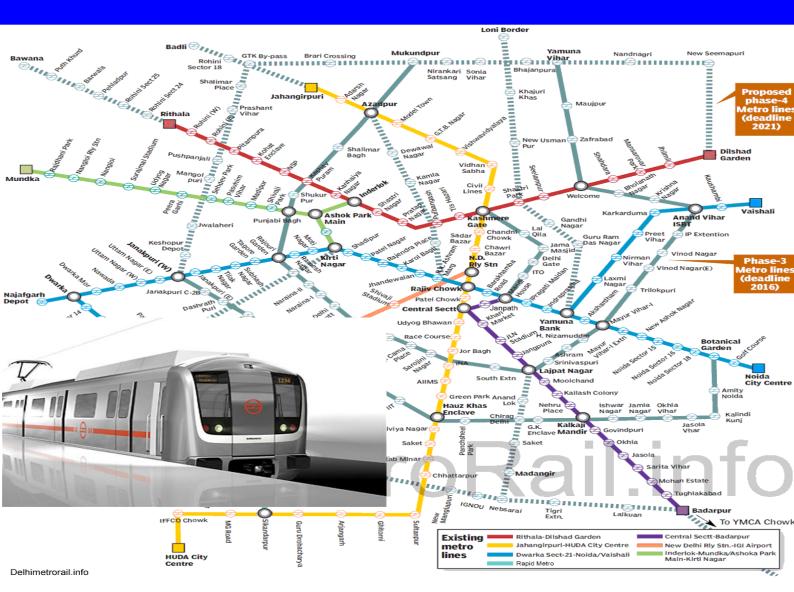


# SOCIAL IMPACT ASSESSMENT FOR PRIORITY CORRIDORS OF DELHI METRO PHASE-IV



June 2020



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#### **ABBREVIATION**

APL : Above Poverty Line

AIDS : Acquired Immunodeficiency Syndrome

BSES : Baseline Socio-Economic Survey

BPL : Below Poverty Line

CATC : Continuous Automatic Train Control
CSR : Corporate Social Responsibility
CPR : Corporate Social Responsibility
DMRC : Delhi Metro Rail Corporation

DTL : Delhi Transco Limited
DPR : Detailed Project Report

DDA : Delhi Development Authority

DC : District Collector

DUSIB : Delhi Urban Shelter Improvement Board

ESMD : Environmental & Social Management Division

FGD : Focus Group Discussion

GNCTD : Government of National Capital Territory of Delhi

GRC : Grievance Redress Committee
HIV : Human Immunodeficiency Virus

ICCP : Information and Community Consultation Programme

JICA : Japan International Cooperation Agency

LAC : Land Acquisition Commissioner
L&B : Land and Building Department

LAA : Land Acquisition Act LIG : Low Income Group

MRTS : Mass Rapid Transit System

MIG : Middle Income Group

MCD : Municipal Corporation of Delhi

NCT : National Capital Territory
NCR : National Capital Region

NTH : Non-Title Holder

NGO : Non-Governmental Organization

OBC : Other Backward Castes

OP : Operational Policy

PIU : Project Implementation Unit
PAF : Project Affected Family
PAP : Project Affected People

ROW : Right of Way

RAP : Resettlement Action Plan

Abbreviation



RTFCTLARR Act : Right to Fair Compensation and Transparency in Land Acquisition,

Rehabilitation and Resettlement Act

ROW : Right of Way

R&R : Resettlement & Rehabilitation
SIA : Social Impact Assessment

SC : Scheduled Castes
ST : Scheduled Tribes

STD : Sexual Transmitted Disease
SMU : Social Management Unit

SLAO : Special Land Acquisition Officer

SBE : Small Business Enterprise
TBM : Tunnel Boring Machine
TOR : Term of Reference

TH: Title Holder

Abbreviation



# CHAPTER – 1 PROJECT DESCRIPTION

#### 1.1 BACKGROUND

With the fast expansion of the urban area in the NCT of Delhi, the transportation network has also expanded with many new features. The mega-cities with a population of more than 10 million need to maintain their Public Transport System because of the requirement of linkages between workplace and residence, educational institutions and residence, trade and cultural centres and residence besides linkages with inter-city transportation terminals of rail, road and air.

The intra-city traffic volume in Delhi necessitated a full-fledged integrated multi-modal mass rapid passenger system. Given this, the then Delhi Government entrusted the task to RITES for conducting a Feasibility Study in 1990-91 for an 'Integrated Multi-Modal Mass Rapid System'. The Feasibility Report submitted by RITES, a Govt agency, recommended a three-tier transport system comprising of Rail corridors (elevated & at-grade), Metro corridors (underground) and dedicated busway. The recommended Metro network in the 'Revised Metro Master Plan for 2021', prepared by RITES, total to a length of 413.83 km and was slated for completion latest by the year 2021 in four phases. Accordingly, based on traffic and transport studies conducted by the authorized agencies, various corridors had been identified in Phase-I, II & III of Delhi Metro Project. All the corridors of Phase-I and Phase-III are already fully operational and except for a 2.66 km stretch, all other stretches of Phase-III are also fully operational.

# 1.1.1 Existing Metro System

Following are the corridors of Delhi Metro under Phase-I, II and Phase-III:

#### First Phase of Delhi Metro Project

	Sub-total (Phase-I)	-	65.10 km
v)	Extension of Line-3 into Dwarka sub-city	-	6.50 km
iv)	Barakhamba Road-Indraprastha	-	2.80 km
iii)	Barakhamba Road-Dwarka	-	22.80 km
ii)	Vishwa Vidyalaya-Central Secretariat	-	11.00 km
i)	Shahdara-Rithala	-	22.00 km



# Second Phase of Delhi Metro Project

i)	Vishwa Vidyalaya-Jahangirpuri	-	6.36 km
ii)	Central Secretariat-Qutab Minar	-	12.53 km
iii)	Shahdra-Dilshad Garden	-	3.09 km
iv)	Indraprastha-New Ashok Nagar	-	8.07 km
v)	Yamuna Bank-Anand Vihar ISBT	-	6.17 km
vi)	Kirti Nagar-Mundka (with operational		
	Link to Line-1 at Inderlok)	-	18.46 km
vii)	Dwarka Sec.9-Sec.21	-	2.76 km
viii)	Qutub Minar-Arjan Garh (Delhi portion)	-	7.42 km
ix)	Central Secretariat-Badarpur	-	20.01 km
x)	Airport Link	-	19.20 km
xi)	Dwarka Sec.21-Airport	-	3.50 km
Sub-	total (Phase-II)	-	107.57 km

Also, the following extensions of Delhi Metro Phase-II to NCR have also been implemented and are already operational: -

Sub-total	-	16.62 km
(c) Anand Vihar ISBT-Vaishali	-	2.57 km
(b) Arjan Garh-Huda City Centre	-	7.05 km
(a) New Ashok Nagar-Noida City Centre	-	7.00 km

# **Third Phase of Delhi Metro Project**

Sub	-total (Phase-III)	-	112.09 km
vi)	Dwarka - Najafgarh – Dhansa Bus Stand Extn	-	5.48 km
v)	Shiv Vihar Extension	-	2.90 km
iv)	Janakpuri-Kalindi Kunj	-	34.27 km
iii)	Mukundpur- Yamuna Vihar	-	55.70 km
ii)	Central Secretariat-Kashmiri Gate	-	9.37 km
i)	Jahangirpuri-Badli	-	4.37 km

In addition, the following extensions of Delhi Metro corridors to NCR have also been implemented in phase III: -

(d)	Faridabad Extension	-	13.88 km
(e)	Mundka –Bahadurgarh	-	11.18 km
(f)	Kalindikunj to Botanical garden	-	3.96 km
(g)	Dilshad Garden to New Bus Adda Ghaziabad	-	9.60 km
(h)	Escorts Mujesar to Ballabhgarh	-	3.20 km



Total Phase-I, II, III & Extensions to NCR - 349.88 km

Even with Phase-III, intended to be fully operational by June 2021, Delhi would still lag in terms of having adequate coverage by the metro network to meet the transport requirements of its population. Hence the need to plan Phase IV has arisen. The total length for Phase-IV as approved by the Central Government is approximately 61.66 km for three priority corridors and is planned for completion by 2025.

#### 1.2 PROPOSED PHASE IV METRO CORRIDORS

While sanctioning Phase-III of Delhi Metro, Empowered Group of Ministers (EGoM) desired that the under mentioned corridors should be examined and brought to them for sanction:

- 1. Yamuna Vihar to Shiv Vihar
- 2. Dwarka to Najafgarh
- 3. Mundaka to Bahadurgarh
- 4. Rithala to Bawana
- 5. Sec-21 Dwarka to IFFCO Chowk
- 6. Shiv Vihar to Mukundpur (modified as Maujpur to Mukundpur)
- 7. Bawana to Rithala

In addition to above, DMRC was also directed to come up with a proposal for Phase IV of Delhi Metro. Following corridors were proposed by DMRC to be taken up in Phase IV of Delhi Metro.

TABLE 1.1
PHASE – IV CORRIDORS

S. No.	Corridors	Total (km)
1.	Yamuna Bank to Loni Border	11.97
2.	Rithala to Bawana.	12.50
3.	Janak Puri West to Mukundpur	18.74
4.	Mukundpur to Dilshad Garden	17.54
5.	Kirti Nagar to Dwarka Sec-28	18.17



6.	Badarpur to Delhi Aero City	20.79
7.	Lajpat Nagar to Madangir	7.33
8.	Azadpur to R.K.Ashram	8.90
	Total	115.94

However, in between, Delhi Govt. got prepared DPR for Trilokpuri to Shastri Park to be taken up as Monorail corridor and hence the same will not be part of Phase-IV Metro. The traffic study was done by M/s. RITES brought out that under mentioned corridors are having the requisite traffic and to be considered for implementation as part of Phase IV:

- 1. Janakpuri (W) Mukundpur R.K. Ashram (28.92 km)
- 2. Trilokpuri to Loni Border (20 km): The part of this corridor, as mentioned above, is already decided to be taken up as Monorail corridor and hence will not be part of Phase-IV Metro but entire corridor may have Monorail.
- 3. Tughlakabad to Aerocity (20.2 km)
- 4. Lajpat Nagar to Saket G Block (7.96 km)
- 5. Inderlok to Indraprastha (12.58 km)
- 6. Rithala -Bawana -Narela (21.73 km):
- 7. Maujpur to Mukundpur (12.54 km): (i.e. Maujpur-Yamuna Vihar Mukundpur)

The total length of above corridors comes to 103.93 km. However, following 3 priority corridors have been identified for implementation under Phase-IV-Part A of Delhi Metro:

TABLE 1.2
PHASE – IV PRIORITY CORRIDORS

S. No.	Corridors	Total (km)			
PHASE-IV -	PHASE-IV – PART A METRO RAIL PRIORITY CORRIDORS				
1.	Janakpuri West to R K Ashram	28.92			
2.	Mukundpur to Maujpur	12.56			
3.	Aerocity to Tughlakabad	23.62			
	Total for Metro Rail Corridors	65.10			

# 1.2.1 Description of Routes Alignments

Aero City-Tuglakabad Corridor: This corridor originates from Aero City; adjacent to an existing station on the Airport Express line; crosses National Highway-8; leads in the southeast



direction as an underground section under Mahipal Pur village up to km 1.4. Thereafter it aligns along the Abdul Gaffar Khan Marg leading towards Andheria Mor and runs along it up to Kishangarh. Here it turns left passes under Vasant Kunj and Mehrauli by the side of Bhul Bhulliya and aligns along Mehrauli – Badarpur Road. It emerges out from underground section to elevated section between km 11.715 and km 11.866. First elevated station is Saket G Block. Alignment continues to run along the Mehrauli – Badarpur road as elevated section up to km 18.55. Here it further changes from elevated section to the underground section and remains underground till Tughlakabad.

Janakpuri West To Ram Krishna Ashram Marg Corridor: This corridor is an extension of Kalindi Kunj-Janakpuri West Corridor of Phase-III of Delhi Metro. From Janakpuri West (underground station) this corridor takes left turn to fall on Dr Hedgewar Marg (outer ring road) and becomes elevated through ramp near Anand Kunj red light on the outer ring road. Then up to Ashok Vihar, the corridor is an elevated corridor and passes through many prime localities like Krishna Park, Vikas Puri, Keshopur, Meera Bag, Sunder Vihar, Peeragarhi, Mangolpuri, West Enclave, Pushpanjali Enclave, Deepali, Rohini, Saraswati Vihar, Madhuban Chowk, Pitampura, Prashant Vihar, Badali Mor, Makaraba Chowk, Jahangir Puri and Bhalaswa Gaon.

From Derawal Nagar onward, the alignment becomes underground and generally passes under G.T.Road. The underground alignment passes through Rajpura, Ghanta Ghar, Subji Mandi, Pulbangesh, Sadar Bazar, Motia Khan and finally, terminates at Ram Krishna Ashram Marg where it has passenger interchange with existing Ram Krishna Ashram Marg Station of Line-3.

**Mukundpur - Maujpur Corridor (Via Burari, Khajuri Khas**): This corridor is an extension of Mukundpur- Rajouri Garden-INA- Nizamuddin- Anand Vihar - Maujpur Corridor of Phase-III of Delhi Metro. From Maujpur this corridor runs along Road no-66 and near Yamuna Vihar takes left turn to fall on Mangal Pandey Marg. Then up to Wazirabad Bridge, the corridor is an elevated corridor and remains on Mangal Pandey Marg and passes through many prime localities like Yamuna Vihar, Gokulpuri, Bhajanpura, Khajurikhas etc.

After crossing Wazirabad Bridge, it reaches Soorghat and then takes a right turn to fall on Dr Hedgewar Marg (outer ring road). Further, it remains on the same road and passes through Jagatpur, Burari and finally, at Mukundpur Red Light on Dr Hedgewar Marg (outer ring road), it turns left to terminate at Majlis Park Station of Phase-III.



TABLE 1.3
DETAILS OF PHASE-IV PRIORITY CORRIDORS

S. N	Corridor	Under-	Elevated	Total	Stations (Nos)		)
		ground	/at	Length	Under-	Elevated	Total
			Grade	(km)	ground		
1	Aerocity to Tughlakabad	19.343	4.279	23.622	12	4	16
2	Janakpuri West to R.K. Ashram	7.740	21.180	28.920	7	14	21
3	Mukundpur- Maujpur	0.0	12.558	12.558	0	8	8
	Total	27.083	38.017	65.100	19	26	45



7

FIGURE 1.1
INDEX PLAN FOR AERO CITY TO TUGHLAKABAD

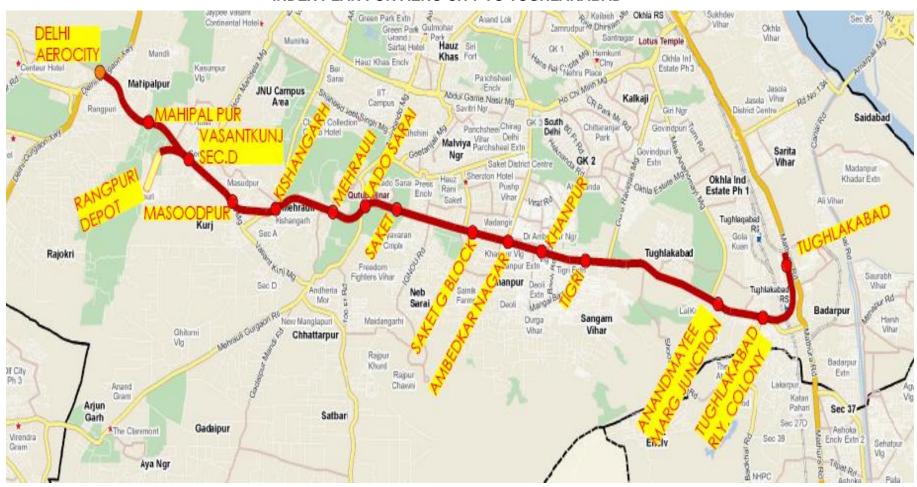




FIGURE 1.2
INDEX PLAN FOR R.K. ASHRAM TO JANAKPURI WEST

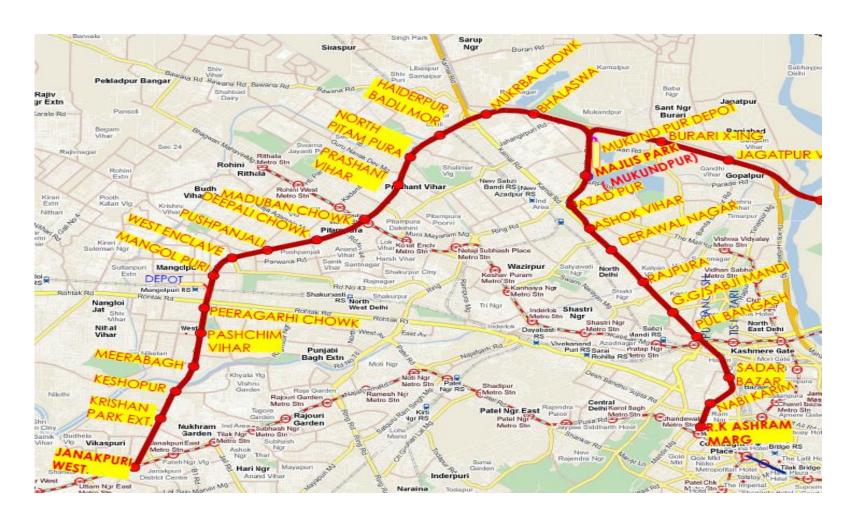
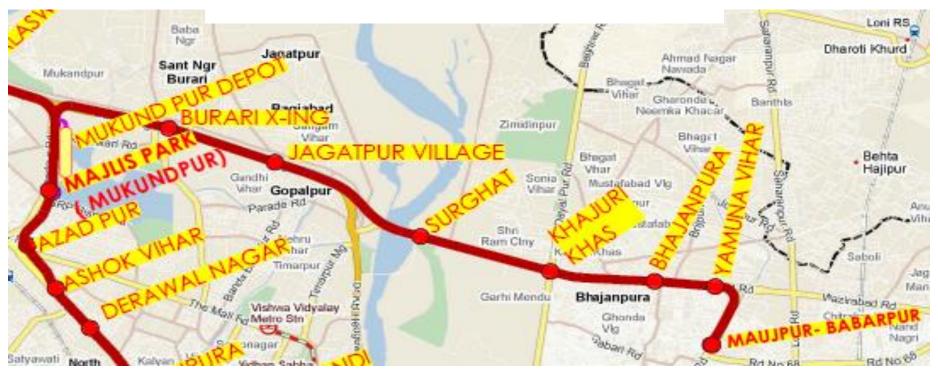




FIGURE 1.3
INDEX PLAN FOR MUKUNDPUR TO MAUJPUR





# 1.3 RIDERSHIP ON PHASE IV

Daily ridership on the phase IV corridors of the metro system in 2021 is expected to be 5.22 lakh passengers with 10.0 lakh boardings. The average trip length with the full system up to Phase-IV is 16.8 km in the year 2021. Phase IV corridor wise total daily boarding and trips for the years 2021, 2031 and 2041 are shown in **Table 1.4**.

TABLE 1.4

CORRIDOR WISE DAILY RIDERSHIP ON PHASE-IV PART A DELHI METRO

CORRIDORS

		Daily Boarding (including Interchanges)		Daily Trips (Passengers)			
S.N	Name	2021	2031	2041	2021	2031	2041
1	Janakpuri West to RK Ashram	550719	757503	1026359	275579	528054	776060
2	Mukundpur to Maujpur	178631	270411	329894	96198	188503	249442
3	Tughlakabad to Aero City	279176	357867	478131	150345	249468	361529
Grand	d Total	1008526	1385781	1834384	522122	966025	1387031
Daily	Boarding's / Trips	.000020	1000101	100 1004	V   L_	000020	1007001

The increment in daily trips due to implementation of phase-IV of Delhi Metro corridors is expected to be 5.22 Lakh, 9.66Lakh and 13.8 Lakh passengers in the years 2021, 2031 and 2041 respectively as shown in **Table 1.5** below.

