



**Mumbai Metro Rail Corporation Ltd
MUMBAI METRO LINE 3 (Colaba-Bandra-SEEPZ)**

**Updated Social Impact Assessment Report
Volume - I**

December - 2017

MUMBAI METRO LINE 3

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Volume - I**

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ABBREVIATION

APL	Above Poverty Line
AIDS	Acquired Immunodeficiency Syndrome
BPL	Below Poverty Line
BMC	Bombay Municipal Corporation
BPIP	Borrower's Project Implementation Plan
BSES	Baseline Socio-Economic Study
CPR	Common Property Resources
CTSO	City Survey Officer
CRZ	Coastal Regulation Zone
CRF	Community Revolving Fund
CEMP	Community Environmental Management Plan
CBO	Community Based Organization
DPR	Detailed Project Report
DC	District Collector
DRC	Development Rights Certificate
DMRC	Delhi Metro Rail Corporation
ESMD	Environmental & Social Management Division
EIA	Environmental Impact Assessment
ERG	Economic Rehabilitation Grant
FGD	Focus Group Discussion
FSI	Floor Space Index
GR	Government Resolution
GOM	Government of Maharashtra
GRC	Grievance Redress Committee
GC	General Consultancy
HIV	Human Immunodeficiency Virus

ICCP	Information and Community Consultation Programme
IEA	Independent Evaluation Agency
JICA	Japan International Cooperation Agency
SLAO	Special Land Acquisition Officer
LAA	Land Acquisition Act
MOUD	Ministry of Urban Development
MUIP	Mumbai Urban Infrastructure Project
MMR	Mumbai Metropolitan Region
MMRDA	Mumbai Metropolitan Region Development Authority
MMMP	Mumbai Metro Master Plan
MMRC	Mumbai Metro Rail Corporation
MUTP	Mumbai Urban Transport Project
MSW	Master in Social Work
MCGM	Mumbai Corporation of Greater Mumbai
M&E	Monitoring and Evaluation
NTH	Non-Title Holder
NGO	Non-Governmental Organization
ODA	Official Development Assistance
PIU	Project Implementation Unit
PAF	Project Affected Family
PAP	Project Affected People
PIC	Public Information Centre
RAP	Resettlement Action Plan
ROW	Right of Way
rites	Rail India Technical and Economic Services
SC	Scheduled Castes
ST	Scheduled Tribes

STD	Sexual Transmitted Disease
SRA	Slum Rehabilitation Scheme
SDC	Social Development Cell
SBE	Small Business Enterprise
SJSRY	Suvarna Jayanti Shahari Rojghar Yojana
TDR	Transferable Development Rights
TBM	Tunnel Boring Machine
TOR	Term of Reference
TH	Title Holder

PREAMBLE

The Project

The Government of Maharashtra through Mumbai Metropolitan Region Development Authority (MMRDA) has identified metro mode of transport as efficient, economically viable and environmentally friendly mass transport system to meet the future transportation requirement in Mumbai/Mumbai Metropolitan Region (MMR). A master plan for Mumbai metro was prepared in 2004 which proposed implementation of metro corridors in three phases i.e. Phase I:2005-2011, Phase II:2011-2016 and Phase III:2016-2021. MMRDA has carried out DPR studies of all three corridors of Phase-I during 2005-2009 and DPRs of four lines of Phase-II & III in 2010.

Project Description

The length of Collabra-Bandar-SEEPZ corridor is 33.5km. It will facilitate the commuters to travel from South Mumbai to Airport via Mahi-BKC. It will also provide direct access to the economic hubs such as BKC, MIDC Industrial Estate, SEEPZ and famous landmarks such as Vidyanagari, Mahalakshmi etc. The corridor has been proposed as fully underground keeping in consideration social and environmental aspects. The rail level of the metro line under study is proposed to be kept at least 15 m below ground level at station and in tunnel portion. Rock is available at a depth of 2.10 m to 10.0 m from the ground level along the alignment. The rail level will be kept at such level to have a minimum of 6 m rock cushion available over the tunnel. This will facilitate to avoid underground utilities and building foundations. Total number of stations are 27, out of which 26 are underground, one stations at grade. It has design speed 80kmph and schedule speed is 30 kmph. Traction system is 25 KV AC, power demand (MVA) is 65-48 MVA in 2016, and receiving substation shall be at Colaba (Cuffe Parade), Race Course and Dharavi. 3.2 m (maximum) wide modern rolling stock is with axle load 17t. The seating arrangement is longitudinal for 1178 passengers in four coaches train unit. The completion cost of the project works out to ₹ 23136 crore.

Land Acquisition

The proposed metro rail project shall require land mainly for route alignments of rail tracks, station buildings, platforms, entry/exit structures, traffic integration, car shed, power substations, ventilation shafts, administrative buildings, property development, maintenance and construction depots at work sites etc. For the above purpose the project will involve acquisition of 77.32 ha of land shall be acquired for the purpose of temporary and permanent usages.

Objective of SIA

The objective of Social Impact Assessment is (i) to prepare a complete inventory of structures, affected families and persons, (ii) to identify social impacts and (iii) to prepare Resettlement Action Plan (RAP). The SIA includes RAP and is based on an integrated and holistic approach to deal with project impacts and aims at rebuilding lives and livelihoods of those affected as quickly as possible.

Study Approach and Methodology

M/s RITES has conducted a study in 2012 at DPR stage. The alignment and stations were finalized subsequently to the preliminary designs. This has necessitated for fresh survey on the alignment and station locations. Census socio-economic survey was conducted in association with M/s Snehal Engineering, in the corridor of impact zone to identify the affected structures, families/persons and list out the adverse impacts of the project. The SIA which includes RAP has been prepared in accordance with the JICA guidelines for Environmental and Social Consideration, 2011 and

Resettlement and Rehabilitation Policy for Mumbai Urban Transport Project, 2000. The methodology adopted to prepare SIA report was desk research, site visits and information dissemination, enumeration of structure and mapping, socio-economic survey, compilation, verification and analysis of data. SIA report prepared by M/s RITES was the base for preparing this report. Sections of public consultation at local and City level conducted during RITES Study are reproduced in this report.

Impacts and Inventory of Loss

The project will require acquisition of 77.32 ha of land for construction of different components. Total 2744 structures will be affected out of which 1837 are residential, 744 commercial, 41 residential cum commercial. In addition to this there are 122 other structures affected which consists of 13 public toilets, 17 religious structures and 92 other type of structures. There are 6867 PAFs found.

Socio-Economic Profile

The socio-economic survey results indicate that sex ratio is 893 female per 1000 males. Majority of the surveyed families are Hindu followed by Muslim. Majority of families (47%) speak Marathi as mother tongue followed by 32% who speak Hindi. Majority of surveyed family members are married. Majority of families are found as nuclear. About 80.85% of surveyed people are literate and majority of them have studied up to secondary and higher secondary level. Average family income is ₹4720/- per month. Majority of affected persons are engaged in private service. People use Auto Rickshaw, Bus and Train as mode of travel.

Public Consultation

Public consultations were organized during study conducted by M/s RITES at six project affected areas namely Girgaon, Acharya Atre Chowk, Dharavi, Santacruz, Marol Naka and MIDC during January-April, 2012. MMRC had conducted Public Consultations in the areas BKC, Agripada, Sariput Nagar/ Aarey Colony, MIDC, Kalbadevi, Girgaon, Sahar (Shanti Nagar), Janata/ Naya Nagar during November 2014 to July 2015. About 2042 persons who represent different community and society participated in the consultation process at community level. In addition to this public consultation was also organized at City level on 11th April, 2012 for inviting suggestions and objections from different stakeholders on environment and social issues of the proposed project. The major social issues raised by the people were land acquisition, demolition of structures, displacement, compensation, job opportunities and relocation of religious places and changing of alignment, social amenities at R&R sites, and special scheme for Adivasis.

Apart from the above consultations the MMRC has conducted Public Consultations during the month of December 2016 and January 2017 for the Kalbadevi and Girgaon areas.

Resettlement Policy and Legal Framework

The Resettlement and Rehabilitation Policy for Mumbai Urban Transport Project, 2000 shall be used for the purpose of compensation. The policy ensures meaningful consultations with stakeholders in planning and implementation of the resettlement program and make rehabilitation and resettlement plan more participatory. The Metro Railways Construction Act will be adopted for Land Acquisition process.

Institutional Arrangement

Mumbai Metro Rail Corporation (MMRC) is overall responsible for implementation of resettlement and rehabilitation component of the project. MMRC will coordinate with all implementing agencies like PMC, NGO, R&R Implementation Support Consultant and Public Relation Consultant and supervise their work and monitor the progress of the project. Social Development Cell (SDC) of MMRC shall look after land acquisition and rehabilitation activities of the project. The responsibility of NGO will be assisting MMRC in implementation of R&R activities. The implementation of resettlement and rehabilitation activities will be monitored through Quarterly Progress Reports (QPR) which will be prepared by MMRC with the assistance of consultant. A consultant will be appointed by MMRC to assist in the R&R implementation process. The Public Relation Consultant shall coordinate with PR agency in information sharing on the R& R activities. Grievance Redress Committee will be formed at field and senior level. Field level GRC shall address grievances relating to individual eligibility and entitlements, whereas senior level GRC shall review decisions of field level GRC on grievance petitions filed by PAP not satisfied with the field level verdict.

Relocation and Resettlement Site

Resettlement requirements for the project can be categorized for Encroachments / Slum Dwellers on public land, Legal Title Holders / Occupants of Formal Buildings, Footpath Occupiers / Licensed Stall Holders on public land, and Others (Govt.). The finalization for selection of Resettlement site would be taken in consultation of PAFs, MMRC officers and other concerned Departments. MMRC has indicated probable sites for rehabilitation of Non-titleholder affected families at two locations namely (i) Kurla (East), (ii) Chakala, Andheri (East), (iii) Mahul Village, (iv) Bhakti Park, Wadala, (v) Oshiwara which has been developed under Mumbai Urban Infrastructure Project (MUIP). The PAFs losing residential and commercial units shall be offered tenements as per R & R Policy.

Implementation Schedule of Land Acquisition and Resettlement Plan

The R&R activities of the proposed project are divided in to three broad categories based on the stages of work and process of implementation. In the project preparation stage, identification of required land for acquisition, census & socio-economic survey, public consultation, preparation and review/approval of SIA, disclosure of SIA, establishment of GRC and preparation of resettlement site shall be carried out. Activities like notification of land acquisition, valuation of structure, payment by competent authority, shifting of PAPs shall be taken up during Land Acquisition and Resettlement Plan implementation. During monitoring and evaluation stage internal monitoring will be carried out by MMRC and mid and end term evaluation will be carried out by an independent evaluation agency.

Cost Estimate

The budget is indicative and cost will be updated and adjusted to the inflation rate as the project continues and during implementation. The total cost of proposed metro rail project for resettlement and rehabilitation of project affected families would be ₹59108.79 Lacs.

Monitoring and Evaluation

Implementation of resettlement action plan will be monitored internally and will be evaluated externally. MMRC will be responsible for internal monitoring whereas mid and end term evaluation will be conducted by independent evaluation consultant. MMRC is responsible for supervision and implementation of the resettlement and will prepare monthly progress reports on resettlement activities. Independent Evaluation Consultant will submit mid and end term evaluation report to MMRC and JICA and will determine whether resettlement goals have been achieved, more

importantly whether livelihoods and living standards have been restored/ enhanced and also suggest suitable recommendations for improvement. M/s SPARC has been appointed for resettlement assistance.

CHAPTER-1 INTRODUCTION

1.1 BACKGROUND

Mumbai is the economic/commercial capital of India, which is identified by higher growth in economy as well as population. Mumbai Metropolitan Region (MMR) is one of the fast growing metropolitan regions in India. MMR covers an area of 4355 sq.km, which includes 7 municipal corporations, 13 municipal councils and 996 villages. The projected population of MMR shall be around 34 million, however employment opportunities estimated about 15.3 million by year 2031. The increasing population requires faster transportation to avoid delay in work and to avoid decongestions in the region. The existing transport system of city is not considered capable of bearing the upcoming transportation needs. Thus upgrading transport system is imperative for rapid growth and economic development in Mumbai Metropolitan Region (MMR). The expansion of road network in Mumbai is not possible as it requires large land acquisition leading to huge displacement of the people. Mumbai desires to be one of the globally competitive cities in the world but falls short on several grounds of which transportation inadequacy is the most prominent. The geographic formation of the city makes the expansion of transportation slow which does not match with the demand of fast growing city. In order to improve the overall traffic and transportation in Mumbai/Mumbai Metropolitan Region (MMR) and meet the future travel demand, the Government of Maharashtra through MMRDA has identified metro mode of transport as efficient, economically viable and environmentally friendly mass transport system. MMRDA has proposed metro network to meet the transportation requirement with the existing land resource available for present use with a nominal land requirement and fewer involuntary displacement.

In 2004, DMRC has prepared a master plan for development of metro network in Mumbai. The master plan proposes total length of 149.97 km for metro network development. It is planned in three phases of development, phase-I to be completed during 2005-2011; phase II to be completed in 2011-2016; and phase III in 2016-2021. Line 1 - Versova –Andheri- Ghatkopar section of metro rail is operational. Line II, Charkop-Bandra-Mankhurd section is yet to be started. Line III Colaba-Bandra-SPEEZ, under present study, is 33.5 km in length.

1.2 BENEFITS OF THE PROJECT

The proposed project corridor shall have direct as well as indirect benefits. The proposed project shall contribute to reduction in road traffic and road stress, fuel consumption, air pollution, travel time, vehicle operating cost, accidents and road maintenance. The proposed metro shall increase mobility and accessibility to facilitate, increase in economic stimulation in the region, increase in business opportunities, improve aesthetics and image of the city. Overall the proposed project shall change the transportation face of MMR.

1.3 PROJECT DESCRIPTION

The proposed metro rail will facilitate the commuters to travel from South Mumbai to Airport via Mahim-BKC. It will also provide direct access to the economic hubs such as BKC, MIDC Industrial Estate, SEEPZ and famous landmarks such as Kalina University, Mahalaxmi etc. Table 1.1 has indicated the proposed metro rail network lengths for all three phases as per the master plan and amendment plan. Figure 1.1 depicts the proposed lines as indicated in the Mumbai Metro Master Plan. The Detailed Project Report for line 3 (Colaba – Bandra) of Mumbai Metro Phase – 1 was prepared in October, 2007 and for Line 6 (Mahim – BKC – SEEPZ – Kanjurmarg) of Phase III in April, 2011. MMRC intends to implement Line 3 and Line 6 as one corridor i.e. Colaba – Bandra – SEEPZ which is proposed as fully underground keeping in consideration social and environmental aspects.

Since the corridor is planned fully underground either on the edge of existing road or along the median of the road, there will be no or least disruption to existing services and traffic movement.

With a view to implementing Metro System in Mumbai Metropolitan Region (MMR), the master plan has been partly modified. The List of Corridors proposed for implementation is as follows:

TABLE 1.1 Metro Master Plan (MMR Region)

Sr. No.	Name of Corridor	Length (km)	Estimated Cost (In Cr.) (@2012 price level)
1*	Versova-Andheri-Ghatkopar	11.40	2,356
2	Charkop-Bandra-Mankhurd	32.00	7,660
3**	Colaba-Bandra-SEEPZ	33.50	24,430
4	Charkop-Dahisar	7.80	4,680
5	Wadala-Ghatkopar-Teen Hath Naka (Thane)-Kasarvadavali	30.70	8,757
6 "	Wadala-Carnac Bunder	13.50	2,635
7	SEEPZ-Kanjurmarg	10.50	4,200
8	Andheri (E) – Dahisar (E)	18.00	10,800
9	Sewri-Prabhadevi	3.50	2,100
	Total	160.90	67,618

Ref: <https://mmrda.maharashtra.gov.in/mumbai-metro-rail-project#>

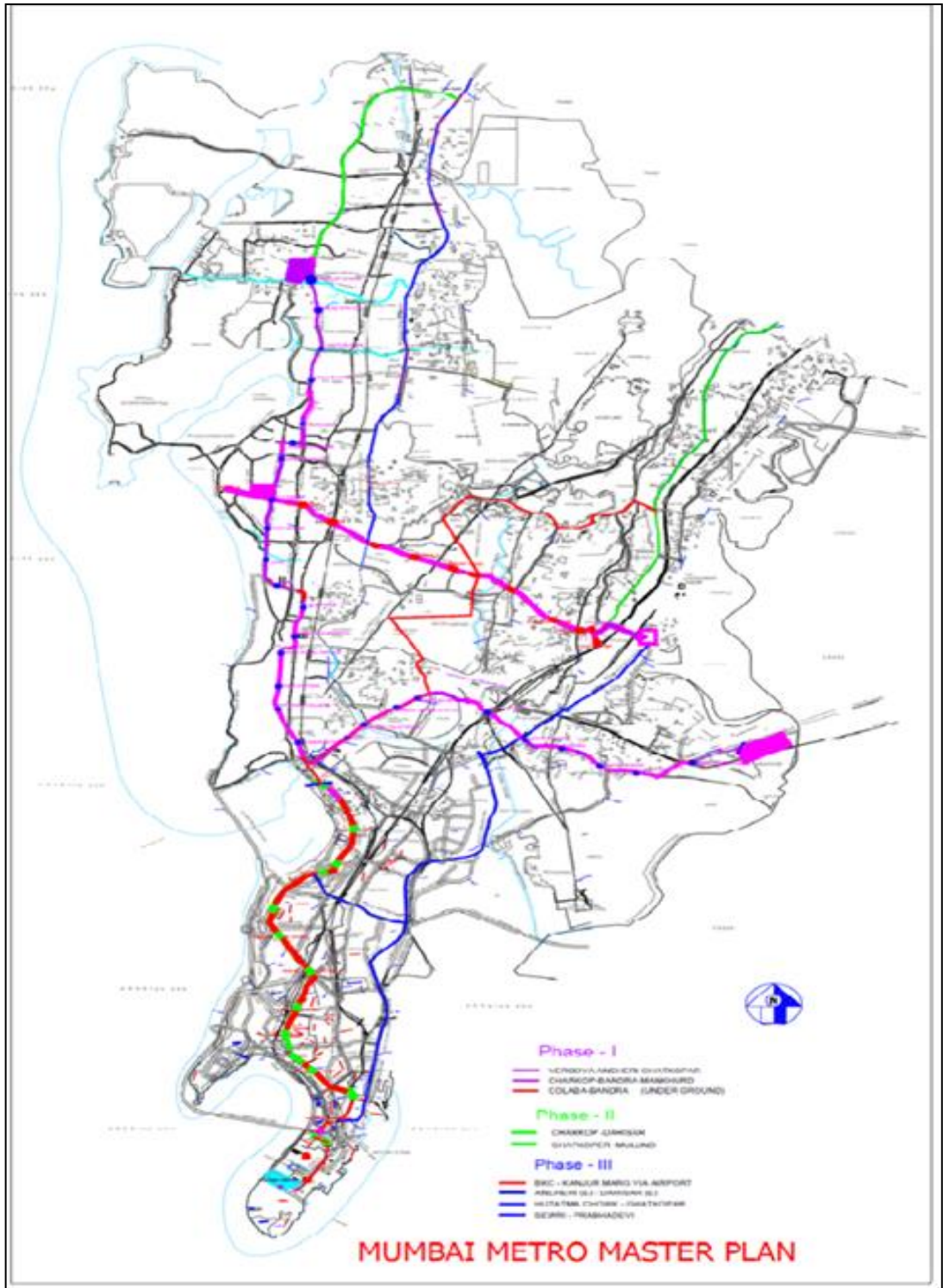
Note:

* Project under operation under Public Private Partnership (PPP)

** Project proposed to be implemented with Japanese Loan Assistance (JICA)

"deferred due to, less ridership & parallel to Harbour line

**FIGURE 1.1
MUMBAI METRO MASTER PLAN**



The proposed metro rail project for 33.5 km in length is divided into seven sections as indicated in Table 1.2. Figure 1.2 shows the proposed Colaba –Bandra-SEEPZ metro corridor. The rail level of the metro line under study is proposed to be kept at least 15 m below ground level at station and in tunnel portion. The rail level will be kept at such level to have a minimum of 6 m rock cushion over the tunnel. This will facilitate to avoid underground utilities and building foundations. Total number of stations is 27, out of which 26 are underground and 01 station is at grade.

