

Environmental Monitoring Report

Project Number: 40648-034 April 2016

Period: July 2015 – December 2015

IND: Infrastructure Development Investment Program for Tourism - Tranche 3

Submitted by: Program Management Unit, Government of Uttarakhand, Dehrdaun

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

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

Asian Development Bank



Program Management Unit

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



Date: 22.03.2016

NKISN

Ref: 3564/2-10-ADB IDIPT/370/2014-15

То

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

Sub: Loan No. 3223 IND- IDIPT, UK Submission of Semiannual Safeguard Monitoring Report (Environment and Social), for July – December, 2015

Ref: PMU's letter dt. 15.03.16 and observations communicated on 17.03.15 and 18.03.15

Respected Madam,

Kindly refer to submission of Semiannual Safeguard Monitoring Report (Tranche 3) vide PMU's referred letter and observations on the Semiannual Environment Monitoring Report communicated by ADB Safeguard Specialist. Modified report along with comments response matrix is enclosed for your kind perusal and approval.

Encl.:- As above

Yours Sincerely

(R.K. Joshi) Additional Program Director





Comments Compliance Matrix of EMR of Loan No. 3223, IDIPT UK

S.No.	ADB Comments	Compliance
1.	In column 3 of Table 2: Work Details and Risks for Sub projects under PIU Kotdwar, under listing of works in the package the components are not as per scope listed in the IEE	Components have been modified in the relevant section of the EMR as per scope in IEE
2.	What is the exact scope of works in the Forest land	 Works in the Forest land were curtailed in the DPR due to works being undertaken by the Tourism Dept. in the same area under state funding and accordingly IEE was updated. Works in the Forest land within the scope of UK/IDIPT-III/KOT/02 are restricted to canopy for a length of 147 m over the pathway with hand rails and finishing works on the pathway, subject to availability of Forest Clearance for the other project (as in 1 above)
3.	Table 4, For UK/IDIPT-III/KOT/02, Applicable Legislation/Type of clearance, pls. specify the Forest Clearance Requirement	Forest Clearance Requirement is triggered only for (i) Canopy for a length of 147 m on the pathway in between fair ground and Nagraj Temple and (ii) Hand rails and finishing works on pathway
4.	Table 6, the additional corrective measuresrequired for both the reported sub projectsare same but remarks in the status ofimplementation is different	Noted and modified accordingly in the relevant sections of the report
5.	Table 7(ii), Design and Pre constructionimpacts, pls. specify whether application forForest Clearance has been processed by theTourism Dept. for its project.	It has been informed by the Dept. that the Executing agency for the state funded project in Sem Mukhem has applied for Forest Clearance.
6.	Table 7(ii), Pre construction activities by the Contractor, actions during reporting period needs to be clarified for better understanding	Agreed and modified as per suggestions
7.	Table 8: Parameters and Methodology for EnvironmentalMonitoring, methodology for monitoring PM2.5 is missing, though the parameter is listed in table 9(i) Implementation of Environmental Monitoring Plan of UK/IDIPT-III/KOT/01	Agreed and modified as per suggestions
8.	Annexure 1; Relevant photographs should be shown without repetition	Agreed and modified as per suggestions

Semi – Annual Environmental Monitoring Report

Loan No: 3223 IND

Period: July 2015 to December 2015

IND: Infrastructure Development Investment Programme for Tourism, Uttarakhand

Prepared by Dept. of Tourism, Government of Uttarakhand for Asian Development Bank

March, 2016

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

Table of Contents

1.	INTRODUCTION1
2.	COMPLIANCE STATUS
3. REC	COMPLIANCE STATUS WITH NATIONAL/ STATE/ LOCAL STATUTORY ENVIRONMENTAL QUIREMENTS
4. Loa	COMPLIANCE STATUS WITH THE ENVIRONMENTAL COVENANTS AS STIPULATED IN THE N AGREEMENT
5. Stif	COMPLIANCE STATUS WITH ENVIRONMENT MANAGEMENT AND MONITORING PLANS AS PULATED IN THE ENVIRONMENTAL DOCUMENTATION AS AGREED WITH ADB16
6. PRC	APPROACH & METHODOLOGY ENGAGED FOR ENVIRONMENTAL MONITORING OF THE DJECT
7.	MONITORING OF ENVIRONMENTAL RECEPTORS/ ATTRIBUTES
8.	IMPLEMENTATION OF ENVIRONMENTAL MONITORING PLAN
	LE 9 (I): IMPLEMENTATION OF ENVIRONMENTAL MONITORING PLAN- FOR PROJECTS DER DSC KOTWARA
	ANY OTHER ENVIRONMENTAL ASPECTS, IMPACTS OBSERVED DURING IMPLEMENTATION ICH WERE NOT COVERED EARLIER
10. RES	DETAILS OF COMPLAINTS RECEIVED FROM PUBLIC AND ACTION TAKEN THEREOF TO OLVE40
11.	FOLLOW UP ACTIONS AND CONCLUSIONS

List of Table

TABLE 1: PROJECT PROGRESS IN THE REPORTING PERIOD TILL DECEMBER, 2015
TABLE 2: WORK DETAILS AND RISKS FOR SUB PROJECTS UNDER PIU KOTDWAR

TABLE 3: STATUS OF COMPLIANCE WITH EARF/ADB PROCEDURES)
TABLE 4: STATUS OF ENVIRONMENT, FOREST AND OTHER CLEARANCE	•
TABLE 5: STATUS OF COMPLIANCE WITH ENVIRONMENTAL LOAN COVENANTS	,
TABLE 6: EMP IMPLEMENTATION STATUS16	,
TABLE 7 (I) : EMP MONITORING STATUS CHART- CREATION OF PEDESTRIAN ROUTE FOR PILGRIMS AND TOURISTS IN HARIDWAR17	,
TABLE 7(II): EMP MONITORING STATUS CHART- DEVELOPMENT OF TOURISM INFRASTRUCTURE IN SEM MUKHEM25	
TABLE 8: PARAMETERS AND METHODOLOGY FOR ENVIRONMENTAL MONITORING	•
TABLE 9 (I): IMPLEMENTATION OF ENVIRONMENTAL MONITORING PLAN- FOR PROJECTS UNDER DSC KOTWARA	,