TABLE 1.5
INCREMENTAL DAILY TRIPS (PASSENGERS) DUE TO PHASE IV PART A OF DELHI METRO

Vaar	Daily Trips		Incremental Trips
Year	With Phase I, II & III	With Phase I, II, III & IV	Due to Ph IV
2021	4,055,753	4,577,875	522,122
2031	5,184,850	6,150,875	966,025
2041	6,516,690	9,903,721	1,387,031

#### 1.4 ROLLING STOCK

Following are the salient features of rolling stock



- Running of services for 19 hours of the day (5 AM to Midnight) with a station dwell time of 30 seconds,
- Makeup time of 5% with 8% coasting.
- Scheduled speed has been assumed as below: -
  - (a) Tughlakabad to Aerocity Corridor: 35 kmph
  - (b) Extension of Line # 8 from Janakpuri West to R K Ashram (Botanical Garden to R. K. Ashram Corridor): 35 kmph
  - (c) Mukundpur to Maujpur Corridor: 35 kmph

TABLE 1.6
SALIENT FEATURES OF STANDARD GAUGE (3.2 M WIDE STOCK) CARS

S. No.	Parameter	Standard Gauge (3.2 m wide stock) Cars
1	Gauge (Nominal)	1435mm Standard Gauge
2	Traction system	
2.1	Voltage	25 KV AC
2.2	Method of current collection	Overhead Current Collection System
3	Train composition	
3.1	6 car:	DMC+TC+MC+MC+TC+DMC
4	Coach Body	Stainless Steel
5	Coach Dimensions	
5.1	Height	3.9 m
5.2	Width	3.2 m
5.3	Length over body (approx)	
	- Driving Motor Car (DMC)	21.81 m
	- Trailer Car (TC)	21.34 m
	- Motor Car (MC)	21.34 m
	The maximum length of the	22 to 22.6 m (depending upon Kinematic
	coach over couplers/buffers:	Envelop)
5.4	Locked down Panto height	4048 mm
5.5	Floor height	1100mm
6	Designed - Passenger Loading	
6.1	Design of Propulsion	8 Passenger/ m <sup>2</sup>
	equipment	
6.2	Design of Mechanical systems	10 Passenger/ m <sup>2</sup>
7	Carrying capacity- @ 6	
	standees/sqm	
7.1	Coach carrying capacity	
	DMC	300 (seating - 50; standing - 250)
	TC	300 (seating - 50; standing - 250)
	MC	300 (seating - 50; standing - 250)
7.2	Train Carrying capacity	



S. No.	Parameter	Standard Gauge (3.2 m wide stock) Cars
	6 car train	1800 (seating - 300; standing - 1500)
8	Weight (Tonnes)	
8.1	Tare weight (maximum)	
	DMC	42.502
	TC	40.852
	MC	42.104
8.2	Passenger Weight in tons	@ 0.065 T per passenger
	DMC	19.50
	TC	19.50
	MC	19.50
8.3	Gross weight in tons	
	DMC	62.002
	TC	60.352
	MC	61.604
9	Axle load(T)(@ 8 persons per	17
	sqm of standee area)	
		The system should be designed for 17T
		axle load
10	Maximum Train Length	135.6 m
	(approx.)	
11	Speed	
11.1	Maximum Design Speed	95 Kmph
11.2	Maximum Operating Speed	85 Kmph
11.3	Scheduled Speed	35 kmph
12	Wheel Profile	UIC 510-2
13	Noise Limits (ISO 3381 and 3095 - 2005)	
13.1	Stationary (Elevated and at grade)	
13.1.1	Internal (cab and saloon)	LpAFmax 65 dB(A)
13.1.2	External (at 7.5 mtr from centre	LpAFmax 68 dB(A)
	line of track)	
13.2	Running at 85 kmph (Elevated	
	and at grade)	
13.2.1	Internal (cab and saloon)	LpAeq,30 72 dB(A)
13.2.2	External (at 7.5 mtr from centre	LpAFmax 85 dB(A)
	line of track)	
13.3	Stationary (Underground)	
13.3.1	Internal (cab and saloon)	LpAFmax 72 dB(A)



13

S. No.	Parameter	Standard Gauge (3.2 m wide stock) Cars
14	Traction Motors Ventilation	Self
15	Acceleration on level tangent	1.0 m/sec <sup>2</sup>
	track	
16	Deceleration on level tangent	1.1 m/sec² (>1.3 m/sec² during emergency)
	track	
17	Type of Bogie	Fabricated
18	Secondary Suspension springs	Air
19	Brakes	- An electro-pneumatic (EP) service friction brake
		- An electric regenerative service brake
		- Provision of a smooth and continuous
		blending of EP and regenerative braking
		- A fail-safe, pneumatic friction emergency brake
		- A spring-applied air-release parking brake
		- The brake actuator shall operate a Tread brake
		- Brake Electronic Control Unit (BECU)
		- Independent for each car
20	Coupler	macpondon for each ear
	The outer end of 2-car/3-car	Automatic coupler with mechanical,
	Unit (except driving cab ends)	electrical & pneumatic coupling (between
	,	two 'DM+T+M' units)
	Between cars of the same Unit	Semi-permanent couplers (between 'M' car
		and 'T' car and 'DM' car and 'T' car)
	Driving Cab end of cars (DMC)	Automatic coupler with mechanical &
		pneumatic coupling but without electrical
		coupling head
21	Detrainment Door	Front
22	Type of Doors	Sliding
23	Passenger Seats	Stainless Steel
24	Cooling	
24.1	Transformer	Forced
24.2	CI & SIV	Self/Forced
24.3	TM	Self-ventilated
25	Control System	Train based Monitor & Control System
		(TCMS/TIMS)
26	Traction Motors	3 phase VVVF controlled
27	Temperature Rise Limits	
27.1	Traction Motor	Temperature Index minus 70 deg C



S. No.	Parameter	Standard Gauge (3.2 m wide stock) Cars
27.2	CI & SIV	10 deg C temperature margin for Junction
		temperature
27.3	Transformer	IEC specified limit minus 20 deg C
28	HVAC	<ul> <li>Cooling, Heating &amp; Humidifier (As required)</li> <li>Automatic controlling of interior temperature throughout the passenger area at 25°C with 65% RH all the times under varying ambient conditions up to full load.</li> </ul>
29	PA/PIS	Required
30	Passenger Surviellance (CCTV)	Required
31	Battery	Ni-Cd
32	Headlight type	LED
33	Coasting	8% (Run time with 8% coasting shall be the 'Run Time in All out mode plus 8%')

#### 1.5 MAINTENANCE DEPOTS

No new maintenance depots have been proposed for the Phase-IV Part A corridors. Existing depots at Sarita Vihar, Kalindi Kunj and Mukundpur will be augmented to accommodate the additional requirements of Aerocity – Tughlakabad, Janakpuri West – R K Ashram and Mukundpur – Maujpur corridors respectively.

#### 1.6 TRACTION SYSTEM

The existing system of electric traction on all the corridors of Delhi Metro constructed in Phase – I, Phase – II and adopted in Phase – III is at 25kV ac single phase. This is based on techno-economic studies for Delhi.

- (a) The same traction system for the proposed Phase-IV corridors has been considered, viz 25 kV 50 Hz ac single phase.
- (b) Alternatively, a study is also being carried out for 2x25 kV AC single Phase traction system which has benefits in terms of the following: -
  - (i) RSS requirement is reduced to half.
  - (ii) Do away with the BT/RC system as no electromagnetic interference mitigation is required in 2x25 kV system.
  - (iii) Reduced transmission losses in the system.



In the open area at grade and on elevated structures flexible overhead equipment (OHE), similar to the existing corridors has been considered and to be provided or if 2x25 kV system is adopted will need additional feeder wire to be taken and the design shall be finalized accordingly.

The underground sections will have a rigid overhead catenary system, similar to that provided for the underground sections constructed in Phase – I, Phase – II and adopted in Phase – III of Delhi metro and in case of 2x25 kV system it will be finalized similar to Sin - Bundang line of Seoul Metro.

#### 1.7 AUXILIARY SUPPLY

The auxiliary supply and general electrical services of the elevated and above ground portion shall generally follow the system design of 33 kV ring main adopted for corresponding sections of Phase – II with some modifications based on a technoeconomic study being done and same may be adopted in phase-III.

#### 1.8 SOURCES OF POWER SUPPLY

Since Delhi metro has adopted 25kV ac single phase overhead catenary traction system or planning for 2 X 25 kV traction system, therefore the power supply at 66 kV or 220kV level only has to be taken from the Grid Sub Stations of Delhi Transco Limited (DTL) on technical consideration of short circuit level etc. Following will be the sources as tabulated in **Table 1.7**.

TABLE 1.7
TRACTION SYSTEM\*

Corridor		Location of source of power	
Janakpuri West to R. K. Ashram	1	Feed extension from Janakpuri West	
Corridor (28.83 km, 25 Stations of which		station of phase-III supply.	
7 Underground stations).	2	At 66 kV from proposed Sanjay Gandhi	
		Transport Nagar 220 kV GSS.	
	3	At 66 kV from Park Street 220 kV GSS.	
Aerocity to Tughlakabad Corridor	1	At 66 kV from Vasant Kunj 220 kV GSS	
(20.20 km, 15 Stations of which 10	ı	or proposed Rangpuri 220 KV GSS.	
Underground Stations)	2	At 66 kV from Tughlakabad 220 kV	
	2	GSS.	
Mukundpur –Burari- Maujpur		Mukundpur and Yamuna Vihar RSS	

<sup>\*</sup> In case of 2 x 25 kV system being adopted no of RSS required will be by fifty per cent and there may be need of Auto Transformers posts (ATP).



In Phase – IV, the corridors described above, are passing through the densely populated areas of Delhi and will be having underground stations and tunnels. The availability of power from the existing grid sub-station in these areas is scarce and, therefore, innovative methods are to be "thought – of" for providing reliable power at high voltage based on techno-economic considerations.

The locations of the RSS – cum – TSS to be constructed in Phase – IV will be finalized during detailed design stage keeping in view the location of Delhi Transco Limited's supply sources (GSS) in the vicinity and the availability of land for RSS.

#### 1.9 POWER DEMAND ASSESSMENT

### (a) Traction Power: -

The traction power system is designed for the ultimate 6-car train operation at headway of 90-seconds corresponding to 40 trains per hour for corridors Janakpuri West to R.K.Ashram, Aerocity to Tughlakabad and Mukundpur to Maujpur.

#### (b) Auxiliary Power: -

#### i) Elevated Stations: -

The demand of power at each elevated station is expected to be about 200 kW in the initial years and is likely to reach 500kW later. Also, there will be some additional requirement for other property development loads at stations. The limited requirement of load due to property development within the footprints of the station can be met either from the spare capacity in the station transformers or by adding one additional transformer of 630 kVA capacity in the station ASS for which provision for space will be made during the design stage. This may be feasible depending upon the diversity of station loads and property development loads.

For larger property development loads (above the capacity of transformers of 630 kVA), the power transformer at RSS and the corresponding cable network may need an upgradation for which the expenditure is to be charged to property development.

#### ii) Underground Stations: -

The demand for power at each underground station is assessed at a connected load of 2.8 MW with a load factor of 0.8 of 3.5 MVA for 6 car.

The additional peak demands of power for the corridor for the year 2021, 2031 and 2041 have been indicated in **Table 1.8**. The peak power demand for the designed headway of 90 seconds with 6-car train operation has also been indicated in this table.



TABLE 1.8
POWER DEMAND ASSESSMENT (in MVA)

Year	Corridor	Traction	Auxiliary	Traction	Auxiliary	Total
2021	Janakpuri West to R. K. Ashram	12.32	23.59			
	Aerocity to Tughlakabad	7.11	28.91	24.43	54.7	79.13
	Mukundpur-Burari- Maujpur	5.00	2.20			
	Janakpuri West to R. K. Ashram	14.57	28.29			
2031	Aerocity to Tughlakabad	8.89	32.92	30.86	64.21	95.07
	Mukundpur-Burari- Maujpur	7.40	3.00			
	Janakpuri West to R. K. Ashram	19.57	35.21			
2041	Aerocity to Tughlakabad	11.67	37.55	40.54	76.46	117
	Mukundpur-Burari- Maujpur	9.30	3.70			
Design	Janakpuri West to R. K. Ashram	59.13	35.21			
	Aerocity to Tughlakabad	41.71	37.55	119.44	76.46	195.9
	Mukundpur-Burari- Maujpur	18.60	3.70			

# 1.10 POWER DEMAND

Power demand has been worked out for the proposed corridors accordingly and is given in the table below: -



TABLE 1.9
POWER DEMAND

	Corridor	Power Demand in MVA				
S. No		2021	2031	2041	Designed Headway of (6-car train at 90 sec)	
1.	Janakpuri West to R. K. Ashram	35.92	42.86	54.87	94.33	
2.	Aerocity to Tughlakabad	36.02	41.81	49.22	79.26	
3.	Mukundpur to Maujpur	7.2	10.4	13.0	22.30	

#### 1.11 CONSTRUCTION METHODOLOGY

#### 1.11.1 Elevated corridor

It is proposed to provide single box-shaped /Double U girders as a superstructure for the viaduct as adopted in various sections in phase-I, II& III. As the alignment passes through sufficiently wide roads, no difficulty is envisaged during construction. However, at some locations, these will be a need for providing special spans to be finalized at the stage of detailed design.

#### 1.11.2 Elevated Stations

Elevated stations will normally of two types (concourse under the platform and concourse on both sides of alignment provided in towers and interconnection between two through a FOB) as adopted in Phase I, II & III. The construction methodology shall remain the same as adopted for the respective type of stations in phase- I, II & III.

# 1.11.3 Underground Section

Construction of the underground section shall be done by "cut and cover" as well as by "bored" tunnelling method (TBM). Cut and cover methodology for various sections of the proposed corridor will be the same as already done in phase- I, II & III.

#### 1.12 CONSTRUCTION STRATEGY

#### 1.12.1 Civil works

It is proposed that whole corridor can be subdivided into smaller stretches. Each stretch can be 5 to 6 km long. These can be termed as Contract Packages. Each Contract Package will include even Metro stations falling in that particular stretch.



# 1.12.2 Power Supply & Electric Traction Works

Detailed Designs of 'Power Supply & Electric Traction' works will mostly be done inhouse. For detailed designs of a few specialized items, DDCs will be engaged. These works will be got executed through 'construct' contracts. Cables and other materials required in bulk will be procured by DMRC itself and supplied to the 'construction' contractors. This strategy of mostly doing the detailed design work in-house, getting the works executed through construction contracts, procuring cable and other bulk materials and supplying the same to the construction contractors will enable DMRC to reduce the cost of these works. Entire Power Supply & Electric Traction works can be carried out through a single contract for each corridor respectively.

#### 1.12.3 Track Work

Detailed design of ballastless / ballasted track will be done in-house by DMRC. Track work shall be got executed through 'construct' contract. Material like rails, sleepers, track fittings, turnouts, etc. will be procured by DMRC and supplied to the construction contractors. It is proposed to have one track work contract for approximately 15 km long alignment.

# 1.12.4 Signalling & Telecommunication works

These will be split into separate Signalling contracts & Telecommunication contracts. Signalling works will be got executed through 'Design, Construct, installation, testing, & commissioning' basis. It is proposed to have one Signalling contract for entire stretch for each corridor respectively.

Telecommunication works will be got done through 'construct' contract with detailed designs being done in-house. DDCs may also be engaged for specialized items where necessary. Most of the materials required for telecommunication works like cable etc. will be procured by DMRC and supplied to the construction contractors. Entire Telecommunication works can be carried out through a single contract for each corridor respectively.

### 1.12.5 Automatic Fare Collection (AFC) System

Installation of the AFC system will be got done by DMRC through 'construct' contracts. Hardware and software required for the AFC system will, however, be procured by DMRC and supplied to the contractors. Entire AFC works can be carried out through a single contract for each corridor respectively.



# 1.12.6 Tunnel Ventilation and Air-conditioning System

Design work of this system will be done in-house but execution will be done through 'construct' contracts. SES analysis, however, maybe got done through a DDC. The bulk of materials required for ventilation and Air-conditioning system will be procured by DMRC and supplied to the construction contractors. Entire Tunnel ventilation and Air-conditioning works can be carried out through a single contract for each corridor respectively.

#### 1.12.7 Rolling Stock

Rolling Stock required for the project will be procured on design, manufacture, supply, testing and commissioning basis.

#### 1.13 CONSTRUCTION PERIOD

As per the acquired experience, total work can be completed in 60 months period from the date of start. The work has been started by December 2019, and various sections can be opened in phases by March 2025. Project completion date is subject to land required for the project is made available to DMRC within 6 months period from the date of sanction of the project.

#### 1.14 COST ESTIMATES

Project Cost estimates for the DMRC's Phase-IV Part A metro network has been prepared covering civil, electrical, signalling and telecommunication works, rolling stock, environmental protection, rehabilitation, considering 25 kV AC traction at January 2019 price level, both for Capital and Operation & Maintenance costs.

To arrive at a realistic cost of various items, costs have been assessed based on accepted/completion rates in various contracts, awarded for similar works by DMRC in Phase-II. A suitable escalation factor has been applied to bring these costs to January 2019 price level. Taxes & Duties such as Customs Duty, Excise Duty, Sales Tax, Works Tax, VAT, etc, wherever applicable, have been worked out based on prevailing rates and included in the cost estimates separately.

The overall Capital Cost for the DMRC's Phase-IV Part-A metro network at January 2019 price level works out to **Rs. 22,493 Crores** including applicable Taxes & Duties and also including the cost of rolling stock for the additional induced traffic on Botanical Garden-Janakpuri West Corridor due to Phase IV Part-A, as tabulated hereunder.



TABLE 1.10
CORRIDOR-WISE DETAILS OF CAPITAL COST

S.No.	Corridor	Capital Cost	Taxes &	Total	
		(Rs. Crore)	Duties	(Rs. Crore)	
			(Rs. Crore)		
1.	Aerocity - Tughlakabad	7293	938	8231	
2.	Janakpuri West – R K	8394	955	9349	
	Ashram				
3.	Mukundpur-Maujpur	1943	247	2190	
4.	Additional Rolling Stock	2339	384	2723	
	including augmentation				
	of depot				
Total		19969	2524	22493	

#### 1.15 OBJECTIVE AND SCOPE OF THE STUDY

The Social Impact Assessment (SIA) study has been conducted as per general Terms of Reference (ToR) for the metro project. To implement appropriate social measures by making clear its procedures and criteria for decision making and for meeting the requirements of the funding agency, the main objective of the social assessment is to ensure transparency, predictability and accountability in the present study. The study shall have the following objectives:

- To assess the socio-economic conditions of the families/people likely to be affected due to the proposed metro rail project phase IV Part-A,
- To examine potential positive and negative impacts on the socio-economic condition of people in the project area,
- To develop appropriate measures to minimise the negative socio-economic impacts,
- To prepare the Resettlement Action Plan (RAP) based on the existing policies, laws and guidelines of the government for the loss caused to the project affected people.

The scope of the socio-economic study is to include the impacts due to the proposed development of Phase IV Part-A. Based on the site visit and socio-economic survey, it will generate socio-economic data about project affected families. Based on the data, the project proponent shall develop measures to safeguard the PAFs from the loss occurred due to the proposed project with an objective of sustainable development. The study shall meet the initial requirement of funding agencies / Institutions for funding of the proposed three corridors.



#### 1.16 LAND ACQUISITION AND RESETTLEMENT

The proposed project requires land. The acquisition of land for the project shall displace people from their home, livelihood base since land is a scarce commodity in Delhi. Efforts have been made to keep the land requirement to the bare minimum by so choosing the alignments that the acquisition of private property is minimal. The land is mainly required for route alignment of rail tracks, station buildings, platforms, entry/exit structures, traffic integration, car shed, power sub-stations, ventilation shafts, administrative buildings, property development and temporary construction depots and work sites etc.

The project involves the relocation of shops, commercial-cum-residential buildings and hutments along the proposed corridors. Compensation shall be paid accordingly, for the relocation of shops, commercial-cum-residential buildings and hutments likely to be affected due to the proposed project.

#### 1.17 MINIMISING RESETTLEMENT

Attempts have been made during the detailed design of the project preparation to minimize the land acquisition, resettlement and adverse impacts on people in the project area through suitable engineering design. Steps have already been made to confine the project area in the government land and in available Right of Way (ROW) where feasible. This has been done with proper consultation with the local people and affected communities. Their suggestions have been incorporated, in the design, whenever technically feasible. However, there will be some unavoidable land acquisition for which adequate compensation has been provided. For the proposed work the following specific measures are taken to minimize resettlement in this project.

- Selection of the subproject sites and its various components in the government land; and
- Adequate engineering design to avoid and minimize displacement and hence resettlement.

### 1.18 OBJECTIVE OF RESETTLEMENT ACTION PLAN

The Resettlement Action Plan is based on the principle that the population affected by the project will be assisted to improve their former living standards. 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 improving their former living standards. The rationale behind preparing RAP is not only to restore and improve the standard of living of PAPs but also bring qualitative changes in their life. Considering that



the ultimate aim of RAP is to improve the quality of life of the affected persons, it is important to assess the changes brought about by the project. As per the scope of work, Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 will be followed for land acquisition, rehabilitation and resettlement. Since Japan International for International Cooperation Agency (JICA) will finance the project, the JICA guidelines on Environmental and Social Consideration have been followed.

#### 1.19 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. The project is considered to have likely significant impacts on sensitive zones. 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 are also desirable. The study requires the people and its social environment shall be addressed in the social assessment report.

#### 1.20 APPROACH AND METHODOLOGY FOR SOCIO-ECONOMIC STUDIES

The approach adopted to conduct the socio-economic study is described below and is structured on the general ToR for the metro project. The study aims at collecting baseline data for socio-economic information and identifies the affected population by residence, business base and their locality. The study is primarily based on field data generated during the social survey and secondary data were collected from the census handbooks/gazetteers / other relevant texts.

The methodology for conducting sample socio-economic survey of the proposed project involves a review of topographical survey drawings, field visits, data collection and public consultations at project areas.