**TABLE 1.2
MAJOR SECTIONS OR PACKAGES OF METRO CORRIDOR (LINE III)**

Package	Description	Appx. Chainage
MM3-CBS-UGC-01	Four underground stations at Cuffe Parade, Vidhan Bhavan, Churchgate and Hutatma Chowk and associated bored tunnels together with two tunnel sidings at Cuffe Parade	Ch.-488 to Ch.3762
MM3-CBS-UGC-02	Four underground stations at CST, Kalbadevi, Girgaon and Grant Road and associated bored tunnels.	Ch.3762 to Ch.7811
MM3-CBS-UGC-03	Five underground stations at Mumbai Central, Mahalakshmi, Science Museum, Acharya Atre Chowk and Worli and associated bored tunnels.	Ch.7811 to Ch.12868
MM3-CBS-UGC-04	Three underground stations at Siddhivinayak Dadar and Shitladevi and associated bored tunnels.	Ch.12868 to Ch.18976
MM3-CBS-UGC-05	Four underground stations at Dharavi, B.K.C. Vidyanagri and Santa Cruz and associated bored tunnels together with two tunnel sidings at B.K.C.	Ch.18976 to Ch.23900
MM3-CBS-UGC-06	Three underground stations at CSIA Domestic Airport, Sahar Road and CSIA International Airport and associated bored tunnels.	Ch.23900 to Ch.28388
MM3-CBS-UGC-07	Three underground stations at Marol Naka MIDC and SEEPZ and associated bored tunnels together with a ramp for the depot connection.	Ch.28388 to Ch.32367

The proposed metro rail has design speed of 80kmph and schedule speed is 30 kmph. Traction system is 25 KV AC, power demand (MVA) is 65-48 MVA in 2016, and receiving substation shall be at Colaba (Cuffe Parade), Race Course and Dharavi. 3.2 m (maximum) wide modern rolling stock is with axle load 17T. The seating arrangement is longitudinal for 1178 passengers in four coaches train unit. The overall capital cost at September 2011 price level, including general charges @ 5% and 3% contingencies on all items except land, structures, octroy, insurance and stamp duty, as per DPR, has been calculated as ₹ 19,5981 million. A two tier organization with well-defined responsibilities for project execution shall be setup. Mumbai Metro Rail Corporation Limited (MMRC) is at the apex and the second level will be a project management team (General Consultant-GC). The GC shall be responsible for planning, design and full project management.

FIGURE 1.2: PROPOSED COLABA - BANDRA - SEEPZ METRO CORRIDOR



1.4 LAND ACQUISITION AND RESETTLEMENT

The proposed metro project requires land. Acquisition of land for the project shall displace people from their home and business. Land is a scarce commodity in Mumbai Metropolitan area. Efforts have been made to keep land requirement to the barest minimum by choosing the alignment in such a way that the acquisition is least. The selection of land for metro development was done by considering the following:

- Preferred Government / Public land instead of private land
- Preferred open land instead of habitation and building structures
- Preferred pavements and median of roads instead of structures

Land is mainly required for route alignment of rail tracks, station buildings, platforms, entry/exit structures, traffic integration, depot/ car shed, power sub-stations, ventilation shafts, administrative buildings and temporary construction depots and work sites etc. The identified land plots for acquisition are minimum essential to complete the project. Therefore land acquisition is unavoidable to execute the project.

The acquisition of land for the proposed project involves resettlement of PAPs in shops, commercial - cum-residential buildings, residential buildings and hutments along the proposed corridors. Resettlement benefits will be given accordingly, for relocation of shops, commercial-cum-residential buildings, residential buildings and hutments likely to be affected due to the proposed project. The cost for resettlement, rehabilitation and land compensation shall be decided and calculated as per the provisions of Resettlement and Rehabilitation Policy of Mumbai Urban Transport Project (MUTP) 1997, as amended in December 2000.

Besides, the policies adopted by the Board of Directors, MMRC in the meeting held on 6th Dec. 2014 are also followed for in-situ Rehabilitation of Residential and Commercial units from formal / authorized buildings including protected tenements located in the Kalbadevi and Girgaon areas. The BoD, MMRC has resolved the issues raised by the residents / private land owners of Kalbadevi and Girgaon are stated hereunder:

In-situ Rehabilitation of Residential & Commercial units from Formal/Authorized Buildings including protected Tenements: Kalbadevi and Girgaon metro stations are located in most congested area with very old developments has encountered different issues. Most of the Buildings are very old structures habituated by tenants protected under Mumbai Rent control Act. In all 19 privately owned formal buildings are getting affected by two Metro stations. These buildings are also affected by road widening as per the sanctioned Development plan. All the PAPs have demanded for in-situ rehabilitation or a new house with in the neighborhood. Backed by local elected representatives, the State Govt. was required to declare a special package for residential tenements including rehabilitation in the same area.

- a. To address the demand of affected families, M/s. Catapult Reality Consultant were appointed to study the feasibility of in-situ redevelopment and suggest a feasible framework of implementing the project and the in-situ rehabilitation.
- b. A Comprehensive Redevelopment Action Plan for Kalbadevi and Girgaon stations by redevelopment of affected buildings in the area/plots after metro project implementation which was prepared. After scrutiny MMRC submitted the proposal to State Govt. State Govt. accorded its approval along with few enabling concessions for the special redevelopment proposal.
- c. As approved by the State Govt. the project implementation has been initiated fully addressing the PAP requirements and confirming to the MCGM/MHADA guideline for the similar projects.
- d. As the redevelopment of the old buildings was limited to private developers till date the in-situ rehabilitation project is implemented following the market accepted philosophy; providing transit accommodation or market rent to PAPs till the final housing/commercial unit is provided. Legally binding commitment letters/agreements signed with PAPs. Minimum built up area norms of State Govt. complied in redevelopment buildings.
- e. Cost of the in-situ rehabilitation project to be partially recovered through free-sale component available in similar redevelopment projects.
- f. Bridge finance to be raised from MMRDA or Banks/Financial institutions.

B. Status Private Land Acquisition, Issues encountered and Solutions worked out:

5. Board in the meeting held on 6th Dec. 2014 vide resolution 203(32)/14-15, approved to acquire private land required for Mumbai Metro Line 3 through negotiations using the provisions of sec. 126 of Maharashtra Regional & Town Planning (MR&TP) Act, 1966. It was also approved to constitute the compensation committee under the Chairmanship of Shri. S.V. Thakre retired IAS officer. Accordingly Compensation Committee was constituted vide office order Dt. 26th May 2015 to finalize the compensation for private land to be acquired by negotiations.
6. Further to this Government of Maharashtra vide its GR dated 12 May, 2015 allowed the direct purchase of land by negotiation by giving 25% additional compensation on the compensation determined according to the provision of section 26 to 30 and Schedule-1 of the RFCTLARR Act, 2013.
7. The lands required for underground structures like parts of U/G stations, entry exits, structures associated with ancillary works are considered as permanently required. However the private land owner continues to own them and can put them to on ground activities like parking, landscaping etc. However he can't construct anything below ground that would infringe on the metro U/G works. In these cases it was decided to use them by offering one time compensation equal to 50% of market value determined by competent authority/Ready Reckoner rate.

1.5 MINIMISING RESETTLEMENT

Attempts have been made during the detailed design preparation of the project to minimize the land acquisition, resettlement and any adverse impacts on people in the project area through feasible engineering design. Steps have been taken to confine the project area in the government land and in available Right of Way (ROW) where ever feasible. This has been done with proper consultation with the local people and affected communities. Their suggestions have been incorporated, in the design, based on technical feasibility. However, there will be some unavoidable land acquisition for which

adequate compensation has been provided. Further the following specific measures are taken to minimize resettlement in this project.

- Selection of the sub project sites and its various components in the government land;
- Proper engineering design to avoid and minimize displacement and hence resettlement.
- Prefer open land instead of habitation and building structures.

1.6 OBJECTIVE OF SOCIAL IMPACT ASSESSMENT (SIA)

The Social Impact Assessment (SIA) study includes Resettlement Action Plan (RAP) which is based on the principle that the population affected by the project will be resettled in proper manner. Further, it also takes into account ways of avoiding or minimizing the impacts wherever possible by exploring other alternative project designs. Where displacement is unavoidable, people losing assets, livelihood or other resources, assistance is proposed for resettlement. Rehabilitation and Resettlement Policy for MUTP (2000) has been followed for the resettlement action plan. Since Japan International Cooperation Agency (JICA) will finance the project, the JICA guidelines on Environmental and Social Consideration have also been followed.

1.7 JICA REQUIREMENTS

According to JICA Guidelines for confirmation of Environmental and social Considerations, the proposed metro rail project is classified as 'Category A'. It includes projects in-sensitive sectors or with sensitive characteristics and projects located in or near sensitive areas. Metro rail is similar to the "Road, Railways and Bridge" category project which is indicated in the JICA guidelines as 'category A' project, which requires impact assessments of social settings of the project area.

JICA considers it important to have a dialogue with the partners (the host country, local governments, borrowers and project proponents) for its confirmation of social considerations. The active participation of key stakeholders (local residents, project affected families and local NGOs) in all stages of the project implementation are also desirable.

1.8 THE REPORT

This updated Social Impact Assessment report is presented in eleven chapters. The Chapter-1 is on Introduction of the Project. A brief description of the project, benefits of the project, project description, scope of land acquisition and resettlement, minimizing resettlement, objectives of RAP, JICA requirements. Study approach and methodology is given in Chapter-2. Potential Resettlement Impacts including details of land and structure and probable significant social impacts is presented in Chapter-3. An analysis of Socio-Economic Studies is presented in Chapter-4. Public consultation is presented in Chapter-5. Resettlement Policy, Legal and Administrative Framework is given in Chapter-6. Chapter-7 is on Institutional Arrangement for implementation of resettlement action plan. Relocation and Resettlement Site Plan is given in Chapter-8. Implementation Schedule is presented in Chapter-9. Resettlement Assistance Plan and Cost Estimates are presented in Chapter-10. Finally Monitoring and Evaluation is given in Chapter-11.

CHAPTER-2 STUDY APPROACH AND METHODOLOGY

2.1 INTRODUCTION

The objective of Social Impact Assessment (SIA) is to prepare a complete inventory of structures, affected families and persons, to identify social impacts, and to prepare Resettlement Action Plan (RAP) as a part of SIA. In order to capture data for the present exercise, both primary as well as secondary sources were systematically tapped. As a part of SIA, socioeconomic survey has been conducted in association with M/s Snehal Engineering, in the Corridor of Impact zone to identify the affected structures, families/persons and list out the adverse impacts of the project, secondary sources information were collected from a number of quarters such as from Census data, Statistical hand book, concerned departments, and a host of other literature. Thus, the secondary sources information complemented the primary data elicited through field survey from the affected people and other stakeholders. Since the social impact assessment is the basis of resettlement plan preparation, it is imperative to describe the various stages of the exercise.

2.2 SIA PREPARATION PROCESS

Social impact assessment and resettlement action plan is required when the project results in either physical or economic displacement of the people. Resettlement plan must ensure that the livelihoods of people affected by the project are restored to levels prevailing before inception of the project. While preparing an effective SIA, the consultant followed some essential components and steps which are (i) identification of socio-economic impacts of the project;(ii) public/community consultation;(iii) legal framework for land acquisition and compensation;(iv) entitlement policy and matrix;(v) organizational responsibilities;(vi) relocation and resettlement;(vii) income restoration; and (viii) implementation schedule;(ix) detail R&R budget; and (x) monitoring, evaluation and reporting.

The approach that was adopted to conduct social impact assessment and to prepare RAP is described below and is structured on the scope of work as mentioned in the Term of Reference (TOR). The SIA which includes RAP has been prepared with special reference to the guidelines of JICA and R & R Policy for MUTP, 1997 (amended in 2000).

Figure 2.1 presents approach and methodology of SIA study in the form of flow chart and various steps involved in the study have been described in detail in the following paragraphs.

- Study of relevant documents, reports and project alignment drawing.
- Site visits and information dissemination about the project
- Enumeration of structures and mapping by plane table survey.
- Review and analysis of socio-economic survey data
- Consultations and meetings with PAFs,
- Community/Public Consultations for motivation and how the Metro Line-3 will benefit the people,
- Changes incorporated in accordance with the change in drawings,
- Minimize impacts on structures,

FIGURE-2.1
APPROACH AND METHODOLOGY FOR SIA

STEP 1

Mobilization

- Discussion with MMRC, JICA

STEP 2

Desk Research

- Review of relevant literature, alignment drawing, Acts, Policies, Guidelines
- Data Collection from Secondary Sources
- Development of Tools for Data Collection

STEP 3

Field Studies

- Site visits for verifying the alignment on the ground & identifying the affected area
- Meeting & Discussion with community people
- Mapping and enumeration of structures
- Training of Investigators
- Household Socio-economic survey
- Public/Community Consultation

STEP 4

Data Analysis

- Coding, Tabulation & Compilation of collected data
- Analysis of Baseline Data
- Analysis of social impacts and Discussion
- Preparation of RAP

STEP 5

Report

- Presentation
- Submission of Data Report
- Submission of Draft Final Report
- Submission of Final Report

STEP 6

- Drafting update of the SIA
- Submission of updated Draft Report
- Submission of updated Final Report

2.3 DESK RESEARCH

The consultant reviewed the relevant documents, reports and project alignment drawing. For conducting socio-economic survey, a verification exercise to identify the project areas based on alignment drawings and key stakeholders of the project was carried out. The information verified during this exercise formed the base for carrying out the detailed socio-economic survey.

2.4 SITE VISITS AND CREATING AWARENESS

Before start of Baseline Social Economic Study, MMRC has published a notification on 12th December 2011, informing people about the proposed metro rail Line-III project, in Hindustan Times in English and Navbharat Times in Hindi. Please refer to Annexure 2.1 and 2.2 respectively for copy of the notifications. In addition to the above MMRC has published one more handbill explaining the salient features of the project both in English and Marathi, which was extensively used by the interim consultant to create awareness among the PAPs and PAFs. A copy of the handbill was attached to the report as Annexure – 2.5.



The field visits and studies were conducted during December 2011 to April, 2012. RITES team visited the sites along with MMRDA officials to verify the alignment drawings on the ground and to identify the affected area. After identifying the affected areas RITES, MMRDA and SPARC officials consulted with different stakeholders at the project area and organized meetings with them to generate awareness about the project.

Followed by these visits several field visits were conducted during September 2013 to July 2015, by Interim Consultant's team independently also with MMRC officials. Most of these visits are to interact with the affected communities and make them aware of the proposed project; its details, advantages and impact and collect relevant data or information for the preparation Baseline Social Economic Study report also options for R&R.

During site visits it was found that majority of affected people belong to six station locations namely Kalbadevi, Girgaon, Acharya Atre Chowk, BKC, Marol Naka, and MIDC. The survey team began by holding community meetings in those areas that are to be enumerated. Information about the metro project and the survey procedure (from the numbering of structures to filling out forms) is shared with the community; they are also informed about the kinds of documents needed for the survey.

2.5 ENUMERATION OF STRUCTURE AND MAPPING

Before the actual household socio-economic survey, all the structures which were likely to be visited by M/s Snehal Engineering survey team were identified. Simultaneously a structured Questionnaire for the household survey was designed and pretested in the field. Important aspects covered in the Questionnaire were identification particulars of PAFs/PAPs, social profile, family details, occupation, source of income, family expenditure, document proofs, household assets, information on affected structure, commercial/self-employment activities, employment pattern, opinion and views of PAPs on project and resettlement and rehabilitation options. A copy of the questionnaire used for Socio-economic Household Survey is presented in Annexure-2.3.



2.6 SOCIO-ECONOMIC SURVEY

After mapping and enumeration of the structures likely to be affected in the project area, household socio-economic survey was carried out to assess impact of the proposed corridor on socio-economic conditions of affected families. The household social survey was carried out by survey team of M/s Snehal Engineering with the help of a pre-tested “Household Questionnaire”. Prior to commencement of social survey at household level, Social Development Experts of Interim Consultants provided one day training to the investigators of M/s Snehal Engineering on important aspect of the Questionnaire. The aspects covered in the Questionnaire were identification particulars of PAFs/PAPs, social profile, family details, occupation, source of income, family expenditure, document proofs, household assets, information on affected structure, commercial/self-employment activities, employment pattern, opinion and views of PAPs on project and resettlement and rehabilitation. Most part of the questionnaire has been pre-coded except those reflecting the opinion and views of PAP, which have been left open-ended. A copy of Questionnaire for Socio-economic Household Survey is presented in Annexure-2.3. Before filling the questionnaires, the affected families were asked to have a copy of the necessary documents they need to produce as proof of their existence in that particular structure and place. So documents like-ration card, electricity bills, voter’s card or any other documents were verified.



2.7 COMPILATION AND VERIFICATION OF DATA

Survey forms duly filled were consolidated and entered into a database. This information were updated on a regular basis as and when data for incomplete forms were filled in. The data were later shared with the communities to cross-check if anyone has been left out due to some reasons or if extra counting has been done.

2.8 DATA ANALYSIS AND REPORT WRITING

Once the data were collected and finalized with all the necessary changes, analysis of collected data was done for different sections.

2.9 COMMUNITY AND PUBLIC CONSULTATION

Preliminary public consultations and discussions were conducted with the help of MMRDA officials to officially introduce the survey teams to the public. Several rounds of community meetings with potential PAFs / PAPs as well as general public and group discussions at particularly proposed metro rail station locations were organized. The objective of conducting public consultations was to obtain the views and suggestions of the potentially affected persons to minimize adverse social impacts. These consultations involved persons from various sections and walks life such as traders, women, squatters, kiosks and other inhabitants. Special care was taken during the study to hold discussions with women groups separately to elicit the adverse effects that they are anticipating due to the project and their suggestions for mitigating the foreseeable adverse effects. During public consultations, information flow, grievance redress system, safety, role of administration etc. were also discussed.

The methods adopted for conducting public consultation were (i) Walk-through informal group consultation at station locations, (ii) Public meetings, (iii) Focus Group Discussions (FGD) with different groups of affected people including residential groups, traders, and slum dwellers (squatters), (iv) In-depth individual interviews, through structured questioners (v) Discussions and

interviews with key informants, (vi) Sharing the opinion and preferences of the PAPs. A format for public consultation is presented in Annexure-2.4.

The present 'Census Baseline Socio Economic Survey' study is nothing but the continuation of the previous study conducted by M/s RITES, by the Interim Consultant. Thus the present report is based on the new survey conducted by the interim consultant that has considered the latest modifications made both in alignment and drawings of the line III as well the PAPS and PAFs.

2.10 LIMITATIONS OF THE STUDY



Before starting the survey process the survey teams went to the area and to remind the people to keep the required identification and other relevant documents ready. However conducting Social survey of potentially affected communities is rarely a smooth and hindrance-free process. Following are the limitations of such studies due to various hindrances in the field:

1. Despite frequent and repeated visits made by survey team, some households were never present or come in front of the survey team to reveal the required information.
2. Incomplete documentation, locked houses, non-responders: the surveyors have to come back repeatedly to these houses in order to record accurate and complete forms
3. In some locations like Acharya Atre Chowk, Girgaon and Kalbadevi, people did not respond to the survey team while conducting household survey. This is one of the main reasons for delay in survey work and non-completion of data collection.
4. The Base Line Socioeconomic Survey (BSES) for Acharya Atre Chowk is completed earlier.
5. But after all the people of Girgaon and Kalbadevi have come forward to extend their cooperation in conducting the Base Line Socioeconomic Survey (BSES). The work is in progress.
6. People were protective and possessive of their homes. Therefore, they often stopped survey work and demanded that the concerned government officials should explain them personally; convincing such which persons to cooperate for the survey is a difficult task.
7. Due to frequent objections, non-cooperation of local people at the ground level, the data collection of total affected areas has not yet been completed. The present draft SIA report has been prepared based on the data collected by M/s Snehal Engineering as of October 2015. However, the survey team tries to enumerate all structures and families which are likely to be affected.

In spite of all these problems every effort was made for making this study very realistic to the existing situation.

CHAPTER-3 IMPACTS AND INVENTORY LOSS

3.1 BACKGROUND

The socio-economic survey was carried out during September 2013 to 5th October, 2015 to assess the impact of proposed metro rail project. Some corrections in the name of PAPs and minimization of impact on structures have incorporated during updating of SIA in the month of October 2017. A structured and pre-tested questionnaire was used to collect detailed information about households who are going to be affected by the proposed project and to document the project impact on their assets, incomes and livelihood. The objective of the socio economic survey was to generate an inventory of social and economic impacts on the people affected by the project; type of impact, type of ownership, social profile of the affected people, poverty status, the presence of non-titleholders in the project area, also views of the affected PAPs about the project and on various options for rehabilitation and resettlement. The major findings and magnitude of impacts are discussed in the following sections. List of PAPs of each affected area is given in Field Data Report (Volume-II).

3.2 OVERALL PROJECT IMPACT

Table 3.1 indicates overall project impacts. 77.32 ha of land shall be acquired for the purpose of temporary and permanent usages. Total 2744 structures of residential, commercial, residential cum commercial and others were identified in the area to be affected by the project. Based on the property identification, the number of PAFs has been determined. Total number of PAFs identified is about 2622. This number may change as the data for Girgaon & Kalbadevi is not fully incorporated till even. The report includes only surveyed PAFs. Total 1837 affected families have been surveyed and the data thus collected forms the basis of the report. Out of total identified 2622 affected families, 703 PAFs are titleholders and 1919 PAFs are non-titleholders. About 1837 PAFs and 744 PAFs (744 commercial and 41 Residential cum commercial) will lose their residential and business respectively. About 187 vulnerable families will be affected.