List of Annexure

ANNEXURE: 1	 	 41
ANNEXLIRE – 2		/3

1. Introduction

Overall Project Description

- 1. The Infrastructure Development Investment Program for Tourism Financing Facility (the Facility) will develop and improve basic urban infrastructure and services in the four participating states of Himachal Pradesh, Punjab, Uttarakhand and Tamil Nadu—to support the tourism sector as a key driver for economic growth. It will focus on: (i) strengthening connectivity to and among key tourist destinations; (ii) improving basic urban infrastructure and services, such as water supply, road and public transport, solid waste management and environmental improvement, at existing and emerging tourist destinations to ensure urban amenities and safety for the visitors, and protect nature and culture-based attractions. Physical infrastructure investments will be accompanied by: (iii) capacity building programs for concerned sector agencies and local communities for better management of the tourist destinations and for more active participation in the tourism-related economic activities, respectively.
- 2. The proposed Project targets enhanced economic growth and provision of livelihood opportunities for local communities through tourism infrastructure development with a focus on preservation and development of natural and cultural heritage and incidental services. The Project supports the state of Uttarakhand to develop the tourism sector as a key driver for economic growth.
- **3.** The Executing Agency (EA) for the Investment Program is Dept. of Tourism, Govt of Uttarakhand. The Loan Agreement and Project Agreement for the IDIPT, Uttarakhand is 3223-IND. Project Implementation Unit have been established in three towns respectively (Dehradun, Bhimtal and Kotdwar) for implementation of sub-projects. Design and Supervision Consultants (DSCs), has already been established in three towns for designing the Infrastructure, managing the tendering of Contractors and supervising construction, and providing support to the PIUs.

Outputs of the Project

4. The outputs of the Project are as follows:

Component 1: Urban Infrastructure and Service Improvement

Component 2: Improved connectivity

Component 3: Quality Enhancement of Natural and Cultural Attractions

Component 4: Greater participation by local communities

Component 5:Capacity Development, Community Participation and Project Management

Environment Category:

 The project under IDIPT was categorized as Environment Category "B", according to ADB's Safeguard Policy Statement (2009). All the subprojects under execution have been categorized as category 'B'.

Environment Performance Indicators, if any:

- 6. For effective monitoring, selected environmental parameters have been identified as indicators which may be qualitatively and quantitatively measured and compared over a period of time in order to assess/ ensure the compliance to environmental management plans (EMPs). The environmental performance indicators selected are physical, biological and social characteristics identified as most important in affecting the environment at critical locations at all the sub projects. The parameters identified as performance indicators are:
 - 1. Compliance with environmental management and monitoring plan
 - 2. Compliance to State/ National environmental regulations.
 - 3. Monitoring of ambient air quality, water quality and noise levels and comparison with baseline environmental quality and State/ National Standards.

Overall project progress, agreed milestones and Implementation schedule

7. Construction works for the following sub projects are in progress

Table 1: Project Progress in the Reporting Period till December, 2015

SI. No.	Package Ref No.	General Description Goods or Works	Contract Signing Date and Start date	Name of the Contractor	Contract Value	Contract period
1	UK/IDIPT- III/ KOT/01	Creation of Pedestrian Route for Pilgrims and Tourists in Haridwar	22/07/2015	M/s SS Infratech Jv, Tikola Nagar, Roorkee, Haridwar 247670	INR 22.38 Cr. (3.73 million US \$)	24 months
2	UK/IDIPT- III/KOT/02	Development of Tourism Infrastructure in Sem Mukhem	22/08/2015	M/s Mangalam and Construction Company in JV with Sunil Garg and Company, Kesarganj, Meerut.	INR 10.18 Cr. (US \$ 1.70 millions)	24 months
3	UK/IDIPT- III/ BHT/01 Lot1	Conservation of Cultural Heritage and Urban Place Making in Nainital*	19.10.2015 & 01.02.2016	M/s Simplex Projects Ltd.	INR 38.52 Cr. (US \$ 5.9 millions)	24 months
4	UK/IDIPT- III/ BHT/03	Restoration and Adaptive Reuse of Almora Fort (Rani Mahal)*	19.10.2015& 24.01.2016	M/s Simplex Projects Ltd.	INR 29.90 Cr. (US \$ 4.60 millions)	24 months
5	UK/IDIPT- III/ BHT/05	Restoration and Adaptive Reuse of Champawat Fort (Banasur)*	19.10.2015& 03.03.2016	M/s Simplex Projects Ltd.	INR 15.53 Cr. (US \$ 2.38 millions)	24 months

• Though works under all three packages under PIU Bhimtal were awarded in 2015, yet work at all 03 sites did not start till Dec, 2015. Hence would be reported in next SMR.

8. Work Details In The Reporting Period

Name & No. of Package	Name of the contractor	Listing of works under the package	Starting Date(land clearance) and schedule date of completion		Type of works Continued at Present	Progress % age	Expected change from Approved	Fulfillment of objective Type of remedial	Key assumption and risk affect attainment the
			Starting date	Date of Completion	Fiesent		scope	measures needed	objective
UK/IDIPT- III/KOT/01 Creation of Pedestrian Route for Pilgrims and Tourists in Haridwar	M/s SS Infratech Jv , Tikola Nagar, Roorkee	 Development of a pedestrian route 6.5 km (5.5 km at Haridwar and 1 km at Roorkee). Landscaping, sitting arrangements, murals, etc. on the proposed pedestrian route. Providing lighting or illumination arrangement on the proposed pedestrian route of 6.5 km. Providing safety hand railing on the pedestrian route on canal side. Providing solid waste bins on the side of proposed pedestrian route. 	22/07/2015	21/07/2017	 Establishment of construction camp Construction of wall on canal side Laying of foundation at multi facility complex 	4%	No change	Appropriate measures have been taken for fulfillment of the objectives	In case of any restrictions by the UP Irrigation Department

Table 2: Work Details and Risks For sub projects under PIU Kotdwar

Name & No. of Package	Name of the	Name of the Listing of works under contractor the package	Starting Date(land clearance) and schedule date of completion		Type of works Continued at	Progress % age	Expected change from	Fulfillment of objective Type of remedial	Key assumption and risk affect
of Fuckage			Starting date	Date of Completion	Present		Approved scope	measures needed	attainment the objective
		 Providing a toilet complex and drinking water facility on side of the proposed pedestrian route near Shankaracharya Chowk. Multi facility complex near the proposed pedestrian pathway (before Lohe Ka Pul on railway track near Jawalapur) including toilet complex, drinking water fountain, bathing and sanitation facilities, rest shelter, food distribution centre, police control room, solid waste bins, compound wall with entrance gate, landscaping, etc. Construction of a foot over bridge over Railway track near Jawalapur. 							

