



Environmental Monitoring Report

Project Number: 47341-002
October 2016
Period: January 2016 – March 2016

IND: South Asia Subregional Economic Cooperation Road Connectivity Investment Program - Tranche 1

Submitted by

Externally Aided Projects, Public Works Department, Government of Manipur

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Imphal, the 3rd September 2016

To

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Country Director,
Indian Resident Mission, ADB,
4 San Martin Marg, Chanakyapuri,
New Delhi 110021, India.



Subject:- Submission of 1st and 2nd Quarterly Environmental Monitoring Report for the period from January 2016 to March, 2016 and April, 2016 to June 2016 for "Construction of Imphal Kangchup-Tamenglong Road" in the state of Manipur under SRCIP tranche-1, Loan No. 3118-IND.

Madam,

The 1st and 2nd Quarterly Environmental Monitoring Report for the period from January 2016 to March, 2016 and April, 2016 to June 2016 for the Manipur state Sub Project submitted by the Construction Supervision Consultant (CSC) is forwarded for examination and further n/action.

Encl: - As above

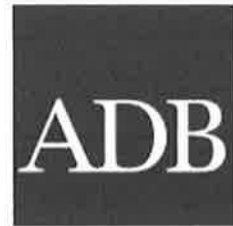


Yours faithfully,


(Y. Joykumar Singh)
Project Director,
EAP, PWD, Manipur.

Copy to:-

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2. The Deputy Secretary (ADB-II), DEA, Ministry of Finance, Government of India, North block, New Delhi,
3. The Project Officer, INRM, ADB, New Delhi,



**Construction of (i) Imphal Kangchup Tamenglong Road & (ii)
Imphal Ring Road in the State of Manipur under ADB assisted
SASEC Regional Connectivity Investment Program (SRCIP) Loan
No. 3118-IND Tranche-1**

ENVIRONMENTAL MANAGEMENT PLAN IMPLEMENTATION

**QUARTERLY PROGRESS REPORT
JANUARY - MARCH 2016**



**Public Works
Department**

GOVERNMENT OF MANIPUR

AUSTRALIA | ASIA | MIDDLE EAST | AFRICA | PACIFIC

Project Name:	Construction Supervision Consultancy Services for SASEC Regional Connectivity Investment Program under ADB Loan No. 3118-IND Tranche – 1 in the State of Manipur
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For



Public Works
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GOVERNMENT OF MANIPUR