TABLE 3.1 OVERALL PROJECT IMPACTS

Sr. No.	IMPACT	MAGNITUDE
1	Acquisition of Land (in Ha)	77.32
2	Impact on Structure (No.)	2744
2.1	Impact on PAPs	6867
2.2	Total PAFs (No.)	2622
2.3	Surveyed PAFs	2622
2.4	Surveyed PAPs	6867
3	Titleholder (No.)	703
4	Non-Titleholder (No.) (Including others)	2041
5	Loss of Residence	1837
6	Loss of Business	785
7	Vulnerable PAFs	187
8	Impact on Community Resources	122

3.3 LAND REQUIREMENT AND ACQUISITION

The proposed Metro project shall require land for different purposes. Land is mainly required for route alignments of rail tracks, station buildings, station platforms, station entry/exit structures, traffic integration, car shed, power sub-stations, ventilation shafts, administrative buildings, maintenance and construction depots and work sites etc. Land required for the Construction of Cut & Cover station or New Austrian Tunneling Method (NATM) stations are earmarked. Construction depot land shall be required temporarily, however land requirements for maintenance depot at Aarey Colony, stations and traction sub-stations are on permanent basis. Land resource is scarce commodity in Mumbai metropolitan areas. Acquisition of land shall make affected families landless and houseless in most of the cases. Therefore, every effort has been made to keep land requirements to the barest minimum by realigning the alignments away from private property / human habitation. After planning, the land requirement is kept at minimum and particularly, acquisition of private land was avoided.

The table below (Table 3.2) summaries all the permanent land required above ground (for locating entry/exits, ventilations shafts, ancillary building etc.) and below ground (for locating station box & connections to entry/exits, ventilation shafts, ancillary building etc.) and temporary land required for the construction of Mumbai Metro Line 3 Project.

The project shall require the acquisition/transfer of 77.32 ha of land excluding land required for the construction of depot. The land required for Depot which is 3.72 ha after presuming the shifting of proposed depot at Kanjur Marg for which 61 ha of land will be required This entire 61 ha of land at Kanjur Marg belongs to central Govt./ State Govt.

Now the government has allotted 29.79 ha land at Aarey Colony for construction of depot.

The details of land requirement and acquisition are presented in Table 3.2.

TABLE 3.2 IMPACTS ON LAND RESOURCES

Pkg. No.	Name of the Station	Government Land				Private Land			
		Red	Yellow	Green	Total Area in Sq. Mtr.	Red	Yellow	Green	Total Area in Sq. Mtr.
Pkg. 1	Colaba / Cuff Parade	854	0	27906	28760	0	0	138	138
Pkg. 1	Vidhan Bhavan	705	1643	23731	26078	129	320	444	893
Pkg. 1	Churchgate	807	0	4255	5062	0	171	596	767
Pkg. 1	Hutatma Chowk	288	24	2575	2887	48	4	189	241

Pkg. No.	Name of the Station	Government Land				Private Land			
		Red	Yellow	Green	Total Area in Sq. Mtr.	Red	Yellow	Green	Total Area in Sq. Mtr.
Pkg. 1	Muck Disposal (Kalwar)	0	0	19300	19300	0	0	0	0
Pkg. 1	Casting Yard (Wadala Depot Phase III)	0	0	0	35870	0	0	0	0
Pkg. 2	CST Metro	718	0	31030	31748	0	0	0	0
Pkg. 2	Kalbadevi	0	0	3000	3000	8051	0	38	8090
Pkg. 2	Girgaon	0	0	950	950	815	147	363	1325
Pkg. 2	Grant Road Metro	354	0	1690	2044	214	50	338	602
Pkg. 2	BBRS (Gymkhana Plot)	0	0	9890	9890	0	0	0	0
Pkg. 2	Casting Yard (Wadala Depot Phase II)	0	0	43160	43160	0	0	0	0
Pkg. 3	Mumbai Central Metro	166	80	189	435	0	0	0	0
Pkg. 3	Mahalaxmi Metro	126	0	8461	8588	23	416	708	1147
Pkg. 3	Science Museum	2666	0	10344	13010	201	0	606	807
Pkg. 3	Acharya Atrey Chowk	498	0	1577	2075	139	188	1096	1423
Pkg. 3	Worli	1136	29	1316	2481	222	590	4576	5388
Pkg. 3	Muck Disposal (Dapode)	0	0	22	22	0	0	0	0
Pkg. 3	Casting Yard (Wadala Depot Phase II)	0	0	39988	39987	0	0	0	0
Pkg. 4	Siddhivinayak	0	0	22040	22040	0	4	64	68
Pkg. 4	Dadar Metro	60	0	29	89	38	0	187	225
Pkg. 4	Shitaladevi Temple	550	0	300	850	534	0	198	732
Pkg. 4	Naya Nagar Mahim, Mid Launching Shaft	0	0	3865	3865	0	0	0	0
Pkg. 4	Mahim Desai Maidan (Addl. Land)	0	0	2862	2862	0	0	0	0
Pkg. 4	Muck Disposal (Dapode and Waliv)	0	0	15.85 ha.	15.85 ha.	0	0	0	0

Pkg. No.	Name of the Station	Government Land				Private Land			
		Red	Yellow	Green	Total Area in Sq. Mtr.	Red	Yellow	Green	Total Area in Sq. Mtr.
Pkg. 4	Casting Yard (Wadala Depot Phase II)	0	0	39988	39987	0	0	0	0
Pkg. 5	Dharavi	746	0	3405	4151	2197	0	445	2642
Pkg. 5	Bandra (BKC) Metro	3729	5941	1018	10688	0	0	0	0
Pkg. 5	Vidyanagari Metro	1033	4567	11172	16772	0	144	383	527
Pkg. 5	Santacruz Metro	676	2051	8283	11010	0	0	0	0
Pkg. 5	Agripada, Mid Launching Shaft	676	1530		2206	0	0	0	0
Pkg. 5	Casting Yard (Village Anik, Tal. Kurla)	0	0	70011	70010	0	0	0	0
Pkg. 6	CSIA (Domestic)	9852		26562	36414	0	0	0	0
Pkg. 6	Sahar Road	11754		27109	38863	0	0	0	0
Pkg. 6	CSIA (International)	11933		56965	68898	0	0	0	0
Pkg. 6	Casting Yard (Aarey Colony)	13100	0	0	13100	0	0	0	0
Pkg. 7	Marol Naka	198	341	13811	14349	1441	866	1342	3649
Pkg. 7	MIDC	1008	4039	5528	10575	266	771	2165	3202
Pkg. 7	SEEPZ	825	406	8158	9389	222	96	2924	3243
Pkg. 7	Casting Yard (Aarey Colony)	16900	0	0	16900	0	0	0	0
Pkg. 7	Aarey Depot	297900	0	0	297900	0	0	0	0

3.4 INVENTORY OF STRUCTURE LOSS

Table 3.3 indicates impact of the proposed project on the different types of structures i.e. residential, commercial, residential cum commercial and other types and Table 3.3 indicates types of impact fully on the property. The proposed project would impact upon total 2744 structures. Out of the total structures, 1837 are residential, 744 are commercial and 41 are residential cum commercial and others 122. 70 industrial structures have been identified as affected structures at Marol Naka and they are relocated.

TABLE 3.3 IMPACTS ON STRUCTURES

Name of the Location	Total Affected Structures	Residential (R)	Commercial (C)*	Residential cum Commercial (R+C)	Others Structures other than R, C & R+C
Cuffe Parade	4	0	3	0	1
Vidhan Bhavan	58	11	4	0	43
Churchgate	27	0	26	0	1
Hutatma Chowk	7	0	6	0	1
CST	6	0	2	0	4
Kalbadevi	319	81	238	0	0
Girgaon	315	210	100	3	2
Grant Road	27	0	27	0	0
Mumbai Central	27	0	19	0	8
Mahalakshmi	28	4	9	2	13
Science Museum	20	1	18	1	0
Aacharya Atre Chowk	67	26	32	0	9
Worli	5	0	4	0	1
Siddhivinayak	6	0	3	0	3
Dadar	5	0	3	0	2
Shitaladevi	8	0	8	0	0
Naya Nagar, Mahim	362	329	19	13	1
Dharavi	27	11	16	0	0
BKC	157	124	24	7	2
Bandra Nr. Jagat Vidya Chawl	10	8	0	1	1
Vidyanagri	11	1	10	0	0
Santacruz	1	0	0	0	1
Agripada	39	19	14	3	3
Sahar Road	179	170	3	3	3
Marol Naka*	132	19	105	0	8
MIDC	513	476	27	3	7
SEEPZ	6	0	3	0	3
Sariput Nagar/ Aarey Colony	262	235	21	3	3
Additional for revised drg. Sariput Nagar	29	29	0	0	0
Supplementary Sariput Nagar / Aarey Colony	87	83	0	2	2
Total	2744	1837	744	41	122

* Industrial Structures are included in Commercial

Table 3.4 indicates the magnitude of project impact on the structures, which is categorized as partially affected structures or fully affected structures. Total 2744 structures are fully affected and there is no partial affected structure.

TABLE 3.4 TYPE OF AFFECT

Name of the Location	Partially	Fully	Total
Colaba / Cuff Parade	0	4	4
Vidhan Bhavan	0	58	58
Churchgate	0	27	27
Hutatma Chowk	0	7	7
CST Metro	0	6	6
Kalbadevi	0	319	319
Girgaon	0	315	315
Grant Road Metro	0	27	27
Mumbai Central Metro	0	27	27
Mahalaxmi Metro	0	28	28
Science Museum	0	20	20
Acharya Atrey Chowk	0	67	67
Worli	0	5	5
Siddhivinayak	0	6	6
Dadar Metro	0	5	5
Shitaladevi Temple	0	8	8
Naya Nagar Mahim	0	362	362
Dharavi	0	27	27
Bandra (BKC) Metro	0	157	157
Bandra Nr. Jagat Vidya Chawl	0	10	10
Vidyanagari Metro	0	11	11
Santacruz Metro	0	1	1
Agripada	0	39	39
CSIA (Domestic)	0	0	0
Sahar Road	0	179	179
CSIA (International)	0	0	0
Marol Naka	0	132	132

Name of the Location	Partially	Fully	Total
MIDC	0	513	513
SEEPZ	0	6	6
Sariput Nagar/Aarey Colony	0	262	262
Additional for revised drg. Sariput Nagar	0	29	29
Supplementary Sariput Nagar / Aarey Colony	0	87	87
Total	0	2744	2744

3.5 IMPACT ON FAMILIES AND PEOPLE

Table 3.5 shows that about 2622 families are affected due to the proposed metro rail project. Out of the total 2622 families, 26.81% are in the category of Title Holders (TH) and 73.19% are the Non-Title Holders (NTH) category. The NTH category includes squatters and kiosks. The squatters and kiosks are on public land without any legal permission. Those have been duly relocated at the suitable place.

TABLE 3.5: IMPACT ON AFFECTED FAMILIES

Name of the Location	Category of PAFs		
	Title holder	Non-title holder	Total PAFs
Cuffe Parade	0	3	3
Vidhan Bhavan	13	2	15
Churchgate	0	26	26
Hutatma Chowk	0	6	6
CST	2	0	2
Kalbadevi	319	0	319
Girgaon	313	0	313
Grant Road	0	27	27
Mumbai Central	0	19	19
Mahalakshmi	0	15	15
Science Museum	0	20	20
Aacharya Atre Chowk	0	58	58
Worli	0	4	4
Siddhivinayak	0	3	3
Dadar	0	3	3
Shitladevi	1	7	8
Naya Nagar, Mahim	0	361	361
Dharavi	0	27	27

Name of the Location	Category of PAFs		
	Title holder	Non-title holder	Total PAFs
BKC	0	155	155
Bandra Nr. Jagat Vidya Chawl	0	9	9
Vidyanagri	0	11	11
Santacruz	0	0	0
Agripada	0	36	36
Sahar Road	0	176	176
Marol Naka	55	69	124
MIDC	0	506	506
SEEPZ	0	3	3
Sariput Nagar / Aarey Colony	0	259	259
Additional for revised drg. Sariput Nagar	0	29	29
Supplementary Sariput Nagar / Aarey Colony	0	85	85
Total	703	1919	2622

3.6 LOSS OF RESIDENCE

Table 3.6 indicates that out of the total 2622 PAFs, out of 1837 some PAFs had already been resettled and remaining will be resettled as their residential units are getting affected due to the proposed project.

TABLE 3.6 LOSS OF RESIDENCE

NAME OF THE LOCATION	RESIDENTIAL PAFs			
	PAFs	Male	Female	Persons (Total)
Colaba / Cuff Parade	0	0	0	0
Vidhan Bhavan	11	21	25	46
Churchgate	0	0	0	0
Hutatma Chowk	0	0	0	0
CST Metro	0	0	0	0
Kalbadevi	81	0	0	0
Girgaon	210	338	340	678
Grant Road Metro	0	0	0	0
Mumbai Central Metro	0	0	0	0
Mahalaxmi Metro	4	13	5	18
Science Museum	1	1	3	4
Acharya Atrey Chowk	26	18	25	43

NAME OF THE LOCATION	RESIDENTIAL PAFS			
	PAFs	Male	Female	Persons (Total)
Worli	0	0	0	0
Siddhivinayak	0	0	0	0
Dadar Metro	0	0	0	0
Shitaladevi Temple	0	0	0	0
Naya Nagar Mahim	329	635	526	1161
Dharavi	11	29	41	70
Bandra (BKC) Metro	124	228	204	432
Bandra Nr. Jagat Vidya Chawl	8	15	15	30
Vidyanagari Metro	1	1	2	3
Santacruz Metro	0	0	0	0
Agripada	19	58	42	100
CSIA (Domestic)	0	0	0	0
Sahar Road	170	417	379	796
CSIA (International)	0	0	0	0
Marol Naka	19	3	12	15
MIDC	476	969	781	1750
SEEPZ	0	0	0	0
Sariput Nagar/Aarey Colony	235	324	315	639
Additional for revised drg. Sariput Nagar	29	18	17	35
Supplementary Sariput Nagar / Aarey Colony	83	118	122	240
Total	1837	3206	2854	6060

3.7 LOSS OF BUSINESS

Table 3.7 indicates the loss of business base. Out of the total 2622 PAFs, 785 PAFs shall be resettled for their business base. 807 people depending on earning from business shall get affected. Kalbadevi and Girgaon area is most affected where 43.38% of the total PAFs affected due to the loss in business base.

TABLE 3.7 LOSS OF BUSINESS

NAME OF THE LOCATION	COMMERCIAL and Residential cum Commercial PAFs			
	PAFs	Male	Female	Persons (Total)
Colaba / Cuff Parade	3	3	0	3
Vidhan Bhavan	4	5	9	14
Churchgate	26	25	3	28
Hutatma Chowk	6	7	1	8
CST Metro	2	2	0	2
Kalbadevi	238	0	0	0
Girgaon	103	114	28	142
Grant Road Metro	27	35	4	39
Mumbai Central Metro	19	14	0	14
Mahalaxmi Metro	11	17	2	19
Science Museum	19	19	1	20
Acharya Atrey Chowk	32	26	5	31
Worli	4	4	0	4
Siddhivinayak	3	0	0	0
Dadar Metro	3	2	1	3
Shitaladevi Temple	8	10	1	11
Naya Nagar Mahim	32	34	14	48
Dharavi	16	15	10	25
Bandra (BKC) Metro	31	30	5	35
Bandra Nr. Jagat Vidya Chawl	1	0	0	0
Vidyanagari Metro	10	4	4	8
Santacruz Metro	0	0	0	0
Agripada	17	18	3	21
CSIA (Domestic)	0	0	0	0
Sahar Road	6	8	3	11
CSIA (International)	0	0	0	0
Marol Naka	105	231	15	246
MIDC	30	36	3	39
SEEPZ	3	3	0	3
Sariput Nagar/Aarey Colony	24	20	11	31
Addl. for revised drg. Sariput Nagar	0	0	0	0

NAME OF THE LOCATION	COMMERCIAL and Residential cum Commercial PAFs			
	PAFs	Male	Female	Persons (Total)
Supplementary Sariput Nagar / Aarey Colony	2	1	1	2
Total	785	683	124	807

3.8 IMPACT ON VULNERABLE POPULATION

As per the JICA guidelines vulnerable group is defined as indigenous people, ethnic minorities, the poorest, women, the aged, the disabled and other socially/economically vulnerable groups who would be adversely affected from a project. But as per the R&R Policy for MUDP, 2000, vulnerable households such as women headed households, handicapped and the aged. It does not cover the poorest (BPL family), SCs and STs who are considered socially and economically backward as per the Indian Constitution.

The proposed metro project shall affect total 187 vulnerable families consisting 545 vulnerable people. Out of 187 vulnerable PAFs comprised 7.12% and vulnerable PAPs is 7.93%. Highest vulnerable people are living in Aarey Colony (Sariput Nagar) area. Details of vulnerable population identified are as follows:

TABLE 3.8 VULNERABLE POPULATION

NAME OF THE LOCATION	VULNERABLE PAFs & PAPs	
	PAFs	PAPs
Colaba / Cuff Parade	0	0
Vidhan Bhavan	0	0
Churchgate	0	0
Hutatma Chowk	0	0
CST Metro	0	0
Kalbadevi	0	0
Girgaon	0	0
Grant Road Metro	0	0
Mumbai Central Metro	0	0
Mahalaxmi Metro	1	3
Science Museum	0	0
Acharya Atrey Chowk	0	0
Worli	0	0
Siddhivinayak	0	0
Dadar Metro	0	0
Shitaladevi Temple	0	0
Naya Nagar Mahim	41	113
Dharavi	2	5
Bandra (BKC) Metro	20	53
Bandra Nr. Jagat Vidya Chawl	0	0
Vidyanagari Metro	1	3
Santacruz Metro	0	0
Agripada	0	0
CSIA (Domestic)	0	0

NAME OF THE LOCATION	VULNERABLE PAFs & PAPs	
	PAFs	PAFs
Sahar Road	10	41
CSIA (International)	0	0
Marol Naka	0	0
MIDC	34	60
Supplementary MIDC	0	0
SEEPZ	0	0
Sariput Nagar/Aarey Colony	78	267
Additional for revised drg. Sariput Nagar	0	0
Supplementary Sariput Nagar / Aarey Colony	0	0
Total	187	545

The report is prepared with following considerations:

- *Vulnerable families are: families such as scheduled castes/ Tribes, BPL families and women headed households (widows/ destitute women/ unmarried or spinsters).*
- *Vulnerable people are: All the above categories of people and old aged (65 and above) and the physically Challenged individuals in various families constitute vulnerable people.*

3.9 IMPACT ON COMMUNITY RESOURCES

Table 3.9 indicates the impact of the proposed metro project on community resources. The project shall impact total 122 community resources. Out of the total 122 structures, 17 religious structures, 13 public toilets and 92 other type of structures shall be affected due to the project activities.

TABLE 3.9 IMPACTS ON COMMUNITY RESOURCES

AREA	LOSS OF COMMON RESOURCES			TOTAL
	RELIGIOUS STRUCTURE	PUBLIC TOILET	OTHERS	
Colaba/ Cuff Parade	0	1	0	1
Vidhan Bhavan	1	0	42	43
Churchgate	0	0	1	1
Hutatma Chowk	0	0	1	1
CST Metro	0	0	4	4
Kalbadevi	0	0	0	0
Girgaon	0	0	2	2
Grant Road Metro	0	0	0	0
Mumbai Central Metro	0	1	7	8
Mahalaxmi Metro	2	4	7	13
Science Museum	0	0	0	0
Acharya Atrey Chowk	2	4	3	9
Worli	0	0	1	1
Siddhivinayak	1	0	2	3
Dadar Metro	0	0	2	2
Shitaladevi Temple	0	0	0	0
Naya Nagar Mahim	1	0	0	1
Dharavi	0	0	0	0

AREA	LOSS OF COMMON RESOURCES			TOTAL
	RELIGIOUS STRUCTURE	PUBLIC TOILET	OTHERS	
Bandra (BKC) Metro	1	0	1	2
BKC (Near Jagat Vidya CHS Chawl)	1	0	0	1
Vidyanagari Metro	0	0	0	0
Santacruz Metro	0	0	1	1
Agripada	2	0	1	3
CSIA (Domestic)	0	0	0	0
Sahar Road	2	0	1	3
CSIA (International)	0	0	0	0
Marol Naka	0	1	7	8
MIDC	1	0	6	7
Supplementary MIDC	0	0	0	0
SEEPZ	0	1	2	3
Sariput Nagar/Aarey Colony	2	0	1	3
Supplementary Sariput Nagar/Aarey	1	1	0	2
Total	17	13	92	122

CHAPTER-4 BASELINE SOCIO-ECONOMIC STUDY

4.1 THE PROJECT AREA-AN OVERVIEW

Mumbai is the largest metropolitan city of India known as commercial capital. Census 2011 recorded Mumbai population as 12,442,373 which was 11,914,398 in Census, 2001. The decade growth rate of population during 2001-11 was 4.42%. Table 4.1 describes the demographic profile of Mumbai. The area of Mumbai is 437.71sq. Km and accommodates 12,442,373 people including 6,715,931 male and 5,726,442 female. As per the Census record of 2011, Scheduled Caste population comprises 6.46% of the total population and Scheduled Tribe population comprises 1.04% share of the total population in Mumbai. The sex ratio is about 852 female per 1,000 male. The population growth rate over last ten years in Mumbai is about 4.42% (2001-11), birth rate 12.29%, death rate about 6.06% and Infant mortality rate is about 37%. According to Census 2001, the population density of Mumbai is worked out at 26,722 persons per sq. km. Population density at All-India level has been worked out at 324 persons per sq. km. in 2001. Table 4.1 indicates that there are 9.23 million literate people and the literacy rate is about 81.05%. Out of the total literate population, 83.89% are male and 77.72% are female. Total working population is 4.53 million. Out of the total workers, main workers are 41.91%, marginal workers 3.30%.