Name & No. of Package	Name of the	Name of the Listing of works under contractor the package	Starting Date(land clearance) and schedule date of completion		Type of works Continued at	Progress % age	Expected change from	Fulfillment of objective Type of remedial	Key assumption and risk affect
of Fuologe			Starting date	Date of Completion	Present	∕₀ age	Approved scope	measures needed	attainment the objective
		 Constructions of a foot over bridge over National Highway (NH 58) at Manglour Cross. Installation of tourist Signages (Direction Markers) on Kanwar Patri from Har Ki Pauri to Mangalour Cross. (Total length of the stretch of Kanwar Patri for the signage direction Markers works is 42 km) 							
UK/IDIPT- III/KOT/02 Development of Tourism Infrastructure in Sem Mukhem (Tehri)	M/s Mangalam and Construction Company in JV with Sunil Garg Company Meerut	 i. Dharamshala/ rest shelter at fair ground. ii. Toilet complex at fair ground including septic tank with soak pit. iii. Water supply Arrangement at Fair Ground iv. Landscaping works at 	23/09/2015	21/09/2017	 Establishment of construction camp Pathway from main road to Fair ground Construction of Rest Shelter at Fair Ground Excavation of silt 	2%	No change	Appropriate measures have been taken for fulfillment of the objectives	In case of any disagreement with Mela Committee and village Panchayat

Name & No. of Package	Name of the	me of the Listing of works under	Starting Date(land clearance) and schedule date of completion		Type of works Continued at	Progress % age	Expected change from	Fulfillment of objective Type of remedial	Key assumption and risk affect
of Fackage	Contractor		Starting date	Date of Completion	Present	,, age	Approved scope	measures needed	attainment the objective
		fair ground.			from reservoir				
		v. Development of							
		pathway from main							
		road to fair ground.							
		vi. Solar lighting system							
		along with normal							
		outdoor lights at fair							
		ground.							
		vii. Development of							
		existing small lake near							
		fair ground. (lake							
		covers about 1500							
		sqm. area, while water							
		spread area is 500							
		sqm)							
		viii. Solid waste bins and							
		compost pits at Fair							
		Ground.							
		ix. Murals depicting the							
		story of Lord Krishna at							

Name & No. of Package	Name of the	lame of the Listing of works under contractor the package	Starting Date(land clearance) and schedule date of completion		Type of works Continued at	Progress % age	Expected change from	Fulfillment of objective Type of remedial	Key assumption and risk affect
of Fuckage			Starting date	Date of Completion	Present), age	Approved scope	measures needed	attainment the objective
		4 locations.							
		x. Providing solid waste							
		bins and construction							
		of compost pit in							
		Mandir Complex. (Solid							
		wastes from Mandir							
		complex will be							
		collected in collection							
		bins and ultimately							
		dumped in to compost							
		pit to be developed in							
		the sub project.)							
		xi. Solar light at the temple							
		complex.							
		xii. Canopy for a length of							
		147 m on pathway in							
		between fair ground							
		and Nagraj Temple.							
		xiii. Hand rails and finishing							
		works on pathway							

Name & No. of Package	Name of the	ame of the Listing of works under ontractor the package	Starting Date(land clearance) and schedule date of completion		Type of works Continued at	Progress % age	Expected change from	Fulfillment of objective Type of remedial	Key assumption and risk affect
of Fuckage			Starting date	Date of Completion	Present	,, uge	Approved scope	measures needed	attainment the objective
		between fair ground							
		and temple complex.							
		xiv. Facilities planned at							
		Mukhem village are:							
		a) Renovation of existing							
		Temple in Mukhem							
		village.							
		b) Renovation of existing							
		entry gate of Mukhem							
		village.							
		c) Development of							
		internal roads in							
		Mukhem village.							
		d) Expansion of existing							
		pipe water supply							
		network.							
		e) Installation of solar							
		lighting system,							
		f) Solid waste							
		management with							

Name & No. of Package	Name of the contractor	C C	Starting Date(land clearance) and schedule date of completion		Type of works Continued at	Progress % age	Expected change from	Fulfillment of objective Type of remedial	Key assumption and risk affect
			Starting date	Date of Completion	Present	, ugo	Approved scope	needed	attainment the objective
		compost pits in Mukhem village. • Tourism Signages on the 23Km road from Kodar to Fair Ground.							

Any other information useful for assessing environmental performance of the project:

9. No additional information during this period

2. Compliance Status

1. Status of Compliance with EARF/ADB Procedures is shown in the following table:

Name & No. of Package	Environment Category	Status of preparation of IEE	Status of Approval by ADB	Date of Approval	Further Action needed For Compliance & Responsibility
UK/IDIPT-III/KOT/ 01	В	Completed and	Approved	31-01-2015	Regular monitoring and

Name & No. of Package	Environment Category	Status of preparation of IEE	Status of Approval by ADB	Date of Approval	Further Action needed For Compliance & Responsibility
		approved			reporting of EMP
UK/IDIPT-III/KOT/ 02	В	Completed and approved	Approved	28-02-2015	Regular monitoring and reporting of EMP

3. Compliance status with National/ State/ Local statutory environmental requirements

1. Status of Compliance with National/ State/ Local statutory environmental requirements is shown in the following table:

Work (Package No.)	Applicable Legislation/Type of clearance	Clearance Given by and date	Subject/Issue	Remarks/Action needed
UK/IDIPT-III/KOT/01 Creation of Pedestrian Route for Pilgrims and Tourists in Haridwar	No environmental and forest clearance requirement. No requirement of NOC from ASI	Not applicable	The project is for creation of pedestrian route for pilgrims and tourists in Haridwar and this activity not listed in EIA Notification 2006. No forest land acquisition so no forest clearance required. The project site is not in ASI Regulated Zone.	construction of Foot Over Bridge at Railway track at Jawalapur and another

