



Environmental Monitoring Report

Project Number: 35290-023
January 2018
Period: July 2016 – December 2016

IND: North Eastern Region Capital Cities Development Investment Program (NERCCDIP) – T1 (Nagaland)

Submitted by:

State Investment Programme Management & Implementation Unit (SIPMIU), NERCCDIP,
Urban Development Department, Government of Nagaland

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From: sipmiu kohima <sipmiukohima@gmail.com>

Date: 08/17/2017 12:11PM

Subject: Fwd: Submission of Semi-Annual EMR and SMR for the period Jul-Dec'2016

(See attached file: 01 Kohima EMR Jul - Dec 2016 Tr 1.pdf)

(See attached file: 02 Kohima EMR Jul - Dec 2016 Tr 2.pdf)

(See attached file: 03. Kohima SMR Jul- Dec 2016 Tr (1) & (2).pdf)

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From: **sipmiu kohima** <sipmiukohima@gmail.com>

Date: Sat, Mar 11, 2017 at 1:17 PM

Subject: Submission of Semi-Annual EMR and SMR for the period Jul-Dec'2016

To: Pritam Kapur <pmmc.moud@gmail.com>

Dear Sir

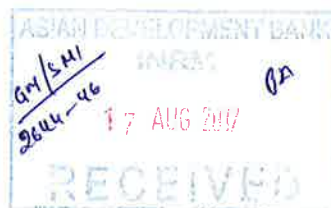
Please find attached the Semi-Annual EMR and SMR for the period Jul-Dec'2016 for your further necessary action. Delay in submission is highly regretted.

regards,

Nell Vasa

Dy. Program Director

SIPMIU Kohima



Soft copy recd 14.08.17

L 2528/p2834

Semi Annual Environmental Monitoring Report

Loan Number: 2528 IND
Reporting Period: July – December 2016

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

March 2017
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 – Agartala, Gangtok, Aizawl, Kohima and Shillong. NERCCDIP will be implemented over an eight-year period beginning in 2009, and is funded by a loan via the Multi-tranche 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 an 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. Two subprojects were taken up in Kohima under Tranche-1. The solid waste management subproject under Tranche-1 has been completed and the facility is now in operation. Similarly, the water supply sub project which was also taken up under Tranche-1 has been completed and commissioned. Both the sub projects have been classified as Category B as per the ADB Environmental Policy, and accordingly Initial Environmental Examination (IEE) reports were prepared during PPTA/BTA and they were approved by the ADB.

5. Changes in location of some water tanks were proposed in the water supply sub project during implementation and IEE including Environmental Monitoring Plan was updated to address the changes in the location of tanks. The updated IEE was approved by ADB in December, 2013. The solid waste management sub project was implemented as a design, build, operate and transfer project. Some additional works were proposed as part of this sub project. Therefore, IEE including EMP was updated and it was approved by ADB in December 2013. The additional works for construction of retaining walls, step drain and road restoration were awarded as three contracts under Tranche-1. All these additional works were completed by May 2016. However, other additional works proposed at the SWM site were not approved by MoUD in Tranche-1 and they have been proposed as a new subproject in tranche-2, for which a separate IEE has been prepared. The sub projects in Tranche-1 were screened using ADB checklist for any change in scope and it was found that re-categorization of the sub projects is not required.

6. An Environmental Monitoring Plan which addresses the potential impacts and risks identified by the environmental assessment has been included in the IEE reports. Complexity of the EMP and the priority of the identified measures and actions commensurate with the Project's impacts and risks. The EMP is part of bidding and contract documents. The EMPs were updated as part of the IEEs updated for the changes in the sub projects. The updated EMPs were issued to the Contractors and the updated IEEs were disclosed in the SIPMIU website (<http://sipmiunagaland.com/Downloads.html>).

B. Project Profile

7. Two subprojects under Tranche-1 (Loan No. 2528 IND) were under implementation in Kohima focusing on water supply improvements and solid waste disposal facilities.

