

Semi Annual Environmental Monitoring Report

Loan Number: 2528 IND
Reporting Period: January-June 2013

INDIA: North Eastern Region Capital Cities
Development Investment Program (Tranche 1)
Project City: Kohima, Nagaland State

Implementing Agency: State Investment Program Management and Implementation Unit
Executing Agency: Urban Development Department, Government of Nagaland

July 2013
Kohima

ABBREVIATIONS

ADB	- Asian Development Bank
BTA	- Bridging Technical Assistance
CC	- Construction Contractor
DOC	- Date of Completion
DOS	- Date of Start
DSMC	- Design, Supervision and Management Consultant
EA	- Executing Agency
EARP	- Environmental Assessment & Review Procedure
EHS	- Environment, Health and Safety
EIA	- Environmental Impact Assessment
EMR	- Environmental Monitoring Report
EO	- Environmental Officer
ES	- Environmental Specialist
Gol	- Government of India
IA	- Implementing Agency
IEE	- Initial Environmental Examination
IPCC	- Investment Program Coordination Cell
MFF	- Multi-tranche Financing Facility
MLD	- Million Liters per Day
mn	- Million
MoUD	- Ministry of Urban Development
NEA	- National Executing Agency
NERCCDIP	- North Eastern Region Capital Cities Development Investment Program
NSC	- National level steering committee
PD	- Project Director
PPTA	- Project Preparatory Technical Assistance
SEA	- State level Executing Agency
SIPMIU	- State Investment Program Management and Implementation Unit
SWM	- Solid Waste Management
UDD	- Urban Development Department

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I. INTRODUCTION

A. Background

1. North Eastern Region Capital Cities Development Investment Program (NERCCDIP) is being undertaken for improvement of existing infrastructure, environmental quality and access to basic urban services of Kohima Municipal Council area. The NERCCDIP's objective is to improve the urban environment and promote reforms for sustainable, efficient, and responsive urban service delivery. The Program components are Water supply and Solid Waste Management infrastructure.

2. With an overall objective of sustainable urban development, the NERCCDIP is being implemented in the five capital cities - Gangtok, Aizawl, Kohima, Gangtok and Shillong. NERCCDIP will be implemented over a six year period beginning in 2009, and is funded by a loan via the Multitranchise Financing Facility (MFF) of the Asian Development Bank (ADB).

3. In Kohima, capital city of Nagaland, the Executing Agency (EA) for the program is the Urban Development Department (UDD) of the Government of Nagaland (GoN); and the Implementing Agency (IA) is the State-level Investment Program Management and Implementation Unit (SIPMIU), created within the UDD, specifically for the Investment Program implementation. At central level, Investment Program Coordination Cell (IPCC) is established in MOUD. IPCC is responsible for overall management of the Investment Program and is supported by Program Management & Monitoring Consultants (PMMC).

4. The water supply and solid waste management sub projects of Kohima under Tranche-1 (Loan No. 2528 IND) have been classified as Category B as per the ADB Environmental Policy, and accordingly IEE report was prepared during PPTA/BTA and was approved by the ADB.

5. Changes in location of some water tanks have been proposed in the water supply sub project being implemented and IEE and Environmental Monitoring Plan are being updated to address the changes in the location of tanks. Solid waste management sub project is being implemented as a design, build, operate and transfer project. Therefore, IEE and EMP will be updated during additional works. The sub projects are being screened using ADB checklist for any change in scope. If re-categorisation is required due to design changes, SIPMIU will submit the checklist to ADB for review and approval.

6. Environmental Monitoring Plan. An Environmental Monitoring Plan which addresses the potential impacts and risks identified by the environmental assessment has been included in the IEE reports. The level of complexity of the EMP and the priority of the identified measures and actions commensurate with the Project's impact and risks. The EMP is part of bidding and contract documents.

B. Project Profile

7. At present, Subprojects under Tranche-1 (Loan No. 2528 IND) are under implementation in Kohima and focus on water supply improvements and solid waste disposal facilities. The water supply subproject (package no. KHM-WA 1) covers construction of 18 ground level RCC tanks (service reservoirs) and refurbishment of an existing water treatment plant.

8. The solid waste management subproject (package no. KHM-SWM 1) covers design, build, operation and transfer of a sanitary land fill, compost plant and internal access roads.

9. Details of the project activities under Tranche-1 (Loan No. 2528 IND) as of June 2013 are presented in the following Table.