Table 4: Status of Environment, Forest and other Clearance

Work (Package No.)	Applicable Legislation/Type of clearance	Clearance Given by and date	Subject/Issue	Remarks/Action needed
				meetings were held with NH but is on hold presently due to recent developments on the site.
UK/IDIPT-III/KOT/02 Development of Tourism Infrastructure in Sem Mukhem	No environmental clearance requirement. No requirement of NOC from ASI	Not applicable	The project is for creation of Tourism Infrastructure in Sem Mukhem and this activity is not listed in EIA Notification 2006. The project site is not in ASI Regulated Zone	No action needed for environment Clearance or ASI.
	Forest Clearance requirement only for sec. xii and xiii of column 3 of table 2 (as below) xii. Canopy for a length of 147 m on pathway in between fair ground and Nagraj Temple and xiii. Hand rails and finishing works on pathway between fair ground and temple complex.	Forest Clearance for state funded project in the same area is under process.	Works in Sem Mukhem area are also proposed under state funding, which includes development of the pathway from Fair ground to temple complex. Forest Clearance is processed by the Dept. for this project. Canopy and finishing work as proposed in UK/IDIPT-III/KOT/02	Works in the Forest area under UK/IDIPT-III/KOT/02 shall commence only after Tourism Dept. gets Forest Clearance.

Work (Package No.)	Applicable Legislation/Type of clearance	Clearance Given by and date	Subject/Issue	Remarks/Action needed
			shall be undertaken after Dept. gets Forest Clearance. Above component has been phased in the end of contractor's construction schedule as works in this are subject to availability of forest clearance.	

4. Compliance status with the environmental covenants as stipulated in the Loan Agreement

1. The status of compliance with environmental loan covenants is presented below:

Table 5: Status of Compliance with Environmental Loan Covenants

S. No	Covenants	Compliance		
1.	The Borrower and the States shall ensure that the preparation, design, construction, implementation, operation and decommissioning of each Subproject and all Project facilities comply with (a) all applicable laws and regulations of the Borrower and the States relating to environment, health, and safety; (b) the Environment Safeguards; (c) the EAFR; and (d) all measures and requirements set forth in the respective IEE and EMP, and any corrective or preventative actions set forth in a Safeguard Monitoring Report.	regulations of the Borrower and the States relating to environment, health, and safety (b) Environment Safeguards; (c) the EARF; and (d) EMP is being ensured during sub projects		
	Safeguards – Related Provisions in Bidding Documents and Works Contracts			

S. No	Covenants	Compliance
	The States shall ensure that all bidding documents and contracts for Works contain provisions that require contractors to:(a) Comply with the measures and requirement relevant to the contractor set forth in the IEE, the EMPs, any RO and any IPP (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set out in a Safeguard Monitoring Report;	Full EMP made part of the contract agreements of respective subprojects, thus its provisions being complied with. Orientation sessions are being carried out in each site for better understanding of Safeguards Compliance by the Contractor
	 (b) make available a budget for all such environment and social measures; © provide the relevant State with a written notice of any unanticipated environmental, resettlement or indigenous peoples risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP, the or the IPP (if any): and (d) Fully reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction. 	Environmental monitoring and mitigation costs allocated/ incorporated in contract agreements. No such environmental impact has been identified so for that was not considered in the IEE and in the EMP. (If any such impact arises in future, will be suitably addressed) All the areas that if disturbed by construction
	Safeguards Monitoring and Reporting	activities will be restored to pre-project condition by the contractors.
	11. The States shall do the following:	
	 (a) Submit semi-annual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission; 	The first semiannual report for Loan No. 3223 IND is submitted herewith. Subsequent reports will be submitted on time.
	(b) if any unanticipated environment and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP, any RP 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 Report any breach of compliance with the measures and requirements set forth in the EMP, any	In case of any unanticipated environmental risks and impacts arise, that shall be immediately informed to ADB with detailed description of the event and proposed corrective action plan. Breach will be reported to ADB immediately after
	compliance with the measures and requirements set forth in the EMF, any	

S. No	Covenants	Compliance
	IPP promptly after becoming aware of the breach.	becoming aware of it.

- 5. **Compliance Status with Environment Management and Monitoring Plans as stipulated in the environmental documentation as agreed with ADB.**
 - 1. The compliance Status with Environment Management and Monitoring Plan is shown in the following table:

S. No	Sub Project Name	EMP Part of Contract Documents (Yes/No)	EMP being Implemented (Yes/ No)	Status of EMP Implementation (Excellent/ Satisfactory/ Partially Satisfactory/ Below Satisfaction)	Actions Proposed/ Additional Corrective Measures Required
1	UK/IDIPT-III/KOT/01 Creation of Pedestrian Route for Pilgrims and Tourists in Haridwar	Yes	Yes	Partially Satisfactory	The contractor has been instructed to carry out environmental monitoring and to complete sanitation facilities (presently under construction) at construction camp
					The contractor has also been instructed to procure two first aid kits.
2	UK/IDIPT-III/KOT/02 Development of Tourism Infrastructure in Sem Mukhem	Yes	Yes	Partially Satisfactory	The contractor has been instructed to carry out environmental monitoring and to complete sanitation facilities under construction at construction camp
					The contractor has also been instructed to procure two first aid kits.

Table 6: EMP Implementation Status

IEE/EMP Component	Environmental issues	Responsibility	Actions during Reporting Period	Compliance issues	Corrective actions
UK/IDIPT-III/KOT/01	1			I	
Location	1 Siting of facilities 2 Lack of sufficient Planning 3 Impact on archaeological remains 4 Other	PMU & DSC	 Construction camp established in open land near multi facility complex. It is away from habitation. IEE and EMP have been prepared and EMP being complied with. The project planning done in advance and after many stakeholder consultations 3. No site of archaeological remains in the vicinity 	 Toilet Block at construction camp not completed. Contamination of upper Ganga canal water with earth and other construction material 	has been instructed to complete the toilet block immediately. 2- A strict vigil is
Pre-construction activities by the Contractor	 Construction Camps Defining of construction/work areas on ground for activities within 200m of the boundaries of the protected areas Circulation plan during construction Site clearance activities Drinking water 	Contractor & DSC	 1 The construction camp established and workers are using this as accommodation. Sanitation facilities at construction camp are not proper. Drinking water facilities available at site. The source of water is existing bore well 2. No protected area 	 Toilet Block at construction camp not completed. 2- First aid kits have not been procured. 	