8. The scope of water supply subproject (Contract package no: KHM-WA 1) covered construction of 18 ground level RCC tanks (service reservoirs) and refurbishment of an existing water treatment plant. All civil works under the water supply sub project were completed in 2014.

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

10. Additional works under Tranche-1 include the following: 1) Construction of Retaining Walls No:1, No:4, No:5 and No:6 at the SWM site at Lerie in Kohima (package no: KHM-SWM 3); 2) Construction of Retaining Walls No:7, No:8 and No:9 at the SWM site at Lerie in Kohima (package no: KHM-SWM 4) and 3) Construction of 8 retaining walls, Road Restoration, and Construction of one step drain (variation to package no: KHM-SWM 1).

11. Details of the project activities under Tranche-1 (Loan No. 2528 IND) as of December 2016 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 (package no: 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 was updated and it was approved by ADB in December 2013. Implementation of this Contract Package has been completed. |
| 2 | Civil works and procurement of equipment for development of sanitary land fill, compost plant and internal access (package no: KHM-SWM 1) | At SWM site, Lerie, Kohima | Design, build, operate and transfer of sanitary landfill, compost plant, leachate treatment plant and associated infrastructure | Some additional works were proposed at the SWM site and hence the IEE report was updated and it was approved by ADB in December 2013. The additional works for construction of retaining walls, step drain and road restoration were awarded as three contracts under Tranche-1. However, other additional works proposed at the SWM site were not approved by MoUD in Tranche-1 and they have been proposed as a new subproject in tranche-2, for which a separate IEE has been prepared. Implementation of this Contract Package has been completed. |

| S. No. | Name of Work | Location | Description | Changes if any from approved scope |
|---|--|----------------------------|--|--|
| Additional Works under Tranche-1 | | | | |
| 1 | Construction of Retaining Walls No:1, No:4, No:5 and No:6 at the SWM site at Lerie in Kohima (package no: KHM- SWM 3) | At SWM site, Lerie, Kohima | Construction of four retaining walls for slope stabilization | Nil. Implementation of this Contract Package has been completed. |
| 2 | Construction of Retaining Walls No:7, No:8 and No:9 at the SWM site at Lerie in Kohima (package no: KHM-SWM 4) | At SWM site, Lerie, Kohima | Construction of three retaining walls for slope stabilization | Nil. Implementation of this Contract Package has been completed. |
| 3 | Construction of 8 retaining walls, Road Restoration, and Construction of one step drain (variation to package no: KHM-SWM 1) | At SWM site, Lerie, Kohima | Construction of eight retaining walls for slope stabilization, restoration of road damaged due to landslide, and construction of step drain for storm water from the access road | Nil. Implementation of this Contract Package has been completed. |

12. Civil works of water supply sub project under Tranche-1 commenced during December 2011 and the estimated duration of works was 18 months. This sub project was originally for the construction of 18 ground level rectangular RCC tanks and refurbishment of the 40-year-old water treatment plant of Kohima water supply system. During implementation, there was difficulty in starting works at 8 tank sites due to severe space constraint & accessibility (at 7 sites) or non-availability of land (at one site). Hence, it was decided to re-locate these 8 tanks to 4 new sites to resolve the problem. Repair and renovation of existing RCC tank / clarifier at Assam Rifles compound was also included as an additional work in the sub project (This proposal was not approved by MoUD and hence not executed). In addition to the construction of tanks at the newly identified sites, small distribution tanks had to be constructed at the original locations having constraints for construction. Hence, the IEE report was updated and it was approved by ADB in December 2013. Physical progress of this sub project as of December 2016 is 100%. Now, construction of 17 tanks has been completed and commissioned. Construction of the tank at Assam Rifles HQ has been removed from the scope of the Contractor due to non-availability of land and it has been shifted to tranche 2. Refurbishment of the Water Treatment Plant has also been completed and the Plant has been commissioned. All the civil works under this sub project were completed in 2014. Installation of two new electro chlorinators and some minor works as part of refurbishment of the Water Treatment Plant were completed in 2015.

