

ANNEXURES

SUB-COMPONENTS IN SELECTED CITIES

City	Component	Subcomponent/Location
Ajmer-Pushkar	Pedestrian facilities	Pushkar, Ajmer Dargah and Ajmer City
	Vehicle Parking facilities	Ajmer City
	Pedestrian subway	Ajmer City
	RuB	Ajmer City
	Pedestrian Signals and junction improvement	Ajmer City
	Road markings and signages	Ajmer City
	Street Lighting	Ajmer City
	Grade Separated Pedestrian Facilities	Pushkar
	TA for preparation of pedestrian / cycle plan	
Ahmedabad	Service improvements to planned BRT system	Ahmedabad City
	Fare integration between existing AMTS service and new BRT	Ahmedabad City
	Automatic Fare Collection & control center for BRTS system	Ahmedabad City
	Automatic Traffic Control System (ATC)	Ahmedabad City
	Training for planning unit in BRTS organization	Ahmedabad City
	Bicycle Plan & Bicycle Rental Scheme	Ahmedabad City
	TA for transit oriented development	Ahmedabad City
Hyderabad	Pedestrian infrastructure improvement near MMTS	
	Footpath Improvements	Around MMTS Stations
	Pelican Signals	Around MMTS Stations
	Zebra Crossings & Signages	Around MMTS Stations
	FOBs	Around MMTS Stations
	Others	Around MMTS Stations
	Incentivizing multi-modal travel	
	Transit oriented development study	
	Multi-modal transfer site study	
Indore	Bus signal prioritization	Along BRTS Corridor
	Automatic Fare Collection	Along BRTS Corridor
Jalandhar	Construction of Foot over Bridge	City Wide
	Construction of Underpass	City Wide
	Construction of Parking Facilities	City Wide
	Misc.Works (improvement of roads & junction geometry)	City Wide
	Sustainable Urban Transport Study	
	Development Plan	
Mysore	ITS for City Bus services	City Wide
	Retrofit for Bio fuel and storage depots	City Buses
	TA for sustainable transport plan	

City	Component	Subcomponent/Location
Naya Raipur	Additional lanes on proposed road networks for providing dedicated roads for BRTS	N-S and E-W Corridor
	BRT Buses	Along BRTS Corridor
	Buses (Feeder Service -Mini Buses)	Along BRTS Corridor
	Bus Stops / Bus Shelters	Along BRTS Corridor
	Bus Terminals	Along BRTS Corridor
	Bus Depots	End of BRTS Corridor
	GPS/PIS System	Along BRTS Corridor
	Ticketing System	For BRTS Buses
	Transit Oriented Development	
Pune	Cycle & Footpath Tracks	
	Cycle Stands	
	Underpasses	
Trivandrum	Chalai Pedestrian Precinct	East Port to Killipalam
	Elevated pedestrian walkway	Central Area and Thampanoor Area
	Parking Area Development	Near Chalai Vegetable Market
	Preparation of pedestrian / cycle plan	
	TA for preparation of TIMTS	

CHECKLIST OF ENVIRONMENTAL PROVISIONS IN THE DPR**(A) Environmental Concerns to be addressed while preparing DPR**

Sl. No.	Activity	Items to consider	Measures to address
1	Preliminary Project Information	Trees	(i) Inventorisation of environmental features
		Forests	(ii) Avoidance, design modifications to minimize adverse environmental impacts
		Drainage lines / Rivers / water crossings	(iii) Incorporating community concerns into finalizing designs
		Water bodies	
		Cultural properties	
		Utilities	
		Community facilities	
		Major junctions	
2	Detailed Surveys	Air Quality	(i) Establish baseline air quality of the project area
		Noise Quality	(i) Establish baseline noise quality of the project area
		Water Quality	(i) Establish baseline water quality of the project area
3	Identification of material sources	Borrow material	(i) Utilizing alternative materials
			(ii) Minimize requirements through design modifications
			(iii) Location criteria to be applied for selection of borrow areas
		Quarry material	(i) Use of alternative materials to be encouraged
			(ii) Material extraction from existing quarries
		Water availability	(i) Identification of perennial/community/private sources
			(ii) Scheduling construction to suit water availability in case of water scarce areas
			(iii) Utilizing community water sources without conflict of uses
4	Assessment of environmental impacts	Climatic factors	(i) Scheduling construction considering the special weather phenomena
		Water bodies	(i) Provision of silt fencing
			(ii) Rehabilitation of water bodies
		Land use changes	(i) Land use control measures adjacent to the road
			(ii) Development regulations to avoid unplanned developments induced by implementation of the project interventions
		Cultural properties	(i) Avoidance through design modifications
			(ii) Planning for Relocation & rehabilitation
		Common Property Resources	(i) Avoidance through design modification
			(ii) Planning for Relocation of consultation with community
		Drainage	(i) Provision of adequate number of CD Structures
		Trees	(ii) Compensatory plantation
		Forest areas	(i) Avoidance through design modifications
(ii) Environment Management measures during construction			

Sl. No.	Activity	Items to consider	Measures to address
		Natural Habitats	(iii) Avoidance through design modification or formulating additional measures for avoiding impacts
5		Construction sites	(i) Provision of pollution control measures
			(ii) All measures to ensure public & worker's health/safety
			(iii) Water Management
		Construction camps	(i) Criteria for identification of sites and Infrastructure arrangements
			(ii) Safe disposal of all wastes
			(iii) Enforcement of pollution control measures
		Borrow areas	(i) Arrangements with land owners to include redevelopment
		Quarry areas	(ii) Rehabilitation of quarry areas if new quarries are opened
		Public/workers health & safety	(i) Personal Protective Equipment to be provided
(ii) Public safety at construction sites to be undertaken			
(iii) Measures for worker's health & hygiene at construction camps			
6	Consultations with community	Land for borrowing	(i) Agreement to include borrow area rehabilitation
		Water for construction	(i) Agreements with owners/community for utilizing water
		Site for construction camps	(i) Rehabilitation of the land after construction
		Removal of trees	(i) Compensation for the trees cut
		Cultural properties	(i) Avoidance through design modifications
			(ii) Relocation costs to be covered in the project, if needs relocation
		Common property resources	(i) Avoidance through design modifications
(ii) Relocation costs to be covered in the project, if needs relocation			
Traffic during construction	(iii) Provision of alternate routes or prior notice to the users		
7	Finalization of alignment	Concerns of community	(i) Community concerns to be incorporated
		Environmental impacts identified	(ii) Impacts identified are to be mitigated by incorporation of provisions as per ESMF and EMP for subprojects in SUTP
		Design aspects	(iii) Impacts that can be mitigated through design modifications should be incorporated
8	Preparation of detailed drawings	All concerns/impacts identified	(i) Designs for enhancements and mitigation measures including cost provisions
9	Monitoring of Progress	All environmental aspects identified	(i) Monitoring implementation of Environmental measures

(B) Environmental Concerns during project implementation – to be identified in DPR

Sl.No	Activity and Sub Activity	Impact/s	Measure/s
A	Pre – Construction Activities		
A1.0	Project site identification	-Nil-	(i) Co-ordination with Revenue Department
A2.0	Relocation of utilities	Impact on current usage	(i) Identification of relocation site in advance
			(ii) Scheduling the activity in consonance with

Sl.No	Activity and Sub Activity	Impact/s	Measure/s
			the community usage pattern
A3.0	Tree Felling	Compliance with Forest Act in case trees are on forest land	(i) Prior clearance from Forest Department
		Loss of canopy	(i) Compensatory plantations & landscape designs
A4.0	Clearance of land	Affect on livelihood	(i) As per project provisions
		Affect on cultural properties	(ii) Design modifications or Relocation of the cultural properties
		Affect on natural habitats	(iii) Constraining construction activities to construction site only with adequate physical barriers while constructing close to natural habitats
A5.0	Diversion of forest land	Compliance with Forest Act	(i) Activity scheduling to avoid delays, conformance to legal requirements
		Affect on flora	(ii) Constraining construction activities to construction site only with adequate physical barriers while constructing close to natural habitats
		Pollution from construction activities	(iii) Precautions while operating equipment/machinery
A6.0	Transfer of land ownership	Grievances from community	(i) Addressal through Grievance Redressal Mechanisms & Consultations
		Affect on livelihood	(ii) Provision of entitlements as per resettlement framework
A7.0	Location of Storage Yards, labour camps, and construction sites	Pollution from construction camps, storage yards & labour camps	(i) Location criteria to be adopted
			(ii) Obtain clearances from SPCB
		Pressure on local infrastructure	(iii) Contractor has to arrange for infrastructure required as per requirements of the construction activity himself to avoid pressure on local resources
A8.0	Procurement of equipments and machinery	Machinery likely to cause pollution at settlements and natural habitats	(i) Machinery to be procured shall be in conformance with emission standards of CPCB
		Safety concerns in machinery operation	(ii) Safety equipment for workers
A9.0	Identification and Selection of Material Sources	Conflict of uses in case of water	(i) Consultations and arrangements at contractor-individual levels, documentation of agreement
		Borrowing causes depressed lands	(ii) Consultations and arrangements at contractor-individual levels, documentation of agreement
		Pollution due to material extraction from borrow and quarry areas to surrounding environment	(iii) Precautionary measures during siting of borrow areas and quarry areas
		Disturbance to Natural Habitats	(iv) Avoidance of location of material sources in Natural Habitats
A10.0	Waste disposal	Pollution due to location close to settlements, water bodies & other sensitive areas	(i) Waste to be disposed off at predesignated disposal sites and should be located away from habitation, natural habitats, catchment areas of waterbodies and arrangements should be made to avoid leachate entering ground water.
B	Construction Activities		
B1.0	Site Clearance		
B1.1	Clearing and Grubbing	Effect on vegetation	(i) Restricting movement of