Table 7 (i): EMP Monitoring Status Chart- Creation of Pedestrian Route for Pilgrims and Tourists in Haridwar

IEE/EMP Component	Environmental issues	Responsibility	Actions during Reporting Period	Compliance issues	Corrective actions
	availability 6. Identification of disposal sites 7. Waste management on site		within 200 m of project site 3. No impact on traffic movement during construction as there is no frequent to and fro transportation of materials from the construction camp site. The project site is on extreme left edge of NH-58 and construction activities are not interfering with traffic movement and tourist		one at construction site. 3- A training program on environmental safeguards has been conducted by the DSC Environmental expert after mobilisation of the contractor
			 4. The site clearance activities have been carried out at multi facility complex and excavated earth has been kept aside. 5. Potable drinking water is being made available for the construction force through the existing bore well. 		
			6. The waste material generated due to clearance and demolition activities will be used to the extent possible in the project. Towards the end		

IEE/EMP Component	Environmental issues	Responsibility	Actions during Reporting Period	Compliance issues	Corrective actions
			of construction phase, the site for disposal of waste material will be identified, keeping in view the quantity to be disposed off. 7. The waste generated during the construction is segregated and stored at the site for possible reuse later. The waste disposal plan will be prepared in the end phase of construction period by the contractor and reviewed by the DSC and will be approved in consultation with PIU		
Construction	 Improper stockpiling Quarry/ Borrow pit operations 		 The main construction materials at present being used are bricks, cement, sand and steel rods. These are being stocked properly. The contractor is obtaining sand and sub grade from the licensed quarries. No borrow pit operations have been carried out so far. 	 The construction workers' camp has no toilet block. The contractor has not procured first aid kit. The environmental monitoring for winter season has not been carried out. The PPE usage by the construction work force is very poor. 	 The contractor has been advised to complete the toilet block as early as possible. The contractor has been advised to procure at least two first aid kits. The contractor has been instructed

IEE/EMP Component	Environmental issues	Responsibility	Actions during Reporting Period	Compliance issues	Corrective actions
	3.Stripping, stocking & preservation of top soil		3- The top soil generated at multi facility complex due to excavation is kept aside.		to carry out environmental monitoring as early as possible.
	4.Soil erosion		4. The soil erosion issue is not there as there is no cutting or steep slope issues involved in the project.		Contractor has been instructed for usage of PPE for the work force.
	5. Water pollution due to fuel/lubricants		5. The fuel and lubricants are not stored at site as project is small in nature. These are purchased from market as per need.		
	6. Siltation of water bodies		6. The only excavated earth is at multi facility complex. This earth has been kept aside and is away from Upper Ganga canal. This earth after completion of foundation works will be filled back. No chance of siltation in Canal due to construction activities.		
	7. Generation of dust		7. Generation of dust is on account of material handling at site. Necessary dust		

IEE/EMP Component	Environmental issues	Responsibility	Actions during Reporting Period	Compliance issues	Corrective actions
			suppression measures such as water sprinkling are followed.		
	8.Emission from const ⁿ				
	vehicles		8. The construction		
			vehicles usage is not		
			much in the project. It is		
			only for the transportation of construction materials		
			and a small concrete		
			mixer at site. The trucks		
			carrying construction		
			material have pollution		
			under control certificates.		
	9. Noise from const ⁿ		9. In the current project		
	equipment		the only noisy equipment		
			used is concrete mixer		
			and it is operated		
			intermittently. No excess		
			noise generation is on account of construction		
	10. Material handling at		activities.		
	site		10. Most of the workers		
			were not seen using		
			personal protective		
			equipment.		
	11. Disposal of const ⁿ		11. So far there has been		
	waste/debris		no generation of		
			construction waste/debris		
			as the only construction		
			works being taken up are		
			wall along the canal and		

IEE/EMP Component	Environmental issues	Responsibility	Actions during Reporting Period	Compliance issues	Corrective actions
			foundation works at multi		
			facility centre.		
	12. Sanitation facilities		12. The construction		
	at project site		camp has no functioning		
			toilet at present. The toilet		
			block is under		
	13. Safety measures		construction.		
			13. The majority of the		
			construction work force is		
			not using personal		
			protective equipment		
			(PPE) such as hand		
			gloves, shoes, helmets,		
	14. Risks force majeure		jackets, etc.		
			14. Risk Force Majeure		
			situation has not occurred		
			so far. Necessary action		
			will be taken as per		
			contract provisions		
	15. Malaria risk		15. The project site as		
			well as workers' camp		
			are close to Upper Ganga		
			canal. There are chances		
			of mosquito breeding		
			although no water		
			accumulation takes place		
			at construction site. The		
			contractor is instructed to		
			keep good housekeeping		
			at construction workers'		
			camp and DSC staff at		
			site monitors. Malarial risk		

IEE/EMP Component	Environmental issues	Responsibility	Actions during Reporting Period	Compliance issues	Corrective actions
	 16.Chance archaeological finds 17.Religious structures 18. Construction Staff causing disruption to migratory birds 		is not anticipated. 16.Chance Archaeological finds have not been found so far during the construction works. The contractor has been instructed to inform to PIU and DSC, if any chance find is found. 17. The project is not impacting any religious structures 18. There is neither any route of migratory birds nor any location where migratory birds are visiting.		
Operation	1-Environmental conditions2.Uncontrolled tourism3. Management of the toilet blocks4. Adequate drainage5. Unhygienic condition due to poor maintenance irregular solid waste collection 6. Increased waste	PMU, UTDB	The project not yet reached Operation phase	Not Applicable	Not applicable

IEE/EMP Component	Environmental issues	Responsibility	Actions during Reporting Period	Compliance issues	Corrective actions
	loads onto the existing waste disposal facilities				