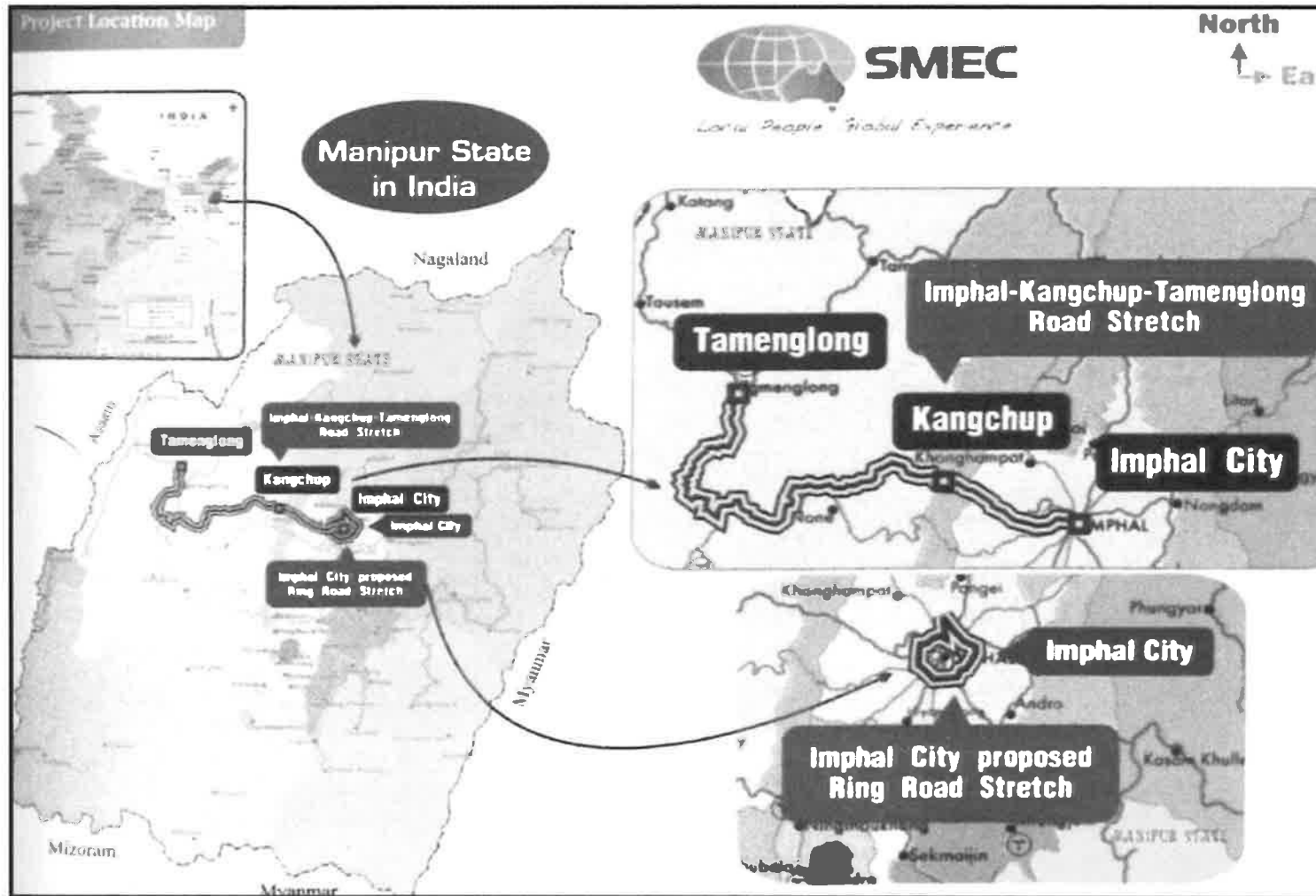
EAP, Public Works Department, Manipur

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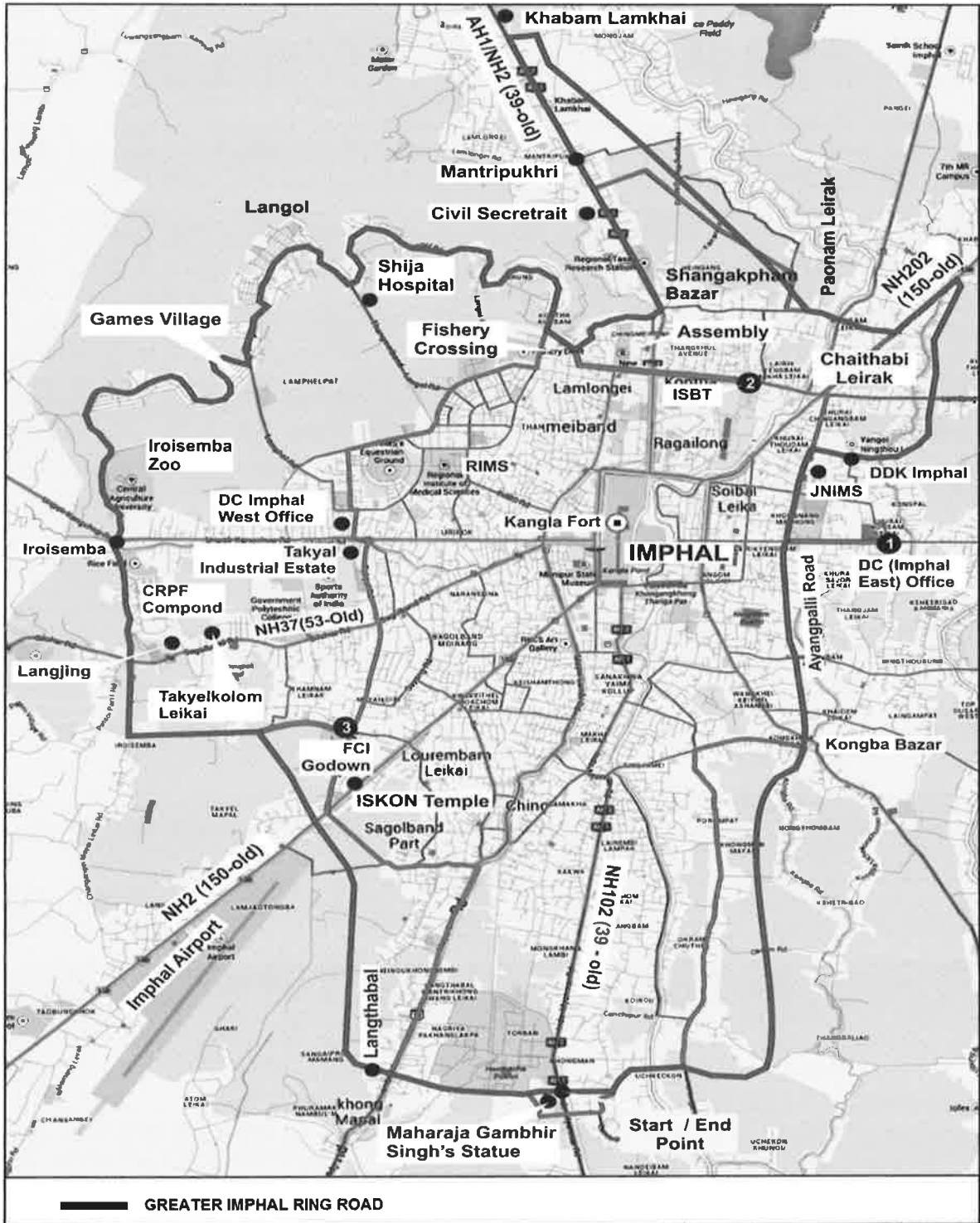
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PROJECT MAP