- a) Reviewed the topographical maps and Detailed Project Report (DPR) of the project.
- b) Conducted sample socio-economic survey covering affected households, squatters, kiosks and small business entrepreneurs with the help of pretested "Household Questionnaire". Important aspects covered in the questionnaire were identification



particulars of PAPs, his or her family details, social profile, occupation, income, details of the structure, commercial/self-employment activities, household income, annual expenditure, employment pattern, health issues, gender issues, type of effects/loss etc. Most of the questionnaire has been pre-coded except those reflecting the opinion and views of the PAP, which have been left open-ended. A questionnaire is given in **Annexure-1.1**.

- c) To understand the social issues associated with the proposed project require baseline data. The baseline data have been collected from secondary sources such as the Census and the Statistical Handbook. Primary data have been collected through a household survey conducted by DMRC officials. The Socio-economic data was collected during January – February 2020.
- d) The development of the proposed metro project has significant positive impacts on the NCT & NCR. The proposed project may also bring myriad forms of unavoidable adverse impacts on the socio and economic environment around. "Social Risk Assessment" approach has been used to determine the associated risk of adverse impacts.
- e) Consultations with affected families at the project level, communities, local leaders, vulnerable groups were held.

#### 1.21 LAYOUT OF THE REPORT

The Social Impact Assessment report is presented in eight chapters. The **Chapter-1** is on Description of the Project. A brief description of the project, objective and scope of the study, and JICA requirements, approach and methodology for the study. Potential Resettlement Impacts including details of land and structure and probable significant social impacts is presented in **Chapter-2**. An analysis of Socio-Economic Studies is presented in **Chapter-3**. Policy, legal and administrative framework is given in **Chapter-4**. **Chapter-5** is on the institutional arrangement for the implementation of the resettlement action plan. Stakeholder's participation and consultations are presented in **Chapter-6**. Resettlement Assistance Plan and Cost Estimates are presented in **Chapter-7**. Finally, Monitoring and Evaluation is given in **Chapter-8**.



# CHAPTER-2 POTENTIAL RESETTLEMENT IMPACTS

#### 2.1 SOCIO- ECONOMIC SURVEY

A sample socio-economic survey was carried out to assess the impacts of the proposed corridors of Delhi metro rail project phase-IV Part-A on the socio-economic conditions of the Project Affected Families (PAFs). To assess the impact, a questionnaire was developed and used to collect information about the families/people likely to be affected. This was essential to understand the nature of impacts in documenting impacts on assets, incomes and livelihood to develop mitigation measures and preliminary resettlement action plan for the affected people. The information compiled is: type of impact, type of ownership, the social profile of the affected people, poverty status, the presence of titleholders and non-titleholders in the project area. The views/opinion of the people about the project and options for rehabilitation and resettlement has also been obtained. The data collected through the socio-economic survey of the project affected area is described in detail in **Chapter 3**. The major findings and magnitude of impacts of the proposed Delhi Metro phase IV Part-A project are discussed in the following sections. The project impacts have been classified into different categories such as impacts on land, impacts on the affected families and their livelihood resources, impacts on structures and impacts on the common property resources.

The Cut-off-Date for those who have legal title is the date of Notification under Section 11(1) of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013. Completion of the census survey shall be the Cut-off Date for non-titleholders.

#### 2.2 PROJECT IMPACTS

The proposed metro rail project will have several positive and negative impacts. In general, the proposed metro rail phase IV Part-A project shall bring the following positive impacts:

- · Generate Employment opportunity,
- · Economy Growth,
- Mobility in the project area,
- Safety in Travelling,
- Traffic Decongestion,
- Save Fossil Fuel,
- Reduce Levels of Air Pollution
- Save Foreign Exchange



The proposed project is not so positive for a section of people / project affected families. The anticipated negative impacts on these people include:

- Loss of Land,
- Loss of Residential Structures,
- Loss of Commercial Structures,
- Loss of Jobs/Works,
- Loss of Livelihood,
- Loss of Common Property Resources
- Loss of Public Utility structures

# 2.2.1 Land Requirement and Acquisition

The proposed Delhi Metro phase IV Part-A project shall require land for different purposes. The land is mainly required for route alignments of rail tracks, station buildings, platforms, entry/exit structures, traffic integration, car shed, power sub-stations, ventilation shafts, administrative buildings, property development and work sites etc. The land is a scarce commodity in Delhi metropolitan areas. Acquisition of land shall make affected families landless in most of the cases. Therefore, every effort has been made to keep land requirements to the bare minimum by realigning the alignments away from private property / human habitation. After planning, the land requirement is kept at a minimum and particularly, acquisition of private land was avoided.

The project shall require the acquisition/transfer of 91.6032 ha of land. Out of the total land, 90.7573 ha is government land and 0.8459 ha is private land. Out of the total government land, 18.80 ha is for permanent use and 71.9573 ha is identified for temporary use. The land identified for temporary use shall be returned to the owning agencies, after the completion of the project construction. Out of the total private land, 0.3207 ha is for permanent use and 0.5252 ha is identified for temporary use. It is observed that out of the total land requirement, about 99.08 per cent of total land would be acquired from government agencies and only 0.92 per cent of the land requirements shall be fulfilled by the private landowners. The details of land requirement and acquisition are presented in **Table 2.1**.

TABLE 2.1
LAND REQUIREMENT AND ACQUISITION (in ha)

Corridor	Land Requirement (Ha)						
	Government		Private		Total		
	Р	Т	Р	Т	Р	Т	
Aerocity - Tughlakabad	7.17	38.66	0.2407	0.4825	7.4107	39.1425	
Janakpuri West – R K Ashram	11.01	26.12	0.08	0	11.09	26.12	
Mukundpur - Maujpur	0.62	7.1773	0.0	0.0427	0.62	7.22	
Total	18.8	71.9573	0.3207	0.5252	19.1207	72.4825	



## 2.2.2 Impacts on Structures

**Table 2.2** indicates the impact of the proposed project on the different types of structures i.e. residential, commercial, residential cum commercial and other types. Based on the alignment drawing the structures likely to be affected have been identified on the ground level during the site visit. The total number of structures likely to be affected in three corridors of Phase-IV Part-A is 70 including public toilet, religious structures etc. Out of the total structures, 5 are residential, 51 are commercial, 3 are residential cum commercial and remaining 11 are such structures which include a public toilet, religious structures etc.

The structure details show that the maximum structures (47) likely to be affected are along the Aero city to Tuglakabad corridor, while 23 structures are on Janakpuri to R.K.Ashram corridor and no structure is likely to be affected on Mukundpur to Maujpur corridor. Out of the total 23 structures along the Janakpuri to R.K.Ashram metro corridor, 9 structures are commercial, 3 structures are residential cum commercial and 11 are other structures. Out of the total 47 affected structures along the Aero City to Tuglakabad, 5 structures are residential, and 42 structures are commercial. At Sadar Bazar area, where the proposed Sadar Bazar station is proposed, there is a school by the name Shri Shiv Middle School. The school management has refused to disclose any information. However, from local enquires it has been learnt about 25 – 30 students' study in the school. It also not confirmed whether this is government-aided or recognized school.

TABLE 2.2
CORRIDOR WISE IMPACT ON STRUCTURES

	TATAL CIT TITLE	/ (0 : 0 : 1 0 : 1	100.011							
Corridor		Type of Structures								
	Residential	Commercial	R + C	Others	Total					
Aerocity - Tughlakabad	5	42	0	0	47					
Janakpuri West – R K Ashram	0	9	3	11	23					
Mukundpur - Maujpur	0	0	0	0	0					
Total	5	51	3	11	70					

R+C - Residential + Commercial

## 2.2.3 Magnitude of Project Impacts

The magnitude of project impact on the structures, which is categorized as partially, and fully affected structures are presented here. Based on alignment drawings, it was found during the site visit that out of total 70 structures, about 36 structures (51.42%) will be fully affected and remaining 34 structures (48.58%) will be partially affected as given in **Table 2.3**. However, the exact number of fully and partially affected structures will be known after peg marking on the ground level.



TABLE 2.3
MAGNITUDE OF PROJECT IMPACTS

Corridor		Magnitude of Impacts										
		Fu	ılly		Partially			Total				
	R	C R+C O			R	С	R+C	0	R	С	R+C	0
Aerocity - Tughlakabad	5	8	0	0	0	34	0	0	5	42	0	0
Janakpuri West – R K	0	9	3	11	0	0	0	0	0	9	3	11
Ashram												
Mukundpur - Maujpur	0	0	0	0	0	0	0	0	0	0	0	0
Total	5	17	3	11	0	34	0	0	5	51	3	11

R+C - Residential + Commercial

## 2.2.4 Impact on PAFs/PAPs

About 54 families consisting of 250 persons will be affected due to the proposed metro project. Majority of families will be affected in Aero City to Tuglakabad corridor. Corridor wise number of PAFs and PAPs is presented in **Table 2.4**.

TABLE 2.4
IMPACT ON PAFS AND PAPS

Corridor	Total PAFs	Total PAPs
Aerocity - Tughlakabad	42 (77.78%)	185 (74.0%)
Janakpuri West – R K Ashram	12 (22.22%)	65 (26.0%)
Mukundpur - Maujpur	0 (0%)	0 (0%)
Total	54 (100%)	250 (100%)

Out of the total 54 families, 22.22% are in the category of Title Holders (TH) and the remaining 77.78% are in Non-Title Holders (NTH) category. The squatters and kiosks are on public land without any legal permission. Corridor wise detail of titleholders and non-title holders are given in **Table 2.5**.

Table 2.5
TITLEHOLDERS AND NON-TITLEHOLDERS

Corridor	Title	Non-Title	Total PAFS
	Holders	Holders	
Aerocity - Tughlakabad	3 (25.0%)	39 (92.86%)	42 (77.78%)
Janakpuri West – R K Ashram	9 (75.0%)	3 (7.14%)	12 (22.22%)
Mukundpur - Maujpur	0 (0%)	0 (0%)	0 (0%)
Total	12 (22.22%)	42 (77.78%)	54 (100%)

#### 2.2.5 Loss of Residence

**Table 2.6** indicates that out of the total 54 PAFs, 5 PAFs shall be affected physically as their residential units are getting affected due to the proposed project. PAFs are likely to be affected residentially in Aero City to Tuglakabad corridor (100%) only.



TABLE 2.6 LOSS OF RESIDENCE

Corridor	Total PAFs	Residential Affected Family	Percentage
Aerocity - Tughlakabad	42	5	11.90%
Janakpuri West – R K Ashram	12	0	0%
Mukundpur - Maujpur	0	0	0%
Total	54	5	9.26%

#### 2.2.6 Loss of Livelihood

As assessed during social impact assessment study, out of total 54 affected families, there are 49 PAFs whose business/livelihoods will be affected due to the loss of the commercial structures vis-a-vis business base in the proposed three corridors. These 49 families shall be affected by way of loss of livelihood due to the displacement of structures, which is categorised as commercial and residential cum commercial structures. Majority of PAFs are likely to be affected commercially in Aerocity to Tughlakabad corridor (75.51%) followed by Janakpuri West to RK Ashram corridor (24.49%).

TABLE 2.7 LOSS OF LIVELIHOOD

Corridor	Total PAFs	Commercially Affected Family	Percentage
Aerocity - Tughlakabad	42	37	75.51%
Janakpuri West – R K Ashram	12	12	24.49%
Mukundpur - Maujpur	0	0	0%
Total	54	49	100%

As observed during the field study, the PAFs are involved in different types of business activities. The different type of business in the project area include but not limited to furniture shops, showrooms of different consumable items, general stores, grocery, hotel, tailoring, manufacturing, scrap shop, etc. The shop owners are a mixed population of both the tenants and owner themselves. Some of the tenant shop owners are carrying their business from last 10 to 15 years.

#### 2.2.7 Loss of Common Property Resources

The proposed project shall also affect common property resources. The common property includes religious structures and public toilets. The two religious structures and five public toilets shall be affected. These structures may not be saved as they are falling within the right of way and the corridor of impact. The details of the affected community properties are presented in



**Table 2.8**. These common properties of the same size and type shall be redeveloped by the project developer at the desired place in consultation with local people.

TABLE 2.8
LOSS OF COMMON PROPERTY

Corridor	Common Property Resources							
	Religious Structures	Public Toilet	Others <sup>1</sup>	Total				
Aerocity - Tughlakabad	0	0	0	0				
Janakpuri West – R K Ashram	2	5	4	11				
Mukundpur - Maujpur	0	0	0	0				
Total	2	5	4	11				

#### 2.3 RELOCATION

The proposed project shall affect both the private, public and community property resources. The loss of private property and loss of community resource shall have social impacts on the local society. Because of social impacts, rehabilitation of the PAFs has been proposed. The relocation of community property resources shall also be done by the DMRC. The diverse nature of social impacts, due to loss of land, loss of structures, loss of community resource property and loss of public utilities, require proper mitigation measures. Identification of adverse social impacts necessitates mitigation measures as per the preference of affected families. During site social survey, choice and desire of affected people have also been collected through survey questionnaires. Mitigation measure of the adverse impacts shall be the following:

- to assist the PAPs in resettling them at a suitable place,
- to provide monetary assistance in the form of shifting allowance and transitional allowance, etc.
- to provide shop for loss of shop at resettlement site by DMRC
- to provide a house for loss of house at resettlement site by Delhi Development Authority (DDA)

As per the "Policy/Guidelines on Relocation and Rehabilitation of the PAPs of All Categories due to Implementation of Delhi MRTS project", DDA will rehabilitate the PAFs occupying residential dwelling units on the recommendation of Land Acquisition Commissioner (LAC) and approval of Land & Building Department (L&B), Government of National Capital of Delhi (GNCTD) and DMRC will rehabilitate PAPs occupying commercial unit/shop by providing constructed shop in the shopping complex. Since no industrial units are expected to be affected by the proposed Delhi metro phase IV project, the Delhi State Industrial & Infrastructure Development (DSIID) has no role in the project resettlement and rehabilitation.



# CHAPTER-3 SOCIO-ECONOMIC PROFILE

#### 3.1 THE PROJECT AREA - AN OVERVIEW

Delhi is the largest metropolitan city by area and the second-largest metropolis by population in India. It is the eighth largest metropolis in the world with a population of 16.76 million (Census, 2011). Census 2001 recorded the Delhi population as 13.85 million which was 9.42 million in Census, 1991. The decadal population growth during 1991-2001 was 46.28% and 21.55% during 2001-11. Table 3.1 describes the demographic profile of NCT Delhi. The area of NCT Delhi is 1,483 sq. km and accommodates 13.85 million people including 7.60 million male and 6.25 million females. Scheduled Caste population comprises 2.34 million. As per the Census record, no scheduled tribe population has been reported in the NCT of Delhi. The sex ratio is about 821 females per 1,000 males. The population growth rate is about 5.67% yearly (1991-01), birth rate 12.29%, death rate about 6.06% and Infant mortality rate is about 23.18%. According to Census 2001, the population density of Delhi is worked out at 9294 persons per sq. km. as against 6352 persons in 1991. Population density at All-India level has been worked out at 324 persons per sq. km. in 2001. Table 3.1 indicates that there are 9.66 million literate people and the literacy rate is about 81.7%. Out of the total literate population, 87.37% are male and 74.7% are female. The urban literacy rate is 82.04% against the rural 78.75%. The total working population is 4.55 million. Out of the total workers, main workers are 31.2%, marginal workers1.6% and non-workers 67.2%.

The density of population in Delhi is highest in the country. The increasing population, highest 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. Previous studies suggest a three-tier component system comprising of Rail corridors (elevated and at grade), metro corridors (underground) and dedicated bus corridors. Metro Rail network was perceived to be fast, convenient and environmentally friendly. In the process, the Delhi government has completed two phases of metro rail. The first three phases are in operation. The next phase (IV) would be completed in the year 2024. Thus, the entire metro network shall have a length of 411.54 km, which is considered necessary to provide the required level of transport in the city because of the 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 Delhi 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. DMRC requires the social assessment study to 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 people and the area.

TABLE - 3.1
SOCIO-ECONOMIC CHARACTERISTICS

			DE	LHI	
S. NO.	DESCRIPTION	UNIT	2001	2011	
1.0	Area	sq km	1,483	1,483	
2.0	Population (million)	No.	13.85	16.75	
2.1	Male (million)	No.	7.61	8.98	
2.2	Female (million)	No.	6.24	7.80	
2.3	Scheduled Castes	No.	2.34	2.81	
2.4	Scheduled Tribes	No.		-	
3.0	Sex ratio (female per 1000 of male)	No.	821	866	
4.0	Density (person per Sq.km.)	No.	9294	11297	
5.0	Decedal Growth Rate	%	47.02	21.2	
5.1	Birth Rate*	%	12.29	20.98	
5.2	Death Rate*	Death Rate* % 6.06		6.65	
5.3	Infant Mortality Rate*	%	23.18	21.91	
6.0	Literate (million)	e (million) No. 9.66		12.73	
6.1	Literacy Rate	%	81.7	86.34	
6.1.1	Male	%	87.3	91.03	
6.1.2	Female	%	74.7	80.93	
6.2	Urban	%	82.04	86.43	
6.3	Rural	%	78.75	82.67	
7.0	Total Workers (million)	No.	4.55	5.58	
7.1	Main Workers	%	31.2	31.6	
7.2	Marginal Workers	%	1.6	1.7	
7.3	Non-Workers	%	67.2	66.7	
8.0	Household size	No.	5.0	5.02	

Source: Census of India - 2001 & 2011 and \* - Annual Report of Registration of Birth & Death in Delhi,2011, GNCTD

## 3.2 PROFILE OF PROJECT AFFECTED FAMILIES

The alignment drawing was the basis for identification of the affected families and project-affected people due to the proposed project phase. The study represents an assortment of affected households, which includes titleholders and non-titleholders. The group of non-titleholders includes tenants, squatters, kiosk owners, etc. The interviewees interacted with the social teams involved for the purpose and disclosed the information required for the format of the questionnaire for data collection. The socio-economic analysis of the surveyed



household has been presented here. The data collected through the social survey generated baseline for socio-economic information about the project affected families. The exercise has been done for each alignment individually as well as comprehensively. The data has been compiled and presented in tabular and graphical forms.

## 3.2.1 Demographic and Social Conditions

The proposed project shall affect 54 PAFs which has approximately 250 persons. To understand the socio-economic conditions of families/peoples who are likely to be affected due to the proposed Phase IV Part-A corridors, it was required to conduct a socio-economic survey randomly from each affected area. Therefore, a socio-economic survey was conducted by covering about 94% of the total affected PAFs in all three corridors of Delhi metro Phase-IV Part-A. Corridor wise total number of surveyed PAFs is given in **Table 3.2**.

TABLE 3.2
TOTAL NUMBER OF SURVEYED PAFs

Corridor	Total No. of PAFs	Total No. of Surveyed PAFs
Aerocity - Tughlakabad	42	42
Janakpuri West – R K Ashram	12	9
Mukundpur - Maujpur	0	0
Total	54	51

**Gender and Sex Ratio**: Gender and sex ratio of project affected persons of all three corridors are presented in **Table 3.3**. Sex Ratio is a very helpful indicator to know the participatory share of males and females in a region, which is also an important indicator for the human development index. Among the surveyed population, it is observed that about 54.17% are male and the remaining 45.83% are female.

TABLE-3.3
PROJECT AFFECTED PEOPLE (PAPs)

Corridor		Male	F	emale	Sex Ratio
	No.	%	No.	%	
Aerocity - Tughlakabad	101	55%	84	45%	831.68
Janakpuri West – R K Ashram	29	52.72%	26	47.27%	896.55
Mukundpur - Maujpur	0	0	0	0	0
Total	130	54.17%	110	45.83%	846.15

**Age Structure:** Age Structure refers to the contribution of the population as well as the dependence of the population on various economic and social activities. **Table 3.4** shows the data on age structures of the interviewed project-affected people for all the three corridors. The age groups of 19-35 & 36-60 years are supposed to be productive and earning to contribute to the society, family and surroundings. All three corridors have a



majority of the population in the designate productive age groups. Table 3.4 shows that in the age groups of PAPs for all three corridors. The majority (40.83%) of family members belong to the age group of 36-60 years and 33.75 % belong to the age group to 15-35 years. Remaining 13.75% and 11.67% of family members belong to the age below 14 years and above 60 years respectively. About one-fourth surveyed population are dependent. Out of the total dependent population, 13.75% of people shall be part of future manpower. However, 11.67% shall be dependent for the remaining period, since such population consists of people above 60 years of age.

TABLE-3.4
AGE STRUCTURE OF PAPs

Corridor	0 – 1	14 years	15 -35 years		15 -35 years 36 - 60 years		>60	years	Total		
	No.	%	No.	%	No.	%	No.	%	No.	%	
Aerocity - Tughlakabad	31	16.76%	58	31.35%	76	41.08%	20	10.81%	185	100%	
Janakpuri West  – R K Ashram	2	3.63%	23	41.82%	22	40.0%	8	14.55%	55	100%	
Mukundpur - Maujpur	0	0	0	0	0	0	0	0	0	0	
Total	33	13.75%	81	33.75%	98	40.83%	28	11.67%	240	100%	

Religious Groups: Data on religious groups has been collected 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 the cultural behaviour of the groups. The social and cultural behaviour will help understand the desires and preferences of PAPs, which is a prerequisite to rehabilitate the affected people and their families. **Table 3.5** shows that the Hindus (Hinduism) is the largest affected religious group among the project affected families, which is followed by Muslims (Islam) and then by other religions such as Christianity and Jainism. The study result shows that majority (90.42%) belongs to Hindu religion followed by Muslims (5.42%) and Christians & Jain (2.08% each).