IEE/EMP Component	Environmental issues	Responsibility	Actions during Reporting Period	Compliance issues	Corrective actions
UK/IDIPT-III/KOT/02					
Location impacts	 Siting of facilities Lack of sufficient planning 	PMU & Line Agency	1. The Development of Tourism Infrastructure at Sem Mukhem has been finalised in consultation with Tourism Dept., Administration, Forest Dept. and local people 2. No Action but IEE and EMP have been prepared as part of sub project preparation. The project components have been finalised after detailed review of DPR and local level consultations.	No issue related to location finalisation	None
	3.Impact on archaeological remains		 3. No site of archaeological remains in the vicinity, hence no action needed 4. The project being at higher elevation, 		
	4. Other		limited during extreme weather conditions.		
Design & pre	1. Impact on sensitive areas	DSC & PIU	1. No acquisition of any forest(reserved/protected)	1- The contractor Site Engineer has	1- The contractor staff and work

Table 7(ii): EMP Monitoring Status Chart- Development of Tourism Infrastructure in Sem Mukhem

IEE/EMP Component	Environmental issues	Responsibility	Actions during Reporting Period	Compliance issues	Corrective actions
construction impacts	2. Slope stability related issues		area, hence no impacts (Only Canopy and finishing works on the pathway are proposed, the development of which is proposed in tourism Dept. state funded project as elaborated in page 12. 2. The sub project construction works on	work force should not cut trees in the vicinity for fuel wood and disturb hunt natural habitat.	given training on environmental safeguard issues and workers have been sensitized for not cutting trees and hunt animals and birds.
			pathway are on slope. The natural slope is maintained in the pathway and other construction works. The side slopes around pathway are compacted.	finishing works on the pathway from fair ground to Temple Complex shall be executed when Tourism Dept. gets	eliminated from the scope if requisite clearance is not obtained by the Tourism Dept.
	3. Increased storm water runoff		3. The storm water runoff issue will not be there at rest shelter or at pathway from road to fair ground as these are in hilly terrain having quick natural drainage. No storm water runoff is anticipated at Mukhem village also.	requisite clearance.	(These are minor finishing works elimination of which shall not have a major impact on the project and hence phased in the end of construction schedule)
	4. Impact on ground water quality		4. No impact on ground water quality. Water requirement for construction is very less (<4000 liters/day) and is		

IEE/EMP Component	Environmental issues	Responsibility	Actions during Reporting Period	Compliance issues	Corrective actions
	 5. Impact on aesthetic appeal 6. Integration of energy conservation 		 being met from nearby natural reservoir. The minor requirement for construction has no impact on reservoir or surrounding eco system. 5. No impact on aesthetic appeal. 6. Integration of Energy conservation measures have been planned in the project design. The project plans to use solar lighting system. 		
Pre-construction activities by the Contractor	 1.Construction Camp 2. Defining of construction/work areas on ground for activities within 200m of the boundaries of the protected areas 3. Circulation plan during construction 	Contractor & DSC	 The contractor has hired a house in the vicinity of Mela ground (location of rest shelter) and provided drinking water and sanitation facilities. Forest area is not used for construction camps/ any other facility No impact on traffic movement due to construction activity has been noticed as vehicular movement due to traffic is insignificant. The tourist movement to Sem Nagraja temple will also 	Toilet Block at Rest Shelter Construction site incomplete.	The contractor has been instructed to complete the toilet block work at rest shelter.

IEE/EMP Component	Environmental issues	Responsibility	Actions during Reporting Period	Compliance issues	Corrective actions
	4. Site clearance activities		not be affected. 4. The site clearance activities have been completed. No tree cutting was necessary.		
	5. Drinking water availability		5. The drinking water requirements are being met from nearby natural sources.		
	6. Identification of disposal sites7. Waste mgt on site		 6. Till now no waste material is generated. The waste disposal site will be identified in the later phase of construction period depending upon quantity of waste material to be disposed off. 7. The waste material generated is being collected and stored aside. The disposal plan will be 		
			prepared in later phase of construction period.		
Construction impacts	 Improper stockpiling 2.Quarry/ Borrow pit 	Contractor	 The site being at elevation due to cold weather construction activity was not much, so only stock piling of bricks was seen. The contractor is 	 Environmental monitoring during construction phase Use of personal protective equipment 	6- The contractor has not carried out environme ntal

IEE/EMP Component	Environmental issues	Responsibility	Actions during Reporting Period	Compliance issues	Corrective actions
	operations		obtaining sand and subgrade from the licensed quarries and has been instructed to submit copy of license of the quarry. The borrow pits for the projects have not been		monitoring till date. The contractor has been advised to carry out
	 3.Stripping, stocking & preservation of top soil 4.Soil erosion 5. Water pollution due to fuel/lubricants 6. Siltation of water bodies 7. Generation of dust 8.Emission from constⁿ vehicles and equipment 9. Noise from constⁿ equipment 		 operated so far. 3. The excavated earth for foundation works of rest shelter has been kept aside and will be reused for filling. Fair ground land is barren and rocky. 4. So far in the construction works no soil erosion issue has been identified. 5. The fuel and lubricants are not stored at site and these are purchased on need basis so question of water pollution due to fuel and lubricants. 		environme ntal monitoring through an accredited laboratory 2- The contractor has been advised to enforce use of PPEs by the workers.
	 6. Material handling at site 11. Disposal of constⁿ 		6.The project involves deepening of reservoir near Fair Ground. The work on this has not yet		20

IEE/EMP Component	Environmental issues	Responsibility	Actions during Reporting Period	Compliance issues	Corrective actions
	waste/debris 12. Safety measures 13. Risks force majeure 14. Malaria risk 15. Chance archaeological finds 16.Religious structures 17. Construction Staff causing disruption to migratory birds		started. In other components of project there is no issue of siltation. Necessary measures to avoid siltation will be taken up when work starts on the reservoir 7.The generation of dust is there from construction material handling such as sand, sub grade and cement. Necessary measures for dust suppression are taken. These measures include water spray and keeping sand and cement inside the cover shed. 8. At project site no construction vehicles are used except trucks bringing construction materials at site. These trucks/tempos have pollution under control certificates. The only construction equipment used at site is currently mixer, which is Diesel		