Table 1. Sub Project Details under Tranche-1 (Loan No. 2528 IND)

S. No.	Name of Work	Location	Description	Changes if any from approved scope
1	Refurbishment of Kohima water supply scheme (KHM-WA 1)	Spread over Kohima Municipal Council	construction of 18 ground level RCC tanks (service reservoirs) and rehabilitation of the Water Treatment Plant	Locations of 8 ground level service reservoirs were changed and hence the IEE report is being updated.
2	Civil works and procurement of equipment for development of sanitary land fill, compost plant and internal access (KHM-SWM 1)	At Landfill site, Lerie	Design, build, operate and transfer of sanitary landfill, compost plant, leachate treatment plant and associated infrastructure	No changes during January – June 2013

10. Civil works of water supply sub project under Tranche-1 commenced during December 2011 and the estimated duration of works is 18 months. Physical progress as of June 2013 is 49.47 %. Construction of three tanks has been completed. Rehabilitation of water treatment plant and construction of seven tanks are under progress. Locations of eight tanks have been changed due to various constraints for construction and new locations have been identified for them. Construction of these tanks is not yet started.

11. Civil works of the solid waste management sub project under Tranche-1 commenced during January 2012 and the estimated duration of works is 24 months. Physical progress as of June 2013 is 33.00 %. Construction of landfill site and compost plant is under progress.

12. The Semi Annual Environmental Monitoring Report presents the status of sub project implementation, details of compliance with environmental regulations of the Government and policies of ADB, details of compliance with environmental loan covenants, details of complaints received and their redressal and the status of compliance with various aspects of EMP as stated in the IEE reports.

13. Monitoring of compliance with EMP is a continuous activity carried out by the DSMC and SIPMIU. Guidelines on general construction EHS measures to be followed / implemented have been issued to the Contractor. A reporting format to be filled up by the Contractor on a daily basis on compliance with EMP has been issued and they are being compiled on a monthly basis. This is the consolidated report on implementation of Environmental Management Plan (EMP) from January to June 2013, and is prepared in compliance with the ADB Policies.

II. ENVIRONMENTAL ASSESSMENT AND REVIEW PROCEDURE

A. Environmental Legal Requirements

14. The following Regulations are currently in force in India that deals with environmental issues that could apply to infrastructure development. Acts and Rules related to monuments and archeological sites are also listed herein.

- (i) The Water (Prevention and Control of Pollution) Act, 1974, amended 1988
 - The Water (Prevention and Control of Pollution) Rules, 1975
- (ii) The Air (Prevention and Control of Pollution) Act 1981, amended 1987
 - The Air (Prevention and Control of Pollution) Rules, 1982
- (iii) The Environment (Protection) Act, 1986, amended in 1991 and including the following Rules/Notification issued under this Act
 - The Environment (Protection) Rules, 1986, including amendments
 - The Municipal Solid Wastes (Management and Handling) Rules, 2000
 - The Hazardous Wastes (Management and Handling) Rules, 1989
 - The Bio-Medical Waste (Management and Handling) Rules, 1998
 - Noise Pollution (Regulation and Control) Rules, 2000,
 - Environmental Impact Assessment Notification, 2006
 - Environmental Standards of Central Pollution Control Board (CPCB)
- (iv) The Indian Wildlife (Protection) Act, 1972, amended 1993
 - The Wildlife (Protection) Rules, 1995
- (v) The Indian Forest Act, 1927
- (vi) Forest (Conservation) Act, 1980, amended 1988
 - Forest (Conservation) Rules, 1981 amended 1992 and 2003
 - Guidelines for Diversion of Forest Lands for Non-Forest Purpose under the Forest (Conservation) Act, 1980
- (vii) Ancient Monuments and Archaeological Sites and Remains Act 1958
 - Ancient Monuments and Archaeological Sites and Remains Rules 1959
 - Government of India Notification of 1992 under the above-stated Rules

B. Compliance with Environmental Regulations

15. The GoI EIA Notification of 2006 sets out the requirement for Environmental Assessment in India. The Tranche-1 water supply improvement subproject does not fall under the ambit of the EIA Notification, and therefore does not require environmental clearances. However, the Tranche-1 water supply subproject requires consent to establish and operate under the Water Act and Air Act from the State Pollution Control Board.

16. The Tranche-1 Solid Waste Management subproject requires environmental clearance under the EIA Notification from Nagaland State EIA Authority. The Tranche-1 Solid Waste Management subproject further requires authorization under the Hazardous Wastes (Management and Handling) Rules, 1989 and Municipal Solid Waste (Management and Handling) Rules 2000 and consents to establish and operate under the Air and Water Acts from the State Pollution Control Board.

17. No other environmental or forest clearances are required for the subprojects in Kohima.

18. The following Table shows the regulatory requirements of subproject/components under Tranche-1 and the present status of compliance. Copy of Consent to Establish for water supply sub project is presented as **Appendix 1**. Copy of Environmental Clearance for Solid Waste Management subproject is presented as **Appendix 2**. Copy of Consent to Establish and Authorization for Solid Waste Management subproject is presented as **Appendix 3**.