TABLE-3.5
RELIGIOUS GROUP OF PAPS

Corridor	H	indu	Muslim		Muslim Christian		Jain		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aerocity - Tughlakabad	167	90.48%	13	7.14%	5	2.38%	0	0	185	100%
Janakpuri West – R K Ashram	50	90.91%	0	0	0	0	5	9.09%	55	100%
Mukundpur - Maujpur	0	0	0	0	0	0	0	0	0	0
Total	217	90.42%	13	5.42%	5	2.08%	5	2.08%	240	100%

**Social Groups: Table 3.6** discloses information about the 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 Constitution of India get preferential treatment in the government benefits because the group includes the traditionally vulnerable people. Except for the general category, all other groups need attention and to be addressed for their backward socioeconomic conditions. The majority of surveyed households belong to the General Castes (62.75%), which is followed by the Other Backward Castes (OBC) with 15.69% then by the SC (15.6%) and 5.87% ST population.

TABLE-3.6 SOCIAL GROUP OF PAFS

Corridor		SC		ST		OBC/BC		eneral	Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aerocity - Tughlakabad	8	19.05%	3	7.14%	8	19.05%	23	54.76%	42	100%
Janakpuri West – R K Ashram	0	0	0	0	0	0	9	100%	9	100%
Mukundpur - Maujpur	0	0	0	0	0	0	0	0	0	0
Total	8	15.6%	3	5.87%	8	15.69%	32	62.75%	51	100%

**Educational Attainment:** Education is a double-edged blade. It is a tool for vertical mobility in society. It provides an opportunity to participate in the process of growth and developments. 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 a region. Out of the total surveyed population, about 10.42% have never attended formal education, about 5.42% of affected people are educated up to primary class, 23.75% are educated up to secondary level and 33.75% have studied up to Higher Secondary level as indicated in **Table 3.7.** About 26.66% of the affected people have studied up to college. The data discloses that the education level of the project affected people is not at the satisfactory level even though the area is located in the metropolitan and national capital of India where the educational facility is better than other parts of the country.

TABLE-3.7
EDUCATION LEVEL OF PAPS

Corridor	IIIi	terate	Pri	mary	Sec	ondary	High	School	Co	llege	Total
	No.	%	No.	%	No.	%	No.	%	No.	%	No.
Aerocity -	22	11.89%	13	7.03%	52	28.11%	74	40.0%	24	12.97%	185
Tughlakabad											
Janakpuri West – R K Ashram	3	5.45%	0	0	5	9.09%	7	12.73%	40	72.73%	55
Mukundpur - Maujpur	0	0	0	0	0	0	0	0	0	0	0
Total	25	10.42%	13	5.42%	57	23.75%	81	33.75%	64	26.66%	240



#### 3.2.2 Economic Conditions of PAFs

The economic condition of PAFs describes the occupational pattern, family income, and the 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 the income of all the earning members. The earning members include the people who work and earn to contribute to the family; however, dependents included housewife, children, elderly people and others who cannot work and earn.

Occupational Pattern: The occupation and profession of the head of the family have been considered during the social survey. 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's assessment, the income generation plan and rehabilitation plans shall be prepared accordingly. The survey results in **Table 3.8** shows that majority (96.08%) of the head of project-affected households are engaged in trade and business, 3.92% are engaged in labour works and no PAF is employed in service of private sectors, public sectors and government jobs.

TABLE-3.8
OCCUPATION OF PAFs

Corridor	La	Labour		Business		rvice	Total	
	No.	%	No.	%	No.	%	No.	%
Aerocity - Tughlakabad	2	4.76%	40	95.24%	0	0	42	100%
Janakpuri West – R K Ashram	0	0	9	100%	0	0	9	100%
Mukundpur - Maujpur	0	0	0	0	0	0	0	0
Total	2	3.92%	49	96.08%	0	0	51	100%

**Family Monthly Income:** Assessing family income helps to understand the living standard, expenditure pattern, the capacity of savings etc. The data on monthly family income quantify either the family is under the Below Poverty line (BPL) or above poverty line (APL). The monthly family income of PAFs is given in **Table 3.9**. About 43.14% of families reported less than Rs 25,000/- monthly income. About 41.17% of families' monthly income is between Rs. 25,001/- to 50,000/-, 11.77% of families' income is between Rs.50,001 to 1,00,000/-. 3.92% of families earns above Rs. 1,00,000.

TABLE-3.9
MONTHLY INCOME OF PAFs

Corridor	<2	<25000		25001 - 50000		1- 100000	>10	0000	Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aerocity - Tughlakabad	18	42.86%	18	42.86%	6	14.29%	0	0	42	100%
Janakpuri West – R K	4	44.45%	3	33.33%	0	0	2	22.22	9	100%
Ashram								%		
Mukundpur - Maujpur	0	0	0	0	0	0	0	0	0	0
Total	22	43.14%	21	41.17%	6	11.77%	2	3.92%	51	100%



## 3.2.3 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 3.10A & Table 3.10B**. Out of total Project Affected Families, the majority (62.75%) of the affected families follow a nuclear family pattern and remaining 31.37% and 5.88% are joint and individual families respectively. The type of joint families is prevalent among most of the rich families and most of the poor families. However, the lower- and middle-income group families show a trend to live in nuclear families. Family size is also determined by the economic burden and opportunities. Family size has been classified into three categories i.e. small (2-4), medium (5-6) and large (7 & above). Members of individual families have also been included in the small family size. Table 3.10B shows the majority of the families (45.10%) are medium-size family, 29.41% are large size families and about 19.61% are small size families. The data shows the preponderance of medium-sized families over small size and large-sized families across all the corridors.

TABLE 3.10A FAMILY PATTERN OF PAFS

Corridor	,	Joint	N	uclear	Ind	ividual	Total	
	No.	%	No.	%	No	%	No.	%
Aerocity - Tughlakabad	10	23.81%	29	69.05%	3	7.14%	42	100%
Janakpuri West – R K	6	66.67%	3	33.33%	0	0	9	100%
Ashram								
Mukundpur - Maujpur	0	0	0	0	0	0	0	0
Total	16	31.37%	32	62.75%	3	5.88%	51	100%

TABLE-3.10B FAMILY SIZE OF PAFS

Corridor	Sma	all (2-4)	Medium (5-6)		Large (7 & above)		Individual		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aerocity - Tughlakabad	7	16.66%	20	47.62%	12	28.57%	3	7.14%	42	100%
Janakpuri West – R K Ashram	3	33.33%	3	33.33%	3	33.33%	0	0	9	100%
Mukundpur - Maujpur	0	0	0	0	0	0	0	0	0	0
Total	10	19.61%	23	45.10%	15	29.41%	3	5.88%	51	100%

#### 3.2.4 Affected Property

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. 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 a 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 the structures and impacts of the proposed project have been described in Chapter 2.

## 3.2.5 Family Assets

Survey data reveals the household assets of the project affected families. The mobile phone, television, refrigerator, cooking gas, motorbike and car are the common property assets found in the project impact area. The material base of consumable good among the PAFs has a significant presence. It is observed that most of the PAFs have owned these items in their households. Only owners of the kiosk and squatters are without vehicles although the owners of kiosk and squatters have mobile phones, television, cooking gas, etc. 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 Delhi.

#### 3.2.6 Vulnerable Families

The vulnerability of the project affected families has been determined by the people falling in the category of scheduled caste, scheduled tribe, below poverty line (BPL), woman-headed family and disabled. If the households fall under BPL as a result of the loss of livelihood/assets due to the proposed project, then they shall also be classified as a vulnerable family. The study indicates that 11 PAFs are identified under the vulnerable category. Out of the total 11 PAFs of vulnerable category, 8 belong to Scheduled Castes (SC) and 3 belong to Scheduled Tribe Category (ST). There is no old, disabled person and woman-headed category.

## 3.3 AWARENESS ABOUT HIV/AIDS

Sex trade and spread of sexually transmitted diseases (STDs) also came up as critical socio-cultural and health issue, which needs to be addressed to ensure that the construction of metro rail is a socially responsible development project. Most of the respondents have shown awareness about HIV/AIDS. The main source of information is television, newspaper and advertisement boards displayed by the government in the city. Taking into consideration the safety issues of risks of HIV/ AIDS during the project period, a specialized NGO is required to be hired by the project proponent to undertake appropriate activities to deal with them in the labour camps. It is presumed that labour working in the project may not be aware of the hazards of the disease. The major activities of such NGO will include awareness generation, information dissemination and mobilization to act on the issues towards safer behaviour.



#### 3.4 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 phase IV project. The findings of the survey with regards to awareness, source of information and opinion about the proposed project is presented in **Table 3.11A**, **B & C**. Out of the total surveyed PAFs, 98.04% respondents were aware with the proposed Delhi metro rail phase IV Part-A, only 1.96% said that they had no information about the proposed metro development. 11.77% PAFs came to know about the project from Newspaper, 31.37% PAFs knew about the project from other people i.e. neighbours and 56.86% PAFs came to know about the project from DMRC surveyors working for the proposed project. Out of total respondents, 72.55% considered it a good government initiative for transport infrastructure development; however, about 15.69% replied it as being a bad option because it shall destroy their business base and source of livelihood while 11.76% respondents had no opinion about the proposed metro phase IV development.

TABLE 3.11A
AWARENESS ABOUT THE PROJECT

Corridor	,	Yes	No		
	No.	%	No.	%	
Aerocity - Tughlakabad	42	100%	0	0	
Janakpuri West – R K Ashram	8	88.89%	1	11.11%	
Mukundpur - Maujpur	0	0	0	0	
Total	50	98.04%	1	1.96%	

TABLE 3.11B SOURCE OF INFORMATION

Corridor	New	News Paper		TV		People		MRC	Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Aerocity - Tughlakabad	5	11.90%	0	0	12	28.57%	25	59.52%	42	100%
Janakpuri West – R K Ashram	1	11.11%	0	0	4	44.44%	4	44.44%	9	100%
Mukundpur - Maujpur	0	0	0	0	0	0	0	0	0	0
Total	6	11.77%	0	0	16	31.37%	29	56.86%	51	100%

TABLE 3.11C
OPINION ABOUT THE PROJECT

Corridor	G	Good		Bad	Cai	n't Say
	No.	%	No.	%	No.	%
Aerocity - Tughlakabad	31	73.81%	8	19.05%	3	7.14%
Janakpuri West – R K Ashram	6	66.67%	0	0	3	33.33%
Mukundpur - Maujpur	0	0	0	0	0	0
Total	37	72.55%	8	15.69%	6	11.76%



## 3.5 RESETTLEMENT & REHABILITATION OPTIONS

The options on resettlement and rehabilitation measures have also been collected from owner residents, owner commercial, tenant residential & commercial, kiosk owner and squatters. The data reveals that all residential unit owners opted for constructed building or plot within one to three km of their present area. Both residential and commercial unit owners have opted compensation at replacement cost, shifting expenses and rehabilitation grants in lieu of loss of business. The squatter and kiosk owners opted for proper rehabilitation within the area. The titleholders consented to get displaced by the project if the developer compensates them for the land with the market value and assistance for construction of a house.



## CHAPTER-4 POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK

#### 4.1 POLICY FRAMEWORK

The Metro Phase-IV Part-A project falls in "Category A" based on World Bank Operational Policy (OP 4.01) and JICA guidelines for Environmental and Social Projects. Category 'A' includes sensitive sectors such as "Roads, Railways and Bridges" which are similar to metro lines or located in or near sensitive areas such as cultural, historical or of archaeological value. Over the years R&R policies have been developed at national and organizational levels. The Acts and Policy relevant to the study are:

- Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013
- JICA 's Involuntary Resettlement Policy

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

# 4.2 RIGHT TO FAIR COMPENSATION AND TRANSPARENCY IN LAND ACQUISITION, REHABILITATION AND RESETTLEMENT ACT, 2013

The new land acquisition law came into force on 1<sup>st</sup> January 2014. The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013, (RTFCTLARR Act) replaces the Land Acquisition Act, 1894, which existed from colonial times. The new RTFCTLARR Act is an attempt to revamp and make the land acquisition process more effective by addressing the major lacunae in the old Land Acquisition Act.

The Act seeks to harmonize the interests of landowners, industrialization/ growth of real estate and infrastructure industries and bring in transparency in the process of land acquisition. The objective of the Act is thus in line with the requirements of modern times. The Act, inter alia, contains provisions about mandatory rehabilitation and resettlement of those whose lands are acquired and payment of fair compensation to them. Significantly, the Act provides for enhanced compensation to landowners in cases of land acquisition by the government for public purposes or for Public-Private Partnership (PPP) projects that may aggregate to up to four times the market value in rural areas and up to twice the market value in urban areas. The Act has been hailed as beneficial and necessary to protect the interest of land title holders as well as non-title holders and other affected persons like encroachers.



## 4.2.1 Key Features of RTFCTLARR Act

The Act specifies provisions for land acquisition as well as R&R. Some of the major changes from the current provisions are related to (a) the process of land acquisition; (b) rights of the people displaced by the acquisition; (c) method of calculating compensation; and (d) requirement of R&R for all acquisitions.

## **Public Purpose:**

- ➤ Land may be acquired only for a public purpose. The Act defines public purpose to include: defense and national security; roads, railways, highways, and ports built by government and public sector enterprises; land for the project affected people; planned development; and improvement of the village or urban sites and residential purposes for the poor and landless, government-administered schemes or institutions, etc. This is broadly similar to the provisions of the LA 1894 Act.
- ➤ In certain cases, consent of 80 per cent of the project affected people is required to be obtained. These include acquisition of land for (i) use by the government for purposes other than those mentioned above, and (ii) use by public-private partnerships, and (iii) use by private companies.

## **Process of Land Acquisition:**

- ➤ The government shall conduct a Social Impact Assessment (SIA) study, in consultation with the Gram Sabha in rural areas (and with equivalent bodies in case of urban areas). After this, the SIA report shall be evaluated by an expert group. The expert group shall comprise two non-official social scientists, two experts on rehabilitation, and a technical expert on the subject relating to the project. The SIA report will be examined further by a committee to ensure that the proposal for land acquisition meets certain specified conditions.
- ➤ A preliminary notification under section 11 indicating the intent to acquire land must be issued within 12 months from the date of evaluation of the SIA Report. Subsequently, the government shall conduct a survey to determine the extent of land to be acquired. Any objections to this process shall be heard by the Collector. Following this, if the government is satisfied that a particular piece of land must be acquired for a public purpose, a declaration to acquire the land is made. Once this declaration is published, the government shall acquire the land. No transactions shall be permitted for the specified land from the date of the preliminary notification until the process of acquisition is completed.



## **Compensation to Landowners:**

The compensation for land acquisition is determined by the Competent Authority and approved by the Collector and awarded under section 25 by him to the landowner within two years from the date of publication of the declaration of acquisition. The process of determination of compensation is given below.

- First, the market value of the acquired land is computed as the higher of (i) the land value specified in the Indian Stamp Act, 1899 for the registration of sale deeds; or (ii) the average of the top 50 per cent of all sale deeds in the previous three years for a similar type of land situated in the vicinity.
- ➤ Once the market value is calculated, it is doubled for land in urban areas. Then, the value of all assets attached to the land (trees, buildings, etc) is added to this amount. On this amount, a 100 per cent solatium, (i.e., extra compensation for the forcible nature of acquisition), shall be given to arrive at the final compensation figure.

#### **Process of Rehabilitation and Resettlement**

The RTFCTLARR Act requires R&R to be undertaken in case of every acquisition. Once the preliminary notification for acquisition is published, an Administrator shall be appointed. The Administrator shall conduct a survey and prepare the R&R scheme. This scheme shall then be discussed in the local bodies in case of urban areas. Any objections to the R&R scheme shall be heard by the Administrator. Subsequently, the Administrator shall prepare a report and submit it to the Collector. The Collector shall review the scheme and submit it to the Commissioner appointed for R&R. Once the Commissioner approves the R&R scheme, the government shall issue a declaration identifying the areas required for R&R. The Administrator shall then be responsible for the execution of the scheme. The Commissioner shall supervise the implementation of the scheme.

## **Rehabilitation and Resettlement Entitlement**

➤ The Act also provides displaced families with certain R&R entitlements. These include, among other things, (i) land for a house as per the Indira Awas Yojana (IAY) in rural areas or a constructed house of at least 50 square meters plinth area in urban areas; (ii) a one-time allowance of Rs 50,000 for affected families; and (iii) the option of choosing either mandatory employment in projects where jobs are being created or a one-time payment of Rs 5 lakh or an inflation-adjusted annuity of Rs 2,000 per month per family for 20 years,(iv)subsistence grant of Rs.3000/- for one year,(v)Transportation cost of Rs.50,000/- for shifting,(vi)one —time assistance of Rs.25,000/-for cattle shed/petty



shop,(vii)One –time grant of Rs.25,000/- to artisan, small traders & others,(viii)one-time resettlement allowance of Rs. 50,000/- to PAF.

➤ Every resettled area is to be provided with certain infrastructural facilities. These facilities include roads, drainage, provision for drinking water, grazing land, banks, post offices, public distribution outlets, etc.

#### 4.3 JICA'S INVOLUNTARY RESETTLEMENT POLICY

The JICA guidelines for environmental and social considerations apply to this project subject to provisions in this SIA report. The Resettlement Action Plan (RAP) has been developed 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 key principle of JICA policies on involuntary resettlement is summarized below.

- 1. Involuntary resettlement and loss of means of livelihood are to be avoided when feasible by exploring all viable alternatives.
- 2. When population displacement is unavoidable, effective measures to minimize the impact and to compensate for losses should be taken.
- 3. People who must be resettled involuntarily and people whose means of livelihood will be hindered or lost must be sufficiently compensated and supported so that they can improve or at least restore their standard of living, income opportunities and production levels to pre-project levels.
- 4. Compensation must be based on the full replacement cost<sup>2</sup> as much as possible.
- 5. Compensation and other kinds of assistance must be provided prior to displacement.
- 6. For projects that entail large-scale involuntary resettlement, resettlement action plans must be prepared and made available to the public. The resettlement action plan should include elements laid out in the World Bank Safeguard Policy.

<sup>1</sup> The 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.

<sup>&</sup>lt;sup>2</sup> Description of "replacement cost" is as follows.

a. Land in Urban Areas- The pre-displacement market value of land of equal size and use, with similar or improved public infrastructure facilities and services and located in the vicinity of the affected land, plus the cost of any registration and transfer taxes.

b. **Houses and Other Structures-** The market cost of the materials to build a replacement structure with an area and quality similar or better than those of the affected structure, or to repair a partially affected structure, plus the cost of transporting building materials to the construction site, plus the cost of any labor and contractors' fees, plus the cost of any registration and transfer taxes.



- 7. In preparing a resettlement action plan, consultations must be held with the affected people and their communities based on sufficient information made available to them in advance. When consultations are held, explanations must be given in a form, manner, and language that are understandable to the affected people.
- 8. Appropriate participation of affected people must be promoted in planning, implementation, and monitoring of resettlement action plans.
- 9. Appropriate and accessible grievance mechanisms must be established for the affected people and their communities.

Above principles are complemented by World Bank OP 4.12 since it is stated in JICA Guideline that "JICA confirms that projects do not deviate significantly from the World Bank's Safeguard Policies". Additional key principle based on World Bank OP 4.12 is as follows.

- Affected people are to be identified and recorded as early as possible in order to
  establish their eligibility through an initial baseline survey (including population census
  that serves as an eligibility cut-off date, asset inventory, and socioeconomic survey),
  preferably at the project identification stage, to prevent a subsequent influx of
  encroachers of others who wish to take advance of such benefits.
- Eligibility of Benefits includes the PAPs who have formal legal rights to land (including customary and traditional land rights recognized under law), the PAPs who don't have formal legal rights to land at the time of census but have a claim to such land or assets and the PAPs who have no recognizable legal right to the land they are occupying.
- 3. Preference should be given to land-based resettlement strategies for displaced persons whose livelihoods are land-based.
- 4. Provide support for the transition period (between displacement and livelihood restoration.
- 5. Particular attention must be paid to the needs of the vulnerable groups among those displaced, especially those below the poverty line, landless, elderly, women and children, ethnic minorities etc.
- 6. For projects that entail land acquisition or involuntary resettlement of fewer than 200 people, abbreviated resettlement plan is to be prepared.

In addition to the above core principles on the JICA policy, it also emphasized a detailed resettlement policy inclusive of all the above points; project-specific resettlement plan; the institutional framework for implementation; monitoring and evaluation mechanism; the schedule for implementation; and, detailed financial plan etc.



