism sector till June, 2015 contracts of six sub-projects has been awarded, all six packages have started. **Table 3** shows the work progress status format. Work scope for the package for which Work Order has been issued is given hereunder. Monitoring and reporting on Environmental safeguard will be started shortly.

Table 3: Status of the Sub project and Progress

Locations	Sub-projects Components (Package No.)	Listing of works under the package	What type of works continued at present	Expected changes from approved scope	Fulfillment of objectives-Type remedial measures needed	Key assumptions and risks that affect attainment of the objectives
Pithoragarh	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 16 different location in Dharchula and Munsyari Tehsil.	Work is in progress in 5 sites	At this stage there is no such changes expected from the approved scope.	Strict application of mitigation measures	No risk anticipated at present
Bageshwar	UK/UEAP-T(KMVN)/NTL/02(R2)- Construction of FRP Huts in Bageshwar of Kumaon Region.	Construction of 45 Prefabricated Fiber-reinforced Plastic (FRP) at 9 locations and its associated facilities.	Work is in progress in 3 sites	At this stage there is no such changes expected from the approved scope.	Strict application of mitigation measures	No risk anticipated at present
Uttarkashi	UK/UEAP-	Construction	In Purola –Work of	At this stage	Strict	No risk

Locations	Sub-projects Components (Package No.)	Listing of works under the package	What type of works continued at present	Expected changes from approved scope	Fulfillment of objectives- Type remedial measures needed	Key assumptions and risks that affect attainment of the objectives
	T(GMVN)DDN/03- Construction of FRP and Hybrid Huts in Uttarkashi, Garhwal Region.	of FRP/ Hybrid huts (21Rooms) at 6 locations in Uttarkashi, Garhwal Region.	retaining wall, drain and erection of steel structure are in progress. In Barkot – Work of retaining wall, drain and erection of steel structure are in progress. In Phoolchatti –Site development work is in progress. In Raithal –work of retaining wall is in progress. In Barsu –work of retaining wall is in progress. In Harsil –Second Hut in Harsil is to be shifted to Barsu.Site planning for one additional hut at Barsu is in progress.	there is no such changes are expected from the approved scope.	application of mitigation measures	anticipated at present

Locations	Sub-projects Components (Package No.)	Listing of works under the package	What type of works continued at present	Expected changes from approved scope	Fulfillment of objectives- Type remedial measures needed	Key assumptions and risks that affect attainment of the objectives
Rudraprayag	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	<ul style="list-style-type: none"> Retaining wall work is in progress. 		Strict application mitigation measures	No risk anticipated at present
Chamoli	UK/UEAP- T(GMVN)/DDN/05 Construction of Hybrid Huts in Chamoli district of Garhwal Region	Construction of hybrid huts (32 Rooms) at 5 locations in Chamoli, Garhwal Region.	<p>Pandukeshwar- Hill cutting work & Excavation in foundation work in 1st & 2nd Block is in progress.</p> <p>Auli –Fixing of wall, floor and roof panel is inprogress.</p> <p>Joshimath- Erection of Wall, Roof & Floor Panel is in progress</p>	As the work is in initial stage, no change of work is anticipated.	Strict application of mitigation measures	No risk anticipated at present

Locations	Sub-projects Components (Package No.)	Listing of works under the package	What type of works continued present	Expected changes from approved scope	Fulfillment of objectives- Type remedial measures needed	Key assumptions and risks that affect attainment of the objectives
			<p>Deval –Fixing of wall, floor and roof panel is in progress.</p> <p>Lohjung –Breast wall & retaining wall work are in progress.</p>			
Rudrprayag	UK/UEAP-T(GMVN)/DDN/06 - Construction/Reconstruction of Tourism Assets in LGFS Structure in Various Locations at Rudraprayag District, Garhwal Region.	Construction of LGFS huts single/ duplex, Multipurpose Hall and Night shelter along with site development at 6 locations.	<p>Tilwara: Erection of LGFS Structure in remaining one hut is in progress. Construction of retaining wall is in progress.</p> <p>Jakholi: Erection of Wall, Roof & Floor Panel is in progress</p> <p>Guptkashi: Rebating of wall LGFS Structure is under progress.</p>		Strict application of mitigation measures	No risk anticipated at present

Locations	Sub-projects Components (Package No.)	Listing of works under the package	What type of works continued at present	Expected changes from approved scope	Fulfillment of objectives- Type remedial measures needed	Key assumptions and risks that affect attainment of the objectives
			<p>Sonprayag: NIL</p> <p>Triyuginarayan: Erection of LGFS structure is in progress</p> <p>Gaurikund: Erection of LGFS Structure and construction of retaining wall work is in progress.</p>			

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
Environment		
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.	<p>Under compliance</p> <p>Documents are prepared by complying all relevant State and National Laws, Safeguard Policy Statement (SPS 2009) of ADB, Environment Assessment Review Framework (EARF). Initial Environmental Examination (IEE), Environment Management Plan (EMP) report prepared and approved by ADB. In case of any change of scope and locations IEE will be revised.</p> <p>All measures and requirements as prescribed in IEE and EMP will be considered during implementation. Corrective or preventive action plans which will be reflected in Environment Monitoring Report and project implementation authority will be taken care.</p>
Human and Financial Resources to Implement Safeguards Requirements		
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) One official has been designated to supervise implementation of the EMMP at IA-Tourism Sector Subprojects.	<p>Under compliance</p> <p>Budgetary provisions have been included in EMPs One officer will be designated to supervise implementation of the EMMP at IA-Tourism Sector Subprojects.</p>
Safeguards – Related Provisions in Bidding		

Documents and Works Contracts	
13	<p>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:</p> <p>(a) comply with the measures and requirements relevant to the contractor set forth in the EIA/IEE, the EMMP, the RPs and any IPP (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set out in a Safeguards Monitoring Report;</p> <p>(b) make available a budget for all such environmental and social measures;</p> <p>(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;</p> <p>(d) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and</p> <p>(e) fully reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.</p>
	<p>Under compliance</p> <p>(a) Approved IEEs, EMPs and RPs are attached in Bidding documents.</p> <p>In case of any change of scope, revised IEEs, EMPs will be prepared and corrective measures will be disclosed to contractor and same will be reflected in the "Environment Monitoring Report"</p> <p>(b) All IEEs indicate budgetary provisions for implementation of EMPs</p> <p>(c) With the development of sub project and implementation, in case of additional impacts/risks due to change in scope/area, that will be reflected in the revised IEEs, EMPs and Environment Monitoring Report and accordingly project Executing Agency will inform the Construction Agency for taking relevant corrective measures.</p> <p>(d) Haul roads will be marked properly (by avoiding residences and agricultural land) before commencement of transportation of materials.</p> <p>(e) Pathways, land which are likely to be affected for a short period during implementation of the sub project will be restored by concerned construction agency before acceptance of the work. Restoration status will be reflected in post construction</p>

		monitoring report
Safeguards Monitoring and Reporting		
14	<p>The Borrower shall ensure or cause the EA and each IA to ensure the following:</p> <p>(a) submit semi-annual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission;</p> <p>(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 IEE/EIA, the EMMP, the RPs or any IPP, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; and</p> <p>(c) report any breach of compliance with the measures and requirements set forth in the EMMP, the RPs or any IPP promptly after becoming aware of the breach.</p>	<p>Under compliance</p> <p>(a) This is 2nd semi-annual Environment Monitoring Report, prepared for the period Jan to June 2015. Next semi-annual report is due on 31st December 2015.</p> <p>(b) With the development of project and implementation, in case of additional impacts/risks due to change in scope/area, will be reflected in revised IEEs, EMPs and accordingly Executing Agency (EA) will inform the ADB along with corrective action plan which will be reflected in the Monitoring Report.</p> <p>(c) In case of any breach of compliance with the measures and requirements set forth in the EMP; EA will promptly inform ADB and suitable corrective action plan will be planned.</p>
Prohibited List of Investments		
15	<p>The Borrower shall ensure or cause the EA and each IA to ensure that no proceeds of the Loan are used to finance any activity included in the list of prohibited investment activities provided in Appendix 5 of the SPS.</p>	<p>Complied</p> <p>For selection of sub projects there is no violation of prohibited investment activities as per ADB SPS (2009) Appendix 5.</p>
Labor Standards		
16	<p>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</p>	<p>Complied in document and to be complied during implementation</p> <p>Provision are included (as per EMP & BID document) to carry out HIV/AIDS awareness programs for construction</p>

	<p>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</p> <p>(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. Such contracts will also include clauses for termination in case of any breach of the stated provisions by the contractors.</p>	<p>contractor, application of all relevant labour laws for health and safety including child labour law and engagement of local labours (preferably from economically backward group) covering women labours.</p> <p>In case of any breach of provision, necessary corrective measures as per contract clauses shall be taken.</p> <p>All activities including awareness program will be reflected in "Monitoring Report".</p>
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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 Niga, 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 PIU's supported by DSC (also working as Engineer) till mid of august after DSC was terminated and individual consultant was appointed 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.