Table 2: Present Status of Environment & Forest and Other Clearances

Town	Work (Package No.)	Applicable Legislation / Type of Clearance	Clearances given by and Date	Conditions	Remarks / Action needed
Kohima	Refurbishment of Kohima water supply scheme (KHM-WA 1)	Consent to establish under Water Act	Consent to establish has been issued by Nagaland Pollution Control Board vide consent no. 203 dated 07.07.2009.	1. The consent is valid for establishing a WTP, Jotsoma, Kohima 2. The applicant shall ensure environmentally sound management practices 3. The applicant shall submit the analysis report of the treated water sample while applying for consent to operate 4. The applicant shall apply for consent to operate before operation of the plant. 5. The consent is liable to be cancelled if terms and conditions are not implemented	1. No action needed 2. EMP is being implemented 3. Will be submitted on completion of works 4. Will be applied on completion of works 5. No violation of terms and conditions
	Civil works and procurement of equipment for development of sanitary land fill, compost plant and internal access (KHM-SWM 1)	Environmental clearance under the EIA Notification 2006	Application for Environmental Clearance (EC) was submitted to Nagaland State EIA Authority. Since clearance was not issued by the EIA Authority within the time period specified in the EIA Notification, Government of Nagaland has granted deemed approval of the EC vide letter no. UDD/19-ADB/02/2009 dated 28.10.2011 as per the provisions of the EIA Notification 2006.	No conditions	No action needed

Town	Work (Package No.)	Applicable Legislation / Type of Clearance	Clearances given by and Date	Conditions	Remarks / Action needed
		Consent to establish under Air and Water Acts and authorization to setup landfill and compost plant under the MSW (Management and Handling) Rules 2000 and Hazardous Wastes (Management and Handling) Rules 1989	Consent to establish and Authorization to set up landfill and compost plant has been issued by Nagaland Pollution Control Board vide consent no. 202 dated 07.07.2009.	1. The consent is valid for establishing a SWM Facility at Lerie, Kohima 2. The applicant shall ensure environmentally sound management practices 3. The applicant shall ensure that SWM facility will be taken up as per the DPR and MSW Rules 4. The applicant shall apply for consent to operate before operation of the facility. 5. The consent is liable to be cancelled if terms and conditions are not implemented	1. No action needed 2. EMP is being implemented 3. Complying with MSW rules. Any changes in design will be intimated to PCB 4. Will be applied on completion of works 5. No violation of terms and conditions

C. Compliance of Environmental Loan Covenants

19. Table 3 shows the environmental safeguard related loan covenants and their compliance status in implementation. All the covenants are being complied in implementation.

20. Tranche-1 water supply and solid waste management subprojects have been classified as Category B as per the ADB Environmental Policy. Accordingly IEE reports were prepared during PPTA/BTA and were approved by the ADB. During the implementation stage, there was a change in the location of eight ground level service reservoirs. Hence, an updated IEE report is being prepared for these reservoirs.

Table 3: Compliance Status of Environmental Loan Covenants

S. No	Project Specific Covenants	Status / Issues
1	GOI and the States will ensure that the design, construction, operation and implementation of all sub-project facilities is carried out in accordance with the environmental assessment and review procedures and Initial Environmental Examinations (IEEs) for core sub-components agreed upon between the Government and ADB, and complies with the Government's environmental laws and regulations and ADB's Environment Policy (2002). Any adverse environmental impacts arising from the construction, operation and	IEE approved by ADB, disclosed in public, and included in bid document and contract. Clearances

S. No	Project Specific Covenants	Status / Issues
	<p>implementation of sub-component facilities will be minimized by implementing the environmental mitigation and management measures, and other recommendations specified in environmental assessment reports (e.g., IEEs). The Government will ensure environmental requirements will be incorporated in bidding documents and civil works contracts. . Issuance of bid documents will be made after review and clearance of IEE/EIA by ADB and SEIAA or MOEF.</p> <p>GOI will prepare and submit annually to ADB an environmental monitoring report that describes progress in implementation of the EMP and EARP and issues encountered and measures adopted; and compliance with the relevant assurances and loan covenants</p>	<p>obtained as per applicable regulations. Semi-annual environmental monitoring report is being submitted to ADB</p>

ADB – Asian Development Bank; EARP – Environmental Assessment & Review Procedures; EIA – Environmental Impact Assessment; IEE – Initial Environmental Examination; MOEF – Ministry of Environment and Forest; SEIAA – State Environmental Impact Assessment Authority.

D. Environmental Organization and Management

21. The main agencies involved in managing and implementing the subproject are:

- (i) **Ministry of Urban Development (MOUD)** - The national-level Executing Agency (NEA) for the Investment Program;
- (ii) **Investment Program Coordination Cell (IPCC)** - It is established in MOUD. IPCC is responsible for overall management of the Investment Program in the 5 cities. It comprise of social/environmental safeguard specialists whose tasks include monitoring Program implementation and reviewing and screening the subprojects submitted by the States in accordance with subproject selection criteria, in accordance with the environmental provisions;
- (iii) **State Investment Program Management and Implementation Unit (SIPMIU)** - It is established under the State Government and headed by a Program Director (PD). SIPMIU will oversee the implementation of the sub projects as per the Program's environment and resettlement planning. This includes the preparation of all documentation needed for decision-making, contracting, and supervision of work, providing progress-monitoring information as well as the compliance of all environmental safeguards.