TABLE - 4.1 SOCIO-ECONOMIC CHARACTERISTICS OF MUMBAI (in million)

Sr. No.	DESCRIPTION	UNIT	Mumbai
1.0	Area	sq. km	437.71
2.0	Population (million)	No.	12.44
2.1	Male (million)	No.	6.71
2.2	Female (million)	No.	5.72
2.3	Scheduled Castes	%	6.46
2.4	Scheduled Tribes	%	1.04
3.0	Sex ratio (female per 1000 of male)	No.	852.00
4.0	Density (person per Sq.km)	No.	26722.00
5.0	Slum Population	No	9.00
6.0	Literate (million)	No.	10.08
6.1	Literacy Rate	%	81.05
6.1.1	Male	%	83.89
6.1.2	Female	%	77.72
7.1	Main Workers	%	41.91
7.2	Marginal Workers	%	3.30

Source: Census of India-2011

The density of population in Mumbai is comparatively high in the country. The increasing population, high population density and limited land area have collectively increased the traffic volume of the city. The increasing traffic volumes on road need alternative public transport system for effective commutation.

Metro Rail network was perceived to be fast, convenient and environmental friendly. In the process, Maharashtra government has completed the construction of line I metro rail and is now operational.

The proposed metro corridor shall have the length of 33.5 km, which is considered necessary to provide the required level of transport in the city in view of population and area spread.

The metro transport system is considered suitable being fast and clean transport system, however it also displaces people from their home and business base in a place like Mumbai where roof for shelter and base for business are most desired. The adverse impacts of metro rail project are minimal in comparison to the other surface transport systems. MMRC requires the census social survey to identify the PAFs, inventory of the property, assess the socio-economic condition of the project affected people to address their issues related to resettlement and rehabilitation as well as the public opinion on the proposed project. This chapter begins with the details of the project area in general and baseline information about the project affected people in particular. The information gathered in this chapter enable us to understand the impact of the project on the socioeconomics of the PAFs and on the area.

4.2 PROFILE OF PROJECT AFFECTED FAMILIES

A detailed socio-economic survey was conducted in conjunction with the census of the project affected persons (PAPs) to profile the impacted project area and provide a pedestal against which mitigation measures and support will be measured. For this purpose comprehensive information related to demographic, social, economic, structure, employment, community resources and other information such as awareness about the project were collected. This information was collected through a structured "Household Questionnaire".

This analysis is based on the responses from PAPs. Data revealed that due to the proposed metro line-3 project about 2622 numbers of families will be affected either because of loss of residential, commercial establishments. Of the total 2622 affected families (Residential- 1837, Commercial-744 and Residential cum Commercial-41). Data has been compiled and presented in the following sections of this chapter.

4.2.1 Demographic and Social Conditions

The proposed project shall affect approximately 2622 PAFs. Out of the total PAFs, 1837 PAFs consisting of 6060 PAPs have been covered under the census survey. The baseline socio-economic data and analysis is based on the surveyed PAFs.

4.2.1.1 Gender and Sex Ratio

The data on gender divide and sex ratio is very helpful indicator to know the participatory share of males and females in the society, which is also an important indicator for human development index. Among the surveyed population it is observed that there are 52.90% are male and remaining 47.10% are female. The sex ratio is 893 per 1000 males.

4.2.1.2 Religious and Social Groups

Data on religious groups have been collected in order to identify people with the specific religious belief among the PAFs. The religious beliefs and social affiliation of the people are indicators that help understand cultural behavior of the groups. The social and cultural behavior will help understand the desires and preferences of PAPs, which is a prerequisite to rehabilitate the affected people and their families. Table 4.2 shows that the Hindus (Hinduism) is the largest affected religious group among the project affected families, which is followed by Muslims and then by other religions such as Christians. The study result shows that majority (55.00%) belongs to Hindu religion followed by Buddhist (10%), Muslims (28%), Jains (5%), Shikh (1%) and then by Christians (1%).

Table 4.2 discloses information about social affiliation of a group. The social affiliation of the group differentiates them for benefits under government schemes. Social groups indicate ranking within the society, preferences and vulnerability. In general, the families belonging to Scheduled Castes (SC) and Scheduled Tribes (ST) under the provisions of the Constitution of India get preferential treatment in the government benefits because the group includes the people who are traditionally vulnerable. Except general category, all other groups need attention and to be addressed for their backward socio-economic conditions. The surveyed households belong to the Scheduled Castes 10%, Other Backward Classes (OBC) 12%, Nomadic Tribes (NT) 1%, Scheduled Tribes 5% and 71% is identified in general caste category.

4.2.1.3 Mother Tongue and Place of Nativity

A majority of families (47%) speak Marathi as a mother tongue, followed by 1% who speak Urdu, 32% Hindi, 5% speak Gujrathi, 7% speak Tulu, and 4% speak Telagu.

Majority of surveyed families are from Maharashtra.

4.2.1.4 Age Group

The persons of surveyed families have been categorized in to five age groups. The distribution of person's age in various group shows that 31.53% belong to 18-34 years age group and 16.68% belong to 35-44 years age; which is potentially productive group followed by 28.15% of the total persons belong to the below 18 years age group who are dependent population. About 16.19% belong to 45-59 years age group and 7.45% belong above 60 years age group. (Table 4.1).

4.2.1.5 Family Pattern and Family Size

Family Pattern and Family Size indicate the fabrics of sentimental attachment among the family members, social value, economic structures and financial burdens. The family particulars of the surveyed PAPs/ PAFs are given in Table 4.2. Out of total Project Affected Families, family size is determined by the economic burden and opportunities. Family size has been classified into three categories i.e. small (< 2), medium (3-5) and large (> 5). Single member families have also been included in the small family size. Table 4.2 shows most of the families have their member less than five. Majority of the families (53.81%) are medium sized family, 29.19% are small and individual type with ≥ 2 member. Only 16.98% of the families are with members more than five. The data shows the preponderance of medium sized families over other sized families in the project area.

Marital Status: The marital status of project affected people is indicated under three categories – married, unmarried, other including divorced/widowed. It is observed that out of total surveyed PAPs, majority of them 53.86% are married, 42.83% are unmarried and only 3.31% are in other types which includes widowed/divorced/separated.

TABLE 4.2 SOCIO-DEMOGRAPHIC PROFILE

SR. NO	DESCRIPTION	VALUE
1	Sex Ratio (females per 1000 males)	893
	Male	3206 (52.90%)
	Female	2854 (47.10%)
2	Religious Group	
	HINDU	55%
	MUSLIM	28%
	BUDDHIST	10%
	CHRISTIAN	1%
	SIKH	1%
	JAIN	5%
3	Social Group	
	General	71%
	SC	10%
	OBC	12%
	ST	5%
	NT	1%
	VJ	1%
	ADIVASI (1 No.)	0.06%
4	Language	
	MARATHI / KONKANI	47%
	HINDI / BHOJPURI	32%
	URDU	1%
	TAMIL / TELUGU / MALAYALAM	4%
	TULU / KANNADA	7%
	GUJARATI / MARWADI / RAJASTHANI	5%
	ENGLISH / GOAN	1%
	BANGALI	1%
	TRIPURI / NEPALI / UDIYA /	1%
	PUNJABI / SINDHI	1%
	WARLI (1 No.)	0.06%
5	Age Group	
	< 18 Years	28.15%
	18-34	31.53%
	35-44	16.68%
	45-59	16.19%
	>60	7.45%
6	Marital Status	
	Married	53.86%
	Unmarried	42.83%
	Others	3.31%
7	Family Size	
	Small (Less than 2)	29.19%
	Medium (3-5)	53.81%
	Large (> 5)	17%
8	Type of Family	
	Nuclear	61.88%
	Joint	23.57%

SR. NO	DESCRIPTION	VALUE
	Single	14.55%

**Percentages are calculated for each asset against total surveyed PAFs*

4.2.1.6 Educational Attainment

Education is a double-edged blade. It is a tool for vertical mobility in the society. It provides an opportunity to participate in the process of growth and development. However it also creates differences among people and introduces a new kind of inequality between those who have it and those who do not. In all the cases, education is a basic need and the best indicator of socio-economic development of the region. Out of the total surveyed population, about 19.23% are educated up to primary class, 50.75% are educated up to secondary level, and 12.90% have studied up to Higher Secondary level. 13.42% of the affected people have done their graduation. 3.7% of the total surveyed PAFs have gained technical education.

TABLE 4.3: Educational Attainment

Sr. No.	DESCRIPTION	VALUE
1	Literacy Level	
	Literate	80.85%
	Illiterate	19.15%
2	Education Level	
	Primary	19.23%
	High School	50.75%
	Higher Secondary	12.90%
	Graduate	13.42%
	Technical	3.7%

**Percentages are calculated for each asset against total surveyed PAFs*

4.2.2 Economic Conditions of PAFs

The economic condition of PAFs describes occupational pattern, family income, and number of earning and dependent members. The occupational pattern includes work in which the head of the project affected families are involved. The family income includes income of all the earning members. The earning members include the people who work and earn to contribute to the family; however dependents include housewife, children, elderly people and others who cannot work and earn. About 30% of families reported less than ₹ 2500/- monthly income. About 9% of families' monthly income is between ₹ 2501 to 5000/-. About 29% of families' monthly income is between ₹ 5001 to 10000/-, 32% of families' income is more than ₹ 10001/-. The average income of a family is ₹4720/- per month. (Table 4.4).

An attempt was made to collect the information about loan taken by the family for various purposes. Our keen interest was to see the housing loan or the loan taken for either purchase of new house or renovation of the house. If the family has equal income and expenditure or less income and more expenditure, to manage the daily expenses, the family has to avail the loan and it is another aspect to measure the economic status of the family. It is important to mention here that most of the

respondents did not want to give the information on the issue of indebtedness. Only eight surveyed families have availed loan for one or the other purpose.

TABLE 4.4: ECONOMIC CONDITIONS OF PAF

Sr. No.	DESCRIPTION	VALUE
1	Avg. Monthly Income	4720.00
2	Monthly Household Income (in ₹)	
	UPTO Rs. 2,500/-	30%
	Rs. 2,501/- to Rs. 5,000/-	9%
	Rs. 5,001/- to Rs. 10,000/-	29%
	Above Rs. 10,001/-	32%

**Percentages are calculated for each asset against total surveyed PAFs*

4.2.2.1 Employment Status

The occupation and profession of the head of family has been considered during the social survey (residential and residential plus commercial). The study recorded and assessed the capability, base for livelihood and skills of the family head, so that resettlement impacts can be assessed. Based on the impact assessment rehabilitation plans shall be prepared accordingly. The survey results in Table 4.5 shows that majority 66.97% of the head of project affected families are engaged in private jobs, 15.61% are self-employed, 7.17% are casual labor and 5.90% are employed in service of public sectors and government jobs.

TABLE 4.5: EMPLOYMENT STATUS OF PAF

Sr. No.	DESCRIPTION	VALUE
1	Nature of Employment	
	Government Service	5.90%
	Private Service	66.97%
	Self Employed	15.61%
	Casual Worker	7.17%
	Pensioner	4.35%

**Percentages are calculated for each asset against total surveyed PAFs*

4.3 HOUSEHOLD ASSETS

The household assets indicate the prosperity and paucity of the household. Table 4.7 reveals the household assets of the project affected families. The fan, music system, television, two wheeler, radio, bicycle, refrigerator, cooking gas, motor bike and car are the common property assets found in the project impact area. The material base of consumable goods among the PAFs has significant presence. It is observed that most of the PAFs have owned these items in their households. The PAFs consider that their consumable material base, that they have in their households, as need of day and necessary to survive in cities like Mumbai.

Table 4.6 indicates that 95.65% PAFs own cooking gas connections, 98.49% PAFs own fan, 55.13% music/radio system, 82.44% televisions, 14.71% two-wheelers, 63.65% refrigerator, 31.83% washing machines, 9.29% computers.

TABLE 4.6 HOUSEHOLD ASSETS

Sr. No.	DESCRIPTION	VALUE
1	Gas	95.65%
2	Fan	98.49%
3	Music System	55.13%
4	Television Set	82.44%
5	Two-Wheeler	14.71%
6	Refrigerator	63.65%
7	Washing Machine	31.83%
8	Computer	9.29%

**Percentages are calculated for each asset against total surveyed PAFs*

4.4 COMMERCIAL/SELF EMPLOYMENT ACTIVITIES

Table 4.7 indicates commercial and self-employment activities among the commercial PAFs. 0.88% of the total interviewed PAFs are running their own small hotels and dhabas, 5.37% own tea and snacks hotels, 1.72% PAFs own workshop. The shop owners get license from MCGM. Out of the total interviewed PAFs, 98.61% are holding license and 1.31% of the PAFs have no formal license to operate the shops. The employment pattern indicates the number of people involved in the business activities. 27.82% of the total PAFs operate their business and shops without any additional help from employee. 69.13% PAFs have employed 1-5 employees, 3.05% PAFs have employed 5 & above people in their work. The proposed metro project shall have cumulative impacts on both the PAFs as well as their employed people.

TABLE 4.7: COMMERCIAL/SELF EMPLOYMENT ACTIVITIES

Sr. No.	DESCRIPTION	VALUE
1	Year of Establishment	
	Less than 5 years	2.82%
	5 – 10 years	1.81%
	10 – 20 years	26.81%
	20 -50 years	47.19%
	50 years and above	21.37%
2	Type of Shop	
	Hotel	0.88%
	Tea & Snacks	5.37%
	Repair & Workshop	1.72%
	Other Shops	88.77%

Sr. No.	DESCRIPTION	VALUE
	Other Enterprise	3.26%
3	No. of Shops got License from BMC	
	Yes	98.61%
	No	1.39%
4	Employment Pattern	
	Owner/Operator	27.82%
	Employed 1-5 persons	69.13%
	Employed 5 & above	3.05%

**Percentages are calculated for each asset against total surveyed PAFs*

4.5 DOCUMENTS AVAILABLE

The survey team has verified the documents available with the PAFs. The documents available with PAFs were ration card, name in census record, voter id, AADHAR card, electric connection. Out of the total PAFs, 96.85% have ration cards and 3.15% are without ration cards. 94.29% of the PAFs have electric connections and meter, however 5.71% are without the meter (Table 4.8).

TABLE 4.8 DOCUMENTS AVAILABLE

Sr. No.	DESCRIPTION	VALUE
1	Ration Card	
	Yes	96.85%
	No	3.15%
2	No. of PAFs have Electric Meter	
	Yes	94.29%
	No	5.71%

4.6 INFORMATION ON STRUCTURE

The proposed project will affect government, private and community property resource structures. These structures are mainly of three uses - residential, commercial, and residential cum commercial and others. The study identified three types of structures, based on construction material of the wall and floor/roof, which are: kaccha (temporary) structures, which largely consist of mud/straw walls with tile roof; semi-pucca made of wooden walls with tin/roof, and pucca (permanent)- these are made of brick or concrete walls with concrete and/corrugated tin roof. The details of structures and impacts of the proposed project have been described in Chapter 3.

Table 4.9 indicates that of total affected structures 66.94% are residential, 27.11% are commercial, 1.49% are residential cum commercial and 4.46% are of other types. The structures are classified into two categories. 3.68% of the structures are kaccha, 96.32% pucca. Further the age of the structures are also collected for valuation of the structures. 13.64% of the building structures are constructed before 1960, 2.88% of the building structures are constructed during 1961-1970, 15.03% during 1971-1980, 21.72% during 1981-1990, 37.56% during 1991-2000, 4.38% during 2001-2010 and only 4.79% are constructed after 2010. 97.41% have electric connections, 76.39% have water connections of BMC, and 99.13% have phone/mobile connections in their house.

TABLE 4.9 INFORMATION ON STRUCTURE

Sr. No.	DESCRIPTION	VALUE
1	Use of Structure	
	Residential	66.94%
	Commercial	27.11%
	Residential-cum- Commercial	1.49%
	Others	4.46%
2	Type of Construction	
	Kaccha	3.68%
	Pucca	96.32%
3	Age of Structure (Year of Construction)	
	<1960	13.64%
	1961-1970	2.88%
	1971-1980	15.03%
	1981-1990	21.72%
	1991-2000	37.56%
	2001-2010	4.38%
	2011 and after	4.79%
4	Utility Connection	
	Electricity	97.41%
	Water	76.39%
	Phone/ Mobile	99.13%

4.7 AWARENESS AND OPINION ABOUT THE PROJECT

During the socio-economic survey, some questions were asked to the PAPs regarding the awareness, source of information and opinion about the proposed metro rail project. The findings of the survey with regards to awareness, source of information and opinion about the proposed project are presented in Table 4.10. Out of the total PAFs, 98.13% of the respondents were aware of the proposed Mumbai metro rail, however 1.87% said that they had no information about the proposed metro development. Out of total respondents, 97.12% considered it as a good government initiative for transport infrastructure development; however 1.78% replied it as being a bad option because it shall destroy their business base and source of livelihood while 2.10% PAFs had no opinion about the proposed metro development.

TABLE 4.10 PROJECT RELATED INFORMATION

Sr. No.	DESCRIPTION	VALUE
1	Awareness about the Project	
	Yes	98.13%
	No	1.87%
2	Source of Information	
	Project Meeting	98.43%
	News Paper	1.57%
3	Opinion about the Project	
	Good	97.12%
	Bad	1.78%
	Can't Say	2.10%

CHAPTER-5 PUBLIC CONSULTATION

5.1 BACKGROUND

Public consultation is a continuous process throughout the project period, during project preparation and implementation stages. The sustainability of any infrastructure development depends on the participatory planning in which public consultation plays major role. To ensure peoples 'participation in the planning phase of this project and to treat public consultation and participation as a continuous two way process, numerous events were arranged at various stages of project preparation i.e., Detailed Project Report (DPR). Aiming at promotion of public understanding and fruitful solutions of developmental problems such as local needs and problem and prospects of resettlement, various stakeholders i.e., displaced persons, government officials, local community leaders, people and elected representatives of the people are consulted through community meetings, focus group discussions, individual interviews and formal consultations. The project will therefore ensure that the displaced population and other stakeholders are informed, consulted, and allowed to participate actively in the development process. This will be done throughout the project, both during preparation, implementation of project.



Keeping in mind the significance of consultation and participation of the people likely to be affected or displaced due to the proposed project, public consultation has been taken up as an integral part of social and environmental assessment process of the proposed metro rail project. Consultations were used as a tool to inform and educate stakeholders about the proposed action both before and after the development decisions were made. It assisted in identification of the problems associated with the project as well as the needs of the population likely to be affected. This participatory process helped in reducing the public resistance to change and enabled the participation of the local people in the decision making process.

Initial Public consultation has been carried out in the project areas with the objectives of minimizing probable adverse impacts of the project and to achieve speedy implementation of the project through bringing in awareness among the community about the benefits of the project.

5.2 OBJECTIVES OF THE CONSULTATION

The basic objective of consultation is to explore R & R measures for affected people in project area with specific objectives as follows:

- Disseminate information to the people about the project in terms of its activities and scope of work; and understand the views and perceptions of the people affected and local communities with reference to acquisition of land or loss of property and its due compensation.
- Understand views of affected people on land acquisition and resettlement options;
- Identify and assess major economic and social information and characteristics of the project area to enable effective social and resettlement planning and its implementation.
- Resolve issues related to impact on community property and their relocation.
- Establish an understanding for identification of overall developmental goals and benefits of the project.