Sl.No	Activity and Sub Activity	Impact/s	Measure/s
			machinery/equipment
		Debris generation creating unsightly conditions	(ii) Disposal / storage of grubbing waste and possible reuse
B1.2	Dismantling of existing facilities / structures	Generation of Debris creating unsightly conditions	(i) Disposal of waste and likely reuse
		Flooding due to interception to drainage paths	(ii) Provision of diversion channels and/or scheduling construction of culverts in dry months
B2.0	Planning Traffic diversions and Detours	Inconvenience to public	(i) Activity scheduling, identification of alternative track
B3.0	Material Procurement	Formation of stagnant water pools due to borrowing/quarrying	(i) Rehabilitation plan for borrow areas & quarry areas
		Illegal quarrying / sand mining	(ii) Conformance of quarries selected to the SPCB requirements, including quarry rehabilitation plans
		Uncontrolled blasting at quarries	(iii) Controlled blasting to the extent required. Conformance to blasting rules as per the Indian Explosives Act
B4.0	Materials handling at site		
B4.1	Storage of materials	Contamination to water sources, leaching into ground water	(i) Provision of impervious base to storage areas
B4.2	Handling of earth	Dust rising and increase in particulate concentration in ambient air	(i) Use of dust suppressants
B4.3	Handling of fly ash	Increase of particulate concentration and contamination of nearby areas	(i) Use of dust suppressants
B4.4	Handling of granular material	Risk of injury to workers	(i) Use of Personal Protective Equipment
B4.5	Handling of bituminous materials	Leaching of materials, contamination of water sources	(i) Provision of impervious base at bitumen storage areas
		Air pollution	(ii) Control of emissions from mixing
B4.6	Handling of oil/diesel	Contamination from accidental spills	(i) Prevention of accidental spills, affecting cleaning immediately after spill
		Pollution due to incomplete burning	(ii) Ensure complete combustion of fuel through regular maintenance of equipment
B4.7	Waste management	Littering of debris at construction site	(i) Waste to be disposed at disposal locations only
		Contamination of surroundings due to runoff from construction site	(ii) Prevention of runoff from entering water bodies
B4.8	Operation of construction equipments and machinery	Air & Noise pollution	(i) Conformance to Emission standards and norms
		Operational safety of workers	(ii) Conformance to Safety concerns of the road users and workers in operation, first aid provision and mandatory provision of Personal Protective Equipment
B4.9	Movement of Machinery	Trampling of vegetation	(i) Restriction of movement to construction site
		Damage to flora & natural habitats	(ii) Minimizing impact on vegetation
B5.0	Earthworks	Damage to road side properties	(iii) Minimizing impacts on private and common properties, including religious structures
		Waste generation	(i) Safe disposal of waste & possible reuse
		Dust Rising	(i) Dust suppression with water
		Contamination of water bodies/ water courses	(i) Control measures as silt fencing, vegetative barriers etc
			(ii) Avoiding disposal of liquid wastes into

Sl.No	Activity and Sub Activity	Impact/s	Measure/s
			natural water courses
B5.1	Maintenance at construction camp	Collection of rainwater in construction camps	(i) Temporary drains during construction
		Waste water from labour camps	(i) Disposal of waste water into soak pits
		Contamination of soil	(i) Removal of oil / other chemical spills & wastes
B6.0	Construction Material Use	Extensive extraction of quarry materials	(i) Use of locally available materials
		Extensive water requirement	(i) Scheduling the activity in wet months
			(ii) Avoiding conflict of uses due to water extraction from construction
		Pollution of water channels during construction	(i) Control of sediment runoff
		Safety of Workers	(i) Mandatory use of Personal Protective Equipment
B7.0	Bitumen works	Worker's safety during handling of hot mix	(i) Mandatory use of Personal Protective Equipment
		Damage to vegetation (burning/cutting)	(ii) Avoiding use of wood as fuel for heating bitumen
			(iii) Hot mix plant location on waste lands
		Contamination due to bituminous wastes	(iv) Reuse or Land filling of bituminous wastes
		Impacts on Air quality	(v) Ensuring compliance of hotmix plants with the CPCB emission standards
B8.0	Concrete works	Contamination of surroundings due to concrete mixing	(vi) Mixing concrete at designated locations away from habitation and agriculture lands
B9.0	Enhancements	-Nil-	(i) To be included in DPR
B10.0	Monitoring environmental conditions	-Nil-	(i) To be as per the codes of environmental practice
C	Post Construction Activities		
C1.0	Clearing of construction camps		
C1.1	Campsite restoration	Change of landuse due to setting up of construction camp	(i) Campsite to be restored to its original condition as per the rehabilitation plan
C1.2	Dismantling of campsite	Waste generation at the construction site	(iii) Disposal of waste at designated locations
C2.0	Clearing of Water Channels, side drains and culverts	Generation of debris & silt	(i) Removal of Debris and disposal
C3.0	Rehabilitation of borrow areas	-Nil-	(i) Top soil restoration, revegetation
C4.0	Clearing of encroachments	Loss of livelihood	(i) Precautionary measures to avoid encroachments

(C) Social Concerns in DPR Preparation

Sl. No.	Activity	Items to consider	S.No.	Measures to Address
1	Preliminary Project Information	Land Acquisition	(i)	Estimation of land requirement by ownership for the project
		Structures Lost	(i)	Estimate likely number of loss
		Assets Lost		
		Cultural properties Community facilities		
2	Detailed Surveys	Census Survey	(i)	Conduct census and socio-economic survey to identify number of PAPs, structures, assets lost, vulnerable groups impacted, squatters and encroachers.
		Socio-Economic Survey		
		Cultural property surveys	(i)	Inventory of cultural property impacted

Sl. No.	Activity	Items to consider	S.No.	Measures to Address
		Common property resources	(i)	Inventory of common property resources impacted
4	Assessment of Social Impacts	Loss of land	(i)	Estimate extent of loss of land by PAPs
		Loss of property	(i)	Estimate number of structures impacted including partial and total impacts
		Loss of livelihood	(i)	Estimate number of livelihoods lost including employees/workers in commercial/industrial establishments
		Impacts on squatters	(i)	Number of squatters and encroachers to be identified
		Impacts on encroachers	(ii)	Separate lists for mobile/ambulatory vendors to be compiled
		Impacts on vulnerable groups	(i)	Estimate number of vulnerable groups impacted
		Impacts on cultural properties	(i)	Estimate number of cultural properties impacted
6	Consultations with community	Socio-Economic Survey	(i)	Conduct consultations with community informing survey timings and purpose
		Census Survey		
		Cultural properties	(i)	Avoidance through design modifications
			(ii)	Relocation costs to be covered in the project, if needs relocation
		Common property resources	(i)	Avoidance through design modifications
			(ii)	Relocation costs to be covered in the project, if needs relocation
		Compensation and Assistance	(i)	Information dissemination on entitlement matrix and the provisions for compensation and assistance
Grievance Redressal	(i)	Sort grievances related to compensation amount for land, valuation of structure and payment of compensation and assistances		
7	Finalization of alignment	Concerns of community	(i)	Identify concerns of community regarding project outcomes
		Social Impacts	(i)	Consultations to identify any other social impacts as seen by the community
		Design aspects	(i)	Explore possible changes in design in order to reduce social impacts to minimum
8	Preparation of detailed drawings	All concerns/impacts identified	(i)	Designs for enhancements and mitigation measures including cost provisions
9	Monitoring of Progress	All social aspects identified	(i)	Monitoring implementation of social measures

(D) Social Concerns in Implementation – to be identified in DPR

Sl.No.	Activity and Sub Activity	Impact/s		Measure/s
A	Pre – Construction Activities			
A1.0	Project site identification	-Nil-	(i)	Co-ordination with Revenue Department
A2.0	Relocation of utilities	Impact on current usage	(i)	Identification of relocation site in advance
			(ii)	Scheduling the activity in consonance with the community usage pattern
A3.0	Clearance of land	Loss of Land	(i)	As per provisions in Entitlement Framework
		Loss of Structure and Assets	(i)	As per provisions in Entitlement Framework
		Affect on livelihood	(i)	As per provisions in Entitlement Framework
		Affect on cultural properties	(i)	Design modifications or Relocation of the cultural properties
		Affect on community properties	(i)	Design modifications or Relocation of the community properties
B	Construction Activities			
B1.0	Site Clearance	Affect on assets	(i)	A 2 months notice shall be given for the removal of structures (Included as part of provisions in Entitlement Framework).
			(ii)	The owner/tenant (in cases where a tenant occupies the structure) shall be given the right to salvage material from the structure