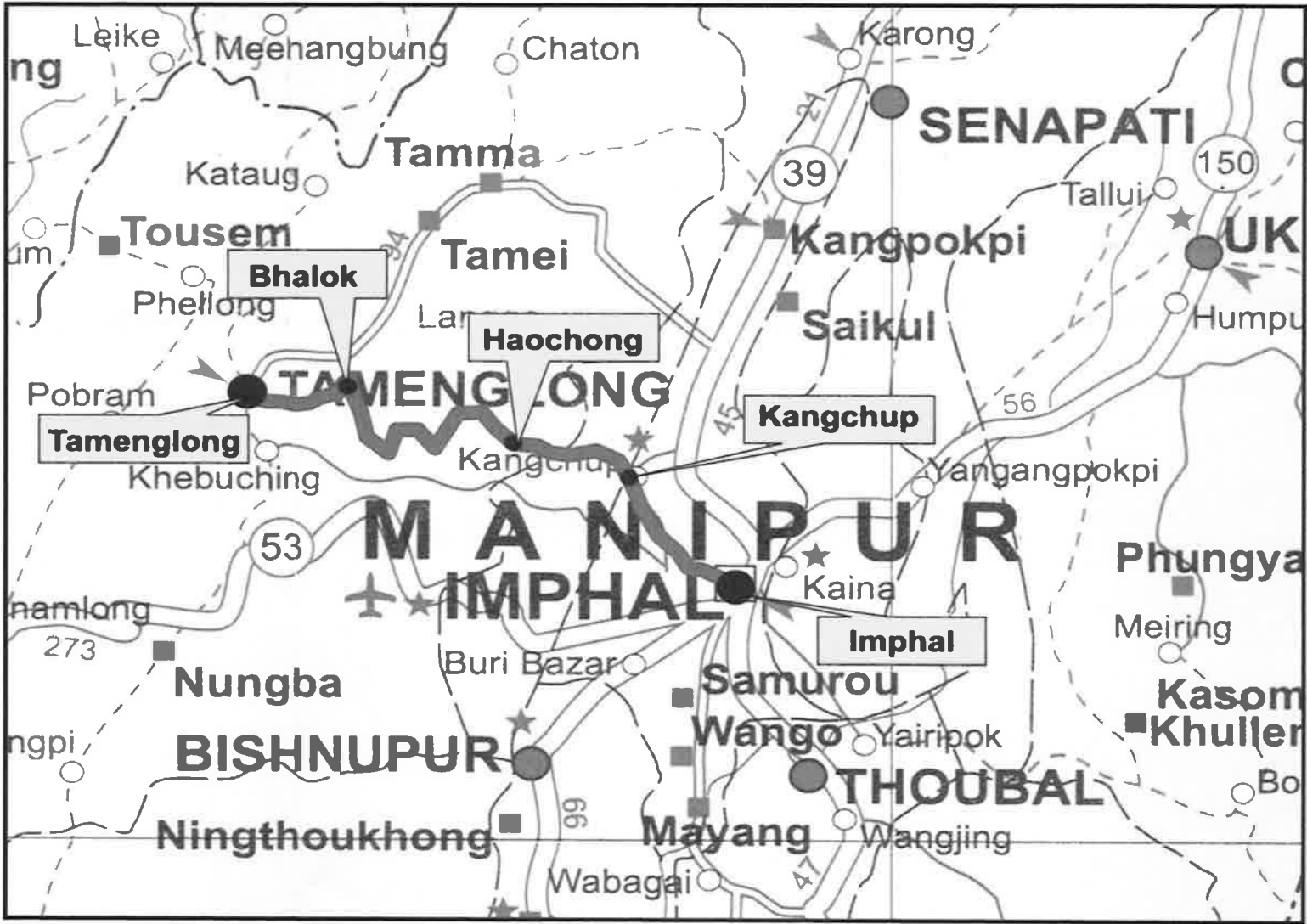
1.1. Location Map



1.2. Greater Imphal Ring Road



1.3. Imphal – Kangchup – Tamenglong Road



SECTION 1.0 INTRODUCTION

1.1. Project Background

Asian Development Bank (ADB) has approved the loan for South Asia Sub Regional Economic Cooperation (SASEC) Road Connectivity Investment Program (SRCIP). The SRCIP is a multi-tranche financing facility (MFF) that aims to improve about 500 km of priority road sections in North Bengal and Northeast of India, through an investment program set out in phases (tranches). The first tranche includes two works packages in the State of Manipur: Construction of Imphal-Kangchup-Tamenglong Road and Construction of Greater Imphal Ring Road

Public Works Department (PWD), Manipur is the Executing Agency for the project. The project contracts are based on FIDIC documents, harmonized for multi-lateral banks, and is to be executed as item-rate, bill-of-quantities (BOQ) construction contracts.

1.2. Project Description

1.2.1. Imphal Kangchup Tamenglong Road

The first road construction package, i.e. Imphal-Kangchup-Tamenglong Road starts from Imphal and ends at Tamenglong. The instant road was originally proposed as part of Imphal-Tamenglong-Tousem-Haflong Road which would have become an important link of the SASEC Road Network/ Connectivity. The Imphal-Tamenglong road will provide direct and shortest connectivity to Tamenglong, District Headquarter. Subsequently when the further stretch from Tamenglong to Haflong is constructed, Imphal will get connected to the East West corridor at a distance of approximately 187.0 km against the existing 267.0 km, thus providing the shortest connecting link between ASEAN and SASEC countries. It will also lessen the distance to Guwahati resulting in considerable Vehicle Operating Cost (VOC) savings and Travel Time savings.