5.3 APPROACH AND METHODS OF CONSULTATION

Preliminary public consultations and discussions were conducted by study team with the help of MMRC officials through community meetings with Project Affected Persons (PAPs) as well as general public and group discussions at particularly proposed metro rail station locations. The consultation process involved various sections of affected persons such as traders, women, squatters, kiosks and other inhabitants. During public consultations, issues related to land acquisition, compensation, information flow, grievance redress, safety, role of administration etc. were discussed. The Social Impact Assessment (SIA) addresses all issues raised during public consultation and recommends institutional strengthening measures as well. The following methods were adopted for conducting public consultation:

- Walk-through informal group consultation at station locations.
- Public meetings
- Focus Group Discussions (FGD) with different groups of affected people including residential groups, traders, and slum dwellers (squatters).
- In-depth individual interviews
- Discussions and interviews with key informants
- Sharing the opinion and preferences of the PAPs



The consultations have also been carried out with special emphasis on the vulnerable groups. The key informants included both individuals and groups namely (i) Head of households; (ii) Household members; (iii) Small business entrepreneurs (SBEs); (iv) Local people; (v) Local leader; (vi) Community based organizations (CBOs) and Non-Governmental Organization (NGOs); (vii) Squatters; (viii) Kiosks; (ix) Government agencies and departments. Public consultations were organized at six places namely Girgaon, Acharya Atre Chowk, Dharavi, Santacruz, Marol Naka and MIDC. The number of participants in consultation is 1712, which include different representatives from different echelon of the society.

5.4 CONSULTATION AT PROJECT AFFECTED AREA

Public consultation meetings were organized at places namely Kalbadevi, Girgaon, Acharya Atre Chowk, Naya Nagar (Mahim), BKC, Santacruz, Agripada (Santacruz), Sahar Road, Marol Naka, MIDC and Sariput Nagar. The details are given in Table 5.1. The number of participants in the consultations was approximately as indicated in table 5.1, which include different representatives from different echelon of the society. The minutes of the meetings and signature of the participants are given in Annexure-5.1 to Annexure-5.17.

**TABLE 5.1
DETAILS OF PUBLIC CONSULTATION AT AFFECTED AREA**

Place	Date	No of Participants	Issues Raised
Dharavi	16/01/2012	34	Relocation, Job Opportunity, shifting allowance,
Santacruz	17/01/2012	45	Displacement, relocation, compensation, job opportunity, transit camp
Acharya Atre Chowk	18/02/2012	6	Changing of station location
Marol Naka	20/04/2012	72	Displacement, relocation, special package, compensation
MIDC			Displacement, alternative accommodation,
Kiran Nagar-1	23/01/2012	13	inclusion of 1st floor, job opportunity, relocation of religious place, social amenities
Kiran Nagar-2	09/02/2012	36	
Pandit Deen Dayal Upadhyay Nagar	21/02/2012	48	
Girgaon	13/01/2014	14	Land Acquisition, Demolition of Structure, Displacement
BKC (Dnyaneshwar Nagar)	28/11/2014	205	Displacement, relocation, special package, compensation
Agripada, Dharavi	02/12/2014	39	Relocation, Job Opportunity, shifting allowance,
Sariput Nagar	11/12/2014	202	Displacement, relocation, special package, compensation
MIDC	26/12/2014	307	Displacement, relocation, special package, compensation
Kalbadevi, Girgaon	02 to 04 March 2015	332	Land Acquisition, Demolition of Structure, Displacement
Sahar (Shanti Nagar)	12/03/2015	128	Displacement, relocation, compensation, job opportunity, transit camp,
Janata/ Naya Nagar (Mahim)	29/07/2015	231	Displacement, relocation, special package, compensation
Kalbadevi and Girgaon	09-12-2016	73	In-Situ rehabilitation and redevelopment of PAPs
Kalbadevi and Girgaon	13-12-2016	64	In-Situ rehabilitation and redevelopment of PAPs
Kalbadevi and Girgaon	14-12-2016	118	In-Situ rehabilitation and redevelopment of PAPs
Kalbadevi and Girgaon	15-12-2016	55	In-Situ rehabilitation and redevelopment of PAPs
Kalbadevi and Girgaon	31-01-2017	20	In-Situ rehabilitation and redevelopment of PAPs

Some of the important views expressed and suggestions given by the participants are given in **Table 5.2**.

**TABLE 5.2
ISSUES DISCUSSED AND MMRC REPLY**

Sr. No.	Issues Discussed	MMRC Reply
1	Many people in the project area were not aware about the project although public notification has been given through newspaper of English, Hindi and local language;	--
2	People consented to cooperate if adequate compensation is given	R&R benefits will be given as per Govt. Policy.
3	Most people preferred to resettle near their previous place of residence and business;	The people may join local SR Scheme of private Developer if feasible. Else will be resettled in R&R colonies where tenements are available.
4	Affected families should be properly rehabilitated before commencement of construction work of the project	The resettlement is carried out as per R&R policy prior to commencement of construction work.
5	Minimum 300 to 400 sq. ft. area should be provided to residentially affected families;	The Residential PAPs will be provided tenements as per Govt. policy.
6	PAPs wanted to know when the construction work would commence	The data of commencement of the project will be intimated to PAPs.
7	Job opportunity should be given to one member of each affected family	Policy related to job opportunity will be considered by MMRC.
8	<p>PAPs asked about creation of employment opportunities during construction and operation of the project for them;</p> <p>In slum area, particularly at MIDC & Santacruz, PAPs demanded constructed house for all affected families who have separate door and separate kitchen and not based on legal documents</p>	<p>-do-</p> <p>The PAPs will be identified on the basis of Baseline Socio-Economic Survey (BSES)</p>
9	People of slum area demanded to include all families in the list of social survey whether affected or not;	Issue is not clear, BSES may cover all families in the area but families affected by the project will only be resettled.
10	All social amenities should be provided in resettlement site	The amenities will be provided as per the R & R policy and S. R. regulations.
11	In case the commercial people are disturbed, the project proponent should build commercial complex nearby area and should give priority to the affected people;	The people may join local SR Scheme of private Developer if feasible. Else will be resettled in R&R colonies where tenements are available.
12	People suggested for uninterrupted social life during the construction phase	MMRC will ensure smooth transfer of PAPs to the R&R site before start of project construction work for not to disturb the social life of PAPs. MMRC will take necessary mitigation measures to minimize the impacts of construction activities on social life.

Sr. No.	Issues Discussed	MMRC Reply
13	People also suggested a proper compensation package to be granted who are losing their properties;	R&R benefits will be given as per Govt. Policy.
14	Minimum 225 sq. ft. area should be given to commercially affected people	Under R&R policy commercial areas or size only equivalent to affected area can be provided. Maximum 750 sq. ft. out of which 225 sq. ft. will be free of cost.
15	Shifting allowance should be given to all displaced PAFs	Such benefits will be given as per the policy.
16	If people are dislocated temporarily, they should be given proper compensation and alternative accommodation	Such benefits will be given as per the policy.
17	No transit camp during construction of the project	Suggestion not clear. Transit accommodation if provided by MMRC will be in R & R colonies.
18	People of Santacruz (Gate-1) suggested that Stamp Duty Ready Reckoner should be followed to determine the rate of commercial and residential affected structure	Monetary Compensation is available to only land title holders and will be as per rules governing acquisition of land. Any other monetary compensation will be as per R & R policy.
19	Religious place should not be disturbed	All structures affected by the project will have to be shifted / resettled.
20	The compensation should be based on the current market value.	Monetary Compensation is available to only land title holders and will be as per rules governing acquisition of land. Any other monetary compensation will be as per R & R policy.
21	People suggested that adequate safety measures should be provided for Uninterrupted social life.	MMRC will take adequate safety measures during construction of the project.
22	People would like to receive regular updates on project	Public Information center can be opened and operated.



5.5 PUBLIC CONSULTATION/HEARING AT CITY LEVEL

Vide newspaper Notification dated 5th April, 2012 a public consultation/hearing was organized at Insurance Institute of India, G Block, Plot No-46, BKC, Bandra (E), Mumbai on 11th April 2012 for inviting suggestions and objections from concerned stakeholders on environment and social issues of the proposed Metro Line-3. About 200 stakeholders attended and 27 stakeholders raised their suggestions/objections. A summary of the public hearing is given in Annexure-5.9. Detail of suggestions and objections raised by stakeholders on social issues and MMRC remark is given in Table 5.3.



**TABLE 5.3
DETAILS OF PUBLIC HEARING ON SOCIAL ISSUES**

Date & Time	Venue	Token No.	Issues	Suggestion/Object ion	MMRC Remark
11th April,2012	Insurance Institute of India (College of Insurance), G Block, Plot No. C-46, Bandra-Kurla Complex, Bandra(E), Mumbai-400 051	17	Numbering during Social Survey	Some numbers are put in slums at Marol Naka. What is the meaning of that? From where will the project start? Whether the numbers will increase or decrease? When we can get an idea? When and where will we be shifted?	Slum numbering is part of survey work being done for SIA. Project extends from Colaba to SEEPZ MMRC is in process of determining R&R sites. The actual impact for resettlement will depend on detailed designs. Affected persons will be shifted to R& R Colony where tenements are available
		61		Your officers also should come. People at home are getting afraid because some people came to put the number in their slums. Please do not give to any agency to put no. Only MMRC officers/staff should come for this. Please give the prior date on Sundays so that all the concerned association people are called.	
11th April,2012	Insurance Institute of India (College of Insurance), G Block, Plot No. C-46, Bandra-Kurla	5	Public Meeting	We want to know about the problems we will be facing because of this metro line 3? One more hearing	MMRC can hold meetings with representatives of people and provide necessary information to them.

Date & Time	Venue	Token No.	Issues	Suggestion/Object ion	MMRC Remark
	Complex, Bandra(E), Mumbai-400 051			for PAPs may be held? VAG experience is very bad.	
		57		Meeting should be arranged in the area of Project affected people. All PAPs should be taken in to Confidence, enquired about project whether U/G.	MMRC can hold meetings with representatives of people and provide necessary information to them.
		64		When will you conduct the next meeting? You have to declare the meeting date today. There should be transparency in conducting survey of slums. Enquired about 1 point contact Officer from MMRC Advised to form a committee amongst them.	The details of survey will be explained to PAP, Stakeholders. Survey is being conducted by NGO SPARC and process is transparent. MMRC has designated Community Development Assistance to address R&R issues of this project.
11th April,2012	Insurance Institute of India (College of Insurance), G Block, Plot No. C-46, Bandra-Kurla Complex, Bandra(E), Mumbai-400 051	34	Displacement & Rehabilitation	Line 3 is very good for the future of Mumbai. We cannot deny the role of slum people for the development of Mumbai. When we lose our place; please give us good place to settle within the same locality. So that we can serve the	PAPs can join local Slum Rehabilitation Scheme if such scheme is promoted by developer and is feasible. If SRA Scheme is not feasible PAPs will be shifted to nearby R&R colony depending on availability of

Date & Time	Venue	Token No.	Issues	Suggestion/Object ion	MMRC Remark
				<p>people of Mumbai.</p> <p>Please explain why you cannot settle us in nearby places. It is good for the future of our country.</p>	tenements.
		35		<p>Rehabilitate PAPs nearby and do not send to far off place. Take confidence of PAPs living in slums.</p> <p>People have got different views.</p>	As above (token No.34)
		77		<p>Numbers put on slums in Marol area and enquired about reason.</p> <p>Enquired about R&R compensation / TDR.</p> <p>What is the criteria for rehabilitation?</p> <p>Whether you will take care of owner?</p>	Survey being done for SIA. The rehabilitation will be done as per MUTP R&R policy approved by Govt. and based on BSES.
		66	Project Implementation	When line 3 will be implemented practically? What are the SRA plans?	Implementation of Mumbai Metro Line-3 is proposed between 2013 and 2019.
11th April,2012	Insurance Institute of India (College of Insurance), G Block, Plot No. C-46, Bandra-Kurla Complex, Bandra(E), Mumbai-400 051	72	Changing of RG/PG and basic facilities in R&R sites	<p>There are more than 10,000 houses at Chimatpada. How you are going to settle them? Whether MMRC is the authority to change the RG/PG.</p> <p>There is a PIL and court order for no</p>	MMRC does not have the authority to change the D. P. reservations but it can examine the matter and offer possible help. The R&R colonies are provided facilities as per the SR Scheme norms.

Date & Time	Venue	Token No.	Issues	Suggestion/Object ion	MMRC Remark
				<p>development and enquired about whether metro can be constructed.</p> <p>He enquired about SRA schemes.</p> <p>Basic facilities like schools, markets, temple etc. to be constructed.</p>	
		80	Job Opportunity	Benefit to be given to people affected by metro. They need job in Metro. They need house there only.	PAPs can join SRA Scheme if locally feasible else will be rehabilitated in R&R colonies.

5.6 INFORMATION DISCLOSURE AND CONSULTATION

During social survey, meetings and focus group discussions were conducted to get wider public input from the primary and secondary stakeholders. The roadside communities, particularly the affected small business enterprises, took tremendous interests in the meetings. This consultative approach led to identification of issues related to designing of underground stations at populated areas, road improvements before construction of metro corridors, reducing disruption of livelihoods and improved design for roadside amenities/services for the traveling public. Most importantly, the affected communities strongly felt a sense of participation in the decision-making process.

Information disclosure is persuaded for effective implementation and timely execution of Resettlement. For benefits of PAPs and community in general SIA should be disclosed by MMRC.

During project implementation, MMRC shall provide information related to entitlement policy and various options to the PAPs and community through its Public Information Centre (PIC). MMRC will prepare an information brochure in local language, i.e., Marathi and Hindi, explaining the SIA, the entitlements and the implementation schedule. The SIA is required to be disclosed to the affected persons and other stakeholders.



5.7 COMMUNITY PARTICIPATION DURING PROJECT IMPLEMENTATION

The effectiveness of the Resettlement is directly related to the degree of continuing involvement of those affected by the project. Several additional rounds of consultations with PAPs will be required during resettlement. Consultations during resettlement plan implementation shall involve offer and choice of options if any. Another round of consultation shall occur when compensation and assistance are provided and actual resettlement start.



The following set of activities will be undertaken for effective implementation of the plan:

a) MMRC will conduct information dissemination sessions in the project area and solicit the help of the local community/ leaders and encourage the participation of the PAP's in RAP implementation.

b) Consultation and focus group discussions will be conducted at the affected areas with the vulnerable groups like women, families of BPL,

Scheduled Castes and Scheduled Tribes to ensure that the vulnerable groups understand the process and their needs are specifically taken into consideration.

c) MMRC with the help of Consultant / NGO will organize public meetings, and will appraise the communities about the progress of RAP implementation. Regular update of the program of resettlement component of the project will be placed for public display at the project offices.

d) MMRC and field offices will maintain an ongoing interaction with PAPs to identify problems and undertake remedial measures.



CHAPTER-6 RESETTLEMENT POLICY AND LEGAL FRAMEWORK

6.1 LEGAL FRAMEWORK

This chapter discusses about the existing laws and regulations of the country and states that are applicable to the work of Land Acquisition and resettlement for proposed Mumbai Metro Rail Line-3 corridor. In addition, JICA Guidelines, 2010 are adopted since the Japanese ODA loan will be utilized for the implementation of the project. It is very important to analyze the Acts and Policies to understand the legalities and procedures in implementing the project. Therefore, the legal framework in which the proposed metro rail project will be implemented with respect to social issues as well as JICA guidelines for environmental and social consideration has been summarized in this chapter. The applicable laws on land acquisition and resettlement for the Mumbai metro rail project are:

- The Metro Railways (Construction of Works) Act, 1978; amended in 2009.
- Maharashtra Regional Town Planning Act, 1966
- JICA Guidelines for Environmental and Social Consideration, April 2010
- Resettlement and Rehabilitation Policy for Mumbai Urban Transport Project (MUTP), 1997 (Amended in 2000)

The following section deals with these policies with a comparison and subsequently deals with the entitlements and eligibility for compensation and other resettlement entitlements.

6.2 The Metro Railways (Construction of Works) Act, 1978; amended in 2009:

The most relevant Indian regulation for facilitating construction of Metro Railway Project is the Metro Railways (Construction of Works) Act, 1978; amended in 2009. This Act is the principal document for procedures to be followed for construction of Metro corridors for public purposes. Further, the Act provides adequate provisions for land acquisition and compensation.

The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 is the act in force for the Land Acquisition, Rehabilitation and Resettlement process. This act vide section 105 states that "The Central Government shall, by notification, within one year from the date of commencement of this Act, direct that any of the provisions of this Act relating to the determination of compensation in accordance with the First Schedule and rehabilitation and resettlement specified in the Second and Third Schedules, being beneficial to the affected families, shall apply to the cases of land acquisition under the enactments specified in the Fourth Schedule or shall apply with such exceptions or modifications that do not reduce the compensation or dilute the provisions of this Act relating to compensation or rehabilitation and resettlement as may be specified in the notification, as the case may be." The Metro Railways (Construction of Works) Act, 1978 is included in the Fourth Schedule. The notification of Central Government in this regard issued and accordingly the provisions in the relevant act will be applicable for Land Acquisition, Rehabilitation and Resettlement for the Project.

Following table highlights important provisions in the Act:

TABLE 6.1: MAIN ELEMENTS OF METRO RAILWAYS (Construction of works) ACT 1978

Sections of the Act	Provisioned for
1	Application or Scope of the Act
6	Provisions related to acquisition of land.
7 - 12	Procedure for land acquisition
13	Determination of amount of Compensation
17	Land Acquisition Act 1 of 1894 not to apply.-Nothing in the Land Acquisition Act, 1894, shall apply to an acquisition under this Act.
Institutional Arrangements for Implementation of the Act:	
Chapter II	Metro Railway Administration

6.3 Maharashtra Regional Town Planning Act, 1966

As per the Maharashtra Regional Town Planning Act, 1966; land is being acquired under section 126 for public purposes as specified in plans:- (1) When after the publication of a draft Regional Plan, a Development or any other plan or town planning scheme, any land is required or reserved for any of the public purposes specified in any plan or scheme under this Act at any time the Planning Authority, Development Authority, or as the case may be, any Appropriate Authority may, except as otherwise provided in section 113A to acquire the land,-

(a) By an agreement by paying an amount agreed to, or

(b) In lieu of any such amount, by granting the land-owner or the lessee, subject, however, to the lessee paying the lessor or depositing with the Planning Authority, Development Authority or Appropriate Authority, as the case may be, for payment to the lessor, an amount equivalent to the value of the lessor's interest to be determined by any of the said Authorities concerned on the basis of the principles laid down in the Land Acquisition Act, 1894, Floor Space Index (FSI) or Transferable Development Rights (TDR) against the area of land surrendered free of cost and free from all encumbrances, and also further additional Floor Space Index or Transferable Development Rights against the development or construction of the amenity on the surrendered land at his cost, as the Final Development Control Regulations prepared in this behalf provide

6.4 JICA's GUIDELINES ON INVOLUNTARY RESETTLEMENT

The JICA guidelines for environmental and social considerations¹ are applicable to this project subject to provisions in this SIA report. The SIA report has been prepared in accordance with the requirements of the JICA on Involuntary Resettlement. The involuntary resettlement may cause severe long-term socio-economic hardships, impoverishment and environmental damages unless appropriate measures are carefully planned and carried out. The JICA requires that involuntary resettlement should be avoided where feasible, or minimized exploring all viable alternative project designs. In cases, it becomes unavoidable, then the affected persons should be meaningfully consulted providing them an opportunity to participate in the resettlement program. They should be assisted in their efforts to improve their livelihoods and standard of living or at least to restore these, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher. This approach endorses the eligibility of all the categories of persons, whether with formal legal rights or without these rights, in a project, but occupying project area prior to the cut-off date established by the borrower and acceptable to the Bank.

¹The Guidelines for Environmental and Social Considerations (hereafter, the "new Guidelines") and the Objection Procedures based on the Guidelines for Environmental and Social Considerations (hereafter, the new "Objection Procedures") were put into effect on July 1, 2010.

6.5 RESETTLEMENT AND REHABILITATION POLICY FOR MUTP, 1997 (amended in 2000)

Government of Maharashtra had appointed a task force in 1995 under the chairmanship of a former chief secretary to the state of Maharashtra consisting of members from the Government, private sector, NGOs and civil society to prepare a policy framework for resettlement and rehabilitation of persons affected by the project. Based on the recommendations of the committee, GOM had issued a Government Resolution (GR) adopting the policy in March, 1997 which was later amended to incorporate certain changes suggested by the Bank to bring the policy in line with the World Bank's Operational Directive 4.30 on involuntary resettlement. This policy is called Resettlement and Rehabilitation for Mumbai Urban Transport Project, 1997 (as amended in December, 2000). (Annexure-6.1).

The R&R policy shall be applicable to Metro Line -3 project wide the Government Resolution MRD – 3311 / Pr. No. -149 Na. Vi. 7 dated March 03, 2014.