Sl.No.	Activity and Sub Activity	Impact/s	Measure/s	
				(Included as part of provisions in Entitlement Framework).
		Affect on Squatters (including mobile and ambulatory vendors)	(i)	Benefits and assistances to be provided as per the Entitlement Framework
		Affect on Encroachers	(i)	Encroachers will be notified a time in which to remove their assets (Included as part of provisions in Entitlement Framework).
			(ii)	Right to salvage materials from the demolished structure (Included as part of provisions in Entitlement Framework).
		Affect on agricultural crops	(i)	A four months advance notice shall be given to salvage crops.
		Affect on perennial crops such as fruit trees	(i)	Compensation as per Entitlement Framework
		Temporary loss of access	(i)	Alternative access to be provided
B2.0	Dismantling of existing facilities / structures	Temporary loss of usage of facilities	(i)	Scheduling the activity in consonance with the community usage pattern
B3.0	Planning Traffic diversions and Detours	Inconvenience to public	(i)	Activity scheduling, identification of alternative track
		Temporary loss of access	(i)	Alternative access to be provided
B4.0	Materials handling at site	Construction workers health impacts	(i)	Provision of first aid facilities in construction camp
			(ii)	Emergency health care in the form of ambulances to be made available
		Construction workers and host population health concerns	(i)	Awareness programmes on HIV/STDs
			(ii)	Free health check ups and distribution of condoms
			(iii)	Periodic checking of drinking water quality, sanitation and waste disposal mechanism
B5.0	Operation of construction equipments and machinery	Operational safety of workers	(i)	Conformance to Safety concerns of the road users and workers in operation, first aid provision and mandatory provision of Personal Protective Equipment
B6.0	Construction Material Use	Safety of Workers	(i)	Mandatory use of Personal Protective Equipment
C	Post Construction Activities			
C1.0	Rehabilitation activities	Relocation site	(i)	Ensure compliance with Entitlement Framework provisions

STAGES AND CATEGORISATION IN PRIOR ENVIRONMENTAL CLEARANCE PROCESS

A) Stages of Prior Environmental Clearance

Sl. No	Stage	Project Category	Authority responsible for EC	Purpose of the Stage	Forms Used
1	Screening	Category B		To check whether the project requires environmental impact assessment or not If EIA required: Category B1 If EIA not required: Category B2	1
2	Scoping	Category A	Expert Appraisal Committee	To decide the Terms of Reference (TOR) addressing all relevant environmental concerns for EIA.	
		Category B1	State level Expert Appraisal Committee	To decide the Terms of Reference (TOR) addressing all relevant environmental concerns for EIA.	
3	Public Consultation	Category A and Category B1	State Pollution Control Board (SPCB) or the Union territory Pollution Control Committee (UTPCC)	Public hearing at the site or in its close proximity- district wise, to be carried out as prescribed in the notification. obtain responses in writing from other concerned persons	
4	Appraisal	Category A and Category B1	Expert Appraisal Committee or State Level Expert Appraisal Committee	Detailed scrutiny of the documents submitted by the applicant for grant of environmental clearance.	Final EIA report, outcome of the public consultations including public hearing proceedings
		Projects not requiring Public Consultation (excluding Item 8 of the schedule)	Expert Appraisal Committee or State Level Expert Appraisal Committee	Detailed scrutiny of the documents submitted by the applicant for grant of environmental clearance.	Form 1, and Pre-feasibility Report
		Item 8 of the schedule: Building and Construction projects, Townships and Area Development projects	Expert Appraisal Committee or State Level Expert Appraisal Committee	Detailed scrutiny of the documents submitted by the applicant for grant of environmental clearance.	Form 1, Form 1A and the conceptual plan

Scoping is not required for Projects Construction / Township / Commercial Complexes / Housing only (Category B). They are appraised by the State Expert Appraisal Committee based on the Form 1 / Form 1A & conceptual plan.

Public Consultation is not required for following projects:

1. Modernization of irrigation projects (item 1(c) (ii) of the Schedule)
2. All projects or activities located within industrial estates or parks (item 7(c) of the Schedule) approved by the concerned authorities, and which are not disallowed in such approvals

3. Expansion of Roads and Highways (item 7 (f) of the Schedule) which do not involve any further acquisition of land
4. All Building /Construction projects/Area Development projects and Townships (item 8)
5. All Category 'B2' projects and activities
6. All projects or activities concerning national defence and security or involving other strategic considerations as determined by the Central Government

The infrastructure projects which require prior environmental clearance as per the Schedule under section 2 of this notification are as below:

B) Categorization of Urban Infrastructure Projects

Project or Activity		Category with threshold limit		
		A	B	Conditions if any
7		Physical Infrastructure including Environmental Services		
7(a)	Air ports	All projects	-	-
7(c)	Industrial estates/ parks/ complexes/ areas, export processing Zones (EPZs), Special Economic Zones (SEZs), Biotech Parks, Leather Complexes.	If at least one industry in the proposed industrial estate falls under the Category A, entire industrial area shall be treated as Category A, irrespective of the area. Industrial estates with area greater than 500 ha. And housing at least one Category B industry.	-Industrial estates housing at least one Category B industry and area <500 ha. -Industrial estates of area > 500 ha. and not housing any industry belonging to Category A or B.	Special condition shall apply Note: Industrial Estate of area below 500 ha and not housing any industry of category A or B does not require clearance.
7(d)	Common hazardous waste treatment, storage and disposal facilities (TSDFs)	All integrated facilities having incineration & landfill or incineration alone	All facilities having land fill only	General Condition shall apply
7(e)	Ports & Harbours	≥ 5 million TPA of cargo handling capacity (excluding fishing harbours)	< 5 million TPA of cargo handling capacity and/or ports/ harbours ≥10,000 TPA of fish handling capacity	General Condition shall apply
7(f)	Highways	i) New National High ways; and ii) Expansion of National High ways greater than 30 KM, involving additional right of way greater than 20m involving land acquisition and passing through more than one State.	i) New State High ways; and ii) Expansion of National / State Highways greater than 30 km involving additional right of way greater than 20m involving land acquisition.	General Condition shall apply

Project or Activity		Category with threshold limit		
		A	B	Conditions if any
7(h)	Common Effluent Treatment Plants (CETPs)		All projects	General Condition shall apply
7(i)	Common Municipal Solid Waste Management Facility (CMSWMF)		All projects	General Condition shall apply
8		Building / Construction projects / Area Development projects and Townships		
8(a)	Building and Construction projects		≥ 20000 sq.m and <1,50,000 sq.m. of built-up area#	#(built up area for covered construction; in the case of facilities open to the sky, it will be the activity area)
8(b)	Townships and Area Development projects		Covering an area ≥ 50 ha and or built up area ≥1,50,000 sq .mtrs ++	**All projects under Item 8(b) shall be appraised as Category B1

General conditions will be applicable if any project or activity specified in Category 'B' will be treated as Category A, is located in whole or in part within 10 km from the boundary of: (i) Protected Areas notified under the Wild Life (Protection) Act, 1972, (ii) Critically Polluted areas as notified by the Central Pollution Control Board from time to time, (iii) Notified Eco-sensitive areas, (iv) inter-State boundaries and international boundaries.

Annex – 4

OTHER APPLICABLE ENVIRONMENTAL LEGISLATIONS

(a) The Environment (Protection) Act, 1986

The Environment (Protection) Act was conceived as an "umbrella legislation" seeking to supplement the existing laws on the control of pollution (the water Act and the Air Act) by enacting a general legislation for environment protection and to fill the gaps in regulation of major environmental hazards. The Ministry of Environment & Forests (MoEF), Government of India under the Act has passed notifications regulating siting of industry and operations. The relevant provisions of act are as follows:

- Section 6 of the act empowers Central government to
 - Make rules to regulate environmental pollution by prescribing standards for the quality of air, water, soil for various areas and purposes.
 - Set the maximum allowable limits of concentration of various environmental pollutants (including noise)
 - Prohibit and restrict location of industries and carrying of process in various environmentally sensitive areas
 - Set the procedures and safeguards for prevention of accidents which may cause environmental pollution
- Section 7 prohibits carrying out of any industry, operation or process which discharges or emits environmental pollution in excess of standards
- Section 8 of the act regulates handling of hazardous substances
- Section 9 states, the persons responsible for discharges, bound to prevent or mitigate environmental pollution and intimate any accidents due to any occurrences.

(b) Water (Prevention and Control of Pollution) Act, 1974 - As Amended In 1978 & 1988

The Act vests regulatory authority on the State Pollution Control Boards and empowers them to establish and enforce effluent standards for industries and local authorities discharging effluents. This act also assigns responsibilities to the State Pollution Control Boards which include: prevention, control or abatement of pollution of streams and wells in the State; to organize mass education programmes relating thereto; lay down, modify annual effluent standards for the sewage and trade effluents and for the quality of receiving waters (not being water in an inter-state stream) resulting from the discharge of effluents and to classify waters of the State; to evolve economical and reliable methods of treatment of sewage and trade effluents, etc. Provisions of this act are not relevant to the SUTP.

(c) Noise Pollution (Regulation and Control) Rules, 2000

These rules are meant to regulate and control the ambient noise in public places from various sources inter alia industrial activity, construction activity, generator sets, loud speakers, public address systems, music systems, vehicular horns and other mechanical devices. Under rule 3(i) and 4(i), four different zones are designated for maintaining maximum level of ambient noise. These zones are residential, commercial, industrial and silence zones.

The State Government designates an authority, which includes District Magistrate, Police Commissioner or any other officer designated for the purpose of maintaining ambient air quality standards as per the rules in force any time. The project attracts provisions of these rules in case of construction and operation activities towards regulation of noise.