The length of the main alignment i.e. from Imphal-Kangchup-Tamenglong (IKT) is 103.020 km with two spur alignments connecting Haochong (4.150 km) and Kabui Khullen (0.800 km). The total length works out to 107.970 km. The initial 13 km of this road alignment, starting at Naoremthong in Imphal, up to Kangchup, follows the existing road and falls in plain/ rolling terrain. Further alignment between Kangchup to Tamenglong (about 95 km) is greenfield alignment following the existing tracks at certain locations and falls in hilly terrain. The project stretch passes through three districts namely Imphal West, Senapati and Tamenglong, with major part in Tamenglong district. The project road from Imphal to Tamenglong via Kangchup passes through 30 villages along the project alignment.

It is proposed to improve the first 5.54 Km length to four lane divided carriageway and next 7.36 km length to two lanes with paved shoulder and the remaining hill stretch to two lanes. Spurs will be constructed to intermediate lane (5.5m) standards.

1.2.2. Greater Imphal Ring Road

The other road construction package, i.e. Greater Imphal Ring Road, is 35.961 km in a plain/rolling terrain around Imphal, capital city of Manipur. The project road would be constructed as a four-lane road in sections with heavy traffic volume, and narrowed down

to the width of a double-lane in areas where traffic is low. Bidding is yet to be initiated as the Land Acquisition is still to be completed.

1.3. Environmental Category

The proposed Imphal-Kangchup-Tamenglong Road project has been evaluated considering the outcome of the ADB Rapid Environmental Assessment (REA) checklist. Although there are no environmentally sensitive areas along the project road, the project involves widening of existing 5.6 km road section into 4 lane configuration and construction of about 97 km of new road to two lane carriageway configuration, which will lead to substantial change in land use. Due to these environmental sensitivities the project falls under Category - A as per ADB Safeguard Policy Statement 2009.

1.4. Consultancy Services

The Public Works Department, Manipur has employed *SMEC International Pty. Ltd. in JV with SMEC India Pvt. Ltd.* to undertake Consultancy Services for Construction Supervision for SASEC Road Connectivity Investment Program, vide Contract Agreement No. PD/EAP/SRCIP/CSC/ Agrt./2015/02 dated 05 November 2015. The effective date of start of Consultancy Services was 01 February 2016.