## 4.4 PROJECT RESETTLEMENT POLICY AND ENTITLEMENT MATRIX

## 4.4.1 The Project Policy

DMRC on behalf of Government will use the Project Resettlement Policy (the Project Policy) for the proposed Phase-IV metro rail project. The Project Policy is aimed at filling- in any gaps in what local laws and regulations cannot provide to help and ensure that PAPs can rehabilitate themselves to at least their pre-project condition. This section discusses the principles of the Project Policy and the entitlements of the PAPs based on the type and degree of their losses. Where there are gaps between the Government of India's legal framework for land acquisition, rehabilitation and resettlement and JICA's Policy on Involuntary Resettlement, practicable mutually agreeable approaches will be designed consistent with Government practices and JICA's Policy.

The key principles of the project policy on land acquisition, rehabilitation and resettlement are summarized below.

- 1. Land acquisition and involuntary resettlement will be avoided where feasible, or minimized, by identifying possible alternative project designs that have the least adverse impact on the communities in the project area.
- 2. Where displacement of households is unavoidable, all PAPs (including communities) losing assets, livelihoods or resources will be fully compensated and assisted so that they can improve, or at least restore their former economic and social conditions.
- 3. Compensation and rehabilitation support will be provided to any PAPs, that is, any person or household or business which on account of project implementation would have his, her or their:
  - i. Standard of living adversely affected.
  - ii. Right, title or interest in any house, interest in, or right to use, any land (including premises, agricultural and grazing land, commercial properties, tenancy, or right in annual or perennial crops and trees or any other fixed or moveable assets, acquired or possessed, temporarily or permanently;
  - iii. Income earning opportunities, business, occupation, work or place of residence or habitat adversely affected temporarily or permanently; or
  - iv. Social and cultural activities and relationships affected or any other losses that may be identified during the process of resettlement planning.
- 4. All affected people will be eligible for compensation and rehabilitation assistance, irrespective of tenure status, social or economic standard and any such factors that may discriminate against the achievement of the objectives outlined above. Lack of legal rights to the assets lost or adversely affected tenure status and social or economic status will not bar the PAPs from entitlements to such compensation and



rehabilitation measures or resettlement objectives.

- 5. All PAPs residing, working, doing business and/or cultivating land within the project impacted areas as of the date of the latest census and inventory of lost assets(IOL), are entitled to compensation for their lost assets (land and/or non-land assets), at replacement cost, if available and restoration of incomes and businesses, and will be provided with rehabilitation measures sufficient to assist them to improve or at least maintain their pre-project living standards, income- earning capacity and production levels.
- 6. PAPs that lose only part of their physical assets will not be left with a portion that will be inadequate to sustain their current standard of living. The minimum size of remaining land and structures will be agreed during the resettlement planning process.
- 7. People temporarily affected are to be considered PAPs and resettlement plans address the issue of temporary acquisition.
- 8. Where a host community is affected by the development of a resettlement site in that community, the host community shall be involved in any resettlement planning and decision-making. All attempts shall be made to minimize the adverse impacts of resettlement upon host communities.
- 9. The resettlement plans will be designed in accordance with the Government of India's RTFCTLARR, Act 2013 and JICA's Policy on Involuntary Resettlement. The Private land acquisition will be initiated under RFCTLARR,2013 however private land can be procured through the mutual negotiation.
- 10. The Resettlement Plan will be translated into local languages and disclosed for the reference of PAPs as well as other interested groups.
- 11. Payment for land and/or non-land assets will be based on the principle of replacement cost.
- 12. Replacement lands, if the preferred option of PAPs, should be within the immediate vicinity of the affected lands wherever possible and be of comparable productive capacity and potential. As a second option, sites should be identified that minimize the social disruption of those affected; such lands should also have access to services and facilities similar to those available in the lands affected.
- 13. Resettlement assistance will be provided not only for immediate loss but also for a transition period needed to restore livelihood and standards of living of PAPs. Such support could take the form of short-term jobs, subsistence support, salary maintenance, or similar arrangements.
- 14. The resettlement plan must consider the needs of those most vulnerable to the



- adverse impacts of resettlement (including the poor, those without legal title to land, ethnic minorities, women, children, elderly and disabled) and ensure they are considered in resettlement planning and mitigation measures identified. The assistance should be provided to help them improve their socio-economic status.
- 15. PAPs will be involved in the process of developing and implementing resettlement plans.
- 16. PAPs and their communities will be consulted about the project, the rights and options available to them, and proposed mitigation measures for adverse effects, and to the extent possible be involved in the decisions that are made concerning their resettlement.
- 17. Adequate budgetary support will be fully committed and made available to cover the costs of land acquisition (including compensation and income restoration measures) within the agreed implementation period. The funds for all resettlement activities will come from the Government.
- 18. Displacement does not occur before the provision of compensation and of other assistance required for relocation. Sufficient civic infrastructure must be provided in the resettlement site before relocation. Acquisition of assets, payment of compensation, and the resettlement and start of the livelihood rehabilitation activities of PAPs will be completed prior to any construction activities, except when a court of law orders so in expropriation cases. (Livelihood restoration measures must also be in place but not necessarily completed prior to construction activities, as these may be ongoing activities).
- 19. Organization and administrative arrangements for the effective preparation and implementation of the resettlement plan will be identified and in place before the commencement of the process; this will include the provision of adequate human resources for supervision, consultation, and monitoring of land acquisition and rehabilitation activities.
- 20. Appropriate reporting (including auditing and redress functions), monitoring and evaluation mechanisms, will be identified and set in place as part of the resettlement management system. An external monitoring group will be hired by the project and will evaluate the resettlement process and outcome. Such groups may include qualified NGOs, research institutions or universities.

## 4.4.2 Eligibility for Compensation, Assistance and Rehabilitation

1. Cutoff Date is the date of first notification for land acquisition for the project under applicable Act or Government Order in the cases of land acquisition affecting legal titleholders. For the Non-Title holder's cut-off date would be the



- date of Census Survey.
- 2. Eligibility of different categories of PAFs will be as per the Entitlement Matrix shown in the section below.
- 3. The unit of entitlement will be the family.
- 4. Titleholder PAFs will be eligible for compensation as well as assistance if they are affected by the project.
- 5. Non-titleholder PAPs will not be eligible for compensation of the land occupied by them; however, they will receive compensation for the investment made by them on the land such as replacement value of structures and other assets. They will also be eligible for R&R assistance as per the Entitlement Matrix.
- In case a PAFs could not be enumerated during census but has reliable
  evidence to prove his/her presence before the cut-off date in the affected zone
  shall be included in the list of PAPs after proper verification by the grievance
  redressal committee.
- 7. PAFs from the vulnerable group will be entitled to additional assistance as specified in the Entitlement Matrix.
- 8. PAFs will be entitled to take away or salvage the dismantled materials free of cost without delaying the project activities.
- 9. If a notice for eviction has been served on a person/family before the cut-off date and the case is pending in a court of law, then the eligibility of PAP will be considered following the legal status determined by the court and the PAP will be eligible for compensation/assistance in accordance with the RAP provisions.
- 10. The land losers shall be reimbursed stamp duty towards purchase of alternate land/assets with the compensation received within one year of the disbursement as per the Entitlement Matrix.
- 11. In case of Common Property Resources, if the land and structure is privately owned the compensation for the land shall be paid to the titleholder. The reconstruction/replacement of the CPR shall be implemented in consultation with the community as appropriate.

#### 4.4.3 The Entitlement Matrix

An Entitlement Matrix has been developed in compliance with National Laws and JICA's Involuntary Resettlement Policy. The entitlement matrix summarizes the types of losses and corresponding nature and scope of entitlements. As per the policy, only the affected portion will be compensated. However, if living there is no longer viable, it will be considered as fully affected. PAPs who are squatters and not legal titleholder of land and buildings shall also be



eligible for R&R if enumerated during the census survey. Therefore, Cut-off-Date for those who have legal title is the date of Notification under Section 11(1) of the RTFCTLARRA, 2013 and completion of census survey shall be the Cut-off Date for non-titleholders. It is on this date that all impacted persons will be identified, and the nature of the impact disclosed. People who settle in the affected areas after the cut-off date will not be eligible for compensation and/or other assistance. Therefore, to prevent the inflow of people after Cut-off-date, all PAFs and PAPs need to be identified and recorded to establish their eligibility through a census survey by District Collector/Administrator(R&R). People will be given sufficient advance notice, requested to vacate premises and dismantle affected structures before project implementation. Their dismantled structures will not be confiscated, and they will not pay any fine or suffer any sanction. The entitlement matrix of the project is given in **Table 4.1**.



TABLE 4.1
ENTITLEMENT MATRIX OF THE PROJECT

Type of impact	Entitled Person	Compensation entitlements	Other entitlements	Responsible Organization
Loss of land	Landowner	a) Compensation based on market value*1 b) Multiplication factor applied to market value*2 c) Plus 100% solatium on market value of land including multiplication factor d) 12 % interest rate per annum on market value of land (from declaration of award up to date of payment) *1: Market value to be determined as provided under section 26 of the Act. *2: Multiplication factor of urban area: 1 Multiplication factor of rural area: 1-2	a) Payment of stamp duty	District Collector / DMRC
Loss of land (temporary)	Landowner	Compensation at the max rate of 6% of total land and property cost per year.	-	District Collector / DMRC
Loss of residential structure	Owner	a) Cash compensation at scheduled rates for structure without depreciation with 100% solatium. and b) Provision of an alternative house as per Indira Awas Yojana (IAY) specifications in rural areas and constructed house/flat of minimum 50 m2 in urban areas. or c) One-time financial assistance for house construction not less than Rs.150,000 in case of urban areas.	a) One-time transportation allowance: Rs.50,000 b) Subsistence grant of Rs.3,000 per month for one year. Vulnerable (e.g. Scheduled Caste/Tribes) to receive an additional Rs.50,000. c) One-time resettlement allowance: Rs.50,000 d) Payment of stamp duty	District Collector / DMRC



Type of impact	Entitled Person	Compensation entitlements	Other entitlements	Responsible Organization
Loss of commercial structure	Owner	a) Cash compensation at scheduled rates for structure without depreciation with 100% solatium. or b) Provision of shop of max size of 25 m².	a) One-time transportation allowance: Rs. 50,000 b) Subsistence grant of Rs.3,000 per month for one year c) One-time resettlement allowance: Rs. 50,000 d) One-time grant of min. of Rs. 25,000 for petty shop e) One-time grant of min. of Rs. 25,000 for artisan, small traders and others f) Payment of stamp duty	District Collector / DMRC
Loss of immovable assets (e.g. trees)	Owner	Compensation at scheduled district rates.	-	District Collector / DMRC
Loss of cattle shed	Owner	-	One-time grant of min. of Rs. 25,000.	District Collector / DMRC
Loss of rental residential unit	Tenant	-	One-time transportation allowance* *: Rate to be determined later by the District Collector	District Collector / DMRC
Loss of rental commercial unit	Tenant	Subsistence allowance, transportation allowance, one-time grant of Rs. 25,000/-	a) One-time transportation allowance: Rs. 50,000 b) Subsistence grant of Rs.3,000 per month for one year c) One-time resettlement allowance: Rs. 50,000 d) One-time grant of min. of Rs. 25,000 for artisan, small traders and others e) Payment of stamp duty	District Collector / DMRC
Loss of residential	Squatters	Compensation at scheduled rates	One-time transportation allowance* *: Rate to be determined later by the District	District Collector /



Type of impact	Entitled Person	Compensation entitlements	Other entitlements	Responsible Organization
structure		without depreciation.	Collector	DMRC
Loss of commercial structure	Squatters	Compensation at scheduled rates without depreciation.	a) One-time transportation allowance: Rs. 50,000 b) Subsistence grant of Rs.3,000 per month for one year c) One-time resettlement allowance: Rs. 50,000 d) One-time grant of min. of Rs. 25,000 for artisan, small traders and others e) Payment of stamp duty	District Collector / DMRC
Loss of kiosk (moveable)	Owner	-	One-time artisan grant: Rs.25,000	District Collector / DMRC
Loss of employment	Workers/ Employees	-	One-time resettlement allowance* *: Rate to be determined later by the District Collector	District Collector / DMRC
Loss of livelihood	Owner of commercial enterprises (e.g. shop owner)	-	Choice of annuity or employment: a) Provision of employment to at least one member of the family or b) One-time payment of Rs.500,000 per affected family or c) Pay minimum Rs.2,000 per month per family for 20 years	District Collector / DMRC



## 4.4.4 Compensation for Temporary Land Usage

Compensation for temporary land usage from private owners will be based on mutually agreed terms.

## 4.4.5 Land Acquisition Process

The Private land acquisition will be initiated under RFCTLARR, 2013, however, private land can be procured through the mutual negotiation. Land acquisition will be completed by 31<sup>st</sup> December 2021 (Land is being facilitated pocket wise subsequentially). The land acquisition process is given in **Figure 4.1**:

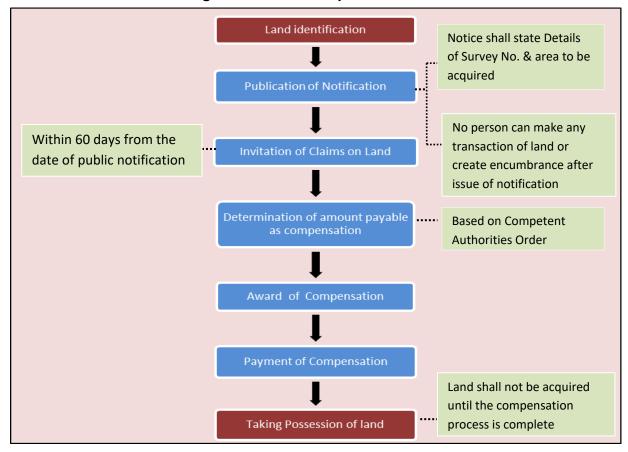


Figure 4.1 - Land Acquisition Process

A Land Acquisition Plan is also produced to indicate respective land plot (Khasra) revenue survey map boundaries and numbers referring to the land registration maps maintained by village level administration, together with detail average measured in hectares. It also includes collecting details such as owner of property, type of structure, number of floors and land use patterns, such as agriculture, commercial, barren, forest etc.



## 4.4.6 Acquisition Process of Government Land

Government land is being transferred on inter-departmental transfer rate as per the sanction order of the MRTS project issued vide order no. K-14011/60/2014/MRTS-I (vol. I) dated 09<sup>th</sup> March 2019 by GoI. Procedure for transfer of Govt. Land is as follows.

- 1. Survey and Identification of land pocket with respect to station building, viaduct, entryexit
- 2. Identification of ownership i.e Name of Department
- 3. Placing requisition to respective departments
- 4. A joint survey of Land with respective departments
- 5. Organizing meetings at various levels involving all stakeholders
- 6. Allotment of Land by the competent authority

#### 4.4.7 Process of Direct Purchase of Private Land

Price of private land to be acquired for the Delhi Metro Phase-IV priority corridors will be based on provisions of the RFCTLARR Act, 2013 or through negotiation with the owner (direct purchase) as per the DMRC Circular No. DMRC/15/LM-DP/1221/312 dated 08th September 2014. In the case of direct purchase of land, concerned CPM in-charge of the project will identify the critical land requirement, name of owners/occupants on the land, copy of ownership documents and enquire from owners whether they are willing to sell the land to DMRC directly. Subsequently, concerned CPM in-charge of the project will initiate a proposal for in-principle approval of MD/DMRC for direct purchase of land through Land Cell of DMRC. The nominated standing committee of four HoDs will deal the matter. To assist the Committee, a consultant having experience and expertise in the field of determining the fair market value of land, verification of ownership document, search of title, preparation of sale deed and getting it registered with Sub Registrar and mutated from Revenue Authorities, will then be appointed. The consultant shall recommend the fair market value of the land and property for the consideration of the committee. The valuation of the land/property shall also be carried out through two independent valuers to be appointed by the Director Projects/DMRC on the recommendation of HoD's Committee. The valuation report by independent valuers will be received in a sealed cover. Standing Committee of HoDs will submit a preliminary report to Director Projects/DMRC based on the input given by the consultant. Thereafter, Director projects/DMRC will order for opening the valuation report of the independent valuers. HoD's Committee will then negotiate with the owner/occupant of the land to arrive at the compensation to be paid and submit its final recommendation to the Standing Committee of Director level, wherein one retired Senior Govt. Officer may also be associated and the recommendation will then put up to MD/DMRC for the final decision.



#### 4.4.8 Valuation of Residual Plot

If the residual plot (s) is (are) not economically viable, DMRC will follow the rules and regulations applicable in the state and compensate accordingly; if there are no state-specific rules and regulations available regarding residual land DMRC in agreement with the Affected Party, DMRC will either buy the residual land for the project following the entitlements listed in the entitlement matrix or it will pay the affected party 25% of the land compensation payable for that portion of land without its purchase.

## 4.4.9 Compensation Payment Process

Disbursement of compensation will be done by cheques signed by a nominated officer of DMRC; DMRC will prepare all the documents required for taking possession of the land. The payment of R&R assistance will also be done in a similar fashion as per the entitlement matrix. All necessary arrangements for transferring the land title to DMRC with all legal formalities like the purchase of stamp papers, handing/taking over land, attending the Revenue Department, all charges payable to Govt. such as stamp duty etc. shall be paid by DMRC. Payment of compensation and other R&R benefits entitled to affected persons shall be completed before taking the land into possession.



## CHAPTER-5 INSTITUTIONAL FRAMEWORK

#### 5.1 INSTITUTIONAL ARRANGEMENT

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

- 1. Delhi Metro Rail Corporation (DMRC)
- 2. Land and Building Department, Govt. of NCT of Delhi
- 3. Office of the District Collector
- 4. Delhi Urban Shelter Improvement Board (DUSIB)

The institutional framework for RAP implementation is shown in **Figure 5.1.** 

## 5.1.1 Delhi Metro Rail Corporation

DMRC is the executing and implementing agency for the proposed Phase-IV Part-A corridors in Delhi. DMRC will be overall in charge of rehabilitation and resettlement issues such as implementation, monitoring and execution of land acquisition and resettlement issues. The designated engineering department headed by Chief Project Manager in DMRC will assess the requirement of land acquisition and resettlement based on the engineering design. DMRC will be responsible for coordinating with other concerned government departments for land acquisition, planning and implementation of RAP which will include the disbursement of compensation, assistance, shifting and relocation of affected people. DMRC also arrange/provide vocational training and other welfare assistance to the affected people. DMRC will also resettle and rehabilitate the PAPs occupying the commercial units by constructing shopping complexes at the nominated location. However, LIG & MIG flats will be provided to PAFs occupying residential / dwelling by Delhi Development Authority (DDA) on the recommendation of LAC and approval of Land & Building Department, Government of NCT Delhi.

To ensure proper coordination and execution of the land acquisition and resettlement issues and to ensure coordination with the implementing agency, an independent evaluation consultant (Resettlement & Rehabilitation) with an educational background of master in social science i.e. Social Work (MSW) & Sociology or an organization with similar expertise, may be hired by DMRC for mid and end-term evaluation of the implementation of resettlement and rehabilitation activities. The independent evaluation consultant could review RAP implementation in light of the objectives, targets, budget and duration that is laid down in the plan. DMRC will report to the

Institutional Framework 57



funding agency regarding the progress made on land acquisition and implementation of the resettlement plan.

## 5.1.2 Land and Building Department

Land and Building Department, Government of NCT of Delhi, is responsible for the large-scale acquisition of land for planned development of Delhi. Land Acquisition Branch of this Department is responsible for overall coordination between various agencies involved in land acquisition. For the acquisition of private land for the proposed metro rail project, DMRC will place requisition of land to Transport Department, GNCT of Delhi, who in turn will forward the requisition to Land & Building Department. On receipt of the proposal for acquisition of land from Transport Department, GNCT of Delhi, the Land Acquisition Branch of Land & Building Department will forward the same to Land Acquisition Collector (LAC) to initiate the process for acquisition of land.

#### 5.1.3 Office of The District Collector

The proposed project covers almost all districts of Delhi and each district has a Land Acquisition Collector (LAC). The office of the LAC will be responsible for land acquisition. Land Acquisition Collector will coordinate between the DMRC and the affected landowners. DMRC will be providing the technical details and the land acquisition plans to the LAC. The LAC will be responsible for initiating the notice and issuing all the sections under the Land Acquisition Act. LAC will be responsible for conducting the valuation of affected land and assets and will decide the compensation. The disbursement of compensation for land and assets of the legal owners will be done by LAC.

## 5.1.4 Delhi Urban Shelter Improvement Board (DUSIB)

The role of DUSIB is to look after the *Jhuggie/Jhonprie* squatter settlements/clusters by way of provision of civic amenities and their resettlement. The DUSIB is responsible for the rehabilitation of squatters/encroachers affected by the corridors. Relocation policy for slum dwellers will be applicable subject to fulfilment of terms and conditions laid down in that policy.