Sl. No.	Sources	Legislation
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
4	Water Pollution	The Water (Prevention and Control of Pollution) Act, 1974, as amended in 1988
5	Air Pollution	The Air (Prevention and Control of Pollution) Act, 1981, as amended by Amendment Act, 1987
6	Noise Pollution	The Noise Pollution (Regulation and Control) Rules, 2000
7	Public Liability	The Public Liability Insurance Act, 1991 The Public Liability Insurance Rules, 1991
8	Conservation, construction and reuse in and around the protected monuments	The Ancient Monuments and Archaeological Sites and Remains Act, 1958, and the rules, 1959
9	Hazardous Waste	<ul style="list-style-type: none"> ➤ 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 Export and Storage) Rules, 1999
10	Use and Management of Explosive	The Explosives Act, 1884 and The Explosives 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 14th 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 December 2015)

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 16 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		During the preparation of IEE and EMMP it was observed that no statutory and legislative clearance is required.	<ul style="list-style-type: none"> • Till date none of the packages under Tourism sector (UEAP) require forest clearances under <u>The Forest (Conservation) Act, 1980 & also</u> does not require Consent to Operate under Water (Prevention and Control of Pollution) Act, 1974 and amendments.
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.	The Water (Prevention and Control of Pollution) Act 1974. The Noise Pollution (regulation and control) rules, 2000, as amended			<ul style="list-style-type: none"> • Till date none of the subproject under UEAP falls within protected area and required Environmental Impact Assessment under "The Environmental Impact Assessment Notification, 1994 and the Amendments / Revised EIA notification on 14th September 2006"and Year 2009.

Work (Package No.)	Applicable Legislation/ Type of clearance	Subject / Issue	Clearance given by and date	Remarks/ Action needed
<p>3- UK/UEAP-T(GMVN)/DDN/03- Construction of FRP and Hybrid Huts in Uttarkashi, Garhwal Region.</p> <p>Construction of FRP/ Hybrid huts (21Rooms) at 6 locations in Uttarkashi, Garhwal Region.</p> <p>4- UK/UEAP-T(GMVN)/DDN/04 Construction of Hybrid Huts in Rudraprayag district of Garhwal Region.</p> <p>Construction of Hybrid Huts (8 Rooms)at one location in Rudraprayag, Garhwal Region</p> <p>5- UK/UEAP-T(GMVN)/DDN/05 Construction of Hybrid Huts in Chamoli district of Garhwal Region.</p> <p>Construction of 32 hybrid huts at 5 locations</p> <p>6- UK/UEAP-T(GMVN)/DDN/06 Construction/Reconstruction of Tourism Assets in LGFS Structure in Various Locations at Rudraprayag District, Garhwal Region.</p> <p>Construction/Reconstruction of Tourism Assets in LGFS Structure in Various Locations at Rudraprayag District, Garhwal Region</p>				<ul style="list-style-type: none"> • CTE/CTO does not required under these projects because they not required any HMP • During implementation of project PUC for vehicles, Labour License, Workmen compensation, land owner consent shall be obtained and Safety measures, Muck disposal, Environmental monitoring data required will be carried out as per agreed EMMP. • All the provision of EMMP and contractual stipulation with respect to environment safeguards are being implemented. Contractors have been directed to submit mandatory statutory clearances / documents as 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

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Work (Package No.)	Applicable Legislation/ Type of clearance	Subject / Issue	Clearance given by and date	Remarks/ Action needed
				economic activity. All the infrastructure units are proposed to be constructed outside ecological sensitive area. The design and constructions are consistent with the surrounding landscape. The construction activity will involve only minor building foundation excavation which will be filled up with soil after the construction. The project will not influence the 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 (31st December 2015)

Location	Name of Sub Project	EMP being Implemented (Yes / No)	Overall Status of EMP Implementation (Excellent/Satisfactory /Partially 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 16 different location in District Pithoragarh of Kumaon region.	Yes	Satisfactory	<ul style="list-style-type: none"> ✓ Labour licence applied & workmen compensation obtained ✓ Collection of PUC certificate ✓ Complete use of PPE ✓ Labour camp to be established ✓ Safety caution tape not in use properly ✓ Arrangement of First aid box
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 style="list-style-type: none"> ✓ Labour licence obtained ✓ workmen compensation obtained ✓ Collection of PUC certificate ✓ Complete

				<ul style="list-style-type: none"> ✓ use of PPE ✓ Labour camp to be established ✓ Safety caution tape not in use properly ✓ Arrangement of First aid box
Uttarkashi	UK/UEAP-T(GMVN)DDN/03- Construction of FRP/Hybrid huts (21Rooms) at 6 locations in Uttarkashi, Garhwal Region.	Yes	Satisfaction	<ul style="list-style-type: none"> ✓ Labour licence & workmen compensation ✓ Collection of PUC certificate ✓ Complete use of PPE ✓ Labour camp to be established ✓ Safety caution tape not in use properly ✓ Arrangement of First aid box
Rudraprayag	UK/UEAP-T(GMVN)/DDN/04 Construction of Hybrid Huts (8 Rooms)at one location in Rudraprayag, Garhwal Region	Yes	Satisfaction	<ul style="list-style-type: none"> ✓ Labour licence & workmen compensation ✓ Collection of PUC certificate ✓ Complete use of PPE ✓ Labour camp to be established ✓ Safety caution tape not in use properly

				✓ Arrangement of First aid box
Chamoli	UK/UEAP-T(GMVN)/DDN/05 Construction of hybrid huts (32 Rooms) at 5 locations in Chamoli, Garhwal Region	Yes	Satisfaction	✓ Labour licence & workmen compensation ✓ Collection of PUC certificate ✓ Complete use of PPE ✓ Labour camp to be established ✓ Safety caution tape not in use properly ✓ Arrangement of First aid box
Rudraprayag	UK/UEAP-T(GMVN)/DDN/06 Construction/Reconstruction of Tourism Assets in LGFS Structure in Various Locations at Rudraprayag District, Garhwal Region	Yes	Satisfaction	✓ Labour licence & workmen compensation ✓ Collection of PUC certificate ✓ Complete use of PPE ✓ Labour camp to be established ✓ Safety caution tape not in use properly ✓ Arrangement of First aid box

V. ENVIRONMENTAL MONITORING AND EVALUATION

24. 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
25. 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.
26. 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**.
27. In case of involvement of water source as working components water quality monitoring will also be conducted at project locations.
28. "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. Public 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

Sr. No.	Issues	Suggestion and recommendation	Action to be taken by	Time Frame
1	Application of EMP	Continue on regular basis	Contractor in association with PIU and DSC	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 labour camp/ 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	-
7	Training to workers	Regular tool box training for labourer Safeguard orientation training for contractor	Contractor, PIU, DSC	Continue process

Annexure 1: Environment Forest and other Compliance (30th June, 2015)