13. Works of the solid waste management sub project under Tranche-1 commenced during January 2012 and the estimated duration of works was 24 months. Construction of landfill site and compost plant has been completed. Physical progress of this sub project as of December 2016 is 100%.

14. Additional infrastructure were proposed at the SWM site such as, (i) A 70 mm Trommel unit for pre-sorting of Municipal Solid Waste along with ancillaries for shredding, pressing and packing (ii) Provision of basic amenities such as canteen, barracks and separate toilet block for males & females, (iv) Retaining walls at 5 locations to control landslide and to develop a Y junction on the access road to SWM site and (v) One step-drain and two culverts for the control of storm water over flow from the approach road drain to the farm lands below. Hence, the IEE report was updated and it was approved by ADB in December 2013. Later, due to heavy rain induced landslides, the approach road was damaged and retaining walls were required at more locations. Hence, the additional works for construction of retaining walls, step drain and road restoration were awarded as three contracts under Tranche-1. All these additional works were of short duration of three months and were completed by May 2016. However, other additional works proposed at the SWM site were not approved by MoUD in Tranche-1 and these have been proposed as a new subproject in tranche-2, for which a separate IEE has been prepared.

15. 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.

16. 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 Assistant Resident Engineer of DSMC on a monthly basis on compliance with EMP has been issued. These monthly reports form part of the Semi Annual Environmental Monitoring Reports. However, since no construction activities were carried out during this reporting period of July to December 2016, the prescribed monthly reports were not prepared. This is the consolidated report on implementation of Environmental Management Plan (EMP) from July to December 2016, and is prepared in compliance with the ADB Policies.

II. ENVIRONMENTAL ASSESSMENT AND REVIEW PROCEDURE

A. Environmental Legal Requirements

17. 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
 - Plastic Waste Management Rules, 2016
 - E-Waste (Management) Rules, 2016
 - Bio-Medical Waste Management Rules, 2016

- Construction and Demolition Waste Management Rules, 2016
 - Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016
 - Solid Waste Management Rules, 2016
 - 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

18. 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 required consent to establish and operate under the Water Act and Air Act from the State Pollution Control Board.

19. The Tranche-1 Solid Waste Management subproject required environmental clearance under the EIA Notification from Nagaland State EIA Authority. The Tranche-1 Solid Waste Management subproject further required authorization under the Hazardous Wastes (Management and Handling) Rules, 1989 (now Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016) and Municipal Solid Waste (Management and Handling) Rules 2000 (now Solid Waste Management Rules, 2016) and consents to establish and operate under the Air and Water Acts from the State Pollution Control Board.

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

21. 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: 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 was implemented. 3. Will be submitted before beginning the operation 4. Application has been submitted. 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 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 was implemented 3. Complying with MSW rules. Any changes in design will be intimated to PCB. 4. Application has been submitted. 5. No violation of terms and conditions |
| Additional Works under Tranche-1 | | | | | |
| | Construction of Retaining Walls No:1, No:4, No:5 and No:6 at the SWM site at Lerie in Kohima (package no: KHM-SWM 3) | Not Applicable | Not Applicable | Not Applicable | Not Applicable |
| | Construction of Retaining Walls No:7, No:8 and No:9 at the SWM site at Lerie in Kohima (package no: KHM-SWM 4) | Not Applicable | Not Applicable | Not Applicable | Not Applicable |
| | Construction of 8 retaining walls, Road Restoration, and Construction of one step drain (variation to package no: KHM-SWM 1) | Not Applicable | Not Applicable | Not Applicable | Not Applicable |

C. Compliance of Environmental Loan Covenants

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

23. 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 of water supply sub project, there was a change in the location of eight ground level service reservoirs. Hence, an updated IEE report was prepared and it was approved by ADB in December 2013. Similarly, for the solid waste management subproject, some additional infrastructures were proposed and hence, an updated IEE report was prepared and it was approved by ADB in December 2013. The additional works for construction of retaining walls, step drain and road restoration were awarded as three contracts under Tranche-1. However, other additional works proposed at the SWM site were not approved by MoUD in Tranche-1 and they have been proposed as a new subproject in tranche-2, for which a separate IEE has been prepared.