(d) Forest (Conservation) Act, 1980 - As Amended In 1988

The Central Government enacted The Forest (Conservation) Act in 1980 to stop large-scale diversion of forestland for non-forest use. As amended in 1988, as per the Act, no State Government or any authority shall make, except with the prior approval of the Central Government order directing:

- Reserved forest or any portion thereof shall cease to be reserved;
- Any forest land or any portion thereof may be used for any non-forest purpose;
- Any forest land or any portion thereof may be assigned by way of lease or otherwise to any private person to any authority corporation, agency or any other organization not owned, managed by Government; and
- Any forest land or any portion thereof may be cleared of trees, which have grown naturally in that land or portion for the purpose of using it for re-forestation

Restrictions and clearance procedure proposed in the Forest (Conservation) Act applies wholly to the natural forest areas, even in case the protected/designated forest area does not have any vegetation cover.

(e) Wild Life Protection Act, 1972

An act to provide for the protection of wild animals birds and plants and for matters connected therewith. The provisions under this act are:

- Section 9 of the Act mentions that no person shall hunt any wild animal specified in Schedule I;
- The act prohibits picking, uprooting, damaging, destroying, acquiring any specified plant from any forestland;
- It bans the use of injurious substances, chemicals, explosives that may cause injury or endanger any wildlife in a sanctuary;
- No alteration of the boundaries of a National Park shall be made except on a resolution passed by the Legislature of State; and
- Destruction or damaging of any wildlife property in national Park is prohibited.

(f) CRZ Regulations of MoEF, 1991

All coastal stretches of seas, bays, estuaries, creeks, rivers and backwaters which are influenced by tidal action up to 500 m from the High Tide Line and the land between the Low Tide Line and the High Tide Line comes within the jurisdiction of Coastal Regulation Zone. (HTL is defined based on the spring tides). However, the distance from the HTL to which the proposed regulations will apply in the case of rivers, creeks and backwaters may be modified on a case to case basis for reasons to be recorded while preparing Coastal Zone Management Plans by the competent authority. However, in this latter case, the distance from the HTL will not be less than 100 meters or width of the creek, river or back water, whichever is less. For regulating development activities, the coastal stretches within 500 metres of High Tide Line on the landward side are classified into four categories, namely:

- CRZ-I: (i) Areas that are ecologically sensitive and important, such as national parks/marine parks, sanctuaries, reserve forests, wildlife habitats, mangroves, corals/coral reefs, areas close to breeding and spawning grounds of fish and other marine life, areas of outstanding natural beauty/historically/heritage areas, areas rich in genetic diversity, areas likely to be inundated due to rise in sea level consequent upon global warming and such other areas, and (ii) Area between Low Tide Line and the high Tide Line
- CRZ-II: The areas that have already been developed upto or close to the shoreline. For this purpose, "developed area" is referred to as that area within the municipal limits or in other legally designated urban areas which are already substantially built up and which have been provided with drainage and approach roads and other infrastructural facilities, such as water supply and sewerage mains
- CRZ-III: Areas that are relatively undisturbed and those, which do not belong to either CRZ-I or CRZ-II. These will include coastal zone in the rural areas (developed and undeveloped) and also areas within Municipal limits or in other legally designated urban areas which are not substantially built up
- CRZ-IV: Coastal stretches in the Andaman & Nicobar, Lakshadweep and small islands, except those designated as CRZ-I, CRZ-II or CRZ-III

The development or construction activities in different categories of CRZ area shall be regulated by the concerned authorities at the State/Union Territory level, in accordance with norms stipulated in the CRZ regulation and in the state / UT coastal zone management plan. This act is applicable to the project interventions in Thiruvananthapuram as it is the only coastal city considered amongst the project cities.

WORLD BANK SAFEGUARD POLICIES

A) Environmental Assessment (OP 4.01)

The World Bank environmental assessment (EA) requirements are based on a three-part classification system such as Category A, Category B and Category C as defined by the World Bank OP 4.01. A project designated as Category A, requires a full environmental assessment (EA) Category B projects require a lesser level of environmental investigation. Category C projects require no environmental analysis beyond that determination.

If any of the sub-projects are Category 'A', they would require full environmental analysis. However, emphasis of the World Bank is in the integration of mitigation measures into the project design and mainstreaming environment in all stages of project planning, implementation and operation.

The EA ensures that appropriate levels of environmental and social assessment are carried out as part of project design, including public consultation process, especially for Category A and B projects. The OP 4.01 is applicable to all components of Bank financed projects, even for co-financed components.

B) Involuntary Resettlement (OP/BP 4.12)

The Policy on Involuntary Resettlement is intended to assist displaced people arising from development projects, in order not to impoverish any affected people within the area of influence of projects. An action plan that at least restores the standard of living must be instituted, in cases where resettlement is inevitable or loss of assets and impacts on livelihood occurs. Public consultation of "re-settlers" as well as the host communities is significant for the successful resettlement process and implementation of the action plan, in order to incorporate appropriate choices.

C) Forestry (OP/BP 4.36)

The OP/BP 4.36 aims at enhancing the environmental and social contribution of forested areas, and the need to reduce deforestation. The protection of forests through the control of forest-related impact of all investment operations is a concern of the policy. It promotes the restriction of operations affecting critical forest and conservation areas, while requiring that the sector and other relevant stakeholders should be consulted as appropriate.

D) Management of Cultural Property (OPN 11.03)

The policy is premised on the need to investigate and take inventory of cultural resources likely to be affected. Mitigations are provided for in cases of adverse impacts on physical cultural resources. Mitigation measures should be undertaken in conjunction with the appropriate authorities, organizations and institutions who are also required to be consulted and involved in the management of cultural property. The Bank does not support development actions likely to significantly damage nonreplicable cultural property, and does assist only those projects sited or designed to prevent such damage.

C) Bank's Policy on Disclosure

The Bank's policy on disclosure currently under review requires that all the people residing in the given areas of a project have the right to be informed of the proposed development project in their respective areas. Prior to project appraisal therefore, the summary of the study of the development action along with other relevant information should be disclosed to or at the level of the Bank and the project area.

ENVIRONMENTAL MANAGEMENT FRAMEWORK

Project Stage	Impact	Type of Project Intervention / GEF OP 11 Priority	Ahmedabad	Ajmer	Hyderabad	Indore	Jalandhar	Mysore	Naya Raipur	Pune	Trivandrum	Management Measure	Responsibility	Contract Clause	
Location / Design / Pre-construction	Environmental Impacts														
	Location of project facilities and infrastructure near environmentally sensitive areas as parks, ponds, lakes, urban forests etc., likely to contaminate the precincts	Others-Road Infrastructure	✓	✓			✓						Project design shall inventorise environmental features in the influence area of the project area and avoid location of these sub-components near these features. Pollutants from construction sites will not be allowed to flow into the precincts of these areas during any of the subsequent project implementation stages by design and development of appropriate pollution control infrastructure. Examples of such measures include (i) erection of silt fencing to avoid flow of pollutants during construction and operation stages into water bodies. (ii) Developing buffer plantations along / around project facilities to avoid dust and air pollutants entering these precincts (iii) construction of noise screens to avoid noise pollution in these areas etc.,	PIU / Design consultant	These provisions will form part of the Terms of Reference for preparation of EA / SA for subprojects which should be in line with the provisions of ESMF
		Public Transport Infrastructure							✓	✓					
	Location of project facilities	Others-Road Infrastructure	✓	✓			✓					A Traffic Management	PIU / Design Consultant	This provision will be covered	

Project Stage	Impact	Type of Project Intervention / GEF OP 11 Priority	Ahmedabad	Ajmer	Hyderabad	Indore	Jalandhar	Mysore	Naya Raipur	Pune	Trivandrum	Management Measure	Responsibility	Contract Clause
	in heavily trafficked areas will induce traffic snarls for the period of construction and contribute to increase in air pollution levels and noise pollution	Public Transport Infrastructure							✓		✓	Plan that ensures smooth flow of traffic during construction time and if necessary planning of road diversions will be undertaken		as part of the Terms of Reference provided to the Design Consultants who would be preparing the Detailed Design Report.
	Location of borrow areas and quarry areas close to environmentally sensitive areas would induce environmental impacts even though they are far away from urban areas	Others-Road Infrastructure	✓	✓			✓					Identification and location of borrow and quarry areas will avoid their location near environmentally sensitive areas	PIU / Design consultant / Contractor	The contractor shall identify and seek prior approval of the engineer for quarrying and borrowing operations. Quarry and borrowing should be carried only from the locations approved by the engineer. Quarrying if required in the project shall be only from the approved quarries and no new quarries shall be opened for the purposes of the project. Any deviation from the provisions should be immediately notified and approval of the engineer is to be sought.
		Public Transport Infrastructure							✓		✓			
Social / Resettlement Aspects														
	Speculation of land prices, more specifically in case of terminals and road improvements is an identified impact which is both beneficial as well as harmful	Others-Road Infrastructure	✓	✓			✓					Cutoff date incase of likelihood of land acquisition should be established early in the project cycle to reduce influence of price rise speculations	PIU / Design consultant	These provisions will form part of the Terms of Reference for preparation of EA / SA for subprojects which should be in line with the provisions of ESMF
		Public Transport Infrastructure							✓		✓			
	Psychological distress to potential PAPs is considered a major impact during or due to design	Others-Road Infrastructure	✓	✓			✓					Information dissemination on the project proposals and likely alternatives needs to be carried out as	PIU / Design consultant	These provisions will form part of the Terms of Reference for preparation of EA / SA for subprojects which should be
		Public Transport Infrastructure							✓		✓			