Package	EIA Clearance	Wet Land	Forest Clearance	Wild Life Act applicability	Tree Cutting Permission	Permission from State/ National Archaeological dept.	Consent for establishment of crusher from quarry material supplier	CTE/CTO	Authorization	Ground Water Permission	PUC	Environmental Monitoring
UKUEAP-(KMVN)NTL01(R2)] Pithoragarh Construction of 100 Prefabricated Fiber-reinforced Plastic (FRP) at 16 different location in District Pithoragarh of Kumaon region.	NR	NR	NR	NR	NR	NR	NR	NR	NA	NR	NR	Environmental monitoring done
UKUEAP-(KMVN)NTL02(R2) Bageshwar Construction of 25 Prefabricated Fiber-reinforced Plastic (FRP) at 5 locations and 20 Hybrid huts and 4 locations in district Bageshwar	NR	NR	NR	NR	NR	NR	NR	NR	NA	NR	NR	Environmental monitoring done
UKUEAP-T(GMVN)DDN03- Uttarkashi Construction of 15 Hybrid huts at 4 locations and 7 Prefabricated Fiber-reinforced Plastic (FRP) at 2 locations in district Uttarkashi of Garhwal region.	NR	NR	NR	NR	NR	NR	NR	NR	NA	NR	NR	Environmental monitoring done
UKUEAP-T(GMVN)DDN04 Rudraprayag Construction of Hybrid Huts at Kanakchauri in Rudraprayag district of Garhwal Region	NR	NR	NR	NR	NR	NR	NR	NR	NA	NR	NR	Environmental monitoring done
UKUEAP-T(GMVN)DDN05 Chamoli Construction of Hybrid Huts in Chamoli district of Garhwal Region	NR	NR	NR	NR	NR	NR	NR	NR	NA	NR	NR	Environmental monitoring done
UKUEAP-T(GMVN)DDN06 Rudraprayag Construction/Reconstruction of Tourism Assets in LGFS Structure in Various Locations at Rudraprayag District, Garhwal Region	NR	NR	NR	NR	NR	NR	NR	NR	NA	NR	NR	Environmental monitoring done

Annexure- Environmental Baseline Monitoring Data
Ambient Air Quality Analysis Results

Pkg. No.	Date of Monitoring	Location	SPM (ug/m3)	PM ₁₀ (ug/m3)	SO ₂ (ug/m3)	NO ₂ (ug/m3)	CO (mg/m3)	Pb	HC
UK/UEAP-T(KMVN)/NTL/01(R2)	19.01.2016	Gala	48.3	73.3	12.3	106	N.D		
	15.09.2015	Nabhidhang	48.4	73.2	12.7	10.5	N.D		
	15.09.2015	Kalapani	48.6	72.4	12.5	10.8	N.D		
	15.09.2015	Malpa/Lamari	48.7	73.0	12.9	11.1	N.D		
	15.09.2015	Gunji	48.7	72.3	12.5	10.9	N.D		
UK/UEAP-T(KMVN)/NTL/02(R2)	25.05.2015	Badiyakot	48.4	73.1	13.3	10.5	N.D		
	14.09.2015	Jhoani	48.5	72.7	13.0	10.5	N.D		
	25.05.2015	Supi	48.6	72.3	12.7	10.1	N.D		
	24.06.2015	Purula	178.96	79.87	12.32	19.17	<200		
	24.06.2015	Phokchatti	171.87	78.98	12.71	18.91	<200		
UK/UEAP-T(GMVN)/DDDN/03	24.06.2015	Barkot	171.21	81.98	11.32	15.71	<200		
	24.06.2015	Harsil	170.18	75.76	12.13	15.87	<200		
	24.06.2015	Barso	171.84	82.78	12.78	18.79	<200		
	24.06.2015	Raithal	173.43	81.98	13.21	19.87	<200		
	24.06.2015	Karikswami	170.64	80.27	13.19	19.87	<200		
	24.06.2015	Lohjung	179.87	80.93	13.72	19.87	<200		
	24.06.2015	Deval	174.71	77.94	12.92	18.21	<200		
UK/UEAP-T(GMVN)/DDDN/04	24.06.2015	Pandukeshwar	172.13	78.73	12.91	19.87	<200		
	24.06.2015	Auli	168.93	70.13	11.91	16.87	<200		
	24.06.2015	Joshimath	181.72	83.19	14.19	19.87	<200		
	23.11.2015	Tilwara	53.2	77.8	15.3	12.1	N.D.		
	23.11.2015	Jakhali	53.4	77.5	15.6	12.3	N.D.		
UK/UEAP-T(GMVN)/DDDN/05	23.11.2015	Guptkashi	53.0	76.9	15.1	11.8	N.D.		
	23.11.2015	Sonprayag	52.9	76.7	15.1	11.8	N.D.		
	23.11.2015	Triyuginarayan	55.3	77.2	15.6	12.1	N.D.		
	23.11.2015	Gaurikund	53.6	77.5	15.5	12.4	N.D.		

Water Analysis Results

Package No.	Location	Type	Date of Monitoring	Colour (Hazen)	Odour	Taste	Turbidity (NTU)	pH	Total Hardness (mg./l.)	Iron (Fe) (mg./l.)	Chloride (Cl) (mg./l.)	Residual Free Chloride (RFC) (mg./l.)	Sulphate (SO ₄) (mg./l.)	Total Alkalinity (mg./l.)	Fluoride (F) (mg./l.)	Total Dissolve Solid (TDS) (mg./l.)	Calcium (Ca)	Nitrate (NO ₃)	Boron (B)	Others	Total Suspended Solid (TSS)	BOD (mg./lit at 27 C)	COD (mg./lit)	Oil & Grease	Total Coliform Organism (MPN)	E.Coli
UK/UEAP-T(KMVN)NTL/01(R2)	Gola	Drinking water	27.05.2015	<5	Agreeable		Nil	7.5	174	Nil	70				0.82	384									Not detected	
	Nab hich ang	Drinking water	16.09.2015	<5	Agreeable		Nil	7.4	170	Nil	67				0.79	383									Not detected	
	Kala pani	Drinking water	16.09.2015	<5	Agreeable		Nil	7.3	169	Nil	68				0.80	376									Not detected	
	Malp a/La mari	Drinking water	16/09/2015	<5	Agreeable		Nil	7.1	165	Nil	65				0.77	375									Not detected	
	Gunji	Drinking water	16.09.2015	<5	Agreeable		Nil	7.2	167	Nil	65				0.78	378									Not detected	
UK/UEAP-T(KMVN)NTL/02(R2)	Badi yako t	Drinking water	26.05.2015	<5	Agreeable		Nil	7.2	165	Nil	64				0.73	377									Not detected	
	Jhoo ni	Drinking water	15.09.2015	<5	Agreeable		Nil	7.2	165	Nil	63				0.75	377									Not detected	
	Supi	Drinking water	26.05.2015	<5	Agreeable		Nil	7.2	167	Nil	62				0.76	375									Not detected	
	Purula	Ground Water	24.06.2015	<5	Unobjectionable	Agreeable	<1	6.65	44.0	<0.1	15.5	nil				62.0	10.3					<1.0				
UK/UEAP-T(KMVN)/DDN/03	Phoolch affi	Ground Water	24.06.2015	<5	Unobjectionable	Agreeable	<1	8.0	218.0	<0.1	33.6	nil				258.0	73.0					<1.0				
	Barkot	Ground Water	24.06.2015	<5	Unobjectionable	Agreeable	<1	7.81	61.4	<0.1	19.1	nil				82.0	12.0					<1.0				
	Harail	Ground Water	24.06.2015	<5	Unobjectionable	Agreeable	<1	8.5	34.0	<0.1	17.3	nil				57.0	9.5					<1.0				

[illegible]