The Objective of the Consultancy Services is to ensure that high quality construction achieved through adoption of a Quality Assurance System and adherence to the requisite Engineering Designs and the Technical Specifications. The Consultant is to closely monitor the execution of the work in order to achieve timely Completion of the Project.

1.4.1. Consultant's Mobilization

The Supervision Consultant has mobilized its team w.e.f. 01 February 2016, curtailing its team, to undertake the initial limited mandate (prior to the Commencement of the Construction Works), of carrying out the Design Review and the additional work, assigned by the Client, pertaining to carrying out survey to mark the centerlines / toe lines in selected stretches of the alignment of Imphal – Kangchup – Tamenglong Road.

Mobilization of the Supervision Consultancy Staff/ Experts has been planned keeping in view three distinct stages – (i) Prior to the Commencement of Construction Works; and (ii) On Commencement of Work on Imphal – Kangchup – Tamenglong Road.

SECTION 2.0 APPROACH FOR MONITORING

2.1. Need for Monitoring

1. Ensure that all environment safeguard requirements as given in this EARF, ADB SPS 2009, and applicable laws and rules under MOEF are being complied with during all stages of project under the loan.
2. The environmental safeguards requirements are part of covenant of the project described under Paragraph 12 and 13 of Schedule 5 of the Loan Agreement (Ordinary Operations) – EA's Responsibility.
3. The Contractor responsibilities to comply with IEE/EMP, statutory requirements of the country/state and ADB's SPS 2009 is specified in 'Particular Conditions of Contract' (Section 8) in the civil works 'Contract Agreement'.

2.2. Approach

The monitoring in any project is to track the progress, identify challenges, and collect information that would aide to decision making and finding solution for course correction, if required in the project. In addition, this process will also help in identifying and documenting the best practices in the project and lessons learned, which can be adopted in future projects.

In regard to the project, the CSC will monitor the EMP implementation in the project by reviewing the progress report(s) submitted by the Contractor. Further, the approved EMP Implementation Plan of the Contractor will be the basis to check implementation progress and compliance with the Contract Agreement. The Contractor compliance with EMP reported in their progress reported will be verified and checked during CSC's site visits and review meeting of the Project.

2.3. Monitoring Period

This current report capture the activities that were performed by the Environmental Specialist, CSC and Contractor compliance with EMP during the period January-March, 2016.

SECTION 3.0 REGULATORY COMPLIANCE

The Environmental Impact Assessment Report has listed out the various the environmental rules and regulations which might be applicable to the proposed Imphal-Kangchup-Tamenglong road section improvement activities. This sections provide the compliance to listed environmental rules and regulations of the country and state.

Applicable Environmental Regulatory Frameworks of Nation and State

S. No	Project Activities	Statute	Requirement	Competent Authority	Compliance Status
1	Implementing Project	Environment Protection Act of 1986 and as amended. EIA Notification 2006 and amendments.	Environmental Clearance	SEIAA, Manipur	Clearance under process and awaited.
2	Implementing Project in Forest Area	Environment Protection Act of 1986, Forest Conservation Act	Forest Clearance	Conservator of Forest, Govt. of Manipur	Clearance under process and awaited.
3	Establishing stone crusher, HMP, WMM plants and DG Sets	Water Act of 1974, Air Act of 1981, Noise Rules of 2000 and Environment Protection Act of 1986 and as amended	Consent-for-establishment	State Pollution Control Board	Contractor is yet to be mobilised.
4	Operating stone crusher, HMP, WMM plants and DG Sets	Water Act of 1974, Air Act of 1981, Noise Rules of 2000 and Environment Protection Act of 1986 and as amended	Consent-for-operation	State Pollution Control Board	
5	Use and storage of explosive for quarry blasting work	India Explosive Act 1984	Explosive licence for use and storage	Chief Controller of Explosives	
6	Storage of fuel oil, lubricants, diesel etc. at construction camp	Manufacture storage and Import of Hazardous Chemical Rules 1989	Permission for storage of hazardous chemical	SPCB or Local Authority (DM/DC)	
7	Quarry operation	State Minor Mineral Concession Rules, The Mines Act of 1952, Indian Explosive Act of 1984, Air Act of 1981	Quarry Lease Deed and Quarry License	State Department of Mines and Geology	