The SIPMIU comprises of a Safeguards and Social Cell staffed with an Environmental Officer (EO). The EO is responsible for implementing the environmental safeguard provisions in the project including (i) ensuring environmental criteria for subproject selection in the EARP, (ii) ensuring mitigation requirements in the Bid documents and (iii) liaising with various Central and State government agencies on compliance matters. The SIPMIU will appoint and manage Construction Contractors (CC) to build elements of the infrastructure who are required to submit Environmental Implementation Plans (EIPs) to SIPMIU approval.

- (iv) **Design, Supervision and Management Consultant (DSMC)** - The SIPMIU is assisted by the DSMC, who is responsible for the design of the infrastructure, manage tendering of contracts, and supervise the construction process;

An Environmental Specialist (ES) in the DSMC is responsible for addressing the environmental issues in the project components during design and implementation. The ES will ensure that all mitigation requirements are in the bidding documents and EIPs, and will supervise the effective implementation of

environmental provisions during construction. In addition, the ES will assist the SIPMIU on the procurement needs and other project implementation aspects and shall play a central role in ensuring capacity building on environmental management of the SIPMIU, the Contractor and the Line Departments through capacity development support and training.

22. No grievances were received during the reporting period. A grievance redressal mechanism has been established. Grievances of affected persons will first be brought to the attention of the SIPMIU. Grievances not redressed by the SIPMIU will be brought to the Independent Grievance Redress Committee (IGRC) set up to monitor project implementation in Kohima. The GRC will determine the merit of each grievance, and resolve grievances within 10 days of receiving the complaint. Grievance not redressed by the IGRC will be referred to the appropriate courts of law. The DSMC will keep records of all grievances received including: contact details of complainant, date that the complaint was received, nature of grievance, agreed corrective actions and the date these were affected, and the final outcome. The IGRC was constituted vide SIPMIU notification dated 18.01.2013. Details of grievance redressal mechanism and the IGRC notification for the sub projects are presented as **Appendix 4**.

III. EMP COMPLIANCE STATUS

23. This section presents the compliance status of Environmental Management and Monitoring Plans of tranche-1 subproject under implementation.

24. Under this subproject, at present the Refurbishment of Kohima water supply scheme and the civil works and procurement of equipment for development of sanitary land fill, compost plant and internal access are in progress. The Contractors have not prepared any Environmental Implementation Plan. They are following the Environmental Monitoring Plan, which is part of the IEE and Contract document. In addition to that, guidelines on general construction EHS measures to be followed / implemented by the Contractors have been issued to them.

25. Water quality monitoring was conducted by the Solid Waste Management sub project Contractor during the reporting period. Water samples were collected from rivers near the landfill site and analyzed for various water quality parameters. The water quality test results show that there is no pollution of the river due to construction activities at the landfill site. Details of Water quality monitoring are presented as **Appendix 5**. Photographs of ongoing construction works and environmental management measures are presented as **Appendix 6**.

Table 4: Compliance of EMP and OH&S Norms

Sl. No.	Mitigation Activities and Method	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Compliance Status
A	Tranche-1 - Refurbishment of Kohima water supply scheme					
a)	Replacement of Existing Zonal Reservoir Tanks					
1.	Stockpiles of materials and wastes should be located at secure / designated locations away from inhabited areas	Each Zonal Reservoir Tank	Contractor	Visual Observation	DSMC	Materials and wastes are located at secure / designated locations
2.	Dust suppression measures should be taken at construction sites	Each Zonal Reservoir Tank	Contractor	Visual Observation	DSMC	Water sprinkling is being done
3.	Recyclable scrap material resulting from the disassembling of old reservoir tanks, tube wells, and iron removal plants should be made available to the public	Each Zonal Reservoir Tank	Contractor	Visual Observation	DSMC	The dismantled materials belong to PHED and hence cannot be given to public. However, materials like empty cement bags, wood, broken bricks, stones, garden soil etc are handed over to Public, if they request
4.	All other wastes should be appropriately handled and taken to the municipal waste dumpsite for disposal	Each Zonal Reservoir Tank	Contractor	Visual Observation	DSMC	Wastes are taken to the municipal waste dumpsite for disposal
b)	Repair of Treatment Plant and Setting up of Chlorinators					
1.	Construction activities should be properly scheduled avoiding night work	Water Treatment Plant	Contractor	Visual Observation	DSMC	No work is conducted during night-time
2.	Sound construction practices should be adhered to so that entry of any construction waste into nearby water courses is prevented	Water Treatment Plant	Contractor	Visual Observation	DSMC	Construction wastes are cleared regularly