The main objectives and principles of the policy are:

- a) Involuntary resettlement should be avoided or minimized where feasible, exploring all viable alternative project designs.
- b) Where displacement is unavoidable; to develop and execute resettlement plans in such a manner that displaced persons are compensated for their losses at replacement cost just prior to the actual move, displaced persons are assisted in their move and supported during the transition period in the resettlement site and displaced persons are assisted in improving or at least restoring their former living standards, income earning capacity and production levels; and to pay particular attention to the needs of poorer-settlers in this regard,
- c) To accord formal housing rights to the PAPs at the resettlement site. Such rights shall be in the form of leasehold rights of the land to the co-operative society of the PAPs and occupancy rights of built floor space to the members of the society. The membership of the co-operative society and the occupancy rights will be jointly awarded to the spouses of the PAP household. The documents in this respect will be the leasehold agreement with the co-operative society, which will include a list of its members and description of dwelling unit allotted to each member. The members of the co-operative society will receive a share certificate signifying the membership of the society.
- d) To develop and implement the details of the resettlement program through active community participation by establishing links with the community based organizations; and
- e) To make efforts to retain existing community network in the resettlement area, wherever this is not feasible to make efforts to integrate the resettled population with the host community, and to minimize the adverse impact, if any, on the host community.

The policy ensures meaningful consultations with stakeholders in planning and implementation of the resettlement program in order to suitably accommodate their inputs and make rehabilitation and resettlement plan more participatory and broad based. The policy ensures benefits of R&R to PAPs including non-title holders if they are enumerated during baseline survey for lost assets at replacement value. The policy also ensures payment of compensation and resettlement assistance prior to taking over the possession of land and commencement of any construction activities. The policy offers resettlement option to the affected community; which is a tenement of 20.91 sq. m in multistoried buildings. Vulnerable households such as women headed households, handicapped and the aged will be given additional package of rehabilitation services. The Grievance Redressal Committee appointed by MMRC shall have the power to consider and dispose of all complaints relating to Eligibility and Entitlement.

6.5.1 ELIGIBILITY AND ENTITLEMENT MATRIX

As per the MUTP R&R policy all legitimate occupants of land and building affected by MUTP will be eligible for the benefits of R&R. PAPs who are squatters and not legal titleholder of land and buildings shall also be eligible for R&R if enumerated during the baseline survey. Therefore, the date of completion of baseline survey shall be the Cut-off date. It is on this date that all impacted persons will be identified and the nature of the impact disclosed. PAPs who settle in the affected areas after the cut-off date will not be eligible for compensation and/or other assistance. They, however, will be given sufficient advance notice, requested to vacate premises and dismantle affected structures prior to project implementation.

For land acquisition, generally the MMRC may offer two options to the land owners. These include (i) cash compensation, (ii) award of TDR/FSI and Local Redevelopment.

Determination of amount payable for acquisition will be decided as per the Metro Railways (Construction of Works) Act.

In case of resident landlords, tenement in the R&R colony is provided in addition to the legal compensation fixed by competent authority under Metro Railway Construction act. However, resident landlords who opt for cash supplement in lieu of 20.91 sq. m. of structure in a resettlement colony, the cash supplement equivalent to cost of construction of floor space (subject to a max. of 20.91 sq. m) occupied prior to resettlement will be offered.

The people who do not have legal title, affected by this project and losing houses are entitled to tenements of area measuring 20.91 sq. m. The affected shopkeepers are entitled to an equivalent area, if affected area is less than 20.91 sq. m. If the affected area is more than 20.91 sq. m., the owners would be provided commercial unit up to 20.91 sq. m. area free of cost and they would be entitled for maximum area up to 70 sq. m. However, they have to pay the ready reckoner rates of above 20.91 sq. m. In addition, there is a provision for providing compensation to those whose travel distances to place of work increases. The entitlement matrix provides category wise details regarding the entitlements in relation to the R&R principles enumerated above. The following Table 6.2 presents the entitlement matrix for the proposed metro rail project.

TABLE 6.2 - MUTP R&R ENTITLEMENT MATRIX

Sr. No.	Category of RAP	Legal Compensation	Rehabilitation		
			Monetary Supplementary	Type of Shelter related Rehabilitation	Price to be Charged
1.	Non-resident land Owners (including farmers and horticulturist)	Market value of land and building according to LA Act.	Nil	Nil	

Sr. No.	Category of RAP	Legal Compensation	Rehabilitation		
			Monetary Supplementary	Type of Shelter related Rehabilitation	Price to be Charged
	Non-resident lessees	Appointment of compensation for the unexpired period of lease according to LA Act.	Nil	Nil	
2	Resident landlord (land and building including farmers and horticulturists)	As in 1 above	Nil	<p>Cash supplement equivalent to cost of construction of floor space (subject to a max. of 20.91 sq. m) occupied prior to resettlement.</p> <p>OR</p> <p>Floor space equal to self-occupied floor area, subject to maximum of 70 sq. m., irrespective of use of floor space.</p>	First 20.91 sq. m of floor space free of cost and at actual cost for the area in excess thereof.
	Resident lessee of land and building	Apportionment of compensation for the unexpired period of lease according to LA Act.	Nil	Floor space equal to self-occupied floor area, subject to maximum of 70 sq. m., irrespective of use of floor space	First 20.91 sq. m of floor space free of cost and at actual cost for the area in excess thereof.
3.	Resident lessees, tenants or sub-tenants or sub-tenants of buildings	Shifting charges according to LA Act.	Nil	Floor space equal to self-occupied floor area, subject to a maximum of 70 sq. m. irrespective of use of floor space.	Free of cost on ownership basis up to 20.91 sq. m. of floor space and at actual cost for area in excess thereof.

Sr. No.	Category of RAP	Legal Compensation	Rehabilitation		
			Monetary Supplementary	Type of Shelter related Rehabilitation	Price to be Charged
4.	<p>Squatters</p> <p>Non-Resident structure owners(The status to be established by documentary evidence in</p>	Nil	Replacement cost of lost structure	Nil	
	<p>Resident structure owner</p>	Nil	Replacement cost of lost structure	<p>Township option Plot of 25 sq. m.</p> <p>Plot in excess of 25 sq. mtr.</p>	<p>Free of cost</p> <p>At cost for the excess area</p>
	Tenants	Nil	<p>Nil</p> <p>Nil</p>	<p>PH/HD/SRD Option: Residential: floor space of 20.91 sq. m Shops & business Area equivalent area with a maximum of 70 sq. mtr. Out of which 20.91 sq. mtr.</p> <p>Area in excess of 20.91 sq. m</p> <p>Township option Plot of 25 sq. m.</p> <p>Plot in excess of 25 sq. mtr.</p> <p>PH/HD/SRD Option: Residential: floor space of 20.91 sq. m</p> <p>Shops & business Area equivalent area with a maximum of 70 sq. mtr. Out of which 20.91 sq. mtr.</p> <p>Area in excess of 20.91 sq. m</p>	<p>Free of cost</p> <p>At cost for the excess area</p> <p>Free of cost</p> <p>At cost for the excess area</p> <p>Free of cost</p> <p>At cost for the excess area</p>

Sr. No.	Category of RAP	Legal Compensation	Rehabilitation		
			Monetary Supplementary	Type of Shelter related Rehabilitation	Price to be Charged
5.	Pavement dwellers	Nil	Replacement Cost of lost Structure Nil	<p>Township option Plot of 25 sq. m</p> <p>Plot in excess of 25 sq.</p> <p>PH/HD/SRD Option: Residential: floor space of 20.91 sq. m For shops & business: Area equivalent to existing area with a maximum of 70 sq. m. Out of which 20.91. Sq. m.</p> <p>Area in excess of 20.91 sq. m</p>	<p>Free of cost</p> <p>At cost for the excess area</p> <p>Free of cost</p> <p>At cost for the excess area.</p>
6.	<p>Employees and entrepreneurs</p> <p>(a)Employees residing in the affected community and working at some other place</p> <p>(b)Non-resident employees</p>	<p>Nil</p> <p>Nil</p>	<p>Amount equivalent to the fare of twelve quarterly season tickets for excess distance by suburban railway.</p> <p>Same as above</p>	<p>Nil</p> <p>Nil</p>	

Sr. No.	Category of RAP	Legal Compensation	Rehabilitation		
			Monetary Supplementary	Type of Shelter related Rehabilitation	Price to be Charged
6.	(c) Employees and entrepreneurs who permanently lose their source of livelihood	Nil	A lump sum compensation equivalent to one year's income, as determined by R&R Agency' valuation committee.	The rehabilitation package shall include access to employment information through employment exchange and training facilities for appropriate skills be provide through on going government programs, and credit through community operated fund.	

CHAPTER-7 INSTITUTIONAL ARRANGEMENT

7.1 BACKGROUND

Resettlement requires involvement of various institutions at different stages of project cycle. This section deals with roles and responsibilities of various institutions for a successful resettlement. The institutions to be involved in the process are as follows:

1. Mumbai Metro Rail Corporation (MMRC)
2. NGOs Support during Implementation and Post Resettlement Phase
3. R&R Implementation Support of Consultant, if necessary.
4. Public Relation Consultant, if necessary.
5. Grievance Redress Committees (GRCs)

The role of different stakeholders is given in Table 7.1. An institutional framework for implementation of resettlement plan is presented in Figure 7.1.

7.2 Mumbai Metro Rail Corporation (MMRC)

MMRC is responsible for planning and implementation of resettlement and rehabilitation component of the proposed Metro Line-3 project. The MMRC will coordinate with all implementing agencies and monitoring the progress of the project. The MMRC is also responsible for the delivery of entitlements, supervising the work of Project Management Consultant (PMC), NGO (R&R Implementation Support Consultant), Public Relation Consultant etc. It will generate Quarterly Progress Report (QPR) for effective management decision. The MMRC headed by Managing Director (MD) will be responsible for overall planning, supervision of all activities related resettlement and rehabilitation of the proposed project during preparation, implementation and post implementation phase. The MMRC staff will work with Consultants for implementation of all R&R activities.

7.3 NGOs Support during Implementation and Post Resettlement Phase

Local NGO plays a very crucial role in implementation of resettlement and rehabilitation activities. The NGO is appointed by MMRC to extend implementation support in the form of assisting affected families/persons during relocation. The responsibilities of NGO will be assisting MMRC in conducting regular consultations, survey, issue of identity cards, assisting affected families/persons during and post resettlement phase, formation of co-operative societies, providing training for managing the societies etc.

M/s SPARC has been appointed as NGO.

7.4 R&R Implementation Support Consultants

During implementation of resettlement process, MMRC will appoint a consultant, if necessary to assist in implementation of resettlement plan. The consultant will assist for (i)preparation of database of affected structures, families, persons, (ii)verification of database through field survey,(iii)assistance in information dissemination, (iv) improve monitoring system,(v) capacity building,(vi)regular follow up implementation activities and other relevant activities (vii) documentation and reporting.

7.5 Public Relation Consultant

MMRC will appoint a Public Relation Consultant, if necessary to support in public relation and to ensure availability of information to the affected families/persons, traders and concerned third parties to create an environment that is supportive of the process of Resettlement and Rehabilitation. The Public Relation Consultant should report to AGM (PR) coordinate with the PR agency in information sharing on the R&R activities of the proposed metro project and coverage in the R&R activities in the print and electronic media.

7.6 Grievance Redress Committee (GRC)

The most common reason for delay in implementation of projects is grievance of people losing their land and residential and common structures. Considering this, Grievance Redress Committee (GRC) will be formed in order to address the grievances of project affected persons.

The GRC will be formed at field level and senior level. Field Level Grievance Redress Committee (FLGRC) and Senior Level Grievance Redress Committee (SLGRC) are one person committees headed by an independent Chairperson with representatives from MMRC and assisting NGO, PAP, his or her representatives as respondents. An organizational set up of FLGRC and SLGRC is presented in Figure-7.2. FLGRC addresses grievances relating to individual eligibility and entitlement, whereas SLGRC reviews decisions of FLGRC on grievance petitions filed by affected families/persons not satisfied with the FLGRC verdict. Both FLGRC and SLGRC follow the procedure of carrying out hearing and necessary scrutiny after informing him/her about specific location, date and time of such meeting. A detail about GRC mechanism is given in Annexure 7.2.

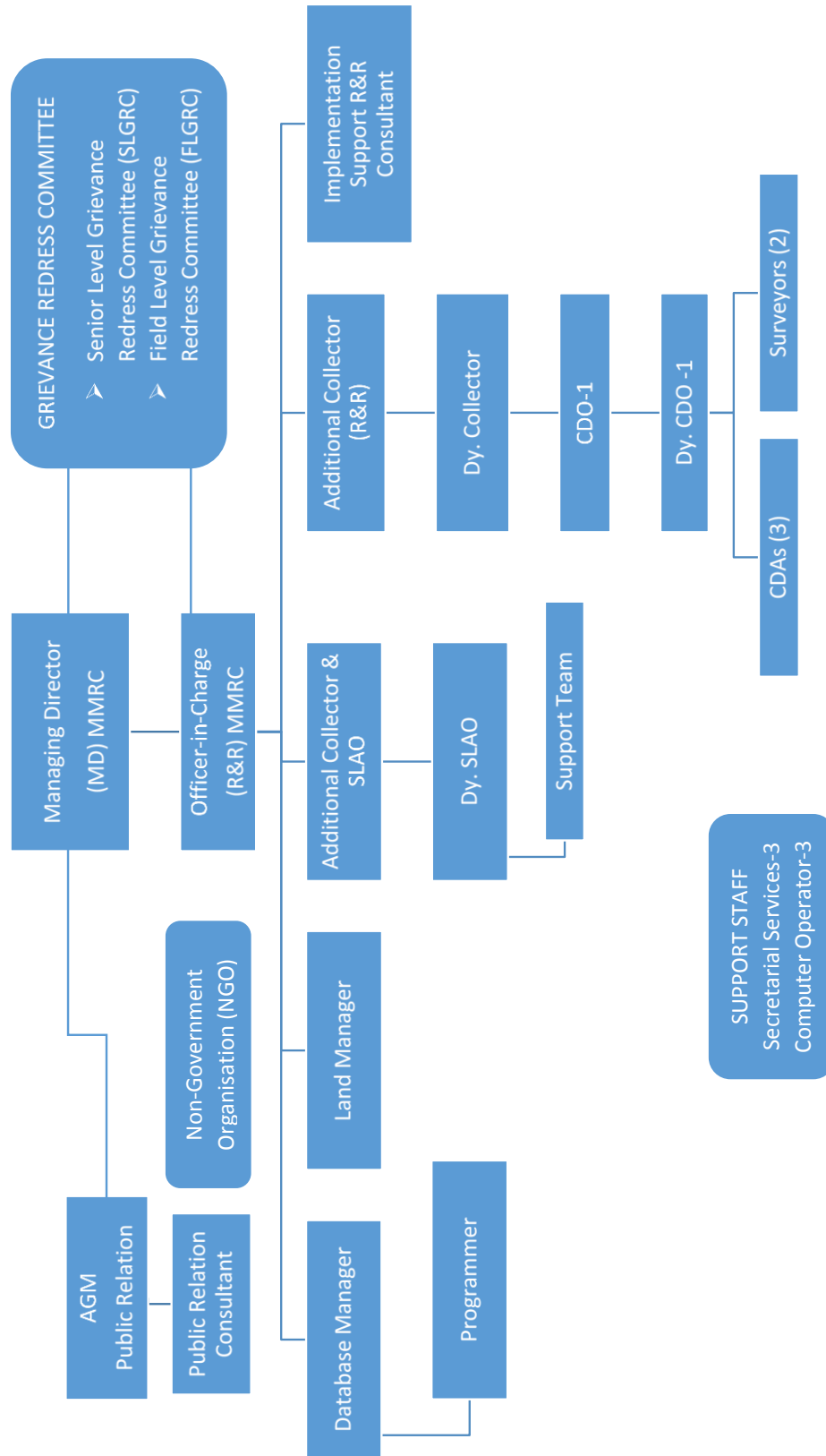
TABLE-7.1 - ROLE OF STAKEHOLDERS FOR IMPLEMENTATION OF RAP

POSITION	RESPONSIBILITIES
Managing Director-(MMRC),	<ul style="list-style-type: none"> • Overall planning and supervision of all project activities; • Exercise of administrative approval for finance & execution related activities; • Supervision and control over responsible officers in MMRC
Officer-in-Charge (R&R), MMRC	<ul style="list-style-type: none"> • Planning, supervision and implementation of R&R components; • Report to Managing Director, MMRC; • Supervision and control over the Managers, Officers and support staff in MMRC; • Liaison and coordination with Land and Estate Management Cell, Engineering Cell, NGOs, PAPs & other stakeholders; • Prepare and submit all reports and communication to Managing Director; • The administrative domain of Officer-in-Charge (R&R) include: <ul style="list-style-type: none"> ➤ Approval of eligibility list ➤ Approval of Progress Reports ➤ Procurement of Consultancy services for R&R components; ➤ Release of payment to Consultants and NGO

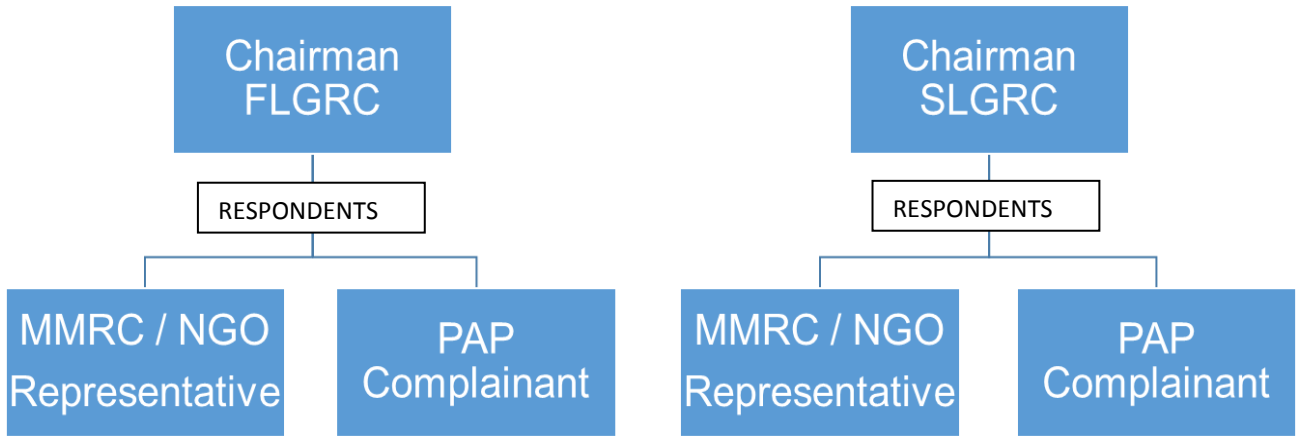
POSITION	RESPONSIBILITIES
NGO	<ul style="list-style-type: none"> • Act as Interface between PAPs and MMRCL • Provide assistance to MMRC in carrying out entire R&R process • Carry out consultation with PAPs • Identify PAPs and assist in preparation of ID cards • Compile and document pre-during-post implementation grievances, participate in the process of GRCs and assist in addressing them in timely manner • Assist in opening and operation of PICs in various locations • Issuing notices and holding meetings with PAPs • Carryout individual, group and community consultation and communication with PAPs during various stages of R&R • Assess special needs of vulnerable PAPs and such other PAPs requiring special attention and assist in preparing and implementing plans for them, as may be necessary • Assist in distribution of entitlements, shifting of PAPs and clearance of lands • Prepare plans for relocation of community structures and assets in consultation with concerned parties and assist such relocation • Assist in maintenance of data and preparation of reports and documents • Provide inputs in and facilitating monitoring and evaluation of R&R at various stages by attending meetings, carrying out field visits etc. • Assist in attending to immediate concerns of the shifted PAPs and facilitate registration of Cooperative Housing Societies of the shifted PAPs.
Implementation Support of R & R Consultant	<ul style="list-style-type: none"> • Preparation of database of affected structures, families, persons; • Verification of database through field survey; • Improve monitoring system; • Capacity building, • Regular follow up implementation activities and other relevant activities. • Assistance in information dissemination • Documentation and reporting • Report to Officer-in-Charge (R&R)
Public Relation Consultant	<ul style="list-style-type: none"> • Report to the MMRC • Coordinate with PR agency in information sharing on R&R activities of the project; • Ensure availability of information to PAPs and other stakeholders; • Coverage of progress of R&R activities in the print and electronic media.

POSITION	RESPONSIBILITIES
Grievance Redress Committee	<ul style="list-style-type: none"> • FLGRC: address grievances relating to individual eligibility and entitlement; • SLGRC: review decisions of FLGRC on grievance petitions filed by PAPs,
Independent Evaluation Agency	<ul style="list-style-type: none"> • Evaluate the implementation of the various provisions and activities planned in the resettlement process; • Review the plan of implementation in the light of the targets, budget and duration that had been laid down in the plan.