Noise Analysis Results

Pkg. No.	Date of Monitoring	Location	Leq	Lmax	Lmin	L90 (dB(A))	Leq (dB(A))	Lmax (dB(A))	Leq-Day (dB(A))	Leq-Night (dB(A))
UK/UEAP-T(KMVN)/NTL01(R2)	21.05.2015	Gala	41.0	42.7	40.2					
	10.09.2015	Nabhidhang	41.5	42.9	40.6					
	10.09.2015	Kalapani	43.5	44.8	42.5					
	10.09.2015	Malpa/Lamari	43.0	44.2	42.6					
	10.09.2015	Gunji	43.0	44.3	42.6					
UK/UEAP-T(KMVN)/NTL02(R2)	20.05.2015	Badiyakot	42.0	43.2	41.5					
		Jhooni	41.5	42.8	40.6					
		Supi	41.5	43.5	40.1					
Pkg. No.	Date of Monitoring	Location	Lmin (dB(A))	L10 (dB(A))	L50 (dB(A))	L90 (dB(A))	Leq (dB(A))	Lmax (dB(A))	Leq-Day (dB(A))	Leq-Night (dB(A))
UK/UEAP-T(GMVN)/DDDN/03	24.06.2015	Purula	37.8	56.42	49.85	38.83	52.09	58.9	53.59	39.83
	24.06.2015	Phoolchatti	39.3	60.5	49.75	40.35	55.88	61.2	57.53	40.68
	24.06.2015	Barkot	38.8	58.46	50.6	39.92	53.77	59.8	55.24	42.36
	24.06.2015	Harsil	36.9	57.87	47.5	38.9	53.60	58.9	55.19	42.23
	24.06.2015	Barso	38.9	63.23	48.55	40.33	58.74	67.8	60.43	41.61
	24.06.2015	Raithal	36.7	63.9	49.75	39.02	59.43	67.8	61.11	41.97
UK/UEAP-T(GMVN)/DDDN/04	24.06.2015	Kanakchauri	40.3	65.3	50.4	40.92	60.30	68.9	61.98	45.46
UK/UEAP-T(GMVN)/DDDN/05	24.06.2015	Deval	37.2	58.72	51.95	39.17	54.95	60.9	56.39	43.26
	24.06.2015	Pandukeshwar	40.4	63.62	55.35	41.38	59.94	67.9	61.52	44.36
	24.06.2015	Auli	39.9	64.53	56.85	40.52	60.65	68.9	62.21	45.30
	24.06.2015	Jashimath	40.8	65.3	50.45	42.68	60.76	68.9	62.42	45.60
UK/UEAP-T(GMVN)/DDDN/06	18.11.2015	Tilwara	57.6	N.D.	N.D.	N.D.	58.8	60.3	N.D.	N.D.
	18.11.2015	Jakholi	56.8	N.D.	N.D.	N.D.	57.5	58.5	N.D.	N.D.
	18.11.2015	Gupikashi	53.6	N.D.	N.D.	N.D.	54.0	55.1	N.D.	N.D.
	18.11.2015	Sonprayag	60.9	N.D.	N.D.	N.D.	62.0	63.6	N.D.	N.D.
	18.11.2015	Triyuginarayan	55.3	N.D.	N.D.	N.D.	58.4	58.4	N.D.	N.D.
	18.11.2015	Gaurikund	59.2	N.D.	N.D.	N.D.	60.5	62.6	N.D.	N.D.

Soil Analysis Results

Package Road	Location	Date of Monitoring	Moisture	Specific Gravity	Water Holding Capacity	pH (10% Aqueous solution)	Alkalinity	Iron (Fe)	Calcium (CaCO ₃)	Magnesium (MgCO ₃)	Nitrates (NO ₃)	Chlorides (Cl)	Potassium (K)	Sodium (Na)	Sulphate (SO ₄)	Electrical Conductivity (EC)	Organic Carbon	Lead (Pb)	Nitrogen (N)	Phosphorus (P)	NaCl
UK/UEAP-03 T(GMVN)/DDN/03	Purula	07.01.2015	15.54			7.03							189.72	208.39			2.09	<0.1		9.32	
	Barkot	07.01.2015	17.89			7.32							201.93	312.92			1.98	<0.1		19.87	
	Raithal	07.01.2015	17.89			5.1							210.4	339.7			1.87	<0.1		13.73	
	Harsil	07.01.2015	17.89			8.12							301.72	287.32			2.11	<0.1		25.73	
	Barso	07.01.2015	14.32			6.99							211.3	187.2			2.01	<0.1		30.73	
	Phoolchatti	07.01.2015	16.83			7.87							137.4	209.3			1.87	<0.1		21.73	
UK/UEAP-05 T(GMVN)/DDN/05	Kanakchauri	07.01.2015	16.73			7.91							187.32	289.73			2.11	<0.1		41.32	
	Joshimath	07.01.2015	17.32			8.11							199.92	387.89			2.21	<0.1		20.73	
	Auli	07.01.2015	13.43			7.32							217.72	381.39			2.21	<0.1		28.73	
	Pandukeshwar	07.01.2015	14.73			7.01							187.39	389.39			2.93	<0.1		31.23	
	Deval	07.01.2015	15.87			8.32							290.87	173.21			1.32	<0.1		19.87	
	Lohlung	07.01.2015	13.87			7.93							198.72	312.42			2.09	<0.1		41.25	
UK/UEAP-06 T(GMVN)/DDN/06	Tiwara	24.11.2015				9.5							0.60	N.D.			0.24	N.D.	0.46	0.063	0.044
	Jakholi	24.11.2015				9.6							0.65	N.D.			0.25	N.D.	0.48	0.066	0.043
	Gupkashi	24.11.2015				9.6							0.66	N.D.			0.26	N.D.	0.47	0.062	0.041
	Sonprayag	24.11.2015				9.6							0.65	N.D.			0.26	N.D.	0.44	0.062	0.041
	Trivunagarayan	24.11.2015				9.7							0.63	N.D.			0.25	N.D.	0.42	0.060	0.042
	Gaurikund	24.11.2015				9.5							0.66	N.D.			0.28	N.D.	0.46	0.064	0.043

Package Road	Location	Date of Monitoring	Total organic carbon, per cent by weight	Total Nitrogen, per cent by weight	Total phosphorus, per cent by weight	Sodium chloride (as NaCl), %	pH	Lead (as Pb), %	Potassium (as K), %
UK/UEAP-T(KMVN)/NTL/01(R2)	Gola	27.05.2015	0.27	0.46	0.062	0.048	9.3	Not detected	0.65
	Nabhidhang	16.09.2015	0.24	0.46	0.063	0.045	9.3	Not detected	0.61
	Kalapani	16.09.2015	0.26	0.47	0.063	0.044	9.3	Not detected	0.65
	Malpa/Lamani	16.09.2015	0.26	0.48	0.065	0.047	9.4	Not detected	0.66
	Gunji	16.09.2015	0.26	0.44	0.063	0.046	9.2	Not detected	0.64
	Badiyakot		0.25	0.46	0.062	0.048	9.2	Not detected	0.64
UK/UEAP-T(KMVN)/NTL/02(R2)		26.05.2015							
	Jhooni	15.09.2015	0.27	0.45	0.062	0.044	9.1	Not detected	0.60
	Supi	26.05.2015	0.25	0.47	0.061	0.046	9.2	Not detected	0.60

Annexure – 2: Compliance of EMMP- Sample format

Project: Tourism - Package No: Progress: Physical progress :

Sr. No.	Field /Issue	Mitigation Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
Site Establishment and Preliminary Activities phase									
1	Legislation, Permits and Agreements	In all instances, EA, IA contractors and consultants must remain in compliance with relevant environmental legislation of India at the national, state and local levels.							
2	Education of site staff on general and Environmental Conduct	Ensure that all site personnel have a basic level of environmental awareness training. Staff operating equipment (such as excavators, loaders, etc.) shall be adequately trained and sensitized to any potential hazards associated with their task No operator shall be permitted to operate critical items of mechanical equipment without having been trained by the Contractor. All employees must undergo safety training and wear the							