Sl. No.	Mitigation Activities and Method	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Compliance Status
3.	Silt fencing should be provided to protect nearby water streams	Water Treatment Plant	Contractor	Visual Observation	DSMC	Soil runoff from sites is prevented by providing trenches / bunds
4.	Material / waste storage and disposal areas should be restricted to the premises of government land	Water Treatment Plant	Contractor	Visual Observation	DSMC	Material / waste storage & disposal is in government land only
B.	Tranche-1 - Civil works and procurement of equipment for development of sanitary land fill, compost plant & internal access					
a)	New Disposal Site & Compost Plant At Lerie Colony					
1	All the vehicles used for construction should comply with relevant environmental standard	Landfill site at Lerie Colony	Contractor	Visual Observation	DSMC	Vehicles are keeping pollution under control certificate and fitness certificate
2	It should be ensured that the workers are provided with PPEs like earplugs, dust masks etc. to minimize the health impacts	Landfill site at Lerie Colony	Contractor	Visual Observation	DSMC	workers are provided with PPEs
3	It should be ensured that construction at night time is restricted to the extent possible	Landfill site at Lerie Colony	Contractor	Visual Observation	DSMC	No work is conducted during night-time
4	Regular water sprinkling should be undertaken to ensure the dust suppression	Landfill site at Lerie Colony	Contractor	Visual Observation	DSMC	Water sprinkling is being done
5	Two trees should be planted for every one removed	Landfill site at Lerie Colony	Contractor	Visual Observation	DSMC	Instruction has been given to the Contractor to plant trees before the end of monsoon
6	Excavated earth should be conserved for re-use	Landfill site at Lerie Colony	Contractor	Visual Observation	DSMC	Excavated earth is used for levelling landfill
7	Water supply and sanitation facilities should be provided in labour camps	Landfill site at Lerie Colony	Contractor	Visual Observation	DSMC	Labour camps are provided with Water supply and sanitation facilities
8	50% of the work force should be employed from local community near work site	Landfill site at Lerie Colony	Contractor	Visual Observation	DSMC	Local workforce is being used to the extent

Sl. No.	Mitigation Activities and Method	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Compliance Status
						available
9	Contractor should prepare a construction site management plan	Landfill site at Lerie Colony	Contractor	Visual Observation	DSMC	Guidelines on general EHS measures have been issued to the Contractor. These include measures to exclude public from all construction sites. Compliance being strictly monitored by the DSMC
10	This plan should have measures to exclude public from all construction sites	Landfill site at Lerie Colony	Contractor	Visual Observation	DSMC	
11	Health and safety training should be imparted to all personnel	Landfill site at Lerie Colony	Contractor	Visual Observation	DSMC	Health and safety training was given to the Contractor's Supervisors by the ES of DSMC. Instruction has been given to the Contractor to conduct training to all personnel
12	Restoration of borrow areas should be undertaken after borrowing	Landfill site at Lerie Colony	Contractor	Visual Observation	DSMC	No borrow areas have been opened
13	All accident reports and records should be maintained periodically and appropriately	Landfill site at Lerie Colony	Contractor	Visual Observation	DSMC	Instruction has been given to the Contractor to maintain accident report register. Summary of accidents reported will be provided in the next semi-annual EMR.

IV. OBSERVATIONS, RECOMMENDATIONS AND ACTIONS TAKEN

26. As presented in this report, tranche-1 of this Investment Program is being implemented in compliance with the loan covenants, subproject selection criteria and overall EARF. There are some non-compliant EMP activities noticed in the monitoring report regarding the solid waste management sub project. The Contractor has not planted trees around the landfill site. Instruction has been given to the Contractor to plant trees before the end of monsoon. The Contractor has not prepared a construction site management plan. To compensate this, guidelines on general EHS measures to be followed at construction sites have been issued to the Contractor. These include measures to exclude public from all construction sites. Compliance to these measures is being strictly monitored by the DSMC. The Contractor has not imparted health and safety training to all their personnel. Health and safety training was given to the Contractor's Supervisors by the ES of DSMC. Instruction has been given to the Contractor to conduct training to all personnel. The Contractor is not maintaining an Accident Report Register. Instruction has been given to the Contractor to maintain Accident Report Register. Summary of accidents reported will be provided in the next semi-annual EMR. No ambient air quality monitoring was conducted by the Contractor during the reporting period. The Contractor has been instructed to do the same.

27. Necessary instructions have been given to the Contractor by DSMC/SIPMIU to specifically focus on safety aspects, and in general on EMP measures to improve the compliance.

APPENDICES

Appendix 1: Consent to Establish for Water Supply Sub Project

NAGALAND POLLUTION CONTROL BOARD SIGNAL POINT : DIMAPUR: NAGALAND

Consent Order / Authorization

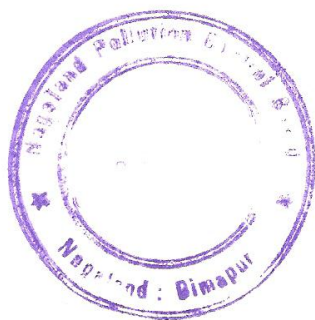
Consent No. 203

Dated 07.07.2009

Consent to Establish under Section 25/ 26 of the Water (Prevention & Control of Pollution) Act, 1974, as amended and under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981, as amended to be referred as Water Act and Air Act respectively.