IEE/EMP Component	Environmental issues	Responsibility	Actions during Reporting Period	Compliance issues	Corrective actions
			Generator operated. This mixer is operating intermittently and as such there is no issue of air emissions. The contractor has been advised to carry out ambient air quality monitoring at two locations in project area.		
			9.In the current construction phase of project mixer is the only noise generating equipment is in operation. No noise issue has been felt during the site visits. This is operated intermittently. The site is far away from Mukhem village.		
			10.The material handling by the workers at site is proper as construction were seen using personal protective equipment such as gloves, shoes, helmets, etc. Some workers were seen not using personal protective equipment. The contractor has been		

IEE/EMP Component	Environmental issues	Responsibility	Actions during Reporting Period	Compliance issues	Corrective actions
			instructed to enforce use of personal protective equipment.		
			11.At present construction waste /debris generation is not seen at project site as works have just started. It will be more during finishing works of rest shelter, reservoir and temple works at Mukhem village. The maximum construction waste will be utilized. The material which cannot be used will be disposed off for this a disposal plan will be prepared in later phase of construction period.		
			12. The contractor has procured personal protective equipment such as helmets, gum boots, jackets, gloves, etc. These are being used. Some of the workers were seen not using PPE. The contractor has been advised to enforce use of PPEs. A		

IEE/EMP Component	Environmental issues	Responsibility	Actions during Reporting Period	Compliance issues	Corrective actions
			training program on safety and environmental safeguards has been conducted by the DSC environmental expert for the contractor staff.		
			13. So far conditions for Force Majeure have not been faced at the project site.		
			14. The project site being at an elevated height in a hilly terrain where low temperatures prevail. No mosquito breeding has been felt. However,		
			contractor has been instructed to take necessary measures in consultation with local state health department.		
			15. Chance Archaeological finds have not been found so far during the construction works. The contractor has been instructed to inform		
			to PIU and DSC. If any chance finds are found		

IEE/EMP Component	Environmental issues	Responsibility	Actions during Reporting Period	Compliance issues	Corrective actions
O & M impacts	1.Environmental conditions 2.Uncontrolled tourism 3. Management of the toilet blocks 4. Adequate drainage 5. Unhygienic condition due to poor maintenance of sanitation facilities and irregular solid waste collection 6. Increased waste loads onto the existing waste disposal facilities	PMU, Contractor & DSC	 necessary measures shall be taken as per chance finds protocol 16. No action needed as there is no impact on any religious structure due to project implementation. 17. No action needed as the project site is not close to any bird habitat, route of migratory birds or any location where migratory birds are visiting. 1-Not Applicable as project not yet completed 2- Not Applicable as project not yet completed 3- Not Applicable as project not yet completed 4- Not Applicable as project not yet completed 5- Not Applicable as project not yet completed 6- Not Applicable as project not yet completed 6- Not Applicable as project not yet completed 	Not Applicable	Not Applicable

6. Approach & Methodology engaged for environmental monitoring of the project

- 1. Continuous monitoring of EMP implementation is being carried out by DSC, PIU and PMU.
- 2. Concerned staff of DSC and PIU visit the construction sites and report to Team Leader DSC and PMC about issues/ problems related to environmental non-compliance. Necessary directions, in case of non-compliance are being issued to the contractors on the site and through letters about the procedures to resolve the problems/issues or requirements. The Safeguards Staff of DSC conduct regular site visits to monitor the implementation of safeguards measures on sites.

7. Monitoring of environmental receptors/ attributes

Monitoring basis

- Monitoring for the implementation of Environmental Monitoring Plan/Management Plan is required to be done to check if any adverse impact is being caused by the construction activities. The monitoring of these variables is to be carried out in construction sites within 100 m impact zone of the sub project.
- 2. The monitoring of environmental variables is to be carried out as per the agreed Environmental Monitoring Plan.

Type of environmental receptor/ attribute to be monitored

3. The environmental attributes to be monitored include the air, noise and water quality parameters at the construction sites in sub project sites. The air quality parameters monitored include RSPM (PM₁₀),PM_{2.5} SO₂ and NO₂. The water quality parameters include temperature, pH, electrical conductivity (EC), dissolved oxygen (DO), biochemical oxygen demand (BOD), total suspended solids (TSS), total dissolved solids (TDS) and turbidity. In case of noise the day and night time Leq values are monitored.

Methods of monitoring and equipment used

4. The following standard methodology is being used for monitoring

Parameter	Methodology
(PM ₁₀)	High Volume Sampler method (attached with cyclone)/Respirable Dust samplers.
(PM2.5)	PM _{2.5} sampler, Gravimetric method
SO ₂	IS Modified West and Gaeke Method
NO ₂	Jacob & Hochheiser Modified (Sodium Arsenite) Method.
Noise Level	Direct Reading Sound Level Meter.
Temperature	Digital/Mercury Thermometer Method.
рН	Electrometric Method.
EC	Electrometric Method.
DO	Winkle's Method Using Azide Modification
BOD ₅	Five Days BOD as per APHA 2005
TDS	Digital Meter Method.
TSS	Gravimetry (Filtration and Drying at 105°c)
Turbidity	Nephelo Turbidity Method.

Table 8: Parameters and Methodology for Environmental Monitoring

- 8. Implementation of Environmental Monitoring Plan
 - 1. Implementation of Environmental Monitoring Plan is shown below: for sub projects under DSC Kotdwara

Table 9 (i): Implementation of Environmental Monitoring Plan- For Projects under DSCKotwara

			Notwara	-				
Compon ent	Periods of monitori ng	Parameters/ Pollutants	Standard	Base line statu s	Monitoring result during project Implement ation	Remarks		
UK/IDIPT-I	II/KOT/01	Creation of Pedestrian Route for Pilgrims and Tourists in Haridwar						
Noise		Sound Level Leq. dB(A)	Noise Standards for 55 dB(A) for Day Time and 45 dB(A) for Night Time	-		The construction works for the project started late November due to this monitoring could not be conducted in post monsoon. The contractor has been instructed to carry out monitoring for winter season. The results of the monitoring will be included in the next EMR.		
Air Quality		SO2, NOX, CO , PM10 and PM2.5	NAAQS Standards		Industrial, Residential, Rural and other Areas	The construction works for the project started late November due to this monitoring could not be conducted in post monsoon. The contractor has been instructed to		
		Particulate Matter < 10 micron	100 µg/m3			carry out monitoring for winter season. The results of the monitoring will be included in the next EMR.		
		Particulate Matter < 2.5 micron	60 µg/m3					
		Sulphur dioxide,(So2)	80 µg/m3					
		Nitrogen dioxide(NO2)	80 µg/m3					
		Carbon Monoxide	02 mg/m3					