Sr. No.	Field /Issue	Mitigation Method	Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
			<p>necessary protective clothing /equipment.</p> <p>A general regard for the social and ecological well-being of the site and adjacent areas is expected of the site staff. Workers need to be made aware of the following general rules:</p> <ul style="list-style-type: none"> • No alcohol / drugs to be present on site; • Measures for abatement of noise due to construction related activities and conduct of work force. • Construction staff are to make use of the facilities provided for them, as opposed to ad-hoc alternatives (e.g. use of firewood for cooking, the use of surroundings as a toilet facility are forbidden) • Trespassing on private / commercial properties adjoining the site is forbidden • Other than pre approved security staff, no workers shall be permitted to live on the construction site. <p>No worker may be forced to do work that is potentially dangerous or for what he / she is not</p>							

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Sr. No.	Field /Issue	Mitigation Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
3	Social Impacts	trained to do. Open liaison channels shall be established between the Site owner, operator, the contractors and interested and affected parties such that any queries, complaints or suggestions pertaining to environmental management aspects can be dealt with quickly and by the appropriate person(s).							
		A communications strategy is of vital importance in terms of accommodating traffic during road closure. The road closure together with the proposed detour needs to be communicated via advertising, pamphlets, radio broadcasts, road signage, etc.							
		Provide sign boards for pedestrians to inform nature and duration of construction works and contact numbers for concerns/complaints.							
		Storage facilities, elevated tanks and other temporary structures on site shall be located such that they have as little visual impact on local residents as possible.							

Sr. No.	Field /Issue	Mitigation Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
		In areas where the visual environment is particularly important (e.g. along commercial/ tourism routes) or privacy concerns for surrounding buildings exist, the site may require screening. This could be in the form of shade cloth, temporary walls, or other suitable materials prior to the beginning of construction.							
		Special attention shall be given to the screening of highly reflective materials on site.							
4	Lack of sufficient planning to assure long term sustainability of the improvements and ensure protection of the assets created and the architectural/archaeological character of the surroundings	Design will include provisions for ensuring effective maintenance and protection of the assets created so as to ensure the long term sustainability.							
Pre construction/ Design phase									
5	Layout of components to avoid impacts on the aesthetics of the site	The project components siting will avoid impacts on the aesthetics of the site, ensure minimal impacts and in							

Sr. No.	Field /Issue	Mitigation Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
		compliance with statutory and regulatory requirements.							
6	Increased storm water runoff from alterations of the site's natural drainage patterns due to landscaping, excavation works, and addition of paved surfaces	Design of proposed components will enable efficient drainage of the sites and maintain natural drainage patterns.							
7	Selection of materials and construction technologies, if not carefully chosen, will adversely impact the aesthetic appeal of the destinations	Selection of materials will be from approved sources and construction technologies proposed will strictly conform to the Uttarakhand architecture. Any new landscaping elements will only utilize native species. Material selection would be done keeping in view that no asbestos (except as allowed), and CFC is used.							
8	Socio cultural resources- Ground disturbance can uncover and damage archaeological and historical remains	Consult Archaeological Survey of India (ASI) and/or concerned Dept. of Uttarakhand Govt. as applicable to obtain an expert assessment of the archaeological potential of the site; Consider alternatives if the							

Sr. No.	Field /Issue	Mitigation Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
		site is found to be of medium or high risk; and 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.							
9	Integration of energy efficiency and energy conservation programs in design of sub-project components	The detailed designs for the sub-project components shall ensure that environmental sustainability principles, including energy efficiency, resource recycling, waste minimization, rainwater harvesting etc.							
10	Site clearance activities, including delineation of construction areas	Any removal of vegetation or tree felling shall be done after taking statutory permissions if required. All works shall be carried out such that the damage or disruption of flora other than those identified for cutting is minimum.							

Sr. No.	Field /Issue	Mitigation Method	Activities and	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
			Only ground cover/shrubs that impinge directly on the permanent works or necessary temporary works shall be removed with prior approval from the Environmental Expert of DSC. All areas used for temporary construction operations will be subject to complete restoration to their former condition with appropriate rehabilitation procedures as per the plan prepared by the contractor and approved by the EE of DSC.							
11	Slope protection near reservoir and intake well		Retaining wall will constructed near reservoir and intake well							
Construction Impacts										
12	Construction Camps - Location, Selection, Design and Layout		Siting of the construction camps shall be as per the guidelines below and details of layout to be approved by DSC. Construction camps shall not be proposed within 500 m from the sensitive							

Sr. No.	Field /Issue	Mitigation Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
		<p>receptors, nearest settlements to avoid conflicts and stress over the infrastructure facilities with the local community.</p> <p>Location for stockyards for construction materials shall be identified at least 300 m away from watercourses.</p> <p>Construction camps will be located away from settlements and drainage from and through the camps will not endanger any domestic or public water supply.</p> <p>Construction camps including sanitation facilities must be adequately drained.</p> <p>Sewage management through septic tanks and solid waste management through local ULB system or other alternate measures.</p>							
13	Drinking water availability	Sufficient supply of cold potable water to be							

Sr. No.	Field /Issue	Mitigation Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
		provided and maintained. The water quality shall be as per standard norms for drinking water. If the drinking water is obtained from an intermittent public water supply then storage tanks will be provided. The cleanliness of the storage tanks will be ensured and all measures to be taken to avoid any water contamination.							
14	Waste disposal	Pre-identified disposal location (identified by Contractor and approved by EE-DSC) shall be part of Comprehensive Waste Disposal Plan Solid Waste Management Plan to be prepared by the Contractor in consultation and with approval of Environmental Specialist of DSC. The Environmental Specialist of DSC shall approve these disposal sites after conducting a joint inspection on the site							

Sr. No.	Field /Issue	Mitigation Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
		with the Contractor. Wherever, possible Solid waste management shall be through local ULB system or other alternate measures. Contractor shall ensure that waste shall not be disposed off near the water course or agricultural land, Orchards and Natural Habitats like Grasslands.							
15	Stockpiling of construction materials	Stockpiling of construction materials does not impact obstruct the drainage and Stockpiles will be covered to protect from dust and erosion.							
16	Quarry operations	Contractor shall finalize the quarry for procurement of construction materials after assessment of the availability of sufficient quantity of materials, quality and other logistic arrangements. The Contractor shall							

Sr. No.	Field /Issue	Mitigation Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
		obtain materials from approved quarries only after consent of the Department of Mines and Geology and District Administration. Adequate safety precautions will be ensured during transportation of quarry material from quarries to the construction site. Vehicles transporting the material will be covered to prevent spillage.							
17	Arrangement for construction water	The Contractor shall use ground/surface water as a source of water for the construction with the written consent from the concerned Department. To avoid disruption/ disturbance to other water users, the Contractor shall extract water from fixed locations and consult DSC & line agencies before finalizing the locations.							

Sr. No.	Field /Issue	Mitigation Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
		<p>The Contractor shall provide a list of locations and type of sources from where water for construction shall be extracted.</p> <p>The Contractor shall need to comply with the requirements of the State Ground Water Department for the extraction and seek their approval for doing so and submit copies of the permission to DSC.</p>							
18	Soil/Land Erosion	Slope protection measures will be undertaken as per design to control soil erosion.							
19	Water Pollution from Construction Wastes	The Contractor shall take all precautionary measures to prevent entering of wastewater into streams, water bodies or the irrigation system during construction Contractor shall not wash his vehicles in river/stream water and							

Sr. No.	Field /Issue	Mitigation Method	Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
			shall not enter riverbed nearby the water resource area for that purpose.							
20	Water Pollution from Fuel and Lubricants	The Contractor shall ensure that all construction vehicle parking locations, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located at least 300 m away from rivers/streams and irrigation canal/ponds if any Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling shall be carried out in such a manner that spillage of fuels and lubricants does not contaminate the ground. Wastewater from vehicle parking, fuel storage areas, workshops, wash down and refueling areas shall be collected and separated through an oil								