Consent is granted to **State Investment Program Management and Implementation Unit, Asian Development Bank, (ADB) Assisted Project Kohima, Nagaland**, located in the area declared under the provisions of the Water Act & Air Act and subject to the provisions of the Act and the Rules and the Orders that may be made further and subject to the following terms and conditions:-

1. The Consent is valid for:
Establishing a Water Treatment Plant, Jotsoma, Kohima, Nagaland.
2. The applicant shall also ensure environmentally sound management practices by taking necessary steps to protect health and environment against adverse effects which may result from the plant.
3. The applicant shall submit the analysis report of the treated water sample from a recognized laboratory while applying for consent to operate.
4. The applicant shall apply for Consent to operate for the Unit before the operation of the Plant.
5. The Consent/Authorization is liable to be cancelled /revoked if the terms and conditions specified are not observed/ implemented.



[Signature]
07/07/09
Member Secretary

Member Secretary
Nagaland Pollution Control Board
Nagaland : Dimapur

Appendix 2: Environmental Clearance for SWM Sub Project

GOVERNMENT OF NAGALAND URBAN DEVELOPMENT DEPARTMENT

NOTIFICATION

Dated Kohima, the 28th Oct.' 2011.

NO.UDD/19-ADB/02/2009 :: As provided in clause 8(iii) of the Environmental Clearance Notification, dated 14th September, 2006 of the Ministry of Environment and Forests, Government of India, the Governor of Nagaland is pleased to grant deemed approval of the Environmental Clearance for Solid Waste Management Project at Kohima under the ADB assisted NERCCDIP by the State Environmental Impact Assessment Authority (SEIAA) in terms with the recommendations of the State Expert Appraisal Committee (SEAC).

Sd/- NEIHU C. THUR, IAS
Secretary to the Govt. of Nagaland.

NO.UDD/19-ADB/02/2009
Copy to:-

Dated Kohima, the 28th Oct.' 2011.

1. The Secretary to Governor of Nagaland, Raj Bhavan, Nagaland, Kohima.
2. The Addl. Chief Secretary to Chief Minister, Nagaland, Kohima.
3. The Sr. P.S to Minister, Urban Development, Nagaland, Kohima.
4. The OSD to Chief Secretary, Nagaland, Kohima.
5. The Secretary, Government of India, Ministry of Urban Development, Nirman Bhawan, New Delhi -110011. Fax: 011-23061459.
6. The Secretary, Government of India, Ministry of Environment & Forests, 104, New Moti Bagh, New Delhi - 110023. Fax: 011-24362746.
7. The Director, ADB, Urban Development and Water Division, South Asia Department, 6-ADB Avenue, Mandaluyong City, 1550 Metro Manila, Phillippines. Fax: 0632-636-2444.
8. The Commissioner & Secretary, Forest Department, Nagaland, Kohima.
9. The Chairman, State Environmental Impact Assessment Authority (SEIAA), Nagaland, Kohima.
10. The Principal Chief Conservator of Forest, Nagaland, Kohima.
11. The Publisher, Nagaland Gazette, Kohima for kind publication in the next issue of the State Gazette.
12. The Director, Urban Development, Nagaland, Kohima.
13. The Program Director, SIPMIU-ADB assisted project, Kohima.
14. Guard file/office copy.

(Ahola Those)

Joint Secretary to the Govt. of Nagaland.

D&D
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Appendix 3: Consent to Establish and Authorization for SWM Sub Project

NAGALAND POLLUTION CONTROL BOARD SIGNAL POINT : DIMAPUR: NAGALAND

Consent Order / Authorization

Consent No. 202

Dated 07.07.2009

Consent to Establish under Section 25/ 26 of the Water (Prevention & Control of Pollution) Act, 1974, as amended and under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981, as amended and Authorization/ Renewal of Authorization under Rule 5 of the Hazardous Wastes (Management & Handling) Rules, 1989, as amended (to be referred as Water Act, Air Act and HW (M&H) Rules, respectively).