#### 5.1.5 Social Management Unit (SMU)

DMRC has a division which is for looking after the social safeguards' activities. This is headed by Deputy Chief Engineer (Land). He/She coordinates with other divisions/sections of DMRC on social, rehabilitation and resettlement issues. Other members of this unit will include the concerned Deputy Chief Engineer of the line/corridor referred to as Deputy Chief Engineer (construction) in, Figure 5.1, Executive Engineer (land) and Executive engineer of the concerned line/corridor. DMRC will do the overall coordination, preparation, planning, implementation, and financing of RAP. The Social Management Unit (SMU) of DMRC, will work closely with other staff of the DMRC and will be specifically looking after the social safeguards'

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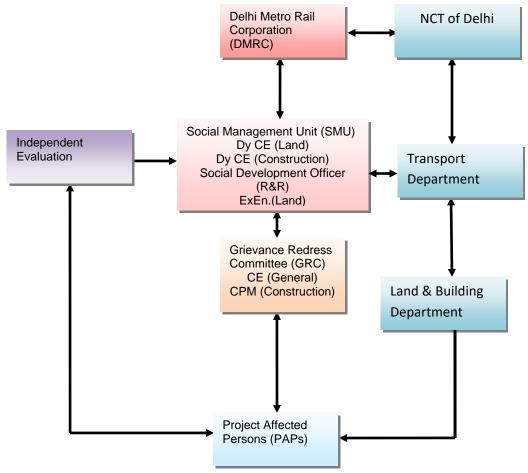
issues. The SMU shall ensure that all land acquisition issues are handled according to the LA policy/guidelines as it is laid down in this report. It will also monitor that all the procedural and legal issues involved in land acquisition are fulfilled. The SMU will assist the DMRC for getting all the necessary clearances and implementation of the resettlement activities before the start of any civil work. A Social Development Officer (R&R) with a background of social science may be added in this SMU as full time to supervise and monitor overall activities of RAP and he/she will report day to day progress to Deputy Chief Engineer (Land). The ToR for proposed Social Development Officer (R&R) is attached as **Annexure 5.1.** 

Some of the specific functions of the SMU regarding resettlement management will include the following:

- > Overall responsibility of planning, implementation and monitoring of land acquisition and resettlement and rehabilitation activities in the Project.
- Ensure availability of budget for R&R activities.
- ➤ Liaison lined agencies support for land acquisition and implementation of land acquisition and resettlement
- Coordinating with line Departments, especially with the LAC.



FIGURE 5.1
INSTITUTIONAL CHART FOR RAP IMPLEMENTATION



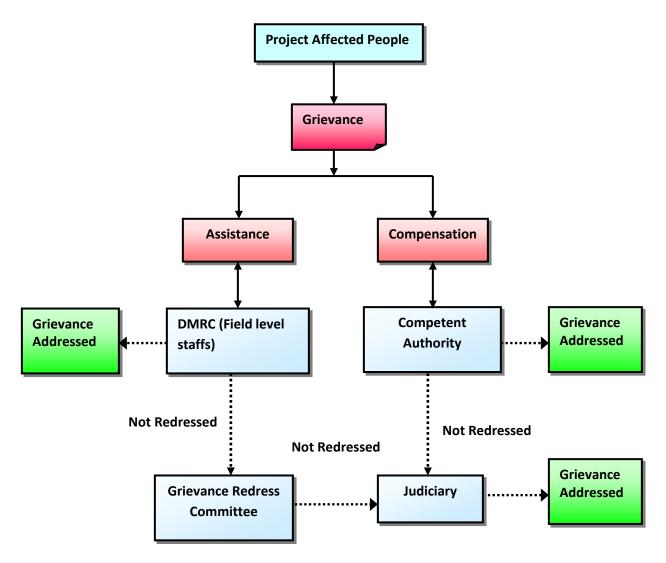


#### 5.2 GRIEVANCE REDRESSAL COMMITTEE

Efficient grievance redressal mechanism will be developed to assist the PAPs to resolve their queries and complaints. Grievances of PAPs will be first brought to the attention of SMU, DMRC. Grievances not redressed by SMU will be brought to the Grievance Redressal Committee (GRC). The composition of the proposed GRC will have Chief Engineer (General), CPM(Construction). The GRC will address only rehabilitation assistance issues. Grievances related to ownership rights and land compensation can be dealt in court as per LAA. The main responsibilities of the GRC are to (i) provide support to PAPs on problems arising from land/property acquisition; (ii) record PAPs grievances, categorize, and prioritize grievances and resolve them: (iii) immediately inform the SMU of serious cases; and (iv) report to PAPs on developments regarding their grievances and decisions of the GRC. Other than disputes relating to ownership rights under the court of law and compensation, GRC will review grievances involving all resettlement benefits. When any grievance is brought to the field level staff, it should be resolved within three months from the date of complaint. The GRC will meet every month (if grievances are brought to the Committee), determine the merit of each grievance, and resolve grievances within three months of receiving the complaint—failing which the grievance can be referred to the appropriate court of Law for redressal by the PAP. Records will be kept of all grievances received including contact details of the complaint, date the complaint was received, nature of the grievance, agreed corrective actions and the date these were effected, and outcome. A flow chart of grievances redressal is indicated in Figure 5.2.



FIGURE-5.2 STAGES OF GRIEVANCE REDRESSAL





## 5.3 ROLE OF STAKEHOLDERS IN RAP

Role of different stakeholders for the implementation of the resettlement plan is presented in **Table 5.1**.

TABLE-5.1
ROLE OF STAKEHOLDERS FOR IMPLEMENTATION OF RAP

	OF OTAKLHOLDERO FOR INITI LEMENTATION OF IKAI
POSITION	RESPONSIBILITIES
Chief Engineer (DMRC)	<ul> <li>Implementation of R&amp;R activities of LAP.</li> <li>Land acquisition and R&amp;R activities in the field.</li> <li>Ensure availability of budget for R&amp;R activities.</li> <li>Liaison with district administration for support for land acquisition and implementation of R&amp;R and</li> <li>Participate in the district-level committee.</li> </ul>
Dy. Chief Engineer (DMRC)	<ul> <li>Manage the day to day implementation of R&amp;R activities and report the same to Chief Engineer,</li> <li>Monitor land acquisition and progress of R&amp;R implementation.</li> <li>Develop a communication strategy for disclosure of RAP.</li> <li>Liaison with district administration for government's income generation and development programmes for the PAPs.</li> <li>Monitor physical and financial progress on land acquisition and R&amp;R activities.</li> <li>Organize meetings with R&amp;R officer and other support staffs to review the progress on R&amp;R implementation;</li> </ul>
Grievance Redressal Committee	<ul> <li>To provide support for the affected persons on problems arising out of LA/ property acquisition.</li> <li>To record the grievances of the affected people, categorize and prioritize the grievances that need to be resolved by the Committees.</li> <li>To inform the Chief Engineer of each corridor of serious cases within an appropriate time frame and</li> <li>To report to the aggrieved parties about the development regarding their grievance and decisions of the project authorities.</li> </ul>
Independent Evaluation	<ul> <li>Evaluate the implementation of the various provisions and activities planned in the RAP.</li> <li>Review the plan implementation in light of the targets, budget and duration that had been laid down in the plan.</li> </ul>
Judiciary	The case not resolved at GRC shall be put to the court of law.

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#### 5.4 IMPLEMENTATION SCHEDULE

The implementation schedule for the resettlement plan will be scheduled as per the overall project implementation. All activities related to the land acquisition and resettlement must be planned to ensure that 100% compensation is paid before displacement and commencement of civil works. Public consultation, internal monitoring and grievance redressal will 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, DMRC will establish the GRC, and initiate the resettlement implementation. The R&R activities of the 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, RP implementation phase and Monitoring and Evaluation phase.

## 5.4.1 Project Preparatory Stage (Pre-implementation Stage)

Setting up relevant institutions for the resettlement activities will be the major task during the preparatory stage which is the pre-implementation phase. The major activities to be performed in this period include the establishment of ESMD and additionally, the GRC needs to be appointed at this stage.

## 5.4.2 RAP Implementation Stage

The RAP, at this stage, needs to be approved and will be disclosed to the PAPs. Upon the approval of RAP, all the arrangements for fixing the compensation and the disbursement needs to be done which includes payment of all eligible assistance; relocation of PAPs; initiation of economic rehabilitation measures; 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 DMRC in advance which is being followed as per the Land Acquisition Act. However, the resettlement and rehabilitation fund will be monitored as part of the RAP implementation at this stage. Internal monitoring will be the responsibility of DMRC which will start in the early stage of the project when the implementation of RAP starts and will continue until the completion of the implementation of RAP. The DMRC will be responsible for carrying out the monitoring on a half-yearly basis.

## 5.4.3 RAP Implementation Schedule

As per the DPR, the project will take about 72 months for completion.RAP implementation schedule for R&R activities in the proposed project including various sub-tasks and timeline matching with civil work schedule is prepared and presented in **Table 5.2.** 

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# FIGURE 5.2 RAP IMPLEMENTATION SCHEDULE FOR DELHI METRO PHASE-IV CORRIDORS

SI. No	Description	20	20		20	21		202	22	2	023		20	24		20	25	
1	Identification of required land for acquisition																	
2	Socio-economic survey for SIA																	
3	Community /Public Consultation																	
4	Preparation of Draft SIA																	
5	Submission of Revised SIA																	
6	Review/Approval of SIA																	
8	Establishment of Grievance Redress Committee																	
9	Census survey after peg marking on the ground																	
10	Finalization of updated SIA and RAP																	
11	Disclosure of SIA and RAP																	
12	Notification of Land Acquisition																	
13	Valuation of structures for compensation																	
14	Land Acquisition Payment by Competent Authority																	
15	Payment of all eligible assistance and relocation of PAFs																	
16	Construction of Shops																	
17	Schedule of Civil Work																	
18	Internal Monitoring																	
19	External Monitoring																	



# CHAPTER-6 PUBLIC CONSULTATION

#### 6.1 BACKGROUND

Public consultation is a continuous process throughout the project period, during project preparation, implementation, and monitoring stages. The sustainability of any infrastructure development depends on participatory planning in which public consultation plays a major role. Experience indicates that involuntary resettlement generally causes numerous problems for the affected population. These problems may be reduced to a great extent if people are properly informed and consulted about the project and allowed to make meaningful choices or preferences. This serves to reduce the insecurity and opposition to the project which otherwise is likely to occur during project implementation. The overall objective of the consultation program is to minimize the negative impact in the project corridors and to make people aware of the project.

Keeping in mind the significance of consultation and participation of the people likely to be affected or displaced due to the proposed project, both formal and informal discussions were conducted with stakeholders during field visits. During field visits officials of DMRC. consulted with the key stakeholders and discussed the issues regarding land acquisition, structures likely to be affected, high social risk, presence of significant CPR (Common Property Resource) and vulnerable population, mitigation measures, the value of affected assets, and other assistance & allowances. In this chapter detailed methodology adopted for stakeholder consultation and key findings of consultations are discussed.

#### 6.2 APPROACH AND METHODS OF CONSULTATION

Public consultations were held with various sections of affected persons such as traders, women, squatters, kiosks and other inhabitants. During public consultations, issues related to land acquisition, compensation, income restoration, employment generation, information flow, grievance redressal, safety, the role of administration etc. were discussed. The RAP addresses all issues raised during the public consultation and recommends institutional strengthening measures as well. The following methods were adopted for conducting public consultation:

- Walk-through informal group consultation along the alignment.
- > Discussions 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 number of participants in the consultations were approximately 15 to 50 per consultation, which include different representatives from different echelon of society. 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)squatters; (vi)kiosks.

## 6.3 KEY FINDINGS OF CONSULTATIONS

The key findings of public consultation are presented in **Table 6.1**. Public Notices for consultation are given in **Annexure-6.1**.

TABLE 6.1
STAKEHOLDER CONSULTATION

Place	Date	No. of	Issues	Important views	DMRC reply
		Attendees	Discussed	& Suggestions	
Pul Bangash	01.02.2020	Approx. 20 (Male – 20 Female – 0)	Land acquisition	- The private land acquisition should be avoided - Entry/Exit structure should be accommodated	-Due to site constraints /land constraints, private land acquisition is necessary
				in the MCD dispensary	
			Loss of revenue	- DMRC should compensate for the loss of revenue during the construction stage	-This request will be examined against the Land Acquisition Act, 2013.
			Safety	- DMRC should ensure the safety of shops/buildings during the construction stage	-Safety is paramount for DMRC and all measures will be taken to avoid any mishap
			Rehabilitation	- DMRC should shift the shops, not beyond 100m	-It was informed that DMRC will look into this suggestion based on site condition



					and availability of land
R K Ashram	01.02.2020	Approx 90	Station	- Station location	- Due to site
K K ASIIIaiii	01.02.2020	Approx. 80	Location	should be shifted	
		/Mala 75	Location		constraint, it is
		(Male – 75		300m backwards	not feasible
		Female –		to avoid any	
		5)		disturbance	
			Loss of	- DMRC should	- This request will
			revenue	compensate for	be examined
				the loss of	
				revenue during	Acquisition Act,
				the construction	2013.
				stage	
			Compensation	- Compensation	- This request will
				during	be examined
				construction	against the Land
				stage along with	Acquisition Act,
				shifting	2013.
				allowance and	
				DMRC should	
				construct new	
				shops	
			Employment	- During the	- This will be as
				construction and	per Entitlement
				operation phase	matrix
				of the project, the	
				PAPs should be	
				provided with job	
				opportunities	
Ghanta Ghar	02.02.2020	Approx. 30	Loss of	- DMRC should	- This request will
		(Male – 27	revenue	compensate for	be examined
		Female –	Compensation	the loss of	against the Land
		3)	Safety	revenue during	Acquisition Act,
				the construction	2013.
				stage	
				- Compensation	- Compensation
				should be given	will be as per
				at market value	Entitlement
				- Compensation	matrix
				•	
				in cash for loss of	
Ghanta Ghar	02.02.2020	(Male – 27 Female –	Loss of revenue Compensation	shifting allowance and DMRC should construct new shops  - During the construction and operation phase of the project, the PAPs should be provided with job opportunities  - DMRC should compensate for the loss of revenue during the construction stage  - Compensation should be given at market value - Compensation should be given	- This will be per Entitlem matrix  - This request be examinagainst the Languisition 2013.  - Compensation will be as Entitlement matrix - To keep



	T	T			
				- Though they	transaction it
				appreciate	was
				metro, a	recommended to
				development	use cheque or
				that's affects	digital payments
				their livelihood is	
				not preferred	
				- DMRC should	- Safety is
				ensure the safety	paramount for
				of	DMRC and all
				shops/buildings	measures will be
				during the	taken to avoid
				construction	any mishap
				stage	'
			Air Pollution	- Dust generation	- All measures will
				during	be taken to
				construction	minimize dust
				should be	emission during
				avoided	the construction
				avoidod	stage
Sadar Bazar	01.02.2020	Approx. 25	Station	- The station	- Due to site
			Location	should be	constraint, it is
		(Male – 25		constructed on	not feasible
		Female -		the road	
		0)	Compensation	- Compensation	- Compensation
		,	•	should be at least	will be as per
				twice the market	Entitlement
				rate	matrix
			Rehabilitation	- Shops for shop –	- Compensation/
				All shop keepers	rehabilitation will
				should be	be as per
				rehabilitated by	Entitlement
				constructing	matrix
				market complex	matrix
				in the nearby	
				area	
			Loss of	- They should be	- This request will
			revenue	compensated	be examined
			16 veriue	thrice the market	against the Land
				rate for loss of	_
					Acquisition Act,
				revenue during	2013.
				the construction	
				stage	



	I		I		
			Air pollution	<ul> <li>Dust generation during</li> </ul>	- All measures will be taken to
				construction	minimize dust
				should be	emission during
				avoided	the construction
				avoided	
			Benefits of	- How the	stage - Faster and
			metro rail	proposed metro	reliable mode of
			meno ran	rail benefits the	travel
				people at large	- Income
				people at large	generation
					options
					- Less pollution
					and environment
					friendly etc
Khanpur	09.02.2020	Approx. 50	Rehabilitation	- All shop keepers	- Agreed. They will
Market				should be	be rehabilitated
		(Male – 40		rehabilitated in	within 500m
		Female -		the nearby area	distance.
		10)		before demolition	
			Compensation	- Compensation	- Compensation
				should be given	will be as per
				on market rate	Entitlement
				- Tenants should	matrix
				be compensated	
				with transport	
				allowance	_
			Loss of	,	•
			revenue	compensated	will be as per
				thrice the market	Entitlement
				rate for loss of	matrix
				revenue during	
				the construction	
	40.00.000	A 25	<b>B</b> 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	stage	A 1
Anandmayee	10.02.2020	Approx. 20	Rehabilitation	- Jhuggies coming	- Agreed. They will
Marg		/Mala 4.4		in the work area	be rehabilitated
		(Male – 14		should be	within the nearby
		Female –		rehabilitated in	area.
		6)		the nearby area	
			0	before demolition	0
			Compensation	- Compensation	- Compensation
				should be given	will be as per
				on market rate	



	- families should	Entitlement
	be compensated with transport	matrix
	allowance	
Employment	- During the	- This will be as
	construction and	per Entitlement
	operation phase	matrix and
	of the project, the	qualification.
	PAPs should be	
	provided with job	
	opportunities	

FIGURE 6.1
PHOTOGRAPS OF PUBLIC CONSULTATION AND SOCIO-ECONOMIC SURVEY







It is evident from the discussion with local people during the social survey that the people in Delhi have no objection to the proposed metro rail project. According to them, loss of residential structures and homestead land will mean a lot of problem for people. Compensation for acquisition of private land should be given to those who are likely to lose their land at the current market price. There should not be any negative impact on the green view of Delhi. Minutes of stakeholder discussions are given in **Annexure-6.2**.

#### 6.4 INFORMATION DISCLOSURE AND CONSULTATION

During the social survey, meetings and 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 the identification of a range 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 travelling public. Perhaps more importantly, the affected communities strongly felt a sense of participation in the decision-making process.

During project implementation, Project Implementation Unit (PIU) with the help of Dy. Chief Engineer (DMRC) will conduct Information and Community Consultation Program (ICCP) in the project area regularly. The main objectives of the ICCP are to (i) inform and explain the entitlement policy and the various options to the affected people prior to payments of compensation and other assistance; and (ii) socially prepare the Small Business Enterprises (SBE), and households for relocation and assist them in the process. As a result, the affected families/persons will be well informed about the project and their entitlements. PIU will prepare an information brochure in the local language, i.e., Hindi, explaining the RAP, the entitlements and the implementation schedule. The RAP will be distributed to all affected households/SBEs.



#### 6.5 COMMUNITY PARTICIPATION DURING PROJECT IMPLEMENTATION

The effectiveness of the resettlement action plan (RAP) is directly related to the degree of continuing involvement of those affected by the project. Several additional rounds of consultations with PAPs will form part of the project implementation. Consultations during resettlement plan implementation will involve agreements on compensation and assistance options and entitlement package. Another round of consultation will occur when compensation and assistance are provided.

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

- a) PIU 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 with vulnerable groups like women, families of BPL, Scheduled Castes to ensure that the vulnerable groups understand the process and their needs are specifically taken into consideration.
- c) DMRC will organize public meetings and will appraise the communities about the progress in the implementation of project works and payment and assistance paid to the community. Regular update of the program of resettlement component of the project will be placed for public display at the project offices.
- d) Taking into consideration the risks of HIV/ AIDs during the project construction period and road safety issues, the specialist will be invited to undertake activities related to their core competencies.

Lastly, the participation of PAPs will also be ensured through their involvement in various local committees. PIU and field offices will maintain an ongoing interaction with PAPs to identify problems and undertake remedial measures.



# CHAPTER 7 RESETTLEMENT ASSISTANCE PLAN AND COST ESTIMATE

#### 7.1 BACKGROUND

This chapter presents a consolidated overview of the budget and the cost estimates. The budget is indicative, and costs will be updated and adjusted to the inflation rate as the project continues and during implementation. The final compensation amount for the land acquisition and structures will be determined by the Competent Authority.

## 7.2 COST ESTIMATE FOR R&R

The cost for implementation of Resettlement and Rehabilitation Plan is given in **Table 7.1**. The total cost for the R&R implementation plan is INR. 2389.68 crore.