FIGURE 7.1
INSTITUTIONAL FRAMEWORK FOR IMPLEMENTATION OF RESETTELEMENT



**FIGURE 7.2
ORGANISATIONAL STRUCTURE OF FLGRC and SLGRC**



CHAPTER – 8 RELOCATION AND RESETTLEMENT SITE

8.1 BACKGROUND

As per the R&R Policy of MUTP, the site for resettlement shall be selected out of the feasible options as a part of the resettlement. Environmental Impact Assessment (EIA) of the resettlement site shall be carried out as part of the preparation of Community Environmental Management Plan (CEMP). During preliminary public consultation it was noted that most of the residential and commercial PAFs prefer to resettle near their previous place of residence and business. Based on the collected data there are 2575 affected residential and commercial PAFs are to be rehabilitated properly. Resettlement requirements for the project can be categorized for Encroachments / Slum Dwellers on public land, Legal Title Holders / Occupants of Formal Buildings, Footpath Occupiers / Licensed Stall Holders on public land, and Others (Govt.). The finalization for selection of Resettlement site would be taken in consultation of PAFs, MMRC officers and other concerned Departments.

8.2 RESETTLEMENT OPTIONS

Resettlement requirements for the project can be categorized for

1. Encroachments / Slum Dwellers on public land,
2. Legal Title Holders / Occupants of Formal Buildings,
3. Footpath Occupiers / Licensed Stall Holders on public land, and
4. Others (Govt.).

Resettlement and Rehabilitation may be considered as per the availability of land.

A strategy needs to be finalized for resettlement of the PAPs of category- 2 - Legal title holders/ Legal Occupants of formal buildings.

MMRC has appointed M/S Catapult Realty Consultants for planning local area resettlement options for the legal title holders at Kalbadevi and Girgaon station areas and make assessment for their resettlement even by including host tenements of adjacent buildings for making the resettlement issue viable with proper planning. They will draw a plan and submit their comprehensive recommendation/suggestions for catering the need of above mentioned two localities. MMRC will finalize the decision of re-development of the area. This will have additional impact on number of PAPs and also the cost.

8.2.1 Encroachers and slum Dwellers on public land:

Majority of PAPs are from this category, it will be possible to resettle them as per the MUTP R&R Policy, in the ready tenements located R&R colonies at following locations:

1. Premier, Kurla (West) *
2. Bhandari Metallurgy - Kurla (East)*
3. Chakala, Andheri (East)*
4. Antop Hill, Wadala
5. Kanjurmar (East) P2
6. Hariyali Village, Kanjurmarg (East)
7. Durga Nagar, Majas

** Subject to approval from state Govt.*

Details of these colonies are given in table 8.1 to 8.7.

**TABLE 8.1
DETAILS ABOUT RESETTLEMENT SITE AT PREMIER KURLA (WEST)**

1	No. of Buildings constructed	2
2	Type of Construction	G+12
3	Total number of Tenements	556
4	Carpet area each of residential tenement	269 Sq. ft.
5	Cost per residential tenements	Land and buildings procured from Private Developer against TDR. Estimated Land + Building value of tenement as per Ready Reckoner, 2017-18 is ₹ 31,75,000/- (₹ 127000/ sq. m.)
6	Cost per commercial tenements	Land and buildings procured from Private Developer against TDR. Estimated Land + Building value of tenement as per Ready Reckoner, 2017-18 is ₹ 3839076/- (₹ 183600/- per sq. m.)
7	Social amenities	A Society Office , Balwadi, Welfare Centre etc.

Note: The amounts for tenements at Kurla West (Table 8.1) are values and not costs.

**TABLE 8.2
DETAILS ABOUT RESETTLEMENT SITE AT BHANDARI METALLURGY - KURLA (EAST)***

1	No. of Buildings constructed	4
2	Type of Construction	G+16
3	Total number of Tenements	1828
4	Carpet area each of residential tenement	269 Sq. ft.
5	Cost per residential tenements	Land and buildings procured from Private Developer against TDR. Estimated Land + Building value of tenement as per Ready Reckoner, 2017-18 is ₹ 2707500/- (₹ 108300/ sq. m.)
6	Cost per commercial tenements	Land and buildings procured from Private Developer against TDR. Estimated Land + Building value of tenement as per Ready Reckoner, 2017-18 is ₹ 3721980/- (₹ 178000/- per sq. m.)
7	Social amenities	A Society Office - 16 nos., Balwadi - 16 nos. and Welfare Centre - 16 for 1828 tenements

Note: The amounts for tenements at Kurla East (Table 8.2) are values and not costs.

**TABLE 8.3
DETAILS ABOUT RESETTLEMENT SITE AT CHAKALA, ANDHERI (EAST)**

1	No. of Buildings constructed	3
2	Type of Construction	G+15
3	Total number of Tenements	1300
4	Carpet area each of residential tenement	269 Sq. ft.
5	Cost per residential tenements	Land and buildings procured from Private Developer against TDR. Estimated Land + Building value of tenement as per Ready Reckoner, 2017-18 is ₹ 3700000/- (₹ 148000/ sq. m.)
6	Cost per commercial tenements	Land and buildings procured from Private Developer against TDR. Estimated Land + Building value of tenement as per Ready Reckoner, 2017-18 is ₹ 6919119/- (₹330900/- per sq. m.)
7	Social amenities	A Society Office – 13 nos, Balwadi – 13 nos. and Welfare Centre – 13 nos. for 1300 tenements

Note: The amounts for tenements at Chakala, Andheri East (Table 8.3) are values and not costs.

**Table 8.4
DETAILS ABOUT RESETTLEMENT SITE AT ANTOP HILL, WADALA**

1	No. of Buildings constructed	1
2	Type of Construction	G+7
3	Total number of Tenements	34
4	Carpet area each of residential tenement	269 Sq. ft.
5	Cost per residential tenements	Land and buildings procured from Private Developer against TDR. Estimated Land + Building value of tenement as per Ready Reckoner, 2017-18 is ₹ 5525000/- (₹ 221000/ sq. m.)
6	Cost per commercial tenements	Land and buildings procured from Private Developer against TDR. Estimated Land + Building value of tenement as per Ready Reckoner, 2017-18 is ₹ 5624790/- (₹ 269000/- per sq. m.)
7	Social amenities	A Society Office, Balwadi and Welfare Centre for 100 tenements

Note: The amounts for tenements at Bhakti Park (Table 8.4) are values and not costs.

**TABLE 8.5
DETAILS ABOUT RESETTLEMENT SITE AT KANJURMARG (EAST) P-2**

1	No. of Buildings constructed	1
2	Type of Construction	G+15
3	Total number of Tenements	140
4	Carpet area of residential tenements	269 Sq. ft.
5	Cost per residential tenements	Land and buildings procured from Private Developer against TDR. Estimated Land + Building value of tenement as per Ready Reckoner, 2017-18 is ₹ 3107500/- (₹ 124300/- per sq. m.)
6	Cost per commercial tenements	Land and buildings procured from Private Developer against TDR. Estimated Land + Building value of tenement as per Ready Reckoner, 2017-18 is ₹ 3351873/- (₹ 160300/- per sq. m.)
7	Social amenities	A Society Office, Balwadi and Welfare Centre for 100 tenements

Note: The amounts for tenements at Kanjurmarg (East) P-2 (Table 8.5) are values and not costs.

**TABLE 8.6
DETAILS ABOUT RESETTLEMENT SITE AT HARIYALI VILLAGE, KANJURMARG (EAST)**

1	No. of Buildings constructed	4
2	Type of Construction	G+5
3	Total number of Tenements	50
4	Carpet area of residential tenements	225 Sq. ft.
5	Cost per residential tenements	Land and buildings procured from Private Developer against TDR. Estimated Land + Building value of tenement as per Ready Reckoner, 2017-18 is ₹ 3107500/- (₹ 124300/- per sq. m.)
6	Cost per commercial tenements	Land and buildings procured from Private Developer against TDR. Estimated Land + Building value of tenement as per Ready Reckoner, 2017-18 is ₹ 3351873/- (₹ 160300/- per sq. m.)
7	Social amenities	A Society Office, Balwadi and Welfare Centre for 100 tenements

Note: The amounts for tenements at Hariyali Village, Kanjurmarg (E.) (Table 8.6) are values and not costs.

TABLE 8.7
DETAILS ABOUT RESETTLEMENT SITE AT DURGA NAGAR, MAJAS

1	No. of Buildings constructed	4
2	Type of Construction	G+7
3	Total number of Tenements	12
4	Carpet area of residential tenements	225 Sq. ft.
5	Cost per residential tenements	Land and buildings procured from Private Developer against TDR. Estimated Land + Building value of tenement as per Ready Reckoner, 2017-18 is ₹ 4081632/- (₹ 195200/- per sq. m.)
6	Cost per commercial tenements	Land and buildings procured from Private Developer against TDR. Estimated Land + Building value of tenement as per Ready Reckoner, 2017-18 is ₹ 4897122/- (₹ 234200/- per sq. m.)
7	Social amenities	A Society Office, Balwadi and Welfare Centre for 100 tenements

Note: The amounts for tenements at Durga Nagar, Majas (Table 8.7) are values and not costs.

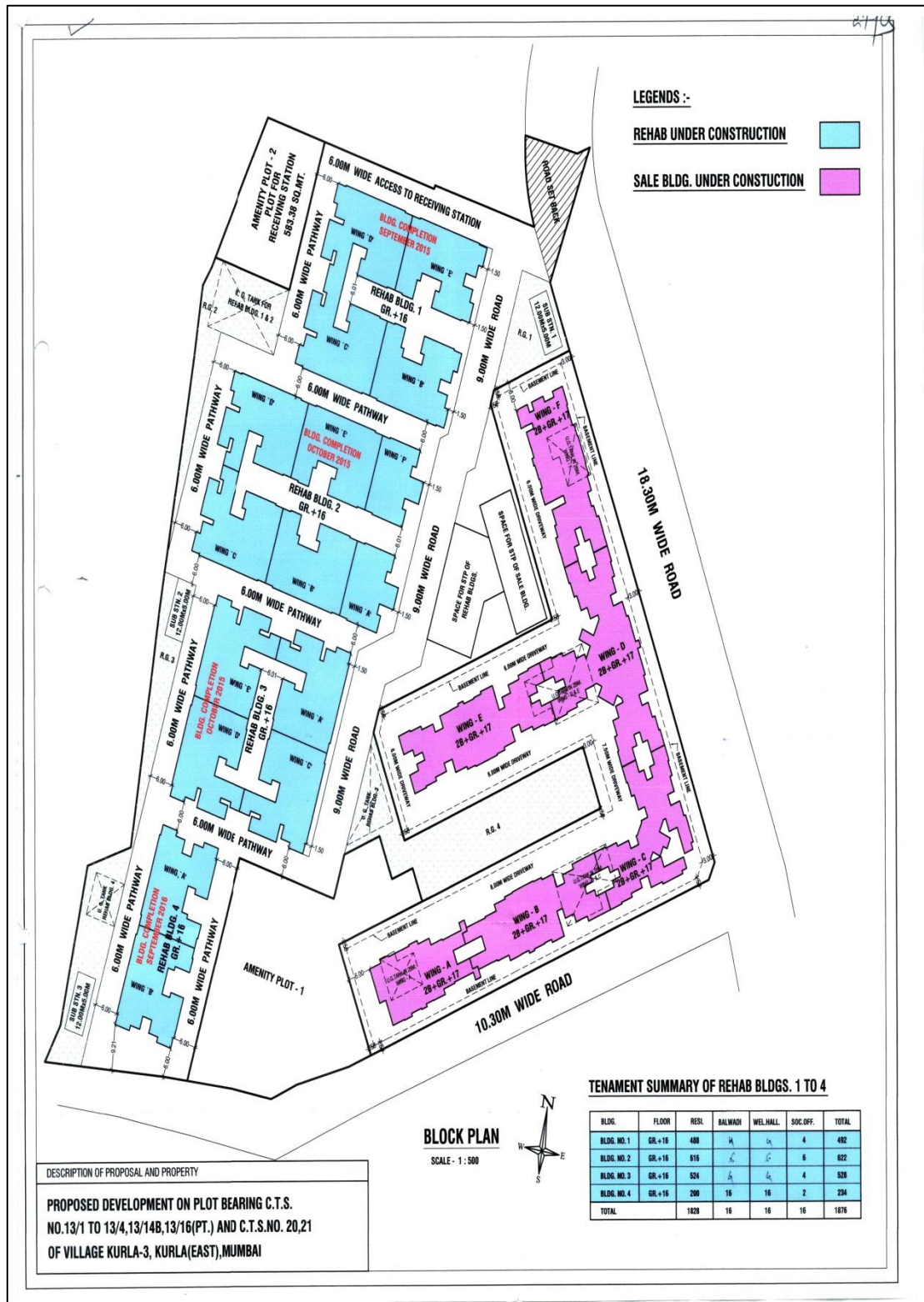
The location of resettlement sites are presented in **Figure 8.1** to **Figure 8.6**.

The typical floor layout plan of R&R buildings is given in **Figure 8.6**.

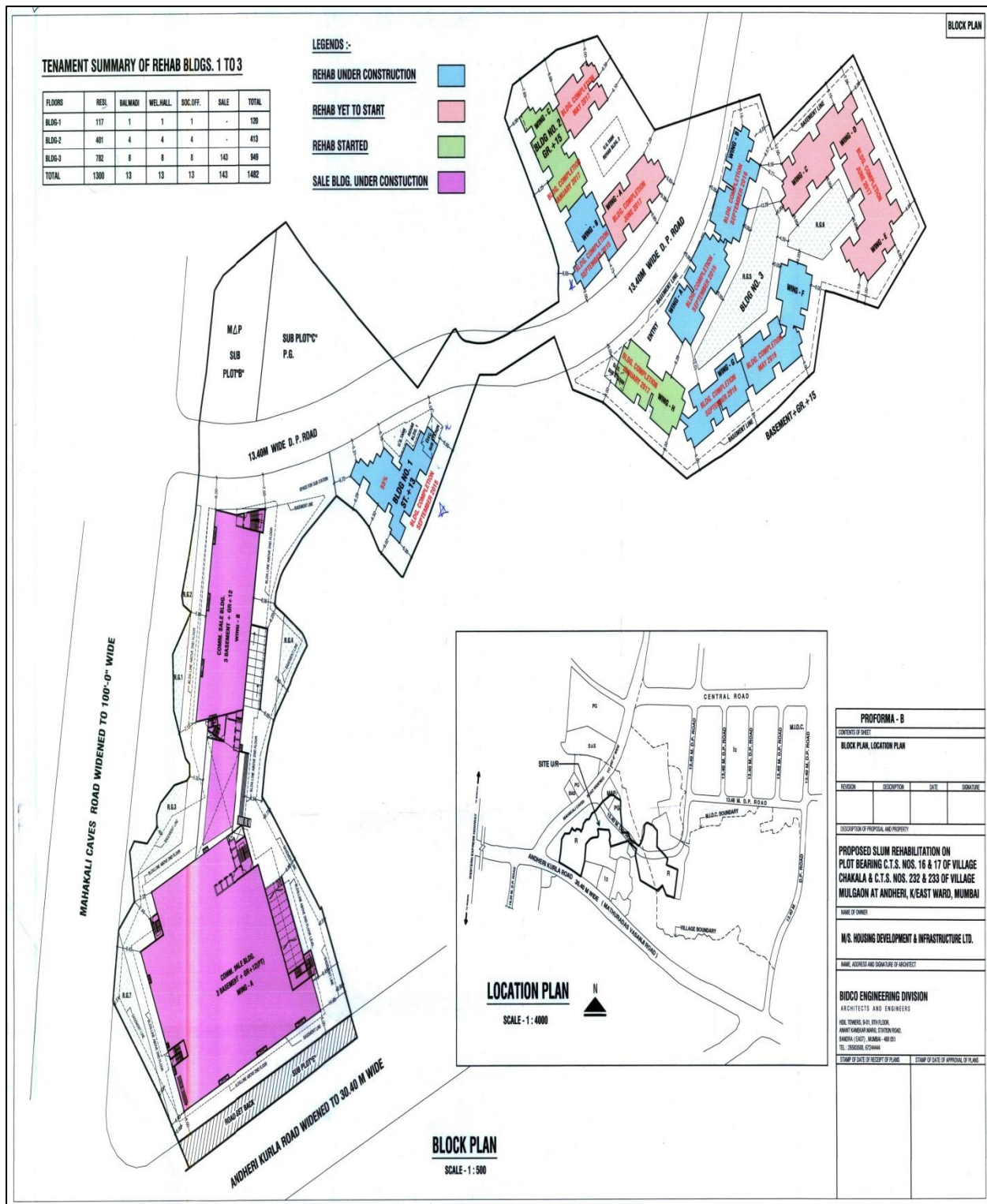
**FIGURE 8.1
RESETTLEMENT SITE AT PREMIER KURLA (WEST)**



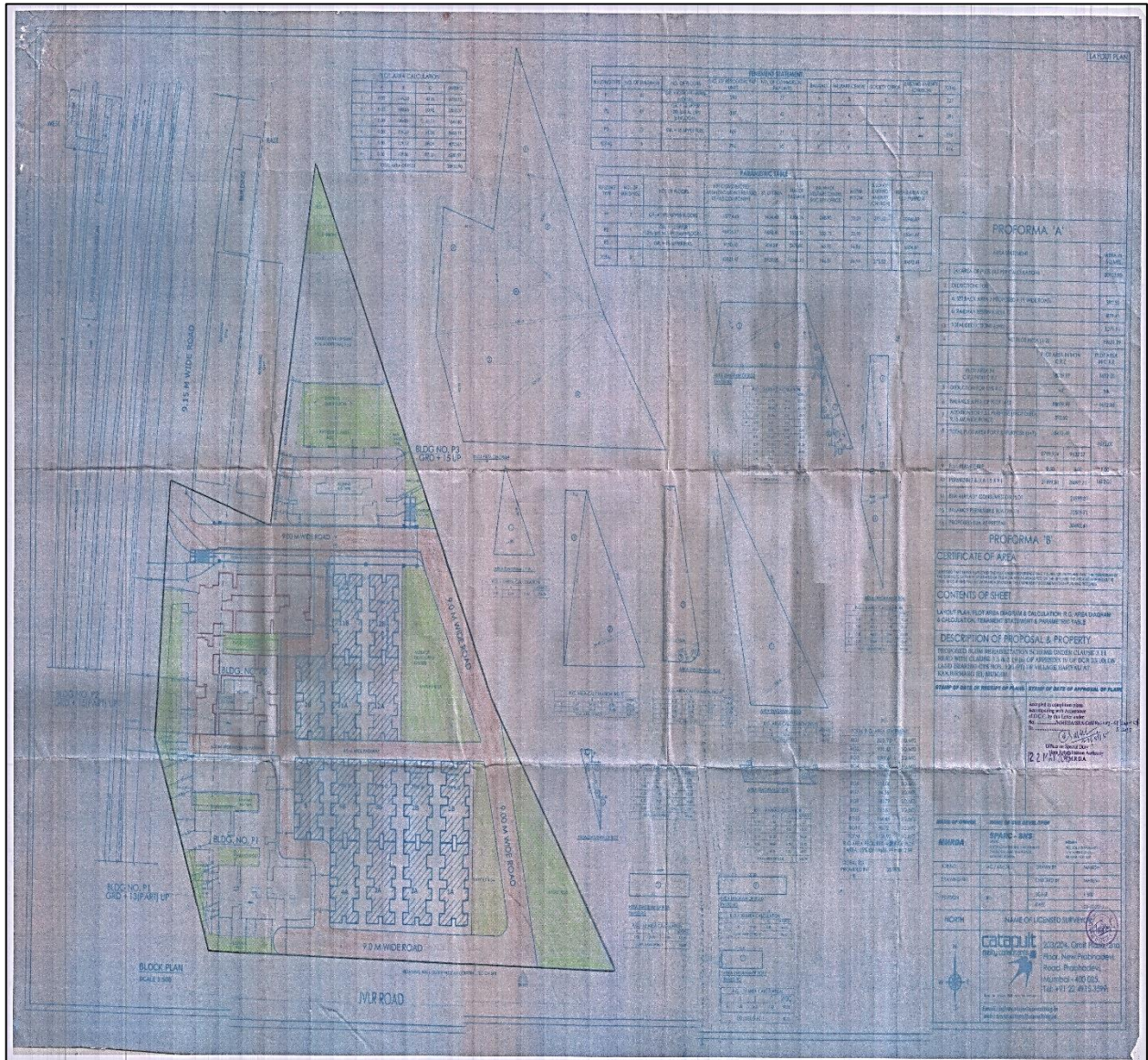
**FIGURE 8.2
RESETTLEMENT SITE AT BHANDARI METALLURGY KURLA (EAST)**



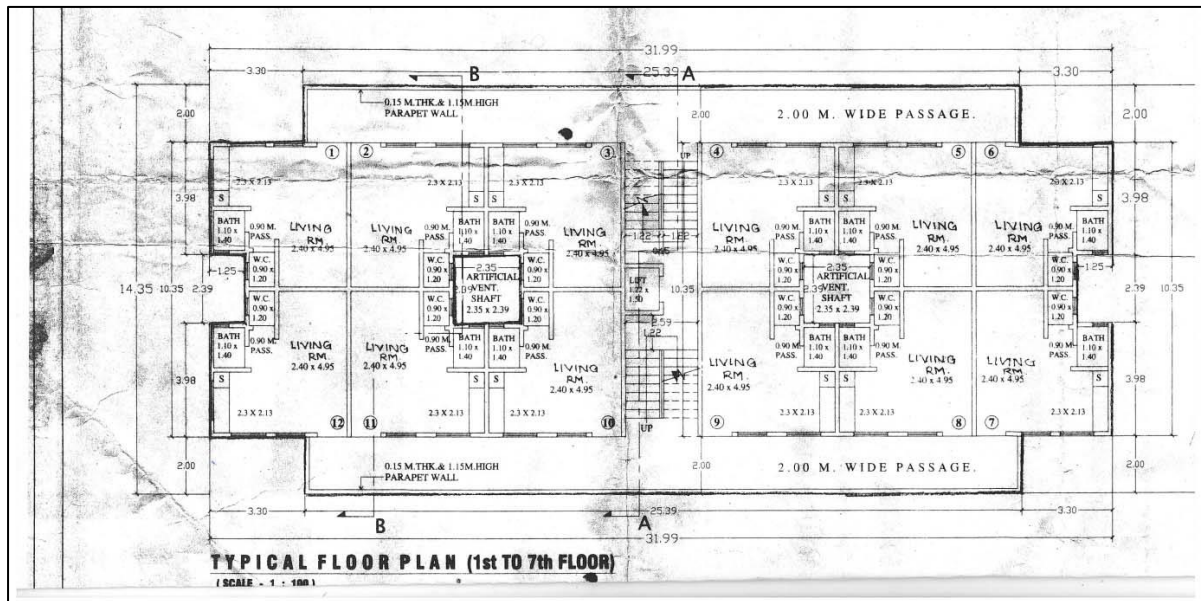
**FIGURE 8.3
RESETTLEMENT SITE AT CHAKALA, ANDHERI (EAST)**



**FIGURE 8.5
RESETTLEMENT SITE AT KANJURMARG (EAST), P-2**



**FIGURE 8.6
TYPICAL FLOOR PLAN**



In case of local Slum Rehabilitation Scheme covering the PAPs (like in the case of MIDC & BKC), the MMRC could give NOC for the Scheme subject to timely clearance of land required for Metro-3 project by the developer. Alternatively, PAPs will be provided permanent alternative accommodation to join Slum Rehabilitation Scheme later by surrendering tenements to MMRC.