S. No	Project Activities	Statute	Requirement	Competent Authority	Compliance Status
		and Water Act of 1974			
8	Extraction of ground water	Ground Water Rules of 2002	Permission for extraction of ground water for road construction activities	State Ground Water Board	Contractor is yet to be mobilised.
9	Use of surface water for construction	-	Permission for use of water for construction purpose	Irrigation Department	
10	Engagement of labour	Labour Act	Labour license	Labour Commissioner	

SECTION 4.0 INSTITUTIONAL ARRANGEMENT

The Public Works Department of Manipur (MPWD) will be the Executing Agency (EA) as well as Implementing Agency (IA) for this subproject. The project will be implemented by PIU of MPWD based in Imphal. EA/IA will be responsible for the implementation of the Project. The Project Director of PIU will be overall responsible for EMP implementation. The following key players are involved in EMP implementation during construction stage:

- EA and its Institutional Support Capacity Development Consultant (ISCDC)
- PIU and its environmental units;
- Construction Supervision Consultants (CSC) i.e. Engineer and his representatives; and
- Contractors

The EA/IA has established an Environmental and Social Management Unit (EMSU) with two officers designated as Nodal Officer-Environmental and Nodal Officer-Social for monitoring the implementation of proposed safeguard measures. EMSU is headed by the Project Director but coordinating and supervising implementation of safeguard measures will be undertaken by the designated Nodal Officers.

The Construction Supervision Consultant (CSC) in the project will act as Engineer. The CSC consultant will assist the PWD to ensure that high quality construction is achieved and to ensure that all work is carried out in compliance with the Engineering design, technical specifications and other documents as well as implementation of Quality Assurance System and take up close monitoring to ensure timely completion of the project. The CSC has mobilised the Environmental Specialist from February 24, 2016 in the team. The specialist has had an initial formal meeting with the Project Director, PWD during the quarter and reviewed documents related with environmental safeguard.

Implementation Support and Capacity Development (ISCD) Consultants has been engaged in the project to support the EA/PIU in managing the Contractor and conducting Capacity Building training workshops. The ISCD Consultant will act as External Monitor on Environmental Safeguard aspects. The ISCD Consultant has also mobilised their Environmental Safeguards Specialist.

The civil works Contractor has been appointed and shall be responsible for successfully executing the Contract. The Contractor after mobilisation has to appoint a full time qualified and experienced Environmental and Safety Officer (ESO) in the project. The ESO shall be responsible for overall compliance with statutory requirements of the Country/ State, contract agreements and implantation of project's Environmental Management Plan, to minimise and to mitigate impacts induced due to the project.

SECTION 5.0 MEETING AND SITE VISIT

5.1. Meetings

A formal start-up meeting was held on Feb 26, 2016 at the office of Project Director. The CSC's Sr. Quantity Surveyor cum Contract Specialist, Environmental Specialist, Assistant Resident Engineer (Roads), and Assistant Resident Engineer (Bridges) which were mobilized mobilised were also present along with the Engineer. The Environmental Specialist, CSC has availed the opportunity to discuss on possible environmental issues that the project might encounter, based on understanding from study of project's Environmental Impact Assessment and Environmental Management Plan Report.

5.2. Site Visit

No site visit was undertaken

SECTION 6.0 PROJECT EMP IMPLEMENTATION STATUS

6.1. Environmental Management Plan

The civil work contract has been signed on 21 March 2016. The contractor is yet to mobilize and submit their Work Schedule along with EMP Implementation Plan.

6.2. Environmental Monitoring Plans

Contractor is yet to be mobilised.

SECTION 7.0 ISSUES AND RECOMMENDATIONS

7.1. Issues and Recommendations

- i) Environmental Specialist, CSC during the start-up meeting appraised the Project Director about possible challenges at later stage due to handing over of road stretch located in reserve and protected forest. The stretch of road where community is donating land and located in unclassified forest was also brought to notice of EAP as an alternative for handing over to contractor, as an alternative.
- ii) The project involves cutting of hill to execute the propose road design, which consequently will results to large quantity of excavated soil and rock. The beforehand identification of disposal sites and approving of detailed Muck Disposal Plan at each disposal site is necessary. In absence of this, there might be site specific challenges either socially and environmentally during implementation stage. Environmental Specialist, CSC also proposed the possibility of adopting bio-engineering measures for hill slope protection.

7.2. Other Issues

Nil.

7.3. Actions Taken Status

The compliance status will be reported in subsequent QPR.