Table 3: Compliance Status of Environmental Loan Covenants

| Project Specific Covenants | Status / Issues |
|---|--|
| 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). | IEE approved by ADB, disclosed in public (http://sipmiunagaland.com/Downloads.html), and included in bid document and contract. |
| Any adverse environmental impacts arising from the construction, operation and 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. | Clearances obtained as per applicable regulations. |
| 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 | Semi-annual environmental monitoring report is being submitted to ADB |

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

24. 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 comprises 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, Construction 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.

25. 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

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

27. Under the water supply subproject, no civil works were carried out during the reporting period because the Contractor had completed all the civil works as per the revised scope of work in 2014 itself. Installation of two new electro chlorinators and some minor works as part of refurbishment of the old water treatment plant at Jotsoma were completed in 2015. Under the solid waste management subproject, the civil works and procurement of equipment for development of sanitary land fill, compost plant and internal access were completed in 2016. The Contractors were following the Environmental Monitoring Plan (EMP), which is part of the IEE and Contract document. The Contractors had not prepared any Environmental Implementation Plan. Alternatively, the Contractors were following the guidelines on general construction EHS measures to be followed / implemented issued to them. The EMPs were updated as part of the IEEs updated for the changes in the sub projects and the updated EMPs were issued to the Contractors. A reporting format to be filled up by the Assistant Resident Engineer of DSMC on a monthly basis on compliance with EMP was issued. Monthly EMP Implementation Review Reports were included in the previous Semi Annual Environmental Monitoring Reports. Since all the works have been completed, monthly reports were not prepared during the current reporting period.

28. Civil works for the three additional works at the SWM site under Tranche-1 namely 1) Construction of Retaining Walls No:1, No:4, No:5 and No:6, 2) Construction of Retaining Walls No:7, No:8 and No:9 and 3) Construction of 8 retaining walls, Road Restoration, and Construction of one step drain were of short duration of three months and hence monthly EMP Implementation Review Reports were not prepared for these works. All these works were completed by May 2016. Compliance to EMP for these additional works were ensured by the Assistant Resident Engineer of DSMC.

29. Air quality, noise level, ground water quality, surface water quality, and soil quality monitoring was conducted by the SWM Contractor during June 2015. Monitoring results of all the parameters were within the standards. No environmental monitoring was conducted by the Contractor during this reporting period.

IV. OBSERVATIONS, RECOMMENDATIONS AND ACTIONS TAKEN



30. As presented in this report, tranche-1 of this Investment Program had been implemented in compliance with the loan covenants, subproject selection criteria and overall EARF. There were some non-compliant EMP activities noticed in the previous monitoring reports regarding the solid waste management sub project. The SWM subproject Contractor had not prepared a construction site management plan. To compensate this, guidelines on general EHS measures to be followed at construction sites were issued to the Contractor. These included measures to exclude public from all construction sites. Compliance to these measures was being strictly monitored by the DSMC. Health and safety training was given to the Contractor's Supervisors by the ES of DSMC. The Contractor had repeated the health and safety training to all their personnel. The Contractor was not spraying water regularly for dust suppression in the construction site. The Contractor had not maintained an Accident Report register. Instruction was given to the Contractor to spray water for dust suppression and maintain an Accident Report Register. The Contractor had provided caution boards and information boards at the work site. No accidents were reported during the construction period. No environmental monitoring was conducted by the Contractor during the reporting period as no construction works were in progress.

31. Necessary instructions were given to the Contractor by DSMC/SIPMIU to specifically focus on safety aspects, training to their staff, and in general on EMP measures to improve the compliance.

32. Additional works under Tranche-1 including construction of retaining walls, road restoration, and construction of one step drain were of short duration of three months and compliance to EMP for these additional works were ensured by the Assistant Resident Engineer of DSMC.

