

## **Environmental & Social Management Implementation Audit of the Mid-Section Trespass Control, June 2019 – A Report**

### **Background**

Under MUTP III project, Asian Infrastructure Investment Bank (AIIB) is in engagement with the Maharashtra Rail Vikas Corporation (MRVC) with the proposed funding of the various investments. To address environmental and social (E & S) issues, MRVC has conducted an Environment Assessment of all MUTP III projects. As a part, the Volume III included the Environment Assessment report for Mid-section Trespass Control, which was finalised in May 2019. This Environment Assessment includes an Environmental & Social Management Plan (ESMP), which includes both E & S issues that needs to be addressed by MRVC, supervision consultants and contractors during the design, planning, implementation / construction and operational phases of the project.

In October 2018, MRVC has successfully bidden-out the works pertaining to the Mid-section Trespass Control along both the Central and Western Railway lines in the city of Mumbai. In all, the investments are clustered into 4 lots or construction packages with Foot-Over-Bridges planned in a number of locations in each of the 4 lots.

As the works have commenced, AIIB – in consultation with MRVC - commissioned this E & S implementation audit to determine the extent to which the E & S issues are being addressed.

### **Audit objectives**

The objective of the audit is two-fold:

- To determine the extent to which the E & S issues are being implemented on-the-ground and their adherence to the ESMP and the AIIB requirements;
- To identify specific management measures that MRVC and the contractors to have to strengthen in order to improve the effectiveness of the ESMP implementation.

### **Audit scope**

The scope of the audit was limited to the Mid-Section Trespass Control investments in general and to Lot 4 investments in particular. The Lot 4 investments were chosen as maximum progress has been made in the cluster. This Lot was awarded in October 2018, about Rs. 13-14 crores of financial progress has been made so far, and about Rs. 22 crores of balance works is remaining. The other three lots have also started implementation but has not progressed as much as Lot 4. Further, the scope of the audit was focused on implementation and not on the planning / design, which were taken as given.

## **Audit criteria**

The audit criteria was the ESMP as included in Volume III of the Environment Assessment report for Mid-section Trespass Control, which was finalised in May 2019. The audit criteria focused on the ESMP requirements during the construction stage. These ESMP requirements were reflected in the bid documents (Section VII Works Requirements) and formed a part of the contract requirements.

## **Audit plan**

The audit was conducted by a 1-person team that comprised Vaideeswaran S., Consultant, AIIB, who has 25+ years relevant experience and has also worked on the earlier MUTP projects. The overall planning and coordination from AIIB were done by Zhixi Zhu and Somnath Basu of the AIIB Environmental and Social Framework (ESF) team.

From MRVC, Mr. Sunil Maske, Chief Project Manager II, coordinated the conduct of the audit with the support of the MRVC engineers responsible for the Mid-Section Trespass Control, Mrs. Dhanlaxmi, Environmental Officer and Mr. Vikas, Social Development Officer.

The audit was conducted over a 3-day period, i.e. between June 18-20<sup>th</sup>, 2019, and included a 1-day walk-through site visit to selected investment locations. The site visit locations were decided by the MRVC team, and the schedule was planned by them.

## **Audit process**

The process included pre-audit activities (June 18<sup>th</sup>), onsite audit activities (June 19<sup>th</sup>) and closing meeting (June 20<sup>th</sup>). Subsequently, this audit report was finalized in the week of June 24<sup>th</sup>, 2019.

As a part of the pre-audit activities, the ESMP requirements were reviewed. Preparatory audit notes were prepared to assist in the conduct of the onsite activities

Site visits were carried out in four selected investment locations all of which pertain to Lot 4 (in the specified sequence):

- Khandeshwar & Panvel (Mid Section) (Ch. 46/6).
- Seawood (Darave) & Belapur (Mid Section) (Ch. 37/14)
- Nerul Seawood (Mid Section)(Ch. 35/5)
- Vashi & Sanpada (Mid Section)(Ch. 29/3)

In none of the four sites, there were any construction works ongoing at the time of the audit. This temporary stoppage was because of the ongoing monsoons and this is customary in Mumbai to suspend works during the rainy season. However, onsite discussions with both the MRVC engineers and the contractor staff was possible, and formed the basis of the audit findings. Annex 1 includes the list of site personnel with whom discussions were conducted. And, Annex 2 includes a few site pictures.