Sr. No.	Field /Issue	Mitigation Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
		interceptor before discharging it on land or into other treatment system as per specified standards and UEPPCB and ULB norms if any.							
21	Soil Pollution due to fuel and lubricants, construction waste	The fuel storage and vehicle cleaning area will be stationed such that spillage of fuels and lubricants does not contaminate the ground. All pollution parameters will be monitored as per monitoring plan. Wastewater from vehicle parking, fuel storage areas, workshops, wash down and refueling areas shall be collected and separated through an oil interceptor before discharging it on land or into other treatment system.							
22	Soil Pollution due to fuel and lubricants, construction waste	The fuel storage and vehicle cleaning area will be stationed such that spillage of fuels and lubricants does not							

Sr. No.	Field /Issue	Mitigation Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
		contaminate the ground. All pollution parameters will be monitored as per monitoring plan. Wastewater from vehicle parking, fuel storage areas, workshops, wash down and refueling areas shall be collected and separated through an oil interceptor before discharging it on land or into other treatment system							
23	Generation of dust	The Contractor will take every precaution to reduce the levels of dust at construction site. Regular sprinkling of water and Stockpiles of soil will be kept covered in such a manner to minimize dust generation.							
24	Emission from Construction Vehicles, Equipment and Machinery	All vehicles, equipment and machinery used for construction shall conform to the relevant Bureau of India Standard (BIS) norms. The discharge standards promulgated under the Environment Protection Act, 1986 shall							

Sr. No.	Field /Issue	Mitigation Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
		<p>be strictly adhered to.</p> <p>The use of silent/quiet equipment compliant with India ambient noise standards and standards specified for manufacturers shall be encouraged in the sub Project.</p> <p>The Contractor shall maintain a record of PUC for all vehicles and machinery used during the contract period which shall be produced for verification whenever required.</p>							
25	Noise Pollution	<p>The Contractor shall confirm that all Construction equipment used in construction shall strictly conform to the MoEFCC/CPCB noise standards and all Vehicles and equipment used in construction shall be fitted with exhaust silencers.</p> <p>At the construction sites noisy construction work</p>							

Sr. No.	Field /Issue	Mitigation Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
		such as crushing, operation of DG sets, use of high noise generation equipment shall be stopped during the night time between 10.00 pm to 6.00 am. Noise limits for construction equipment used in this project will be in conformity to the BIS/SPCB/CPCB standards Regular monitoring of ambient noise levels to ensure compliance to Uttarakhand Environment Protection & Pollution Control Board standards.							
26	Material Handling at Site	Workers Employed on mixing cement, lime mortars, concrete etc., will be provided with protective footwear and protective masks and goggles. Workers, who are engaged in welding works, will be provided							

Sr. No.	Field /Issue	Mitigation Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
		<p>with welder's protective eye-shields.</p> <p>Workers engaged in stone breaking activities will be provided with protective goggles, masks, and clothing.</p> <p>The use of any toxic chemical will be strictly in accordance with the manufacturer's instructions and applicable regulations.</p> <p>The Engineer will be given at least 6 working days' notice of the proposed use of any chemical. A register of all toxic chemicals delivered to the site will be kept and maintained up to date by the Contractor.</p>							
27	Disposal of Construction Waste / Debris / Cut Material	The Contractor shall confirm that Safe disposal of the construction waste will be ensured in the pre-identified disposal locations. In no case, any construction waste will be disposed around the							

Sr. No.	Field /Issue	Mitigation Method	Activities and site	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
			project indiscriminately.							
28	Safety Measures During Construction	Personal Equipment for workers on the project and adequate safety measures for workers during handling of materials at site will be taken up. The Contractor has to comply with all regulations regarding safe scaffolding, ladders, working platforms, gangway, stairwells, excavations, trenches and safe means of entry and egress. The Contractor has to comply with all regulations for the safety of workers. Precaution will be taken to prevent danger of the workers from fire, etc. First aid treatment will be made available for all injuries likely to be sustained during the course of work. Contractor shall also organize periodic visits by								

Sr. No.	Field /Issue	Mitigation Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
		<p>a qualified registered medical practitioner to the site and workers camp. Contact information of Doctor, availability & location of first aid box shall be displayed in appropriate language both at work site and workers camp.</p> <p>The Contractor will conform to all anti-malaria instructions given to him by the Engineer.</p> <p>The Contractor will also ensure that the interests of the community are preferably not disturbed, and if unavoidable then disturbed to the minimum.</p> <p>Provide traffic management personnel, barricade, appropriate signage and safety information in and around the construction site and prevent local people entering into the construction site.</p>							
29	Clearing of Construction	Contractor to prepare site							

Sr. No.	Field /Issue	Mitigation Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
	of Camps and Restoration	restoration plans for approval by the Engineer. The plan is to be implemented by the contractor prior to demobilization. On completion of the works, all temporary structures will be cleared away, all rubbish burnt, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor's expense, to the entire satisfaction of the Engineer and facility owner.							
30	Risk of archaeological chance finds	Strictly follow the protocol for chance finds in any excavation work; Request FPIU/DSC or any authorized person with archaeological field training to observe excavation; Stop work immediately to allow further investigation							

Sr. No.	Field /Issue	Mitigation Method	Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
			if any finds are suspected; and Inform FPIU/DSC, and take any action they require ensuring its removal or protection in-situ.							
31	Conflict with locals		Contractor shall ensure that mostly the local labourers are employed and migratory laborer shall be employed only in case of unavoidable circumstances.							
32	Environment Safeguard Officer		Contractor shall appoint one full-time suitably qualified and experienced Environment and Safety Officer who shall be responsible for assisting contractor in implementation of EMMP, community liaising, consultations with interested/affected parties, reporting and grievance redressal on day-to-day basis. This environment and safety officer will be at site till all works related to the							

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Sr. No.	Field /Issue	Mitigation Method	Activities and including	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
		project demobilization completed.	are							

Annexure 3: Environmental Performance Fact Sheet

Name of Contractor		Date of Signing of Contract		Signing of Contract		Date of Completion		Name of Environmental staff (Contractor) with mobile no.		Baseline data generated		Obtained vide No..... Dated.....		Obtained vide No..... Dated.....		Consent to establish (CTE)		Consent to operate (CTO)		PUC vehicles Labour licence Workmen compensation Insurance		Land owner consent for establishment of Plant site, labour camps Hard Hats (Helmet) Safety Jackets Boots Gloves Others		Barricading and warning signs (Y/N) Type of Labour Camps Sanitation facilities such as Toilets (Y/N) Debris/Muck Disposal sites (Y/N) Quarry (Y/N) Water Sprinkling (Y/N) Borrow areas (Y/N)		Status of environmental monitoring Air Water Noise Soil	
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Annexure 4: Grievance Redressal Cells

परियोजना प्रबन्धन ईकाई
उत्तराखण्ड डिजास्टर रिकवरी प्रोजेक्ट एवं
उत्तराखण्ड ईमरजेंसी असिस्टेंस प्रोजेक्ट
सिडकुल बिल्डिंग 29 आई.आई.ई. (आई.टी. पार्क) सहस्त्रधारा रोड
देहरादून-248001 उत्तराखण्ड

आपदा राहत एवं पुनर्वास के अन्तर्गत आवास, सड़क, पुल दुर्गम क्षेत्रों के लिये हेलीपैड, चिह्नित क्षतिग्रस्त सरकारी भवनों, पर्यटन विभाग की परिसम्पत्तियों, बहुउद्देशीय भवनों एवं एफ.आर.पी. हटस बनाये जा रहे हैं। उपरोक्त से संबंधित किसी भी समस्या के निवारण के लिये परियोजना प्रबन्धन ईकाई एवं जनपद स्तर पर समस्या निवारण प्रकोष्ठ गठित किये गये हैं, जिनके संपर्क सूत्र निम्नवत हैं-
 इन संपर्क सूत्रों पर कार्यालय दिवसों एवं कार्यालय समयवधि में संपर्क किया जा सकता है।

केन्द्रीय समस्या निवारण प्रकोष्ठ दूरभाष संख्या 0135-2708876
 परियोजना प्रबन्धन ईकाई देहरादून ई मेल-grievancepmu@gmail.com

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उत्तरकाशी	श्री देवेन्द्र पटवाल	9410350338
बागेश्वर	कु. रिया समूरी	8193917518
पिथौरागढ़	श्री आर. एच. राणा	9412079945
अल्मोडा	श्री राकेश जोशी	9412929707
नैनीताल	श्री मनोज पाण्डे	9412347265
नैनीताल	श्री शैलेश कुमार	9456523808
उधमसिंह नगर	श्री अनिल शर्मा	7417170470
टिहरी	श्री विजय शर्मा	—
हरिद्वार	—	—
देहरादून	सुश्री दीपशिखा रावत	9412964936 0135-2790334
पौड़ी	श्री हविवर रहमान	9412031195

Annexure 5: Public Consultation on Environmental Issues

During Construction/ Implementation

PLACE OF CONSULTATION	
DATE OF CONSULTATION	
PROJECT NAME	
PACKAGE NO.	
NAME OF THE FIELD SUPERVISORS	
NAME OF THE PERSONS	
ADDRESS	

S.No.	POINTS DISCUSSED	REMARKS
01.		
02.		
03.		
04.		
05.		
06.		
07.		
08.		
09.		
10.		