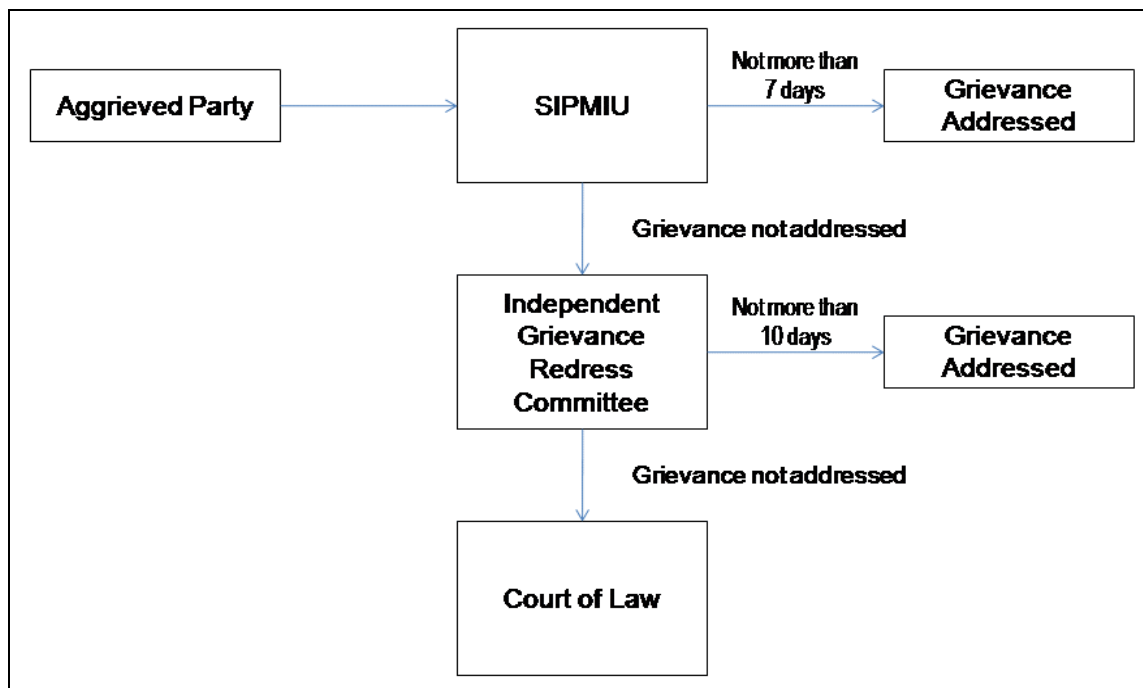
Consent is granted to **State Investment Program Management and Implementation Unit, Asian Development Bank, (ADB) Assisted Project, Kohima, Nagaland**, located in the area declared under the provisions of the Water Act/ Air Act and authorization under the provisions of HW (M&H) Rules subject to the provisions of the Act and the Rules and the Orders that may be made further and subject to the following terms and conditions:-

1. The Consent is valid for:
Establishing a Solid Waste Management Facility at Lerie, Kohima, Nagaland.
2. The applicant shall also ensure environmentally sound management practices by taking necessary steps to protect health and environment against adverse effects which may result from the plant.
3. The applicant shall ensure that the Solid Waste Management Facility be taken up as per the DPR and shall comply with the standards and terms & conditions as laid down in the Municipal Solid Waste (Management & Handling) Rules, 2000.
4. The applicant shall apply for Consent to operate for the Unit before the operation of the facility.
5. The Consent is liable to be cancelled /revoked if the terms and conditions specified are not observed/ implemented.



[Signature]
07/07/09
Member Secretary
Nagaland Pollution Control Board
Signal Point : Dimapur

Appendix 4: Grievance Redressal Mechanism



**STATE INVESTMENT PROGRAMME MANAGEMENT AND IMPLEMENTATION UNIT
ASIAN DEVELOPMENT BANK (ADB) – ASSISTED PROJECT
KOHIMA : NAGALAND**

NOTIFICATION

Dated Kohima, the 18th January 2013

NO.SIPMIU/SCL/CP/2011:: In pursuance to Asian Development Bank (ADB) guidelines; the Independent Grievance Redress Committee (IGRC) is hereby constituted to address the grievances of persons affected due to the sub-projects implemented in Kohima under the ADB assisted North Eastern Region Capital Cities Development Investment Program.

- | | | |
|--------------------------------------------------------|---|------------------|
| i. Program Director, SIPMIU | : | Chairman |
| ii. Addl. Program Director, SIPMIU | : | Member Secretary |
| iii. Dy. Program Director/ Environment Officer, SIPMIU | : | Member |
| iv. Sociologist, SIPMIU | : | Member |
| v. Assistant Engineer, SIPMIU | : | Member |
| vi. Team Leader, DSMC | : | Member |
-
2. The IGRC shall determine the merit of each grievance and resolve the grievance/s within 10 (ten) days of receiving the compliant.
 3. Grievances not redressed by the IGRC will be referred to the appropriate court of law.
 4. All costs involved in resolving the grievances shall be borne by SIPMIU.
 5. The Design Supervision & Management Consultants shall keep records of all grievances received including contact details of complainant, date the complaint was received, nature of grievance, agreed corrective actions and the date of redressing the grievance and the final outcome.