There were no hindrances or constraints in the conduct of the audit. Fullest cooperation was obtained from MRVC engineers and contractors.

## **Audit findings**

### ***Positive findings***

The following were the positive findings:

- Discussions with MRVC revealed that only those sites without any tree-cutting issues and land problems in Lot 4 were handed over to the contractor. The other sites will be initiated only after MRVC addresses E & S compliance issues.
- There was commitment to ensure effective management of E & S issues among the contractor staff and MRVC engineers. Safety signages and barricading of site works were done. Discussions revealed that there were steps taken by the Contractor staff and the MRVC engineers to streamline ESMP requirements, which are a part of the Section VII of the contract documents.
- All debris / waste generated during the construction works so far have been removed and are not creating hazards to the local community.
- The nature and extent of E & S issues in each of the locations are limited, and can be managed with the contractor staff & MRVC engineers paying day-to-day site management attention.
- No non-compliances were observed in relation to legal requirements. The main requirements are related to obtaining tree-cutting permissions. None of the four site locations involved any tree-cutting.
- There were no outstanding community concerns in any of the four sites; and no social concerns were expressed / evidenced during the visit. A complaint box is in place but no complaints have been received.
- As no women labourers on site, there are no provisions to accommodate their needs. There are no gender issues to reckon with.
- Arrangements are in place for addressing medical / health issues at the site.
- Discussions revealed that appropriate PPEs are in use during the construction works.

## **Areas for improvement**

### **On site issues**

The following were the site-level areas for improvement observed:

- In all the four locations, the community / pedestrian movement is relatively high. As the site has been handed over to MRVC for the FOB, the responsibility lies with MRVC to ensure that there are no rail accidents in the vicinity. MRVC should take the necessary measures in each of these locations.
- In this regard, MRVC should inform Central Railway (also to Western Railway for other Lots) about the FOB locations and ask for the suburban train drivers to (a) sound the horn and (b) ensure reduced speeds at these locations.
- In all the sites, there needs to be flag men to usher the community / pedestrian movement at the mid-section trespass control / FOB locations. At night time, when the movement is less, there should be enough lighting, use of reflective material and the watchmen should facilitate the safe movement of the community / pedestrians. In each location, the MRVC engineers and contractor

staff should review, and determine the best possible approach to ensure safety taking into account the site considerations.

- Girders will be placed post-monsoon. This is an accident-prone activity as it involves working at heights, crane-lifting heavy structural elements and working at night (when train traffic is minimal). Utmost precaution is required both by MRVC engineers and contractor staff in relation to this accident-prone activity in all the locations. The safety issues pertaining to each of the sequence of sub-activities needs to be identified; and suitably implemented.
- All site displays pertaining to safety or barricading of construction works should be in Marathi and not just in English.
- While it was stated that environmental and safety talks / measures are given to the contractor's labour force, there was no documentation on the site as evidence. For instance, there is no identified safety register that includes information of activities being conducted and incidents (including near misses) if any. It is required to streamline procedures and documentation in line with the ESMP requirements.
- Discussions revealed that any complaints received either through the box placed or directly to any project person will be reviewed by the Contractor's site engineer with the project manager, and then shared with the MRVC engineer-in-charge and the MRVC Manager. Based on the review, appropriate action will be taken vis-a-vis the complainant. This practice needs to be in line with the suggested GRM in the ESMP. The deviation needs to be corrected.

### **Specific sites / MRVC site engineers**

The following were the specific site-level areas for improvement observed:

- Khandeshwar & Panvel (Mid-Section) (Ch. 46/6): Pedestrian crossing is a serious issue. On one side of the rail road track, the visibility for pedestrian crossing is really poor. Better night lighting is required; Flag men during the day and watchmen at night are a must.
- Seawood (Darave) & Belapur (Mid-Section) (Ch. 37/14): Pedestrian crossing is a serious issue. On one side of the rail road track, the visibility for pedestrian crossing is really poor. Better night lighting is required; Flag men during the day and watchmen at night are a must.
- Nerul Seawood (Mid-Section)(Ch. 35/5): (a) The girders have been kept alongside the track on the road, which is in use. This is obstructing traffic on the road. Signages and traffic diversion boards should be provided at the earliest; (b) Pedestrian crossing is a serious issue. On one side of the rail road track, the visibility for pedestrian crossing is really poor. Flag men during the day and watchmen at night are a must.
- Vashi & Sanpada (Mid-Section)(Ch. 29/3): Onsite construction & demolition debris was noted. These should be removed prior to decommissioning as these will impede the growth of natural vegetation.