Consultation Summary

Participants

Annexure 6: Sample Grievance Registration Form

(To be available in Hindi and English or local language, if any)

The **Uttarakhand Emergency Assistance Project (UEAP)** welcomes complaints, suggestions, queries and comments regarding project implementation. We encourage persons with grievance to provide their name and contact information to enable us to get in touch with you for clarification and feedback.

Should you choose to include your personal details but want that information to remain confidential, please inform us by writing/typing ***(CONFIDENTIAL)*** above your name. Thank you.

Date		Place of registration			
Contact Information/Personal Details					
Name		Gender	Male Female	Age	
Home Address					
Village / Town					
District					
Phone no.					
E-mail					
Complaint/Suggestion/Comment/Question Please provide the details (who, what, where and how) of your grievance below:					
If included as attachment/note/letter, please tick here:					
How do you want us to reach you for feedback or update on your comment/grievance?					

FOR OFFICIAL USE ONLY

Registered by: (Name of official registering grievance)	
If – then mode:	
<input type="checkbox"/> Note/Letter <input type="checkbox"/> E-mail <input type="checkbox"/> Verbal/Telephonic	
Reviewed by: (Names/Positions of Official(s) reviewing grievance)	
Action Taken:	
Whether Action Taken Disclosed:	<input type="checkbox"/> Yes <input type="checkbox"/> No
Means of Disclosure:	

GRIVENCES RECORD AND ACTION TAKEN

Sr. No.	Date	Name and Contact No. of Complainer	Type of Complain	Place	Status of Redress	Remarks

परिशिष्ट 6: नमूना शिकायत पंजीकरण फार्म

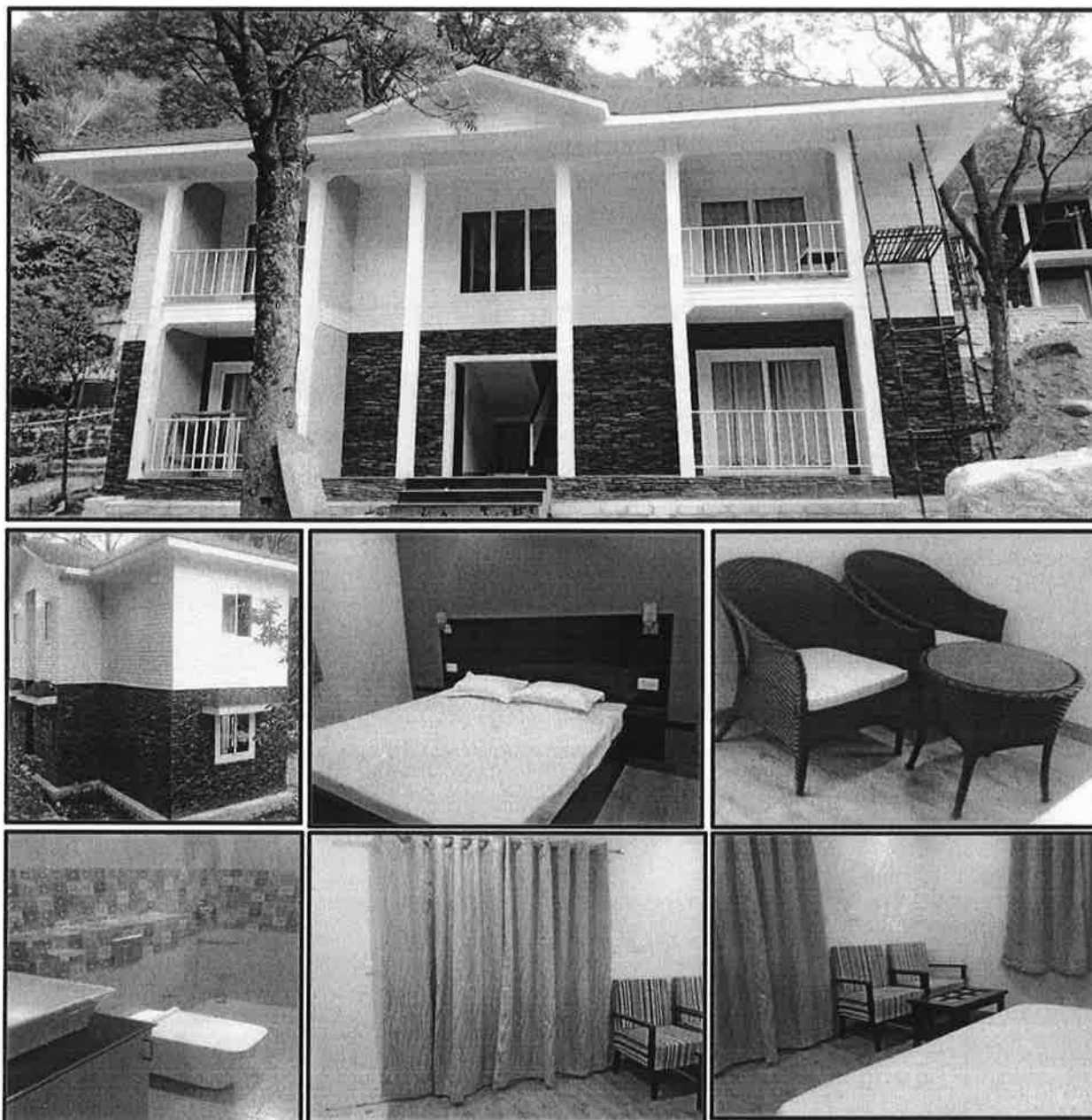
(हिंदी, उर्दू और अंग्रेजी या स्थानीय भाषा में उपलब्ध हो, यदि कोई हो,)

UEAP शिकायतें, सुझाव, प्रश्नों और परियोजना के कार्यान्वयन के बारे में टिप्पणियों का स्वागत करता है। हम लोगों को शिकायत के साथ उनके नाम और संपर्क जानकारी प्रदान करने के लिए प्रोत्साहित करते हैं ताकि हम स्पष्टीकरण और प्रतिक्रिया के लिए आप के साथ संपर्क कर सकें।