8.2.2 Legal Title Holders and Occupants of Formal Buildings:

The number of such PAPs is substantial (703 PAPs). The R&R of these PAPs will depend on the progress of acquisition of concerned private lands and can be undertaken concurrently in the case of consent of or successful negotiations with the owners and occupants.

In the case of lack of willingness, R&R will have to wait until formal process of land acquisition reaches the stage of possession of land. As regards R&R entitlements under the MUTP R&R Policy as well as the new Act, the residential tenements of bigger sizes (in case of bigger existing houses) have to be provided (225 sq. ft. free and additional up to 525 sq. ft. at Ready Reckoner rates) and such stock is not available. Although the option of allotting multiple tenements to such PAPs to achieve bigger sizes is technically possible.

It is therefore, proposed to explore alternative approaches to the resettlement of legal title holders / occupants of formal buildings.

The options, which could be considered, are

- (1) In situ redevelopment of affected buildings (independently or in a cluster) with the help of private developers, owners and occupants,
- (2) In situ redevelopment of affected buildings jointly by MMRC and private owners and occupants

- (3) For non-residential PAPs, options for incorporating tenements in designs for stations/ ancillary facilities or in MCGM's market redevelopment proposals to be explored,
- (4) Buying tenements of suitable sizes from MHADB or market; and
- (5) Constructing tenements of required sizes on MMRDA's lands or on land bought for this purpose.

Since the time required for successful permanent resettlement of these PAPs is uncertain, it will also be necessary to quickly identify and obtain stock for transit accommodation.

8.2.3 Footpath Occupants / Licensed Stall Holders:

Most of these are small commercial stalls within the ROW on roads or footpaths, which are dependent on their business on pedestrian clients. It prima facie appears that in most cases, it will be possible to relocate many of these PAPs in the existing ROW just outside the area affected by the station works. The planning for such relocation will have to be carried out with the help of engineering team and in consultation with the MCGM. In cases, where such relocation is not feasible, it is proposed to offer the PAPs available resettlement options irrespective of their acceptability. This issue is taken up with Municipal Corporation of Greater Mumbai (MCGM).

8.2.4 Others (Government structures):

The resettlement options for PAPs at Vidhan Bhavan (Government and political party offices), Marol Naka Fire Brigade staff Quarters, MIDC (Police Quarters) and Aarey Colony (Office Staff Quarters) are proposed to be worked out through negotiations as a part of land transfer arrangements, which may involve construction of new buildings on same plot (unaffected part) or adjacent lands of the owner.

Transit accommodation for the current occupants, if so required can be provided in R&R colonies.

All the government structures have been relocated and resettled in a proper manner.

CHAPTER-9 IMPLEMENTATION SCHEDULE

9.1 BACKGROUND

The implementation schedule for resettlement plan will be scheduled as per the overall project implementation. It has been decided to commence civil works after 70% of land required for the project is obtained through acquisition, transfer etc. Public consultation, internal monitoring and grievance redress shall be undertaken intermittently throughout the project duration. However, the schedule is subject to modification depending on the progress of the project activities. As part of advance actions, MMRC shall establish the GRC, and initiate the resettlement implementation. The R&R activities of proposed project are divided into three broad categories based on the stages of work and process of implementation. The details of activities involved in these three phases are project preparation phase, resettlement phase and Monitoring and Evaluation (M&E) phase.

9.2 PROJECT PREPARATORY STAGE (PRE-IMPLEMENTATION STAGE)

Identification of required land for acquisition, census socio-economic survey, preparation and review/approval of SIA, disclosure of SIA, establishment of GRC and preparation of resettlement site will be major task during the preparatory stage.

9.3 IMPLEMENTATION STAGE

The Land Acquisition and Resettlement Plan (LARP), at this stage, needs to be approved and will be disclosed to the PAPs. Upon the approval of LARP, all the arrangements for fixing the compensation and the disbursement need to be done which includes payment of all eligible assistance; relocation of PAPs; site preparation for delivering the site to contractors for construction and finally commencement of the civil work. Considering the lengthy and time taking process for land acquisition, this step has been taken by the MMRC in advance which is being followed as per the Metro Railways Construction Act. Internal monitoring will be the responsibility of MMRC which will start in early stage of the project when implementation of LARP starts and will continue till the completion of the implementation of LARP. MMRC will be responsible for carrying out the monitoring on half yearly basis. Mid-term and end-term evaluation will be done by an Independent Evaluation Agency (IEA).

9.4 IMPLEMENTATION SCHEDULE

LARP for the proposed metro rail project including various sub tasks and time line matching with civil work schedule is prepared and presented in **Table 9.1**.

CHAPTER 10 RESETTLEMENT ASSISTANCE PLAN AND COST ESTIMATE

10.1 BACKGROUND

This chapter presents an overview of eligibility for entitlement, valuation of and compensation for losses, income restoration and cost estimates. The total cost estimate for carrying out the R & R activities for proposed metro line III project based on census socio- economic survey up to 5 October, 2015. The present cost estimates for land and structures are based on DPR and Stamp Duty Ready Reckners-2015. The budget is indicative and costs will be updated and adjusted to the inflation rate as the project continues and during implementation. However, the final compensation amount for the land acquisition and structures will be determined by the competent authority appointed under MMRDA Act, 1974.

10.2 VALUATION AND COMPENSATION FOR LOSSES

Land requirements have been kept to the barest minimum and worked out on area basis. Acquisition of private land has been minimized as far as possible. Private land for metro rail project shall be acquired by MMRCL.

10.3 COMPENSATION FOR LAND & STRUCTURE

The rate for private land plus building has been considered different areas/locations wise and is based on market value. The tabular statement for detailed acquisition of land and loss of structure is given in table 3.2. The total cost of private land plus building for compensation has been presented in capital cost estimate. The cost including contingencies for private land plus building. Please refer table no. 10.1.

10.4 REPLACEMENT COST FOR NON-TITLEHOLDERS & TITLE HOLDERS

Rehabilitation of residential and non-residential non-titleholders PAFs will be done by MMRC. PAFs losing residential units shall be offered tenements each at any R&R site. PAFs losing non-residential units shall be offered up to 225 sq. ft. shop area. The non-residential PAPs losing over 225 sq. ft., will have a choice to purchase additional area beyond 225 sq. ft. and up to 750 sq. ft. at market cost of each site according to their eligibility as per R&R policy. Please refer table no. 10.1.

Relocation to the non-title holders have been given to the extent 269 Sq. ft. instead of 225 Sq. ft. as mention earlier.

MMRC has decided to provide relocation for Kalbadevi and Girgaon area in the vicinity of Kalbadevi and Girgaon. The size of the premises for relocation are stated hereunder:

Existing Carpet Areas Residential (in Sq. Ft.)	Proposed Carpet Area Residential (in Sq. Ft.)
Less than 202.5 Sq. ft.	405 Sq. Ft.
202.5 sq. ft. to 300 sq. ft.	Double the existing carpet area of unit
300 sq. ft. to 444.5 sq. ft.	600 sq. ft.
More than 444.5 sq. ft.	35% extra carpet area of the unit

Existing Commercial units are proposed to get 20% increase in the existing carpet area of the commercial unit.

10.5 SHIFTING ALLOWANCE

Each displaced project affected families shall be provided shifting allowance of ₹ 3500/- as transportation cost for shifting of household materials and belonging etc. Shifting allowance is one time grant. About 2622 both residential and commercial PAPs are likely to be displaced and they are eligible for shifting allowance. Please refer table no. 10.1.

10.6 COMMUNITY OPERATED FUND

For those who permanently lose their jobs, the rehabilitation package shall include access to employment information through employment exchange and training facilities. Moreover, community operated fund will be created to provide seed capital and other loans. Community operated fund could be linked with community saving programs; the fund could be controlled and monitored by the community with the assistance of Non-Governmental Organization (NGO).

10.7 RELOCATION OF RELIGIOUS PROPERTY

About Seventeen religious structures will be affected due to the proposed project. A lump sum amount has been estimated for relocation of temple which includes beautification by way of plantation. Please refer table no. 10.1.

10.8 RELOCATION OF OTHER COMMUNITY RESOURCES

It is observed from the study that total 105 other structures (including 13 public toilets) will be affected. A lump sum amount has been considered for relocation of community's properties. Please refer table no. 10.1.

10.9 COMPENSATION FOR ECONOMIC LOSSES:

Every effort shall be made to relocate the affected households to nearby site and thus avoid cutting access to existing employment and income earning sources.

- a) If the relocation of workers/ employees results in an increase in travel distance to reach the original place of work or new place of work, a lump sum compensation not exceeding twelve quarterly season tickets for such excess distance by suburban railway at the time of resettlement shall be paid to such workers / employees subject to actual verification of extra expenditure incurred.
- b) If it turns out to be impossible to continue present occupation or where workers/ employees/ entrepreneurs permanently lose their source of livelihood, because of displacement, a lump sum compensation equivalent to one year's income be given to such workers/ employees/ entrepreneurs at the rates to be determined by the R & R implementing agency.
- c) Vulnerable households such as women headed households, handicapped and the aged will be extended an additional package of rehabilitation services to help them overcome the difficulties on account of resettlement. This will include preference in allotment of dwelling units on the ground floor for the handicapped and preference in sanctioning of loans from the fund mentioned below. Any further assistance required for vulnerable PAPs will be determined during resettlement.

- d) For those who permanently lose their jobs, the rehabilitation package shall include access to employment information through employment exchange and training facilities. Moreover, community operated fund will be created to provide seed capital and other loans. Community operated fund could be linked with community saving programs. The fund could be controlled and monitored by the community with the assistance of Non-Governmental Organization (NGO).

10.10 COST ESTIMATE FOR R&R

The cost for implementation of Resettlement and Rehabilitation Plan is given in **Table 10.1**. The total cost for R&R implementation plan is ₹ **59108.79 Lacs**.

**TABLE 10.1
COST FOR RESETTLEMENT & REHABILITATION**

Sr. No.	Particulars	Total Amount (In Rs. Lacs)
1		0
a	Fungible FSI premium @ 60% if SDRR Land rate (Fungible BUA X 0.6 X SDRR)	
	Total	4219.76
2	APPROVAL / OUT OF POCKET EXPENSES	
a	Scrutiny Fees, IOD and other deposits (Approximates)	10
b	Development Cess (BUA- Plot Area x 1.33) x 6050	1645.52
c	Staircase and Lift Premium (30% x Sale FSI x 25% x RRR x 10%)	200.32
d	Open Space Deficiency (Approximate)	204.25
e	Labour Cess (1% on Total Construction BUA i.e Rehab, Sale and Parking (F+G+H))	193.71
f	Water + Sewerage (Rs.285 / Sq Mtrs of Total BUA + 70% Sewerage)	187.47
g	Development Charges Land Component (1%) + Const. Component (4%)	1129.96
h	Miscellaneous Expenses (Approximate)	0
i	Assessment Charges (Approximate)	3451
	Total	7022.23
3	TENANT / SITE EXPENSES	
a	Rent (For 48 Months)	19711.09
b	Corpus (Not to be paid)	0
c	Shifting & Brokerage (For Shifting 312 + 331) x 50000) & (1 month Rent)	673.29
d	S.D. Registration of Tenant Agreements (6% of Rent and Brokerage)	705.68
	Total	12467.06
4	OTHER EXPENSES	
a	Marketing & Brokerage Expenses (2% of Revenue)	1126.43

Sr. No.	Particulars	Total Amount (In Rs. Lacs)
b	Architect /Consultant Fees (8% of Const. Cost) (Const. Cost :- S. No. 5 Below in same table) # Tender awarded	980
c	Contingency & Miscellaneous overheads (Rs. 500/Sqft of Incentive Carpet area)	1105.74
	Total	2712.17
5	CONSTRUCTION	
a	Construction - Rehab (Rs. 2500/- psf)	10273.11
b	Construction - Free Sale / Incentive area (Rs. 3000/- psf)	8681.91
c	Parking Area (Rs. 1500/- psf)	2965.5
	Total	21920.53
6	Escalation on Construction Cost @ 5% p.a. (Average to 7.5%)	1644.04
	TOTAL COST	59108.79

Note:

- The cost includes land and buildings as per the Ready Reckoner, 2017-18 for title holders. The higher site cost per residential and commercial tenements has been considered from available sites of resettlement. The area of tenement is considered as 269 sq. ft.*
- The Notional cost of resettlement for non-title holders is considered as stated in the table no. 10.1 for a tenement of 269 sq. ft. which MMRCL has planned.*
- The Local area development option for Kalbadevi and Girgaon station areas will have additional cost impacts which is incorporated in the table 10.1.*

CHAPTER - 11 MONITORING AND EVALUATION

11.1 BACKGROUND

Monitoring & Evaluation are critical activities in involuntary resettlement. Monitoring involves periodic checking to ascertain whether activities are progressing as per schedule while evaluation is essentially to assess the performance of PAPs at the end of the project. For this purpose, a monitoring and evaluation (M&E) program is required to be developed to provide feedback to project management which will help keep the programs on schedule and make them successful. Monitoring and Evaluation of R&R gives an opportunity to the implementation and the funding agency to reflect broadly on the success of the basic R&R objectives, strategies and approaches. However, the objective of conducting M&E is to assess the efficiency and efficacy in implementation R&R activities, impact and sustainability, drawing lessons as a guide to future resettlement planning.

Monitoring will give particular attention to the project affected vulnerable groups such as scheduled castes, BPL families, women headed households, widows, old aged and the disabled. RAP implementation will be monitored internally. MMRC will be responsible for internal monitoring through their field level officers of R&R cell and will prepare quarterly reports on the progress of RAP implementation. An Independent Evaluation Consultant may be hired by MMRC for mid and end term evaluation of RAP implementation.

11.2 INTERNAL MONITORING

The internal monitoring for RAP implementation will be carried out by MMRC. The main objectives of internal monitoring are to:

- measure and report progress against the RAP schedule;
- verify that agreed entitlements are delivered in full to affected people;
- identify any problems, issues or cases of hardship resulting from the resettlement process, and to develop appropriate corrective actions, or where problems are systemic refer them to the management team;
- monitor the effectiveness of the grievance system
- Periodically measure the satisfaction of project affected people.

Internal monitoring will focus on measuring progress against the schedule of actions defined in the RAP. Activities to be undertaken by the MMRC will include:

- Liaison with the Land Acquisition team, construction contractor and project affected communities to review and report progress against the RAP;
- Verification of land acquisition and compensation entitlements are being delivered in accordance with the RAP;
- Verification of agreed measures to restore living standards are being implemented;
- Identification of any problems, issues, or cases of hardship resulting from resettlement process;
- Through household interviews, assess project affected peoples' satisfaction with resettlement outcomes;
- Collection of records of grievances, follow up that appropriate corrective actions have been undertaken and that outcomes are satisfactory;

Monitoring is a continuous process and will be carried out by field level officers of R&R Cell on regular basis to keep track of the R&R progress. For this purpose, the indicators suggested have been given in **Table 11.1**.

**TABLE 11.1
INDICATORS FOR MONITORING OF RAP PROGRESS**

INDICATORS	PARAMETERS INDICATORS
Physical	Extent of land acquired
	Number of structures dismantled
	Number of land users and private structure owners paid compensation
	Number of families affected
	Number of PAPs receiving assistance/compensation
	Number of PAPs provided transport facilities/ shifting allowance
Financial	Amount of compensation paid for land/structure Cash grant for shifting
Social	Area and type of house and facility at resettlement site
	Number of time GRC met
	Number of appeals placed before grievance redressal cell
	Number of grievances referred and addressed by GRC
	Number of PAPs approached court
Grievance	Consultation for grievance redressal
	PAPs knowledge about their entitlements
	Status of cases pending in court and settled.
	Number of grievance cell meetings
	Number of cases disposed by SMU to the satisfaction of PAPs.

Baseline socio-economic survey and the land acquisition data provide the necessary benchmark for field level monitoring. A format for monitoring of RAP implementation is presented in **Annexure 11.1**.

11.3 INDEPENDENT EVALUATION

As mentioned earlier, an Independent Evaluation Agency (IEA) will be hired by MMRC for mid and end term evaluation. A detailed Terms of Reference for IEA is presented in **Annexure 11.2**. The external evaluation will be carried out to achieve the following:

- Verify results of internal monitoring,
- Assess whether resettlement objectives have been met, specifically, whether livelihoods and living standards have been restored or enhanced,
- Assess resettlement efficiency, effectiveness, impact and sustainability, drawing lessons as a guide to future resettlement policy making and planning.
- Ascertain whether the resettlement entitlements were appropriate to meeting the objectives, and whether the objectives were suited to affected persons' conditions,

- This comparison of living standards will be in relation to the baseline information available in the BSES. If some baseline information is not available then such information should be collected on recall basis during the evaluation.

The following should be considered as the basis for indicators in monitoring and evaluation of the project. The list of impact performance indicators suggested to monitor project objectives is delineated in **Table 11.2**.

TABLE 11.2
INDICATORS FOR PROJECT OUTCOME EVALUATION

Objectives	Risk Factor	Outcomes and Impacts
<ul style="list-style-type: none"> - The negative impact on persons affected by the project will be minimized. - Persons losing assets to the project shall be compensated at replacement cost. - The project-affected persons will be assisted in improving or regaining their standard of living. - Vulnerable groups will be identified and assisted in improving their standard of living. 	<ul style="list-style-type: none"> - Resettlement plan implementation may take longer time than anticipated - Institutional arrangement may not function as efficiently as expected - NGO may not perform the task as efficiently as expected - Unexpected number of grievances - Finding a suitable rehabilitation site for displaced population - PAPs falling below their existing standard of living 	<ul style="list-style-type: none"> ➤ Satisfaction of land owners with the compensation and assistance paid ➤ Satisfaction of structure owner with compensation and assistance ➤ % of PAPs adopted the skill acquired through training as only economic activity ➤ % of PAPs adopted the skill acquired through training as secondary economic activity ➤ % of PAPs reported increase in income due to training ➤ % PAPs got trained in the skill of their choice ➤ Role of NGO in helping PAPs in selecting trade for skill improvement ➤ Types of grievances received ➤ No. of grievances forwarded to GRC and time taken to solve the grievances ➤ % of PAPs aware about the GRC mechanism ➤ % of PAPs aware about the entitlement frame work mechanism ➤ PAPs opinion about NGO approach and accessibility

11.4 REPORTING REQUIREMENTS

MMRC will be responsible for supervision and implementation of the RAP. MMRC will prepare quarterly progress reports on resettlement activities. The Independent Evaluation Consultant will submit draft and final reports of their assignment to MMRC and determine whether resettlement goals have been achieved, more importantly whether livelihoods and living standards have been restored/ enhanced and suggest suitable recommendations for improvement. Submission of the draft report would be carried out after completion of assignment and the final report should be submitted after receiving feedback from MMRC.

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