Project Stage	Impact	Type of Project Intervention / GEF OP 11 Priority	Ahmedabad	Ajmer	Hyderabad	Indore	Jalandhar	Mysore	Naya Raipur	Pune	Trivandrum	Management Measure	Responsibility	Contract Clause
												soon as possible in the project area. This is best done through community consultation sessions. Opinion of the community and potential PAP should be considered in the design process and feedback should be provided to the concerned PAPs		in line with the provisions of ESMF
Acquisition of land for the facilities causes – R&R issues as loss of livelihood, loss of shelter, severance of community & social ties	ITS application to Public Transport				✓			✓				Conducting Social Assessment (SA) and prepare a Resettlement Action Plan (RAP) to address these issues in accordance with the ESMF. All R&R activities shall be completed prior to start of civil works and the contractor will be provided project area that is free from encumbrances	PIU / Design consultant	Provisions for conduct of SA and RAP will be covered as part of the ToR provisions for Design Consultant. RAP implementation is to be carried out by the PIU with the help of Revenue Department and / or an external consultant whose ToR would cover the R&R implementation provisions with necessary time frame.
	Others-Road Infrastructure	✓	✓				✓							
	Pedestrian / NMT Infrastructure Improvement	✓	✓	✓			✓			✓	✓			
	Public Transport Infrastructure								✓		✓			
Relocation of road appurtenances and utility lines	Pedestrian / NMT Infrastructure Improvement		✓	✓			✓			✓		Prepare a Utility Relocation Plan in accordance with the clear land requirements for the project	PIU / Design Consultant / Supervision Consultant / Contractor	(i) Utility relocation plan is to be prepared by the Design Consultant. (this is to be covered as part of the ToR for Design Consultant) (ii) The contractor shall carry out relocation of utilities with in the project area and areas that are likely to be temporarily impacted. This relocation shall be in accordance with the Utility Relocation Plan and with the approval of the Engineer under the Supervision
	Public Transport Infrastructure								✓		✓			

Project Stage	Impact	Type of Project Intervention / GEF OP 11 Priority	Ahmedabad	Ajmer	Hyderabad	Indore	Jalandhar	Mysore	Naya Raipur	Pune	Trivandrum	Management Measure	Responsibility	Contract Clause	
															Consultant. All relocation works should be completed prior to start of civil works
	Use of existing pavement widths that are encroached will cause removal of squatters and encroachments from roadsides causing loss of livelihood and loss of shelter	Others-Road Infrastructure		✓								Appropriate measures as per the Resettlement Action Plan / Entitlement Matrix are to be undertaken	PIU / Supervision Consultant	Entitlements as per the RAP and entitlement matrix shall be calculated and disbursed as per the schedule provided in RAP	
		Pedestrian / NMT Infrastructure Improvement	✓	✓	✓		✓			✓	✓				
		Public Transport Infrastructure				✓			✓						✓
Construction Stage	Environmental Impacts														
	Minor construction issues in erecting the necessary infrastructure for fare collection	ITS application to Public Transport											Environmental management measures as per the EMP prepared for specific sub-projects and / or Environmental and Social Management Framework need to be implemented	Supervision Consultant / Contractor	All environmental provisions in the applicable specifications for the works should be adhered to as part of the good engineering practices while adhering to the provisions of the EMP for the specific sub-projects where applicable and / or the provisions of the ESMF
	Temporary interruption to traffic and increase of emissions from vehicles due to higher idling times	Others-Road Infrastructure		✓									A traffic management plan to address the traffic congestion issues that are likely to be encountered during the construction time is to be implemented	Supervision Consultant / Contractor	Necessary arrangements for diversion of traffic in the project areas shall be completed prior to initiation of civil works as per the Traffic Management Plan with prior approval of the Engineer of Supervision Consultant
		Pedestrian / NMT Infrastructure Improvement	✓	✓	✓		✓			✓	✓				
		Public Transport Infrastructure							✓			✓			
	Temporary increase of noise levels due to idling and traffic snarls	Others-Road Infrastructure		✓									Traffic management measures to be undertaken in accordance with the traffic management plan will avoid traffic snarls as well as idling traffic during construction	Supervision Consultant / Contractor	Necessary arrangements for diversion of traffic in the project areas shall be completed prior to initiation of civil works as per the Traffic Management Plan with prior approval of the Engineer of Supervision
		Pedestrian / NMT Infrastructure Improvement	✓	✓	✓		✓			✓	✓				
		Public Transport Infrastructure							✓			✓			

Project Stage	Impact	Type of Project Intervention / GEF OP 11 Priority	Ahmedabad	Ajmer	Hyderabad	Indore	Jalandhar	Mysore	Naya Raipur	Pune	Trivandrum	Management Measure	Responsibility	Contract Clause
														Consultant
Air and noise pollution from construction activities	Others-Road Infrastructure	✓	✓				✓					All construction machinery shall be complaint with the air and noise pollution norms of CPCB for construction equipment. Construction activities causing high ambient noise during night time will be avoided and such activities will be restricted to day time. All vehicles plying for construction activities will strictly adhere to emission norms prevailing in the country. Dust suppression measures as watering of construction site shall be carried out to reduce dust pollution.	Supervision Consultant / Contractor	The contractor shall ensure compliance of all construction machinery and equipment with the emission standards of CPCB. All vehicle shall regularly be checked for emissions and ensured that they have a PUC Certificate
	Pedestrian / NMT Infrastructure Improvement	✓	✓	✓			✓			✓	✓			
	Public Transport Infrastructure								✓		✓			
Alternate traffic diversion routes increasing route length and consequently emissions	Others-Road Infrastructure		✓									A traffic management plan to divert and / or manage the traffic flow along the project roads or circumvent project sites shall be notified to the residents through display signs as well as newspaper advertisements	Supervision Consultant / Contractor	The contractor shall notify the residents through appropriate medium in vernacular on the traffic diversions undertaken prior to implementation
	Pedestrian / NMT Infrastructure Improvement		✓				✓			✓	✓			
	Public Transport Infrastructure								✓		✓			
Construction / reconstruction / improvement will result in minor construction issues as: (i) Generation of noxious gases during construction – increasing air pollution (ii) Temporary increase in noise pollution	Others-Road Infrastructure	✓	✓				✓					The environmental management plan will offset any construction issues that may arise with the implementation of the EMP.	Supervision Consultant / Contractor	The contractor shall implement the EMP in its sprit of offsetting any environmental impacts that may arise from implementation of the project
	Pedestrian / NMT Infrastructure Improvement	✓	✓	✓			✓			✓	✓			
	Public Transport Infrastructure								✓		✓			

Project Stage	Impact	Type of Project Intervention / GEF OP 11 Priority	Ahmedabad	Ajmer	Hyderabad	Indore	Jalandhar	Mysore	Naya Raipur	Pune	Trivandrum	Management Measure	Responsibility	Contract Clause
	during construction (iii) Contamination of road runoff with construction material stacked on road side (iv) Traffic safety during construction (v) Traffic diversions causing lengthening of routes increasing air emissions and exposing previously unexposed neighborhoods' to noise (vi) Formation of mud puddles and depressions will cause to spread vector borne diseases													
	Indiscriminate disposal of construction debris in and around construction sites will cause unhygienic conditions in the area	Others-Road Infrastructure	✓	✓			✓					Disposal sites are to be identified prior to start of dismantling or construction activities in the project area. The sites are to be located away from environmentally sensitive areas and ground water recharge areas. The disposal site should be prepared for collection of leachate in case of disposal of hazardous material as bitumen wastes to avoid contamination of ground and surface water sources. The selected sites should be approved by the supervision consultant and consent to dispose should	Supervision Consultant / Contractor	The contractor shall prior to start of construction and dismantling operations identify potential sites for disposal of hazardous construction debris, sites for general construction wastes and domestic wastes from construction camps. The contractor has to obtain approval on identified sites from the Engineer of Supervision Consultant and disposal shall be only after consent letter from the Engineer
Pedestrian / NMT Infrastructure Improvement		✓	✓	✓		✓			✓	✓				
Public Transport Infrastructure									✓		✓			

Project Stage	Impact	Type of Project Intervention / GEF OP 11 Priority	Ahmedabad	Ajmer	Hyderabad	Indore	Jalandhar	Mysore	Naya Raipur	Pune	Trivandrum	Management Measure	Responsibility	Contract Clause
												be provided in writing. Necessary permissions and clearances from the local government and the public should be obtained by the contractor and scrutinised subsequently by the Supervision Consultant.		
Alternate traffic diversion routes exposing previously low traffic routes to higher urban traffic and increasing air / noise pollution	Others-Road Infrastructure			✓								A traffic management plan to address the traffic congestion issues that are likely to be encountered during the construction time needs to be prepared. All construction machinery shall be complaint with the air and noise pollution norms of CPCB for construction equipment. Construction activities causing high ambient noise during night time will be avoided and such activities will be restricted to day time. All vehicles plying for construction activities will strictly adhere to emission norms prevailing in the country. Dust suppression measures as watering of construction site shall be carried out to reduce dust pollution.	Supervision Consultant / Contractor	Contractor shall adhere to the provisions of the EMP and the traffic management plan.
	Pedestrian / NMT Infrastructure Improvement		✓			✓			✓	✓				
	Public Transport Infrastructure								✓	✓				
Social / Resettlement Aspects														
Accidental spillage of construction	Others-Road Infrastructure	✓	✓			✓						Accidental spillages to adjacent lands	Supervision Consultant / Contractor	Contractor shall undertake necessary