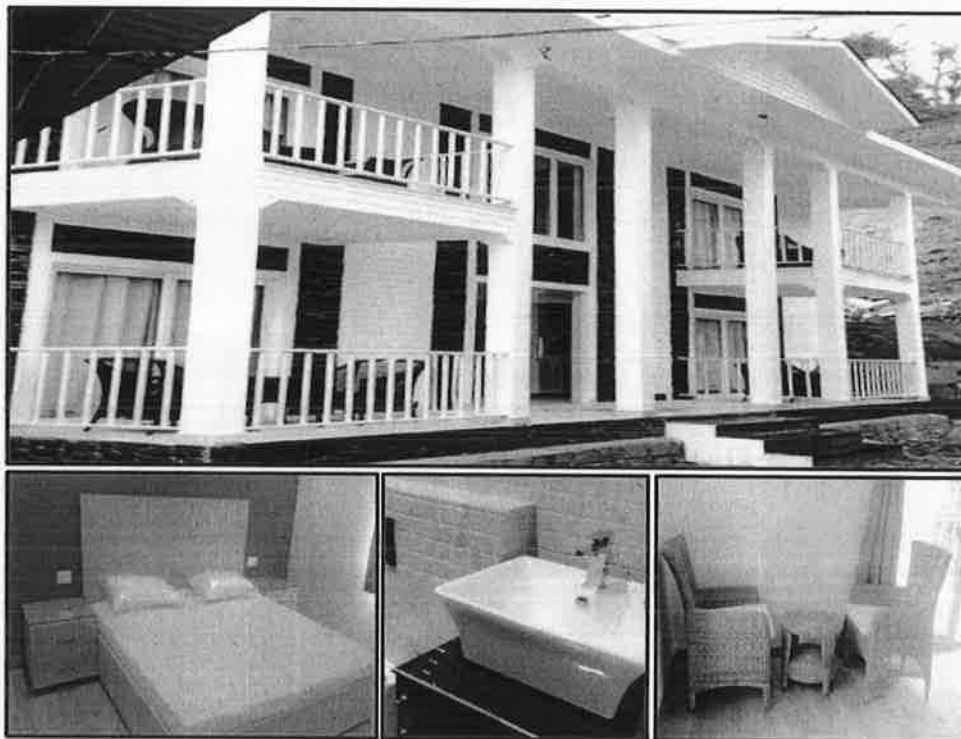
आपको अपने व्यक्तिगत विवरण शामिल करने चाहिए लेकिन उस जानकारी को गोपनीय रखा जायगा। आपका नाम ऊपर (गोपनीय) * लेखन / टाइपिंग द्वारा हमें सूचित करें धन्यवाद

तारीख			पंजीकरण का स्थान			
संपर्क करने संबंधी जानकारी / व्यक्तिगत विवरण						
नाम		लिंग	पुरुष महिला	आयु		
घर का पता						
गांव / शहर						
जनपद						
फोन नं.						
ई मेल						
शिकायत / सुझाव / टिप्पणी / प्रश्न नीचे अपनी शिकायत का विवरण (जो, क्या, कहां और कैसे) प्रदान करें:						
सलगनक / नोट / पत्र के रूप में, शामिल हैं, कृपया यहाँ टिक करें						
हम आप तक प्रतिक्रिया के लिए कैसे पहुँच सकते हैं या अपनी टिप्पणी / शिकायत पर नवीनीकरण?						
केवल कार्यालय उपयोग के लिए						
द्वारा पंजीकृत: (सरकारी पंजीकरण शिकायत का नाम)						
यदि -फिर विधि:						
<input type="checkbox"/> नोट / पत्र <input type="checkbox"/> ई मेल <input type="checkbox"/> मौखिक / टेलीफोन						
से समीक्षित: (नाम / अधिकारी की पोजिशन समीक्षा शिकायत)						
की गई कार्रवाई:						
की गई कार्रवाई का खुलासा:			<input type="checkbox"/> हां <input type="checkbox"/> नहीं			
प्रकटीकरण का मतलब:						
शिकायत रिकॉर्ड और की गई कार्रवाई क्रम संख्या	तारीख	नाम और complainer का संपर्क नंबर	शिकायत के प्रकार	जगह	निवारण की स्थिति	टिप्पणियाँ

Annexure-7 Project Photographs



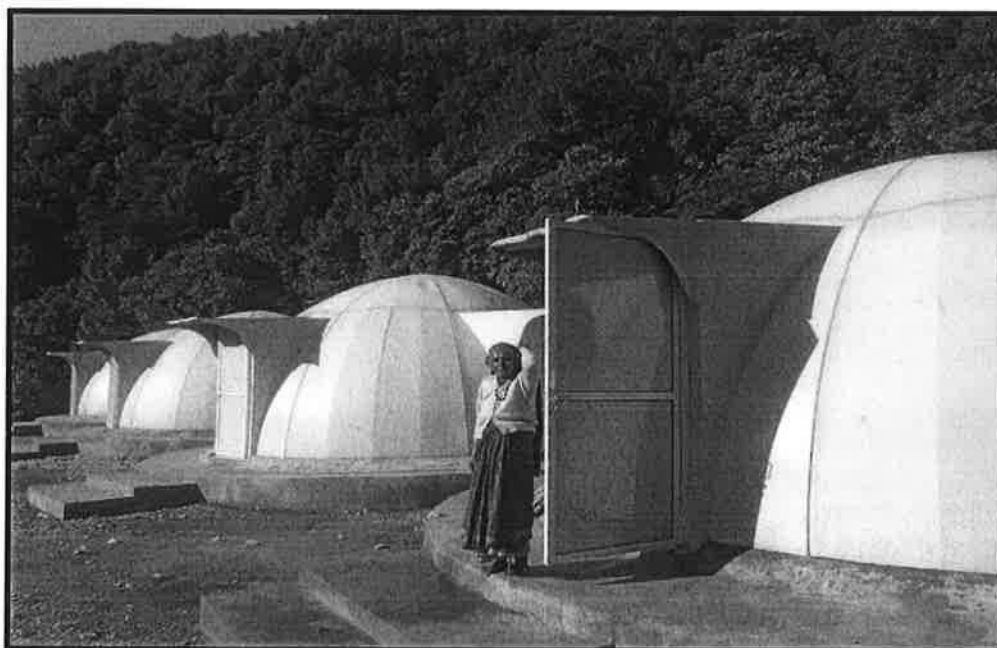
LGFS Huts at Tilwara with supporting amenities



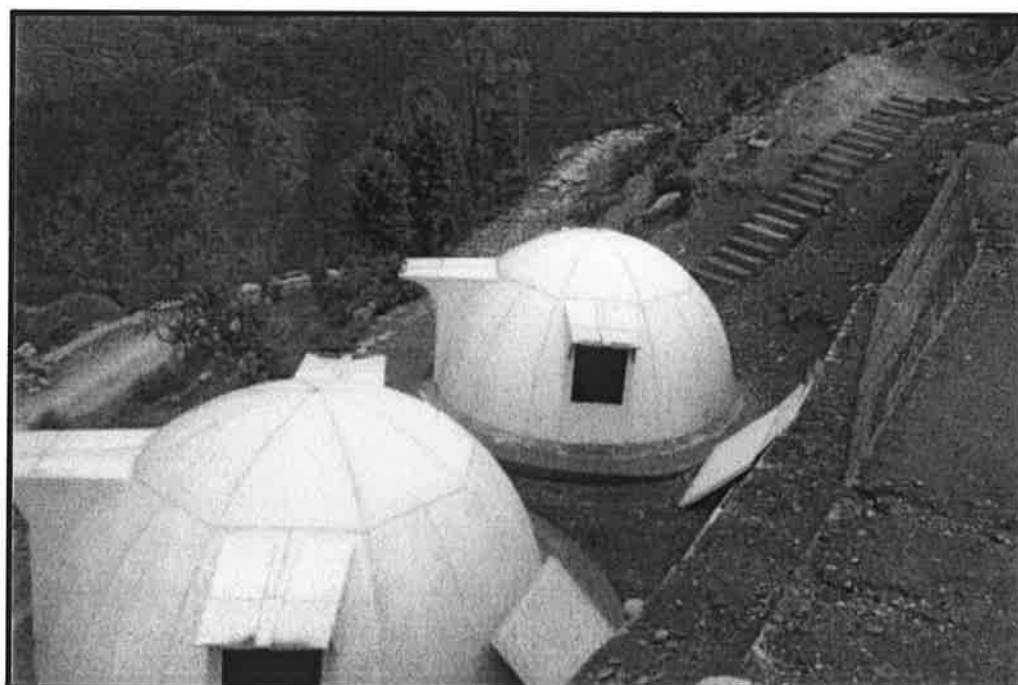
LGFS Huts at Guptakashi with supporting amenities



FRP Huts at Uttarkashi



FRP Huts at Badiyakot



FRP Huts at Supi