TABLE 7.1
COST FOR RESETTLEMENT & REHABILITATION (R&R)

01	COST FOR RESETTLEN			,	<b>,</b>		
SI.	Description	Unit	Quantity	Rate	Amount		
No.				(Rs.)	(Rs.)		
A.	Cost of land						
1.	Cost of private land for permanent acquisition	Lum s	sum (approx.	)	10,94,11,54,560		
2.	Cost of government land for permanent acquisition	Lum s	sum (approx.	)	9,78,94,73,520		
3.	Cost of land for	Lum s	sum (approx.	)	68,72,80,000		
	temporary acquisition						
4.	Other related costs	Lum sum (approx.)			29,05,75,000		
5.	Total				21,70,84,83,080		
B.	Compensation for Titleholders						
	Residential PAFs						
1.	Transportation allowance	No.	0	50000	0		
2.	Subsistence allowance	No.	0	36000	0		
3.	Resettlement allowance	No.	0	50000	0		
	Commercial PAFs						
4.	Transportation allowance	No.	12	50000	6,00,000		
5.	Subsistence allowance	No.	12	36000	4,32,000		
6.	Resettlement allowance	No.	12	50000	6,00,000		
7.	7. Loss of small traders / self- employment		0	25000	0		
8.	Annuity or employment	No.	12	500000	60,00,000		



SI.	Description	Unit	Quantity	Rate	Amount
No.				(Rs.)	(Rs.)
	Vulnerable groups (e.g. SCs,				
	STs)				
9.	Additional assistance	No.	11	50000	5,50,000
C.	Compensation for non-titleholders	S			
	Tenant				
1.	Transportation allowance	No.	10	50000	5,00,000
2.	Subsistence allowance	No.	10	36000	3,60,000
	Squatters				
3.	Transportation allowance	No.	6	50000	3,00,000
4.	Subsistence allowance	No.	1	36000	36,000
	Kiosk				
5.	One-time artisan grant	No.	0	25000	0
	Loss of employment				
6.	Resettlement allowance	No.	0	50000	0
D.	<b>Compensation for Community Str</b>	ucture	S		
1.	Religious structures (LS)	No.	2	500000	10,00,000
2.	Public Toilets (LS)	No.	5	400000	20,00,000
E.	Engagement of NGO				
1.	NGO Cost (LS)	No.	1	2000000	20,00,000
F.	Monitoring & Evaluation				
1.	Cost of Independent Evaluation	No.	1	1500000	15,00,000
	Agency (LS)				
G.	Total (B to F)				1,58,78,000
	Total (A + G)				21,72,43,61,080
	Miscellaneous items @10% of sub	total			2,17,24,36,108
	TOTAL				23,89,67,97,188



# CHAPTER- 8 MONITORING AND EVALUATION

#### 8.1 BACKGROUND

Monitoring and Evaluation are critical activities in involuntary resettlement. Monitoring involves periodic checking to ascertain whether activities are progressing as per schedule while evaluation is essential to assess the performance of PAPs at the end of the project. For this purpose, a monitoring and evaluation (M&E) program are required to be developed to provide feedback to project management which will help keep the programs on schedule and make them successful. Monitoring provides both a working system for effective implementation of the RAP by the project managers and an information channel for the PAPs to assess how their needs are being met.

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 both internally and externally. DMRC will be responsible for internal monitoring through their field-level offices and will prepare quarterly reports on the progress of RAP implementation. An Independent Evaluation Consultant may be hired by DMRC for mid and end-term evaluation of RAP implementation.

## 8.2 INTERNAL MONITORING

The internal monitoring for RAP implementation will be carried out by DMRC. 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 DMRC 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 or enhance living standards are being implemented.
- Verification of agreed measures to restore or enhance livelihood is being implemented.
- ➤ Identification of any problems, issues, or cases of hardship resulting from the 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 Resettlement Specialist regularly to keep track of the R&R progress. For this purpose, the indicators suggested have been given in **Table 8.1**.

TABLE 8.1
INDICATORS FOR MONITORING OF RAP PROGRESS

Indicators	Parameters Indicators				
indicators	The extent of land acquired				
	·				
	Number of structures dismantled				
	Number of land users and private structure owners paid				
	compensation				
	Number of families affected				
Physical	Number of families purchasing land and extent of land				
	purchased				
	Number of PAPs receiving assistance/compensation				
	Number of PAPs provided transport facilities/ shifting				
	allowance				
	The extent of government land identified for house sites				
	Amount of compensation paid for land/structure				
	Cash grant for shifting oustees				
	Amount paid for training and capacity building of staffs				
Financial	The amount for the restoration of CPR (Common Property				
	Resource)				
	11000001000)				
	Area and type of house and facility at the resettlement site				
	Number of times GRC met				
	Number of appeals placed before grievance redressal cell				
Social	Number of grievances referred and addressed by GRC				
	Number of cases referred and addressed by arbitration				
	Number of PAPs approached the court				



Indicators	Parameters Indicators
	Women concern
	Entitlement of PAPs-land/cash
	Number of business re-established
Economic	Utilization of compensation
Economic	House sites/business sites purchased
	Successful implementation of Income
	Restoration Schemes
	Consultation for grievance redressal
	PAPs knowledge about their entitlements
Oniovono	Cases referred to the court, pending and settled
Grievance	Number of grievance cell meetings
	The number of cases disposed of by SMU to the satisfaction
	of PAPs.

Field Offices will be responsible for monitoring the day-to-day resettlement activities of the project. Baseline socio-economic census and the land acquisition data provide the necessary benchmark for field level monitoring. A format for monitoring of RAP implementation is presented in **Annexure 8.1.** 

#### 8.3 INDEPENDENT EVALUATION

As mentioned earlier, an Independent Evaluation Agency (IEA) will be hired by DMRC for mid and end-term evaluation. A detailed Terms of Reference for IEA is found as **Annexure 8.2**. 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 8.2**.

TABLE 8.2 INDICATORS FOR PROJECT OUTCOME EVALUATION

Objectives	Risk Factor	Outcomes and Impacts
<ul> <li>The negative impact</li> </ul>	<ul> <li>Resettlement plan</li> </ul>	The satisfaction of landowners
on persons affected	implementation	with the compensation and
by the project will be	may take longer	assistance paid
minimized.	time than	Type of use of compensation
<ul> <li>Persons losing</li> </ul>	anticipated	and assistance by landowners
assets to the project	<ul> <li>The institutional</li> </ul>	The satisfaction of structure
shall be	arrangement may	owner with compensation and
compensated at	not function as	assistance
replacement cost.	efficiently as	Type of use of compensation
<ul> <li>The project-affected</li> </ul>	expected	and assistance by structure
persons will be	<ul> <li>NGO may not</li> </ul>	owner
assisted in	perform the task as	<ul> <li>% of PAPs adopted the skill</li> </ul>



Objectives	Risk Factor	Outcomes and Impacts
improving or	efficiently as	acquired through training as
regaining their	expected	only economic activity
standard of living.	<ul> <li>An unexpected</li> </ul>	<ul> <li>% of PAPs adopted the skill</li> </ul>
<ul> <li>Vulnerable groups</li> </ul>	number of	acquired through training as
will be identified and	grievances	secondary economic activity
assisted in	<ul> <li>Finding a suitable</li> </ul>	<ul> <li>% of PAPs reported an</li> </ul>
improving their	rehabilitation site	increase in income due to
standard of living.	for the displaced	training
	population	<ul> <li>% PAPs got trained in the skill</li> </ul>
	<ul> <li>PAPs falling below</li> </ul>	of their choice
	their existing	<ul> <li>Role of NGO in helping PAPs</li> </ul>
	standard of living	in selecting trade for skill
		improvement
		Use of productive asset
		provided to PAPs under on
		time economic rehabilitation
		grant
		Type of use of additional
		assistance money by the
		vulnerable group
		Types of grievances received
		No. of grievances forwarded
		to GRC and time taken to
		solve the grievances
		% of PAPs aware of the GRC
		mechanism
		- % of PAPs aware of the
		entitlement framework
		mechanism
		PAPs opinion about NGO
		approach and accessibility

## 8.4 REPORTING REQUIREMENTS

DMRC will be responsible for supervision and implementation of the RAP. DMRC will prepare quarterly progress reports on resettlement activities. The Independent Evaluation Consultant will submit a mid and end-term evaluation report to DMRC 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.



## **ANNEXURE 1.1**

			C	Questionn	aire for S	ocial Survey			
1.	IDENTIFICA	ATION							
1.1	City/Town:				District	<u>:</u>			
1.2	Place/Location	:				Chainage No.:			
1.3	Category of PAF:								
	Titleholder	-1	Encroach	ner	-2	Tenant	-3		
	Squatter	-4	Kiosk		-5	Others (specify)	-6		
2.	GENERAL INFO	RMATION	ı						
2.1	Name of head of	the house	hold	:					
2.2	Name of the Res	pondent	:						
2.3	Religious Group:	Hindu - 4		Muslim (specify)	- 2	2 Christians	- 3	,	Ja
2.4	Social Group:	SC - 4	- 1	ST	- 2	OBC	- 3	Ge	n 🗀
2.5 2.6	Family Pattern: Size of Family:	Joint	- 1 I	Nuclear Medium (5-	- 2 -7) - 2		- 3 e 7) - 3		
S. No	Name of the me		Relationshi p to HH Head	Sex	Age (years	Marital	Education	Any Disability	Any skilled family member
2									
3									
5									
3.10	Household's Mair	n Occupati	ion		- and Moi	nthly Income(Rs)			
3.11	Subsidiary Sourc	e		and	l Monthly	Income (Rs.)			
3.12	No. of Adult earn	ing membe	ers						
3.13	No. of dependent	ts							
3.14	Family annual exp	enditure:		Rs			_		
3.15	Household Assets_								
4.	COMMERCIAL/S	SELF EMP	PLOYMENT A	ACTIVITIE	s				
4.1	Type of Shop/Bu	siness Ent	terprises (SB	Es)					
	Grocery Pan shop Vegetables/fruits Hotel Fancy item Bicycle/scooter re Cloth/Dresses		- 2	- 1 - 3 - 4 - 5 - 6 - 7		Tailoring Clinic Electrical w Manufactur (Specify pro Others (spe	ing oduct)	- 8 - 9 - 10 - 11	



4.2	Owner/C Employe	nent Pattern Operator ed 1 to 5 perso ed 5 & above	-1 ons -2 -3							
5.	VULNE	RABILITY							Г	
	1. 2. 3. 4. 5.	HH below p HH becomin Female hea Scheduled of Schedules	ng BPL as a re aded househol Caste	esult of loss o	f livelihood/asset	s			٠	
6.	INFORM	IATION ON A	AFFECTED PR	OPERTY						
6.1		of the structure			1		, ,			_
	Type of Use	Cons	No.of Rooms/	Tenure	Utility connection	Total area	Impacted		ted area q.m)	
		type	storey	status	connection	(Sq.m)	area(Sq.m)	Р	F	]
										-
7.	Utility Co P-Partia	onnection: 1. I Ily F-Fully	, 2. Rented, 3. Electricity; 2. V	Vater; 3. Pho	ne					
7.1	Are you Yes		proposed metr lo -2	o Rail Projec	t?					
7.2	If Yes, S	ource of infor	mation							
7.3	What is Good		about the proje ad -2	ect? Can't sa	у-3					
7.4	If good,	what positive	impacts do yo	u perceive?						
7.5	If bad, w	-	impacts do you							
7. R	ESETTLEN	MENT AND R	EHABILITATIO	ON						
7.1	Within th - 1 - 2 Place na	ne area Outside the			d how far you pre	efer to be located	1?			



7.2	What do you expect from government for relocation?	
	1. Plot	
	Constructed building	<u> </u>
	3. Building construction assistance	
	4. Shifting expenses	
	5. Compensation at replacement cost	
	6. Training for skill up gradation	
	7. Others (Specify)	<u> </u>

## Terms of Reference For Social Development Officer (R&R)

## Background:

The main objective of the Social Management Unit (SMU) in DMRC is to undertake resettlement and rehabilitation issues during project planning and implementation of Delhi MRTS Phase-IIV so as to mainstream attention to social issues that may arise during Phase-IIV implementation. The Social Development Expert (R&R) shall play a key role in taking forward the compensation and R&R issues, during the course of Phase-IV

## **Job Description:**

- Manage day to day implementation of R&R activities and report the same to SMU.
- Monitor land acquisition and progress of R&R implementation;
- Supervise and monitor the activities of RAP implementation;
- > Develop communication strategy for disclosure of RAP;
- Liaison with district administration for government's income generation and development programmes
- applicable for PAPs;
- Monitor physical and financial progress on land acquisition and R&R activities;
- Organize monthly meetings with support staff to review the progress on R&R implementation;
- Prepare monthly progress report and submit to SMU.

## **Qualification and Experience:**

- Advanced degree (Master's) in relevant social sciences (Social Work and Sociology), and at least 10 years of relevant work experience.
- Substantial work experience in addressing issues covered by compensation, resettlement and rehabilitation in complex and difficult settings, across different sectors. Demonstrated capacity to translate analytical work related to resettlement and rehabilitation issues into advice and operational, actionable, recommendations.
- ➤ Passionate commitment to social development; Deep understanding of the relationship between social development, and those affected by involuntary resettlement.
- ➤ In-depth knowledge and professional experience with the social development issues faced by Delhi region would be a plus.

CIN: U74899 DL1995 GOI 068150

Tel..:: 26692919 Fax :: 26692875



## दिल्ली मेट्रो रेल कॉर्पोरेशन लि0 DELHI METRO RAIL CORPORATION LTD.

(A JOINT VENTURE OF GOVERNMENT OF INDIA AND GOVT. OF DELHI)

Office of the Executive Director/Civil/P-II,

Press Enclave Road, Near Metro Station Malviya Nagar, New Delhi-110017

Date-27.01.2020

#### TO WHOMSOEVER IT MAY CONCERN

It is to inform that the public consultation and orientation program/ socio-economic survey for Delhi MRTS <u>Tughlakabad to Aerocity corridor</u> of phase-IV is scheduled to be conducted on 09.02.2020 to 10.02.2020 by Delhi Metro officials in your area at Shiv Mandir Ambedkar Nagar, Khanpur Market, Kendriya Vidhalaya Sangam Vihar. It is requested to kindly be available and cooperate.

#### जो कोई भी इससे संबंधित है उसके लिए

यह सूचित किया जाता है कि दिल्ली एमआरटीएस के तुगलकाबाद से एरोसिटी कॉरिडोर चरण -4 पर सार्वजनिक परामर्श कार्यक्रम/ सामाजिक-आर्थिक सर्वेक्षण आपके क्षेत्र (शिव मंदिर अम्बेडकर नगर, खानपुर मार्केट, केंद्रीय विध्यालय संगम विहार) में दिल्ली मेट्रो के अधिकारियों द्वारा 09.02.2020 से 10.02.2020 के बीच आयोजित किया जाना है। अनुरोध है कि कृपया उपलब्ध रहें और सहयोग करें।

कार्यकारी निदेशक/ मरियोजना/॥ दिल्ली मेट्रो रेल कॉर्पोरेशन लि०

Tel.: 011-22754713 Fax: 011-22754657



# दिल्ली मेट्रो रेल कॉरपोरेशन लि0 DELHI METRO RAIL CORPORATION LTD.

A JOINT VENTURE OF GOVERNMENT OF INDIA AND GOVI. OF DELHIJ

Office of the Chief Project Manager-3/Line-7 Ground Floor, Mayur Vihar Phase-I Metro Station, Delhi-110091

Date-15.01.2020

## TO WHOMSOEVER IT MAY CONCERN

It is to inform that the public consultation program/ socio-economic survey for Delhi MRTS at R.k. Ashram to Derawal Nagar corridor of phase-IV is scheduled to be conducted on 01.02.2020 to 02.02.2020 by Delhi Metro officials in your area (Chitra-Gupt road at R.K.Ashram, Pul Bangash metro station, Ghantagahar chowk, near Vyaamshala at Sadar Bazar). It is requested to kindly be available and cooperate.

## जो कोई भी इससे संबंधित है उसके लिए

यह सूचित करना है कि दिल्ली एमआरटीएस के आर.के. आश्रम से डेरावल नगर कॉरिडोर चरण -4 पर सार्वजिनक परामर्श कार्यक्रम/ सामाजिक-आर्थिक सर्वेक्षण आपके क्षेत्र (आर.के. आश्रम पर चित्रा-गुप्त रोड, पुल बंगश मेट्रो स्टेशन, घण्टाघर चौक, सदर बाजार पर व्यमशाला के पास) में दिल्ली मेट्रो के अधिकारियों द्वारा 01.02.2020 से 02.02.2020 के बीच आयोजित किया जाना है। अनुरोध है कि कृपया उपलब्ध रहें और सहयोग करें।

संजीव कुमार

मुख्य परियोजना प्रबंधक -3

दिल्ली मेट्रो रेल कॉर्पीरेशन लिo

## Contract -DC-07

Sub: Minutes of Meeting of DMRC DC-07 Project officials with PAFs on 10<sup>th</sup> Feb 2020.

Venue: At Site Location Anandmayee Marg (Okhla Red Light, Lal Kuan).

The meeting started at Okhla Red Light, Lal Kuan with brief introduction by the entire project related/affected members. It was attended by Shri S.M.Yadav, (PM/6A), Shri Siddharth Kashyap, (AEN 6A-2),Shri Ambuj Pandey, (JE),Shri Ajay Devanda, (JE) and Project Affected Families (PAF's).

Shri Siddharth Kashyap, (AEN) started the presentation on RPF (Resettlement Plan Framework). The presentation also consisted of salient features of DMRC Project DC-07, Compensation Matrix and Grievance Redressal Mechanism. These points were further elaborated in detail by Shri S.M.Yadav, PM/6A. The points related to land compensation matrix was raised by PAF Anandmayee Marg, which was answered in detail by officials of DMRC.

All the above questions were handled efficiently by PM/6A and other officials of DMRC. Most of the issues were sorted out in the meeting itself. Few queries, specially related to location where rehabilitation will take place was enquired by PAFs. They want resettlement nearby. It was explained to them that DMRC will pursue with the Delhi Urban Shelter Improvement Board (DUSIB), which is nodal agency for resettlement.

The meeting ended with vote of thanks by all officials to the PAFs of DMRC Project.

Encl: Attendance Sheet attached herewith

Project Manager/6A

May leindly see Ida.

EDJE p. 2 seen. 10/2/100

Pm/6 A.

## STAKEHOLDER CONSULTATION Meeting held at office of ED/C/P-II

lace	Date			Important views	DMRC reply
Khanpur <sup>®</sup> Market	09.02.2020		Discussed Rehabilitation	& Suggestions  - All shop keepers should be rehabilitated in nearby area before demolition	- Agreed. They will be rehabilitated within 500m distance.
			Compensation	- Compensation should be given on market rate - Tenants should be compensated with transport allowance	- Compensation will be as per Entitlement matrix
			Loss of revenue	- They should be compensated thrice the market rate for loss of revenue during construction stage	- Compensation will be as per Entitlement matrix
Anandm Marg	nayee 10.02.20	20 Approx. 20 (Male – 14 Female – 6)	Rehabilitation	- Jhuggies coming in work area should be rehabilitated in nearby area before demolition	- Agreed. They will be rehabilitated within nearby area.
			Compensation	- Compensation should be given on market rate - families should be compensated with transport allowance	
			Employment	- During construction and operation phase of the project the PAPs should be provided job opportunities	matrix and qualification.





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Page 1 of 5

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# Public Consultation Programme (Anandmayee Marg) Attendance Sheet

Date 10.02.2020

S. No.	Name	Gender	Signature	Remarks
1	Sanjay Kumay	M	2idy anx	
2.5	Sanjay Kumay Ram Singh Sagay Sunny Padiyay Praycen Kumay	M		
3.	Sagar	M	21612	
4:	Sunny Padiyar	M	Sanny	
5	Prayeen Kumar	M	Vaccenth	
6:	Sunil Padiyar  Mangal Rather  Ravi	M	Surit	
7	Mangal Rather	M	Haley	
8	Ravi	M	400	
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+	14) Grown	F		
t	16>		affai	
	17) Greeta	F	गता	
	187 Sonu	M	Sanu	
	19) Seema	F	पिकी देवी	
	20) Pinki Devi	F	1490 47	
	Lali		LALI	*

## ATTENDANCE SHEET FOR PAFS AT PROPOSED ANADMAYEE STATION

Location- Okhla red light, Lal Kuan

Date- 10:2.2020

S.NO	ATTENDEE	PHONE NO.	SIGNATURE
1.>	Aasha (Iraqi) daughta in la	9971308617	
	Maya Devi	9821188150	लायां देवी
3:>	Sita	8448555671	
4.>	Sunil		
5.>	Pinki Devi	9717584421	पिकी देवी

Dated: 03.02.2020

# Sub: Minutes of Stakeholder Consultation Meeting

**Location: Ghanta Ghar** 

Date: 02.02.2020

The Meeting was attended by Sh. Saurabh Sharma (PM-3A), Sh. Virender Kumar Sattawan (XEN), Lokesh (JE), Sachin Shakya (JE), Vijay Kumar (JE), Ashish Kumar (JE), Priyum Swarup (JE), Rohit Jamun (JE), Satinder (Surveyor) and project-affected people of the Ghanta Ghar locality. Attendance sheet is attached herewith.

DMRC team delivered a presentation on the Phase-IV project. The presentation touched upon the brief about R K Ashram – Janakpuri West corridor, construction schedule, silent features of DMRC project, resettlement policy framework, entitlement matrix and grievance redress mechanism in DMRC. The project manager Sh. Saurabh Sharma further elaborated on these points and the team provided answers to questions raised by the affected people. Main questions raised by the PAF and reply given by the DMRC team is given below.