Project Stage	Impact	Type of Project Intervention / GEF OP 11 Priority	Ahmedabad	Ajmer	Hyderabad	Indore	Jalandhar	Mysore	Naya Raipur	Pune	Trivandrum	Management Measure	Responsibility	Contract Clause
	activities to adjacent lands result in temporary relocation and loss of access	Pedestrian / NMT Infrastructure Improvement	✓	✓	✓		✓			✓	✓	shall be prevented by barricading the construction site to avoid visual blight. Adequate care as to provide bunds and silt fencing to avoid contaminated flows entering the adjacent lands. Any accidental spillages and trampling shall be made good by the contractor. Adjacent lands required for ease of construction or for facilitating construction during the construction period would be temporarily acquired and compensation as per entitlement matrix is to be paid to the owner / occupant as the case may be. Return of the site to the owner / occupant should be in condition prior to its temporary acquisition or in a condition that is to the satisfaction of the owner / occupant		precautionary measures for avoidance of accidental spillage of construction material and debris outside the construction site. Any accidental spillages and impacts on the adjacent lands shall be made good by the contractor. Any temporary acquisitions shall be returned to the owner in its original condition or to the satisfaction of the owner
		Public Transport Infrastructure							✓		✓			
Construction activities may cause accidental damages to utilities in the project area		Others-Road Infrastructure	✓	✓			✓					Necessary and adequate care shall be taken by the contractor to avoid accidental impacts on the nearby utilities. Any potential utility that is likely to be damaged or impacted during the construction period should be shifted / relocated prior	Supervision Consultant / Contractor	The contractor shall take necessary and adequate care to avoid accidental impacts to nearby utilities. Any accidental impacts shall be made good by the contractor.
		Pedestrian / NMT Infrastructure Improvement	✓	✓	✓		✓			✓	✓			
		Public Transport Infrastructure							✓		✓			

Project Stage	Impact	Type of Project Intervention / GEF OP 11 Priority	Ahmedabad	Ajmer	Hyderabad	Indore	Jalandhar	Mysore	Naya Raipur	Pune	Trivandrum	Management Measure	Responsibility	Contract Clause
												to start of construction or necessary alternate arrangements in consultation with the community is to be undertaken		
	Influx of construction workers in the project areas has the potential to increase spread of HIV/AIDS and other STDs	Others-Road Infrastructure	✓	✓			✓					Adequate HIV / AIDS and STD awareness campaigns are to be conducted regularly in the construction camps to educate the construction workers on the transmission of the disease and precautionary measures towards prevention.	Supervision Consultant / Contractor	The Contractor shall organise HIV / AIDS and STD awareness campaigns in the construction camps. The contractor shall as necessary and as directed by the Supervision Consultant provide for Condom Vending machines in the construction camps. All necessary provisions for hygiene of the workers shall be taken in the construction camps
Pedestrian / NMT Infrastructure Improvement			✓	✓		✓			✓	✓				
Public Transport Infrastructure									✓		✓			
Operation Stage	Improvement in safety of pedestrians	Feeder Services	✓		✓							No measures required. This is a positive impact		
		Others	✓											
		Pedestrian / NMT Infrastructure Improvement	✓	✓	✓		✓			✓	✓			
	Improvement in traffic flow and reduction of air / noise emissions	ITS application to Public Transport				✓		✓				No measures required. This is a positive impact		
	Improvement in urban air quality	Feeder Services			✓								No measures required. This is a positive impact	
Others					✓		✓							
Pedestrian / NMT Infrastructure Improvement		✓	✓	✓										
Public Transport Infrastructure								✓		✓				
Increase in signal time for red causing increase in idling and emissions from	Pedestrian / NMT Infrastructure Improvement	✓	✓	✓		✓			✓		Display of signal times will be considered to inform road users and encourage	PIU / PMU		

Project Stage	Impact	Type of Project Intervention / GEF OP 11 Priority	Ahmedabad	Ajmer	Hyderabad	Indore	Jalandhar	Mysore	Naya Raipur	Pune	Trivandrum	Management Measure	Responsibility	Contract Clause
	vehicles / noise											switching off engines if waiting time is longer		
	Pedestrian safety issues from reduction of signal times for pedestrians	Public Transport Infrastructure							✓		✓	Periodic pedestrian counts will be conducted to ascertain the signal times	PIU / PMU	
	Loss of usual transport routes due to delineation of pedestrian routes to NMT – bicycles / cycle rickshaws forcing them onto other roads increasing risk of accidents	Pedestrian / NMT Infrastructure Improvement	✓	✓	✓		✓			✓	✓	Planning of the NMT / pedestrian routes will take necessary care to avoid such encroachments.	PIU / PMU	
	Loss of adequate frontage to commercial / residential establishments	Pedestrian / NMT Infrastructure Improvement		✓	✓		✓			✓		Planning of the NMT infrastructure will take necessary care to avoid such situations	PIU / PMU	
	Reduction of additional lane width for motorized vehicular traffic if existing road width is used for demarcating the cycle lanes	Pedestrian / NMT Infrastructure Improvement			✓		✓			✓		Planning of the NMT infrastructure will take necessary care to avoid such situations	PIU / PMU	
		Public Transport Infrastructure							✓		✓		PIU / PMU	
	Increase in traffic – noise and air pollution in the periphery of core city areas	Pedestrian / NMT Infrastructure Improvement	✓	✓							✓	Minimum exit and entry times will be ensured at the vehicular parking areas along with stream lining of the traffic flow in these areas. These would ensure low emissions and reduce noise pollution.	PIU / PMU	

Annex – 7:**TYPICAL TOR / SCOPE FOR ENVIRONMENTAL ASSESSMENT IN SUTP****A) BACKGROUND**

As one of the objective of SUTP being adoption of energy efficient modes of transport in the present urban scenario, various such alternatives are being explored and proposed as part of the SUTP. Integration of environmental concerns in the project conceptualization stage would eliminate any major environmental impacts that may arise due to implementation of proposals down the project cycle. Project level decisions that may be necessary at this stage may as well be considered towards enabling energy efficient modes of transport being brought to the mainstream of implementation.

The environmental assessment document assists managers and leaders take conscious decisions to avoid environmental and social impacts. EA in this context is seen as an impact assessment tool the concerns to be addressed would go far beyond environmental issues. This would incorporate decision making tools to interface the scope of application of Project EIAs for identified sub-projects in the SUTP.

The SUTP being administered by the Government of India through the MoUD and concerned state governments, the SEA so prepared would take into account the environmental policy implications of the central and state governments apart from the environmental policies and regulations of multilateral funding agencies agreed to fund for the project. The SEA would thus serve as a guidance manual for addressing environmental concerns at various levels of project conceptualization, planning and project preparation.

B) OBJECTIVE OF THE SERVICES

The main objective of Environment Assessment (EA) is to ensure that the project design and implementation are environmentally sound and sustainable. Further, the objective of EA shall be to provide inputs for selection of sub-projects, preliminary and detailed design of the project. The environmental management plans to be developed as part of the EA is to be used during the implementation of the project for executing the environmental mitigation, enhancement and monitoring measures. In the preparation phase, the EA shall achieve the following objectives:

- Establish the environmental baseline in the study area, and to identify any significant environmental issue;
- Assess impacts of the project, and provide for measures to address the adverse impacts by the provision of the requisite avoidance, mitigation and compensation measures;
- Integrate the environmental issues in the project planning and design; and
- Develop appropriate management plans for implementing, monitoring and reporting of the environmental mitigation and enhancement measures suggested.

C) SCOPE OF WORK

The EA shall comprise of 2 stages – (i) Environmental Assessments (EA) for the individual sub-projects, as required; and (ii) Environmental Management Plans (EMPs) for these individual sub-projects.

The environmental assessment studies and reporting requirements to be undertaken under these TOR must conform to the GOI and the Bank guidelines and regulations, which comprise of, inter alia: The Environmental Impact Assessment Notification, MOEF, 1994 with subsequent amendments; the operational policies, guidelines and the reference materials of the World Bank listed in Annex.

The following section gives the detailed scope of work in each of these stages.

a) Inception

The Consultants shall use the inception period to familiarize with the project details. The Consultants shall recognize that the remaining aspects of the project, such as engineering and social, are being studied in parallel, and it is important for all these aspects to be integrated into the final project design to facilitate their successful implementation. The Consultants should also recognize that due care and diligence planned during the inception stage helps in improving the timing and quality of the EA reports.

During the inception period the Consultants shall (a) study all the project information to appreciate the context within which the EA should be carried-out, (b) identify the sources of secondary information on the project, on similar projects and on the project area, (c) carry out a reconnaissance survey in the urban areas where the subproject interventions are being undertaken, and (d) undertake preliminary consultations with selected stakeholders.

Following the site visits and stakeholder consultations, as well as a review of the conditions of contract between the consultant and the Client, the consultant shall analyse the adequacy of the allocated manpower, time and budgets and shall clearly bring out deviations, if any. The Consultants shall study the various available surveys, techniques, models and software in order to determine what would be the most appropriate in the context of this project on the basis of the best practice examples available with the Bank.