Compon ent	Periods of monitori ng	Parameters/ Pollutants	Standard for 08 hrs	Base line statu s	Monitoring result during project Implement ation	Remarks
		()				
Water Quality		Parameters given below for Upper Ganga Canal and Drinking Water BOD ₃ at 27°C DO Iron Lead Nickel Oil & grease pH Zinc (as Zn) Bacteriologi cal Tests Total Coli form Organisms 100 ml. at 37°C (MPN) Feacal Coli form / 100ml	CPCB Standards for Surface water bodies and Drinking Water Standards for Potable water			The construction works for the project started late November due to this monitoring could not be conducted in post monsoon. The contractor has been instructed to carry out monitoring for winter season. The results of the monitoring will be included in the next EMR.
UK/IDIPT-I	 /KOT/02 [Development of	Tourism Infra	astructu	ıre in Sem Mı	ukhem
Noise		Sound Level Leq. dB(A)	Noise Standards for 55 dB(A) for Day Time and 45 dB(A) for Night Time	-		The construction works for the project started late December due to this monitoring could not be conducted in December month. The contractor has been instructed to carry out monitoring for winter season in

Compon ent	Periods of monitori ng	Parameters/ Pollutants	Standard	Base line statu s	Monitoring result during project Implement ation	Remarks
						January/February months. The results of the monitoring will be included in the next EMR.
Air Quality		SO2, NOX, CO , PM10 and PM2.5	NAAQS Standards		Industrial, Residential, Rural and other Areas	The construction works for the project started late December due to this monitoring could not be conducted in December
		Particulate Matter < 10 micron	100			month. The contractor has been instructed to carry out monitoring for winter season in
		Particulate Matter < 2.5 micron Sulphur dioxide,(SO ₂	60μg/m3 80 μg/m3			January/February months. The results of the monitoring will be included in the next EMR.
		Nitrogen dioxide(NO ₂)	80 µg/m3			
		Carbon Monoxide (CO)	02 mg/m3 for 08 hrs			
Water Quality		Parameters specified for Drinking water in IS: 10500	Drinking Water Standards specified in IS: 10500			

9. Any other environmental aspects, impacts observed during implementation which were not covered earlier

- 1. No such impact observed during the reporting period
- 2. For the **UK/IDIPT-III/KOT/01** subproject (Creation of Pedestrian Route for Pilgrims and Tourists in Haridwar), the construction activities resumed in Late

November month due to this monitoring for post monsoon season could not be carried out. The contractor has been instructed to carry out monitoring for winter season and the same will be included in next Environmental Monitoring Report.

3. For the UK/IDIPT-III/KOT/ 02 subproject(Development of Tourism Infrastructure in Sem Mukhem) the contractor started the construction activity late December. Due to this monitoring for winter season could not be conducted till December end. The contractor has been instructed to carry out monitoring for winter season in January/February months. The monitoring values will be included in the next environmental monitoring report.

10. Details of Complaints received from public and action taken thereof to resolve

1. No complaints during the reporting period for any of the sub projects reported herewith.

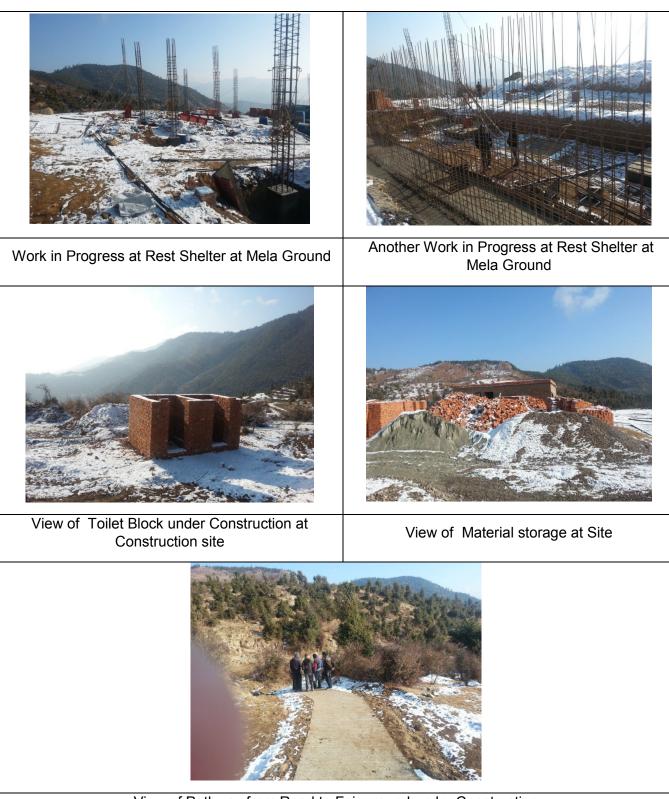
11. Follow up actions and Conclusions

1. Site supervision will be regularly carried out to ensure that environmental impacts are being adequately mitigated and to ensure continuation of compliance with statutory regulations as required by laws and agreed upon in EMP. The contractors are being regularly guided and instructed to pay attention to environmental issues and adhere to the provisions of EMP. Training Programs for engineers, contractors, and project staff are being conducted and regular informal onsite orientation for the contractors supervisory staff and site engineers on EMP will be continued.

Annexure: 1

Photographs of UK/ IDIPT-III/KOT/01 Creation of Pedestrian Route for Pilgrims and Tourists in Haridwar Project Site					
View of Construction Material Storage at Multi Facility Center	View of Construction Work of Wall at canal bank				
View of Construction Workers' Camp	View of Toilet Blocks Construction at Workers' Camp				
View of. Work in Progress at Multi facility Center					
View of Work in Progress at Multi facility Center					

Photographs of UK/ IDIPT-III/KOT/02 Development of Tourism Infrastructure in Sem-Mukhem (Tehri) Project Site



View of Pathway from Road to Fair ground under Construction

Annexure – 2

Training Program Session in November 2015 - Haridwar Sub Project Site



Training Program on Environmental Safeguards at Haridwar Sub Project Construction site