Sd/-
K. HARALU
Program Director

NO.SIPMIU/SCL/CP/2011

Dated Kohima, the 18th January 2013






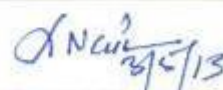
Copy to:

- i) The Commissioner & Secretary, Urban Development Department, Nagaland, Kohima for information.
- ii) The Director, Urban Development, Nagaland, Kohima for information.
- iii) The Chief Engineer, PHE, Nagaland, Kohima for information.
- iv) The CEO, Kohima Municipal Council, Kohima, Nagaland for information.
- v) All the members
- vi) Office copy

Handwritten initials


(NELL VASA)
Dy. Program Director

Appendix 5: Details of Water Quality Monitoring Conducted for SWM Sub Project

				CSIR-NORTH-EAST INSTITUTE OF SCIENCE & TECHNOLOGY JORHAT – 785 006, ASSAM An ISO 9001:2008 Certified Organization			
Name of the Division : Analytical Chemistry Divn.			Report No: CSIR-NEIST-Jorhat/QSP/MR/20/AnC/TR-1040/05-2013.				
TEST REPORT OF WATER SAMPLE.			DATE 02. 05. 2013.		PAGE 03. of 04.		
2. RESULT							
Sl. No.	Sample Identification Details :	Dimensional Detail / Parameters.	Strength/ Tested Value with Unit.	Remarks Value as Per IS : 10500, 1991.			
01.	Water sample from Sample No.1, Near landfill	01) pH 02) Turbidity (NTU) 03) Total Hardness as CaCO ₃ 04) Calcium as CaCO ₃ 05) Magnesium as CaCO ₃ 06) Iron as Fe . 07) Sulphate as SO ₄ . 08) Chloride as Cl. 09) Phenolphthelain Alkalinity. 10) Methyl Orange Alkalinity. 11) Residual Chlorine 12) Total Solids.	7.26 2.3 276.0 mg/lit. 154.0 mg/lit. 120.0 mg/lit. Not detected 8.43 mg/lit. 75.8 mg/lit. Not detected. 279.0 mg/lit. Not detected. 288.0 mg/lit.	6.5 8.5 10 NTU (MAX) 300 mg/lit.(MAX) 75 mg/lit.(MAX) 30 mg/lit.(MAX) 0.3 mg/lit (MAX) 150 mg/lit.(MAX) 250 mg/lit.(MAX) ---- 200 mg/lit. (MAX) 0.2 mg/lit. (MAX) 500 mg/lit. (MAX)			
TEST CONDUCTED BY		CHECKED BY		APPROVED BY			
 (P. C. Borah.) Sr. Technical Officer.		 (Dr. Probhat Kotoky.) Head, Analytical Chemistry		 Approved Authorized Signatory. (Chairman, T.R. Committee)			




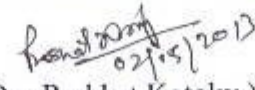
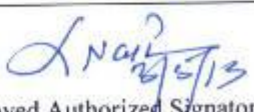
CSIR-NORTH-EAST INSTITUTE OF SCIENCE & TECHNOLOGY
JORHAT – 785 006, ASSAM
An ISO 9001:2008 Certified Organization



Name of the Division : Analytical Chemistry Divn.	Report No: CSIR-NEIST-Jorhat/QSP/MR/20/AnC/TR-1040/05-2013.	
TEST REPORT OF WATER SAMPLE.	DATE 02. 05. 2013.	PAGE 04. of 04.

2. RESULT

Sl. No.	Sample Identification Details :	Dimensional Detail / Parameters.	Strength/ Tested Value with Unit.	Remarks Value as Per IS : 10500, 1991.
02.	Water sample from Sample No 2, Near ADM Building, At Lerie, Kohima	01) pH 02) Turbidity (NTU) 03) Total Hardness as CaCO_3 04) Calcium as CaCO_3 . 05) Magnesium as CaCO_3 . 06) Iron as Fe . 07) Sulphate as SO_4 . 08) Chloride as Cl. 09) Phenolphthelain Alkalinity. 10) Methyl Orange Alkalinity. 11) Residual Chlorine 12) Total Solids.	6.94 2.4 72.0 mg/lit. 38.0 mg/lit. 32.0 mg/lit. Not detected 2.06 mg/lit. 5.8 mg/lit. Not detected. 76.0 mg/lit. Not detected. 87.5 mg/lit.	6.5 8.5 10 NTU (MAX) 300 mg/lit.(MAX) 75 mg/lit.(MAX) 30 mg/lit.(MAX) 0.3 mg/lit (MAX) 150 mg/lit.(MAX) 250 mg/lit.(MAX) ---- 200 mg/lit. (MAX) 0.2 mg/lit. (MAX) 500 mg/lit. (MAX)

TEST CONDUCTED BY	CHECKED BY	APPROVED BY
 (P. C. Borah.) Sr. Technical Officer.	 (Dr. Probhat Kotoky.) Head, Analytical Chemistry	 Approved Authorized Signatory. (Chairman, T.R. Committee)

Appendix 6: Site Photographs

Landfill site under construction	Construction of retaining wall of landfill site
Construction of retaining wall of landfill site	Construction of Compost plant in progress
Labour camp with toilet facilities	
Water tanks at Zoo gate site nearing completion	Construction of water tank in progress at Government High school site