APPENDICES

Appendix 1: Consent to Establish for Water Supply Sub Project

| NAGALAND POLLUTION CONTROL BOARD SIGNAL POINT : DIMAPUR: NAGALAND | |
|---|------------------|
| <u>Consent Order / Authorization</u> | |
| Consent No. 203 | Dated 07.07.2009 |
| <p>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.</p> <p>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:-</p> <ol style="list-style-type: none">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. <div><div><p>Member Secretary</p><p>Member Secretary Nagaland Pollution Control Board Nagaland : Dimapur</p></div></div> | |

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

Dated Kohima, the 28th Oct.' 2011.


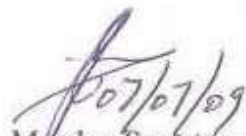
Copy to:-

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.

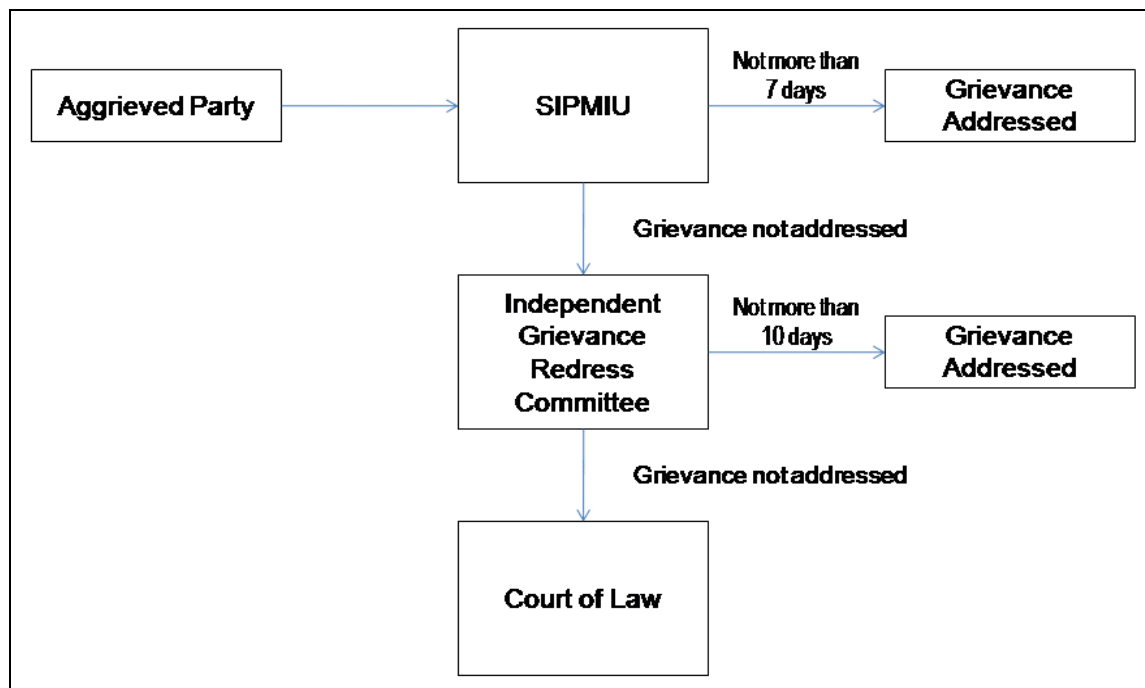

(Ahola Those)

Joint Secretary to the Govt. of Nagaland.

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

| NAGALAND POLLUTION CONTROL BOARD SIGNAL POINT : DIMAPUR: NAGALAND | |
|---|-------------------------|
| <u>Consent Order / Authorization</u> | |
| Consent No. 202 | Dated 07.07.2009 |
| <p>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).</p> <p>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:-</p> <ol style="list-style-type: none">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. <div><div><p>Member Secretary Member Secretary Nagaland Pollution Control Board</p></div></div> | |

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

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(NELL VASA)
Dy. Program Director