### **E & S cell**

The following areas of improvement in terms of streamlining the activities of the E&S cell:

- The ESMP requirements were not fully captured in the Section VII Works Requirement, which is a part of the contract. Given that, a careful review of the

items in the ESMP requirements that should be in Section VII Works Requirements should be identified. To address gaps if any, a variation order should be given to the contractor.

- No implementation-oriented data / reports / records were available with the E & S cell to enable a more comprehensive coverage of the E & S performance across all investment locations. As the construction works have commenced, the E & S officers should take periodic site visits to oversee the implementation of the ESMP. A schedule of visits for different lots should be developed and executed. Monitoring and supervision records should be generated and maintained by the E & S cell. Any shortcomings / gaps should be raised with the site in-charge in order to take corrective & preventive action. This should be in line with the procedure outlined in the ESMP.
- E & S cell should submit a quarterly progress report to MRVC's senior management and to AIIB. This practice should start from the April-June 2019 quarter and be submitted in July 2019. This should be streamlined at the earliest to enable proper monitoring & supervision. Refer Annex 3 for a suggested outline of the report.
- ESMP awareness and implementation capacity of the MRVC site engineers and the contractor staff needs to be improved. In this context, E & S cell indicated that a training seminar has been planned in the near future. It is important to conduct this training before the construction works after the ongoing monsoon season.
- E&S cell and the MRVC site engineers should be provided basic safety gear, i.e. safety shoes, hard hats, reflective wear and others as required. During their site inspection, they should use basic safety gear. Apart from protecting themselves, they will also have to set an example.

## **Audit conclusions**

Overall, no major deviations in terms of E & S implementation performance were observed. The MRVC site engineers and the contractor staff are implementing some of the ESMP requirements. However, these need to be made more systematic and also further strengthened in line with the findings of this audit.

For audit follow-up, it is recommended that MRVC addresses these audit findings by undertaking both corrective and preventive action. A time-based plan should be submitted to MRVC and action taken should be monitored through the E & S Cell's quarterly progress report.

## **Annex 1: List of Primary Meetings held on June 19<sup>th</sup>, 2019**

1. Mr. R.S. Yadav, Manager, Civil, MRVC.
2. Ms. Deeksha Gola, Senior Project Engineer, MRVC
3. Mr. Anurag Tiwari, Senior Project Engineer, MRVC.
4. Mr. Mukund, Senior Project Engineer, MRVC.
5. Mr. Basavaraj G.H. Project Manager, Contractor
6. Dr. Shivaji Chavan, EHS Consultant, Contractor
7. Mr. Rohit Bedagkar, Structural Engineer, Contractor.
8. Mr. Laxman Bandal, Safety Officer, Contractor.
9. Mr. Deepak Sharma, Engineer, Contractor.

## Annex 2: Site visit pictures



Khandeshwar & Panvel (Mid Section) (Ch. 46/6)



Seawood (Darave) & Belapur (Mid Section) (Ch. 37/14)



## Annex 3: Suggested outline for a quarterly progress report

1. Brief Project Background (1/2 page)
2. Present Project Status (1/2 page)
3. Project-level E & S issues

S.No.	Description	Action Status / Taken

### 4. Site-level E & S issues

#### a. Site visits taken during the quarter

S.No.	Site location	Date

#### b. Site visit issues identified during the quarter

S.No.	Description of deviations / areas for improvement	Follow-up required
A.	Location A	
B.	Location B	

### 5. Follow-up to previous quarter site E & S issues

S.No.	Description of site issues earlier identified	Follow-up taken (Closed / Outstanding)
A.	Location A	
B.	Location B	

### 6. Concluding notes