The Consultants shall interact with the social consultants and engineering consultants to determine how the EA work fits into the overall project preparation cycle; how overlapping areas are to be jointly addressed; and to appropriately plan the timing of the deliverables of the EA process. These shall be succinctly documented in the Inception Report. The Consultant shall also specify what support and inputs the Consultant will require from and provide to the implementing agency, social consultant and Engineering consultant.

b) Environmental Assessment (EA)

The EA shall identify all potential environmental issues in the project; and shall develop a management measures for addressing all these issues. To this end, the EA shall consist of (i) overall environmental baseline; (ii) Stakeholder Identification & Consultation (iii) project and regional level environmental issues that would need to be considered in the analysis of alternatives, planning and design of the sub-projects and establish their criticality in the context of the proposed project; (iv) a plan to address the identified project and regional environmental issues; (v) a plan for building adequate environmental management capacity in the implementing agency (or Client). Each of these is described below:

a) Overall Environmental Baseline

All regionally or nationally recognised environmental resources and features within the project's influence area shall be clearly identified, and studied in relation to activities proposed under the project. These will include all protected areas (national parks, wildlife sanctuaries, reserved forests, RAMSAR sites, biosphere reserves, wilderness zones), unprotected and community forests and forest patches, all wetlands, rivers, rivulets and other surface water bodies. In the context of each project city, sensitive environmental features will include the elephant and wildlife corridors if any, all meandering rivers, all flood-prone areas, all areas of severe landslide and river erosion, all flood embankments (some of which are also used as roads). Consultants shall consolidate all these information in a map of adequate scale (1:50,000 minimum), superimposed with the city's circulation network.

b) Stakeholder Identification & Consultation

Consultation with the stakeholders shall be used to improve the plan and design of the project rather than as project information dissemination sessions. The consultants shall carry out consultations with Experts, NGOs, forest department and other selected Government Agencies and other stakeholders to (a) collect baseline information, (b) obtain a better understanding of the potential impacts and (c) appreciate the perspectives/concerns of the stakeholders, and (c) secure their active involvement during subsequent stages of the project as appropriate. Consultations shall be preceded by a systematic stakeholder analysis, which would

- identify the individual or stakeholder groups relevant to the project and to environmental issues
- include expert opinion and inputs
- determine the nature and scope of consultation with each type of stakeholders, and
- determine the methods to be used in contacting and consulting each type of stakeholders.

A systematic consultation plan with attendant schedules will be prepared for subsequent stages of project preparation as well as implementation and operation, as required. Consultant will prepare full documentation of the entire consultation process undertaken by them as well as all relevant consultations under taken by the implementation agency at the state level. The Consultant shall review the on-going consultation process being done by the state level implementing agency or its consultants with various stakeholders; identify further consultation required; and integrate those requirements in the on-going consultation process and/or carry additional consultation required.

c) Identification of Relevant Macro/Regional Level Environmental Issues

Consultants shall determine the Valued Environment Components (VECs) considering the baseline information (from both secondary and primary sources), the preliminary understanding of the activities proposed in the project and, most importantly, the stakeholder (and expert) consultations, which would need to be carefully documented. Use of iterative Delphi techniques is recommended. Based on the identification of VECs, Consultants shall identify information gaps to be filled, and conduct additional baseline surveys, including primary surveys. The consultants shall conduct analysis of the nature, scale and magnitude of the impacts that the project is likely to cause on the environment, especially on the identified VECs, and classify the same using established methods.

d) a plan to address the identified project and regional environmental issues

For the negative impacts identified, alternative mitigation/management options shall be examined, and the most appropriate ones suggested. The measures should be cost-effective, easy to implement by both the state implementing agency and the contractors – the consultant also need to review the experiences available worldwide and in India including the local knowledge available with the Central and state implementing agency.

The Consultant would also require reviewing the CPHEEO, MORTH, MoUD and other relevant specifications to identify as to what extent the construction related issues are already included in the specifications and if any further modification is required. The assessment should clearly identify aspects where the consultants shall also analyse indirect and cumulative impacts during all phases and activities of the project. For the positive measures identified, alternative and preferred enhancement measures shall be proposed.

The EA consultants shall make design recommendations, related to project interventions and alternatives including the location of project facilities, alignment of road / metro / BRT, alternative alignments, cross-sections, construction material use, and mitigation & enhancement measures. The EA consultants shall interact regularly with the Clients and familiarize themselves with the project's overall feasibility analyses models, so that the EA inputs are in conformity to the needs of the overall feasibility study (for all the different alternative improvement proposals under consideration).

In the cases of very significant environmental losses or benefits, the consultants shall estimate the economic/financial costs of environment damage and the economic/financial benefits the project is likely to cause. In the cases, the impacts or benefits are not too significant, qualitative methods could be used. In addition, wherever economic and financial costs of the environmental impacts cannot be satisfactorily estimated, or in the cases of significant irreversible environmental impacts, the consultants shall make recommendations to avoid generating such impacts.

e) a plan for building adequate environmental management capacity in the implementing agency (or Client)

Based on the findings of the environmental screening conducted as part of the earlier SEA studies, stakeholder consultations, and institutional analysis of the institutional capacity to manage environmental issues, consultants shall prepare a Capacity Building Plan to mainstream environmental management in the agencies activities by the end of project implementation period. Earmarking staff for environmental management and improving their skill-sets would be simultaneously pursued during project preparation and implementation. In addition, recommendations should be made concerning any changes to guidelines, standards and regulations, which would improve medium and long term environmental management in the implementing agency and the Line Departments' works within the overall capacity building plan of implementing agency and by integrating the study out-put with the bidding document to be used for implementation.

A training plan shall be prepared by the consultant to leave enough material for the regular use of the implementing agency which should ensure that they should be capable to prepare projects of its own which are of acceptable quality from the environment point of view. Under institutional

aspects the consultant should give how the implementing agency could expedite the statutory clearance from GOI in future. A detailed training plan shall be prepared, (a) to ensure that the environmental management framework can be implemented; and (b) to develop and strengthen environmental capacities in the implementing agency. The strategy should include a mix of hands-on training for key staff involved in project preparation, site visits to similar projects, and whenever required, full-fledged academic programs on environmental management at well-recognized institutions. The Consultants shall conduct training for the client at various levels to ensure that the knowledge, skills and perspectives gained during the current assignment are transferred to the Client and are utilized effectively during project implementation.

c) Environmental Management Plan

Based on suggestions of the EA, it is recommended to prepare separate EMPs for each subproject subjected to environmental assessment. Subprojects involving local, limited and construction level environmental issues identified using standard or pre-defined environmental screening checklists could be addressed through generic good engineering practices that were built into the construction codes. Special issues identified in the EA should be addressed through the management plan. For each of these issues, Consultants shall prepare a menu of alternative avoidance, mitigation, compensation, enhancement and mitigation measures. This could also be done through a careful review of the environmental management plans (EMPs) of the recent Bank-supported projects. Consultants shall organize consultations with the client and implementing agency before finalizing the EMP, its provisions and the budget.

The EMP should necessarily include but not limited to: (a) description of how feasible and appropriate mitigation and environmental enhancement measures would be identified and implemented; (b) institutional, training and monitoring requirements associated with the environmental impacts, mitigation measures and enhancements; and (c) effective monitoring, inspection and environmental auditing measures to be followed by the borrower; and, (d) the estimated budget for all the above, sufficiently detailed.

The environmental monitoring, inspection and audit shall specify parameters, the responsible agencies, reporting procedures, budget and financing, and what other inputs (for example: training) are necessary. In addition, the EMP shall specify what action should be taken and by whom in the event that the proposed mitigation measures fail, either partially or totally, to achieve the level of environmental protection expected. Consultants shall develop and agree with relevant Line Departments (such as the Forest Department) formats or prototypes of agreements or MoUs to be signed with the implementing agency to implement, monitor and report regularly on activities where the participation of the Line Departments is key to their successful implementation. Such activities include, but are not limited to, cutting of trees, shifting of community properties, roadside and compensatory plantation, etc.

d) Public Disclosure

The Consultants are to provide support and assistance to the client in meeting the disclosure requirements, which at the minimum shall meet the World Bank's policy on public disclosure. The consultants will prepare a plan for in-country disclosure, specifying the timing and locations; translate the key documents, such as the EA Summary in local language; draft the newspaper announcements for disclosure; and help the client to place all the EA/EMP reports in the client's

website. The consultants shall prepare a non-technical EA Summary Report for public disclosure including translation of the EA summary report in local language.

e) Co-ordination among the Engineering, Social, Environmental & Other Studies

The consultants, with assistance from the Client, shall establish a strong co-ordination with the other project-preparation studies – engineering, social and/or institutional development. The consultants shall keep in mind the specific requirements of the project in general, and the engineering/design studies in particular, and shall plan their outputs accordingly. It is recommended that some of the consultation sessions may be organised in co-ordination with the social and engineering consultants, as feasible, and when the stakeholders consulted are the same.

Annex – 8**TYPICAL TOR / SCOPE FOR SOCIAL ASSESSMENT IN SUTP****A) BACKGROUND**

As one of the objective of SUTP being adoption of energy efficient modes of transport in the present urban scenario, various such alternatives are being explored and proposed as part of the SUTP. Consultations with the community in the urban area and PAP in particular are of paramount importance in undertaking projects of such nature. Any major concern that may arise during the implementation stage should be thought of and measures taken for their addressal in the project preparation phase itself. Project level decisions that may be necessary at this stage may as well be considered towards enabling energy efficient modes of transport being brought to the mainstream of implementation.

The social assessment document assists managers and leaders take conscious decisions to avoid social and resettlement impacts. SA in this context is seen as an impact assessment tool where the concerns to be addressed would go far beyond only social and resettlement issues. This would incorporate decision making tools to interface the scope of application of Project SA for identified sub-projects in the SUTP.