Issues Discussed	Important views & Suggestions	DMRC reply  This request will be
Loss of revenue	- DMRC should compensate for the loss of revenue during the construction stage	examined against the Land Acquisition Act, 2013.
Compensation	<ul> <li>Compensation should be given at market value</li> <li>Compensation should be given in cash for loss of buildings</li> <li>Though they appreciate metro, a development that's affects their livelihood is not preferred</li> </ul>	<ul> <li>Compensation will be as per Entitlement matrix</li> <li>To keep the integrity and transparency in money transaction it was recommended to use cheque or digital payments</li> </ul>
Safety	- DMRC should ensure the safety of shops/buildings during the construction stage	- Safety is paramount for DMRC and all measures will be taken to avoid any mishap
Air Pollution	- Dust generation during construction should be avoided	during the construction stage
Loss of revenue Compensation Safety	- DMRC should compensate for the loss of revenue during the construction stage	
	- Compensation should be given at market value - Compensation should be given in cash for loss of	per Entitlement matrix - To keep the integrity and

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buildings			recommended	to	∪se
1	they appreci	iate	cheque or digita	l payr	nents
metro, a c	development th	at's			
affects the	eir livelihood is	not			
preferred					

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Encl: a/a

Saurabh Sharma Project Manager/3A

## **Attendance Sheet**

Location: Ghanta Ghar

Date of meeting:

SI. No.	Name	Gender	Signature	Remarks
1.	Visco In . Kum (	M	V	
2.	Vivender Kumur	M	3Epm-	
3.	houesh	M		
4.	Rohit Junua		W 4	
5.	VIJAY KUMAY  Jitender Kumaryaa	N M	I.W.	
6.	THENDER KOMAY YOU	M	Mer	
7.	Dharmender Kumm	M	Blotys	
8.	Sachin Sharya Nishart Sharma	M	Nosharme	
9.	Nishart Shurma	M	mhuite.	
10.	- Man Mohan		Daker	
	Rakesh	M E	Oshi.	
11.	Asha shevaa		B. J	
12.	Priyum	<u>M</u>	ahre.	
13.	Ashuh komax	M	asonist	
14.	Marish Kunus	M	South 21211	
15.	Rekha Ishundelwa	P	Reun-	
16.			L.	
17.	Kartik.	_M	Kartun- r 3-Triin	
18.	Amit Kumun	N	i handan L	
19.	Charden Sahon	<u>M.</u>	The state of the s	
20.	Jiterder Kumon	M	there her	
21.	Tramesh chand	M	Remui.	
22.	TRAVI KUMAY	<u>M</u>		
23.	Savoriby Shavner	M	01.	
24.	Satinder Singh	M	4-1110-7	
25.	Nitin	_M		
26.	puneet Koman	M	Runest hu.	
27.	Pauli	M	The superior	
28.	Andy Kumuri	F	7	
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Dated: 03.02.2020

## Sub: Minutes of Stakeholder Consultation Meeting

Location: Pul Bangash

Date: 01.02.2020

The Meeting was attended by Sh. Saurabh Sharma (PM-3A), Sh. Virender Kumar Sattawan (XEN), Lokesh (JE), Sachin Shakya (JE), Vijay Kumar (JE), Ashish Kumar (JE), Priyum Swarup (JE), Rohit Jamun (JE), Satinder (Surveyor) and project-affected people of the Pul Bangash locality. Attendance sheet is attached herewith.

DMRC team delivered a presentation on the Phase-IV project. The presentation touched upon the brief about R K Ashram – Janakpuri West corridor, construction schedule, silent features of DMRC project, resettlement policy framework, entitlement matrix and grievance redress mechanism in DMRC. The project manager Sh. Saurabh Sharma further elaborated on these points and the team provided answers to questions raised by the affected people. Main questions raised by the PAF and reply given by the DMRC team is given below.

Issues Discussed	Important views & Suggestions	DMRC reply
Land acquisition	<ul> <li>The private land acquisition should be avoided</li> <li>Entry/Exit structure should be accommodated in the MCD dispensary</li> </ul>	<ul> <li>Due to site constraints /land constraints, private land acquisition is necessary</li> </ul>
Loss of revenue	- DMRC should compensate for the loss of revenue during the construction stage	- This request will be examined against the Land Acquisition Act, 2013.
Safety	- DMRC should ensure the safety of shops/buildings during the construction stage	<ul> <li>Safety is paramount for DMRC and all measures will be taken to avoid any mishap</li> </ul>
Rehabilitation	- DMRC should shift the shops, not beyond 100m	- It was informed that DMRC will look into this suggestion based on site condition and availability of land
Land acquisition	- The private land acquisition should be avoided  - Entry/Exit structure should be accommodated in the MCD dispensary	- Due to site constraints /land constraints, private land acquisition is necessary
Loss of revenue	- DMRC should compensate for the loss of revenue during the construction stage	- This request will be examined against the Land Acquisition Act, 2013.

Encl: a/a

Saurabh Sharma Project Manager/3A

## **Attendance Sheet**

Location: Pol Bangush
Date of meeting:

SI. No.	Name	Gender	Signature	Remarks
1.	Virender Kumar	M	, W	
2	Laices!	M	TETPHAL	
2. 3.	Lokesh Sachin Shakyn Vigay yadav Vivels Vigay Sharma Karan Singh Manish Komar	M	Charys	
4	Jackin Stanga	M	1-0	
4. 5.	Vigag yadav	M	82. n	
6	Nida Sharas	M	विषय श्री।	
6. 7.	King Stark	M		
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9.	1991ISH KOMAV	· M	zime '	
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12.	TO YOUNGY	M	Rain	
13.	Manish Komar  Somit  Satiender Singh  Rabul Kumar  Raju  Minne Thaker  Jrsad  Me. fas a  Nazim  Chandon Sahar  Ravi Kumar  Archesh guptu  Ajuy Sharma.	M	Roger or crown	
14.	MANU (hakuv	M	(Andreal & Aller	
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16.	174. 148 9	M	MONTH MAN	
17.	Nazim	14	Chings	
18.	Chandan sahar		700000	
19.	Kayl Kumay	M	Quak	
20.	Avanesh guptu	M	अर्पप 2 मि।	
21.	Hay sharma.	19		
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Dated: 03.02.2020

## Sub: Minutes of Stakeholder Consultation Meeting

Location: R K Ashram

Date: 01.02.2020

The Meeting was attended by Sh. Saurabh Sharma (PM-3A), Sh. Virender Kumar Sattawan (XEN), Lokesh (JE), Sachin Shakya (JE), Vijay Kumar (JE), Ashish Kumar (JE), Priyum Swarup (JE), Rohit Jamun (JE), Satinder (Surveyor) and project-affected people of the R K Ashram locality. Attendance sheet is attached herewith.

DMRC team delivered a presentation on the Phase-IV project. The presentation touched upon the brief about R K Ashram – Janakpuri West corridor, construction schedule, silent features of DMRC project, resettlement policy framework, entitlement matrix and grievance redress mechanism in DMRC. The project manager Sh. Saurabh Sharma further elaborated on these points and the team provided answers to questions raised by the affected people. Main questions raised by the PAF and reply given by the DMRC team is given below.

Issues Discussed	Important views & Suggestions	DMRC reply
Station Location	- Station location should be	- Due to site constraint, it is
	shifted 300m backwards to avoid any disturbance	not feasible
Loss of revenue	- DMRC should compensate for the loss of revenue during	- This request will be examined against the Land
	the construction stage	Acquisition Act, 2013.
Compensation	- Compensation during	- This request will be
	construction stage along with	examined against the Land
	shifting allowance and DMRC	Acquisition Act, 2013.
	should construct new shops	
Employment	- During the construction and operation phase of the project, the PAPs should be provided with job opportunities	- This will be as per Entitlement matrix
Station Location	-Station location should be	- Due to site constraints, it is
	shifted 300m backwards to	not feasible
	avoid any disturbance	
Loss of revenue	- DMRC should compensate	- This request will be
	for the loss of revenue during	examined against the Land
	the construction stage	Acquisition Act, 2013.

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Saurabh Sharma Project Manager/3A

Encl: a/a

## **Attendance Sheet**

Location: R.K Ashrum

Date of meeting:

SI. No.	Name	Gender	Signature	Remarks
1.	Virender Kumar Sattawan	M	V.	
2.		M	JE DW	
3.	Satinder Singh Satinder Singh Sachin Shakya Md. Vakil Manglu Farus Mam Nitin Lohiya Rizinan Shakil Alam Abdul Zalil Mehan Kumur	M	V.	
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5.	Mel. Vakil	NÌ	माठ वर्षात	
6.	Manalu	M	Mongline	
7.	FUTUR O MIGM	M		
8.	Nitin Lohiya	M	Mulu	
9.	Rizinan Shakil Slam	M	Right Getter	
10.	Abdul zall	M	31040 Geile	
11.	Mohan Kumay	M	M hums.	
12.	Muhun Anway	M	Mighen	
13.	Mujhan Anway Fayun valdin Vijay yadav Mal. Jahaddin Janilaluddin	M	Mighen 95 38 Elia	
14.	Vitay yaday	M	Mi gread	
15.	Md. Tahoddin	M		
16.	Janilaluddia	M	जनल सनवन	
17.	MANFAG	M	3 Harring 0	
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21.	NIMAIM	M	सुआप वसी ग	
22.	Irshad	M	(blee.	
23.	Musslu	M	wege.	
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25.	Westoch Ruman	M	Santan.  Arm.  Chandans	
26.	Priyam	M	pru.	
27.	Ashigh Kony	M	A&	
28.	Chandan Mino	M	Chandans	hu
29.	punit komay	M	37 Milli	
30.	Munish komur	M		
31.		M	िमल व्यक्तियार	ļ
32.	Shakti dehica	M	Saleti hahija	
33.	mudeep komav	M	1419	
34.		M	जाम प्रसिद्ध	
35.	Aguy Sharma	M	अध्ययं	
36.	Bitender Shorman	14	510 CODE	0.3
37.	permod Rai	M	1415, 20°	
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39.	Rinku Kumar	M	7199	
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## <u>Attendance Sheet</u>

## Location:

## Date of meeting:

SI.	Name	Gender	Signature	Remarks
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1.	Ma Nizan uddin	1-1	मो निस्माममुरीत	
2.	Birender Kushwahn	M	क्रियास्त्रम् .	
3.	Birender Kushwahn Mg Moshim	M	में निम	
4.	Agin	M	Haim	
5.	Anux	M	V 5/1815 300	
6.	Robit Jamen Ravi Kunt	M	(V)	
7.	Ravi Kant	N	Low	
8.	Jitenuer Kr. yadar	141 .	JiM.	
9.	Rahul Dubey	M	Kohul	
10.	Ruhul Dubey  Munoj  Rukesh Kurkar	M	मना त	4
11.	Rykesh Kuykav	M		
12.	Nita	M	Aftir	
13.	Amresh	M	C 3m-0	
14.	pridee p Asha Devi	M	44	
15.	Asha Devi	F	51P 49h	
16.	prem chang	M	Frelikting	
17.	Ramesh Churd	M	Ramesh	
18.	Ashon Komar	M	27211an	
19.	Rajkunar	M	Kallumor	
20.	Prudeep Raj	N	1	
21.	Raj Kumar Prudeep Raj Bushma Devi	F	3/48/1691	
22.	Morry	M	0 2/2/07	,
23.	Kaushil U Kunar	_M_	21/2/01	
24.	Panjeer tha	M	21010	
25.	Punper That Marma Kornal Wati	<u>M</u>	Puneet 51	
26.	Komal wati	<u></u> F	Loui :	
27.	Raxi Shorma	M	2001	
28.	Lubit Kumar		F. Nar	
29.	Joyti kuman		Toyor kunni	
30.	Rum Singh	M		
32.	dokach Kumur	M	ages	
33.	Arnau Singh	<u>M</u>	1 de la	
34.	nd. fuzul	M	11000	
35.	Ruketh		7101/2 1	
36.	Sonu Kumar	_M	Chintee kuman.	
37.	Chinhy Kumar	<u>M</u>	O CUMPIC RUMAN-	
38.	Satinuer pal	M	J 25	
39.	Priet NOMA	M	-	
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## **NOTE**

Dated: 03.02.2020

## Sub: Minutes of Stakeholder Consultation Meeting

Location: Sadar Bazar

Date: 01.02.2020

The Meeting was attended by Sh. Saurabh Sharma (PM-3A), Sh. Virender Kumar Sattawan (XEN), Lokesh (JE), Sachin Shakya (JE), Vijay Kumar (JE), Ashish Kumar (JE), Priyum Swarup (JE), Rohit Jamun (JE), Satinder (Surveyor) and project-affected people of the Sadar Bazar locality. Attendance sheet is attached herewith.

DMRC team delivered a presentation on the Phase-IV project. The presentation touched upon the brief about R K Ashram – Janakpuri West corridor, construction schedule, silent features of DMRC project, resettlement policy framework, entitlement matrix and grievance redress mechanism in DMRC. The project manager Sh. Saurabh Sharma further elaborated on these points and the team provided answers to questions raised by the affected people. Main questions raised by the PAF and reply given by the DMRC team is given below.

Issues Discussed	Important views & Suggestions	DMRC reply
Station Location	-The station should be	- Due to site constraint, it is
	constructed on the road	not feasible
Compensation	- Compensation should be at	- Compensation will be as
	least twice the market rate	per Entitlement matrix
Rehabilitation	-Shops for shop - All shop	- Compensation/
	keepers should be	rehabilitation will be as per
	rehabilitated by constructing	Entitlement matrix
	market complex in the	
	nearby area	
Loss of revenue	- They should be compensated	- This request will be
	thrice the market rate for loss	examined against the Land
	of revenue during the	Acquisition Act, 2013.
	construction stage	
Air pollution	- Dust generation during	- All measures will be taken
	construction should be	to minimize dust emission
	avoided	during the construction
		stage
Benefits of metro	- How the proposed metro rail	- Faster and reliable mode of
rail	benefits the people at large	travel
		- Income generation options
		- Less pollution and
		environment friendly etc

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Saurabh Sharma Project Manager/3A

Encl: a/a

## **Attendance Sheet**

Location: Sadar Bugar

Date of meeting:

SI.	Name	Gender	Signature	Remarks
No.			W.	
1.	Vivender kumur	M	W. Carlotte	
2.	hokesh	M	1	
3.	Vitay KUMAY	M	1 A 1	
4.	Vijay Kumav Rohit Jamun	14		
5.	Ashish Kumar		Abus .	
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9.	Anit Kunar	M	31416 3710	
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11.	Chaulesh	M	Charles :	
12.	Surender Rajpal	M	21,1-5 214100)	
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14.	Rail	M	1 719	
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## **ANNEXURE 8.1**

# DELHI METRO RAIL CORPORATION Phase III Corridors of Delhi Metro

## **Monitoring of RAP Implementation**

Report for the month	n of
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Part-I: Quantitative monitoring format

	Indicator	r	<b>Farget</b>	Achievement	
Activity		This Month	Cumulative	This Month	Cumulative
Stoffing	Number of DMRC staff on the project by job function				
Staffing	Number of other line agency officials available for tasks				
	No. of project affected households				
	No. of project affected people				
Verification of impact	No. of people loss residence				
impaet	No. of people loss livelihood				
	No. of people displace				
	No. of people provided with ID Card				
	No. of resettlement sites developed				
	No. of people received compensation before starting construction activities				
	Area of private land acquired				
Resettlement	Area of Govt. land acquired				
	No. of people resettled				
	No. of religious properties relocated				
	No. of community properties relocated				
	No. of Govt. properties relocated				
Rehabilitation	No. of training agencies identified				



		7	<b>Target</b>	Ach	ievement
Activity	Indicator	This Month	Cumulative	This Month	Cumulative
	No. of people undergone skill development training				
	No. of people restarted their income restoration activities				
	No. of new enterprises started				
	No. of grievance redress committee formed				
Grievance	No. of grievance redress committee meetings conducted				
Redressal	No. of grievances received				
	No. of grievances addressed				
	No. of public consultations				
	Frequency of consultation				
D.I.	No. of participants in the consultation meetings				
Public consultation/ Disclosure of information	Whether the entitlement matrix has been translated in a understandable local language.				
	No. of translated copies distributed to relevant stakeholders including Aps				
	No. of locations where the list of entitled persons displayed				
	No. of staff meetings conducted at PIU level				
Review and Monitoring	Date of appointment of Independent Evaluation Agency (IEA)				
	Frequency of submitting progress reports				
Awareness programs	No. of HIV/AIDS awareness programs conducted				



		Target		Achievement	
Activity	ty Indicator		Cumulative	This Month	Cumulative
	No. of hotspots identified				
	No. of road safety awareness programs conducted.				
Fund utilization	Funds utilized				

## **Part-II- Qualitative Monitoring format**

- 1. Composition/type of participants and specific issues raised by the participants especially the vulnerable groups.
- 2. Actions/follow-up taken to address the issues raised in the public consultation meetings.
- 3. Process adopted for the relocation of AFs, religious and community structures. The process adopted for relocation of squatters and other vulnerable groups may be specified.
- 4. Process of distribution and allotment of compensation and other R&R assistances.
- 5. When the compensation/assistance has been paid, and the utility of compensation amount and other R&R assistances.
- 6. Type of grievances, its reasons and measures taken to address this.
- 7. Brief description of income generation activities undertaken by the AFs.
- 8. Major issues faced during RAP implementation and actions taken to resolve it.
- 9. Major lessons learned and documented.

Sig	gnature
Name and Designation of the Reporting	officer

Place: Date:



#### **ANNEXURE 8.2**

## Terms of Reference for Independent Evaluation Agency

## 1. Project Description

Delhi Metro Rail Corporation (DMRC) has already implemented Phase I and Phase II and Phase-III of the Metro network in Delhi. Now DMRC is in process to implement the phase IV of Delhi Metro. The project involves construction of four corridors. The project gives utmost importance to the Rehabilitation and Resettlement of project affected families. Accordingly, a Resettlement Action Plan has been developed for implementation.

The project includes a provision for monitoring and evaluation of the implementation of the Resettlement Action Plan (RAP) by an external monitor. Therefore, the EA, which is the Executing Agency (EA) for this project, requires services of a reputed Social Sector specialist individual /firm for monitoring and evaluation of RAP implementation referred to as the "Independent Evaluation Agency" (IEA).

## 2. Scope of Work of IEA- Generic

- To review and verify the progress in resettlement implementation as outlined in the RAP
- To monitor the effectiveness and efficiency of Social Management Unit (SMU) and the concerned agency in RAP implementation.
- To assess whether resettlement objectives, particularly livelihoods and living standards of the affected persons have been restored or enhanced
- To assess the efforts of SMU and concerned agency in implementation of the 'Community Participation strategy' with particular attention on participation of vulnerable groups namely (i) those who are below poverty line (BPL), (ii) those who belong to Scheduled Castes (SC) and Scheduled Tribes (ST), (iii) Women headed families, (iv) elderly and (v) disabled persons.
- To assess resettlement efficiency, effectiveness, impact and sustainability, drawing both on policies and practices and to suggest any corrective measures, if necessary.

## 3. Scope of work- Specific

The independent evaluation agency (IEA) will be involved in ongoing monitoring of the resettlement efforts by the EA. The major tasks expected from the external monitor are:

- Review pre-displaced baseline data on income and expenditure, occupational and livelihood patterns, arrangements for use of common property, social organization, community organizations and cultural parameters.
- To review and verify the progress in land acquisition/resettlement implementation of subproject on a sample basis and prepare reports for the EA.
- To evaluate and assess the livelihood opportunities and income as well as quality
  of life of affected persons of project induced changes.



- To evaluate and assess the adequacy and effectiveness of consultative process with affected persons, particularly those vulnerable, including the adequacy and effectiveness of grievance procedures and legal redress available to the affected parties and dissemination of information about these.
- Identify an appropriate set of indicators for gathering and analyzing information on resettlement impacts; the indicators shall include but not limited to issues like restoration of income and living standards and level of satisfaction by the APs in post-resettlement period.
- Review results of internal monitoring and verify claims through random checking at the field level to assess whether resettlement objectives have been generally met. Involve the APs, host population, and community groups in assessing the impact of resettlement for monitoring and evaluation purposes.
- Conduct both individual and community level impact analysis through the use of formal and informal surveys, key informant interviews, focus group discussions, community public meetings, and in-depth case studies of APs and host population from various social classes to assess the impact of resettlement.
- Identify the strengths and weaknesses of basic resettlement objectives and approaches, implementation strategies, including institutional issues, and provides suggestions for improvements in future resettlement policy making and planning

## 4. Time frame and Reporting

The independent monitoring agency will be responsible for independent evaluation of the RAP implementation. The work is scheduled to start in and continue till the end of the project. The duration of RAP implementation is as per the given RAP time schedule. The monitoring and evaluation report should be submitted to EA.

## 5. Qualifications

The monitoring and evaluation agency will have significant experience in resettlement policy analysis and RAP implementation. Further, work experience and familiarity with all aspects of resettlement operations would be desirable.

Interested agencies should submit proposal for the work with a brief statement of the approach, methodology, staff strength, and relevant information concerning previous experience on monitoring and evaluation of resettlement and rehabilitation implementation and preparation of reports.

## 6. Budget and Logistics

Copies of the proposal- both Technical and Financial- should be submitted and the budget should include all cost and any other logistics details necessary for resettlement monitoring. Additional expense claims whatsoever outside the budget will not be entertained.