The SUTP being administered by the Government of India through the MoUD and concerned state governments, the SA so prepared would take into account the policy implications of the central and state governments apart from the resettlement policies and regulations of multilateral funding agencies that have agreed to fund the project. The SA would thus serve as a guidance manual for addressing environmental concerns at various levels of project conceptualization, planning and project preparation.

B) OBJECTIVE OF THE SERVICES

The main objective of Social Assessment (SA) is to ensure that the project design and implementation are socially acceptable. Further, the objective of SA shall be to provide inputs for selection of sub-projects, preliminary and detailed design of the project. The Resettlement Action Plans to be developed as part of the SA are to be used during the implementation of the project for executing the resettlement and rehabilitation activities and monitoring measures. In the preparation phase, the SA shall achieve the following objectives:

- Establish the Socio-economic conditions in the study area, and to identify any significant social issues;
- Assess impacts of the project, and provide for measures to address the adverse impacts by the provision of the requisite avoidance and/or compensation measures;
- Integrate the social and resettlement issues in the project planning and design; and
- Develop Resettlement Action Plan for implementing, monitoring and reporting of the social and resettlement compensation measures suggested.

C) SCOPE OF WORK

The SA shall comprise of 2 stages – (i) Social Assessments (SA) for the individual sub-projects, as required; and (ii) Resettlement Action Plan (RAP), Land Acquisition Plan (LAP) and Structure Acquisition Plan (SAP) for these individual sub-projects.

The social assessment shall be based on a census survey and will formulate development strategies in order to assist in determining project impacts on social, economic, cultural, and livelihood activities of potentially project-affected communities. This will establish a social baseline against which changes resulting from the intervention can be measured in the future. The social assessment studies and reporting requirements to be undertaken under these TOR must conform to the GOI and the Bank guidelines and regulations, which comprise of, inter alia: National Policy on Resettlement and Rehabilitation (NPRR) 2007, Land Acquisition Act, 1894 with subsequent amendments; the operational policies, guidelines and the reference materials of the World Bank.

The following section gives the detailed scope of work in each of these stages.

a) Inception

The Consultants shall use the inception period to familiarize with the project details. The Consultants shall recognize that the remaining aspects of the project, such as engineering and social, are being studied in parallel, and it is important for all these aspects to be integrated into the final project design to facilitate their successful implementation. The Consultants should also recognize that due care and diligence planned during the inception stage helps in improving the timing and quality of the SA reports.

During the inception period the Consultants shall (a) study all the project information to appreciate the context within which the SA should be carried-out, (b) identify the sources of secondary information on the project, on similar projects and on the project area, (c) carry out a reconnaissance survey in the urban areas where the subproject interventions are being undertaken, and (d) undertake preliminary consultations with selected stakeholders.

Following the site visits and stakeholder consultations, as well as a review of the conditions of contract between the consultant and the Client, the consultant shall analyse the adequacy of the allocated manpower, time and budgets and shall clearly bring out deviations, if any. The Consultants shall study the various available surveys, techniques, models and software in order to determine what would be the most appropriate in the context of this project on the basis of the best practice examples available with the Bank.

The Consultants shall interact with the environment consultants and engineering consultants to determine how the SA work fits into the overall project preparation cycle; how overlapping areas are to be jointly addressed; and to appropriately plan the timing of the deliverables of the SA process. These shall be succinctly documented in the Inception Report. The Consultant shall also specify what support and inputs the Consultant will require from and provide to the implementing agency, environment consultant and Engineering consultant.

b) Social Assessment (SA)

The SA shall identify all potential social issues in the project; and shall develop management measures for addressing all these issues. To this end, the SA shall consist of (i) Socio economic baseline established through census surveys; (ii) Stakeholder Identification & Consultation (iii) project and regional level social issues that would need to be considered in the analysis of alternatives, planning and design of the sub-projects and establish their criticality in the context of the proposed project; (iv) a Resettlement Action Plan to address the project and regional social

issues; (v) a training plan for building adequate capacity in the implementing agency (or Client) towards implementation of the plans produced. Key tasks in this part of the assignment include:

- Define likely project impact zone (direct/indirect) based on project proposal
- Collect information through desk review and field visits on existing baseline conditions, include all land uses, structures and people (e.g., demography, socio-economic status, vulnerability, status of infrastructure and access to people, livelihood programs, market rate of assets, medical support for sexually transmitted diseases, its prevalence, awareness on HIV/AIDS, legal status of land through revenue records.) within the likely project impact zone.
- Identification of key stakeholders involved in various aspects of the project (project implementing and executing agencies and groups from civil society; description of socio-economic organizations of local communities that may affect project outcomes; carry out public consultation with the likely affected groups, NGOs, district administration and other stakeholders and document the issues raised and outcomes; and assessment of local capacities in terms of participation in planning, implementation and supervision, and evaluation
- Explore viable alternative project designs to avoid, where feasible, or minimize social impacts (displacement, impact on vulnerable community, cultural properties etc.).
- Identify major and minor social impact issues including identification of congested areas, accident-prone zones, loss of assets, livelihood, poverty, gender and health issues and estimate the economic and social impacts on people and land.

c) Resettlement Action Plan

The RAP should fully confirm to all the requirements of the OP 4.12. This will include but not limited to the following tasks:

- Carry out specific consultation with likely affected population for proposed design alternatives, widening options and underpasses and for calculation of replacement cost.
- Visit all identified roads to develop strip map and indicate all information on structures, utilities and land use that is likely to be affected within the project impact zone.
- Information on legal ROW for linear projects and land tenure according to the revenue records;
- Conduct census survey to establish the cut-off date for eligibility criteria and also to establish the likely types of economic and social impact on people including on private land, traditional and customary rights, lease land, common property resources, different usage of legal right of way and livelihood.
- Assess and analyze social costs of all proposed design options.
- Assess various mitigation options available for addressing the adverse social impacts, and propose the most feasible option.
- Estimate a preliminary cost for broad mitigation options to address adverse impacts such as land acquisition, transfer and resettlement and rehabilitation and ensure inclusion in the overall project cost;
- Identify cases of likely impact on indigenous communities & magnitude of involuntary resettlement, to establish the applicability of GOI/State Government/Bank's requirements;
- To carry out market surveys to estimate replacement costs for loss of assets; and define method to arrive at replacement value.
- To carry out meaningful public consultation with project affected people and other stakeholders on (a) the types of R & R measures to ensure (i) that the proposed mitigation measures are feasible to assist people to improve their livelihoods and (ii) provide opportunities to participate in planning and implementing resettlement programs; and (b) on the various design options to avoid or minimize adverse impacts and design the mechanisms to minimize resettlement, to the extent possible.
- In accordance with the R&R policy of the respective states, finalise entitlement framework in close

coordination with the borrower, based on type of losses expected and mitigation measures needed to assist affected people, especially for the vulnerable in accordance with World Bank guidelines and national and state rules and legal framework.

- Prepare livelihood restoration plan for livelihood affected PAPs.
- Develop and test database for social impacts.
- Identify M&E indicators and develop Monitoring and reporting mechanism.
- Assess institutional capacity and propose the institutional arrangement for implementation of framework, addressing grievances, and ensuring gender equity, and identify the roles and responsibilities of each agency and monitoring & evaluating the compliance with the resettlement policy framework and tribal development strategy
- Develop monitoring indicators and formats for physical and financial progress, process monitoring and impact evaluation and indicators to ensure that the objectives of resettlement are achieved, and that child labour is not engaged in the project.
- Prepare an implementation schedule synchronized with time frame of civil works, and that ensures that no civil works will begin until people are fully compensated and adequately rehabilitated.
- Prepare terms of reference for (i) NGOs to implement RAP, (ii) external evaluation consultants for mid and end term evaluations, and (iii) or any other study identified for impact evaluation.
- Conduct risk assessment for proposed mitigation measures.
- Develop detailed budget based on the outcomes of the study.
- Prepare detailed guidelines to be used by the implementing agency staff and consultants to undertake social impact assessment of recurring sub-projects and
- Prepare a training plan for undertaking training session to prepare SIA and RAP

d) Sampling

The consultants should base his study on a representative sample of about 25% of Affected Persons for undertaking socio economic surveys for preparation of social baseline of the project area. All persons likely to be displaced and those partially affected should be consulted and census survey covering 100% of affected persons should be conducted. The sample for socio economic surveys should cover typical pockets of communities in the urban areas and also be representative of situations like roads passing through build-up areas, road crossings, road junctions, roads requiring major widening, road sections encroached by squatters, and others to capture the typical R&R issues involved. Consultant must included detailed sampling plan in the project proposal.

e) Instruments

The instruments to be used for the screening and detailed survey are provided below. However, these are indicative and consultant may provide component wise detailed instruments.

- (a) Pre-tested quantitative schedule for social screening.
- (b) Guidelines for conducting group discussions including those on HIV/AIDS
- (c) Format for information to be collected on land records from revenue department.
- (d) Pre-tested quantitative schedule to conduct census and baseline survey
- (e) Plans at appropriate scales showing each affected property to identify all project affected households and assets.
- (f) Formats and guidelines for consultations at district and state level.
- (g) Develop database for Project Affected Households and people to enable monitoring.

FORMAT FOR RESETTLEMENT ACTION PLAN

1.1 RAP Preparation

The National Policy for Resettlement and Rehabilitation clearly specifies the components of an R&R plan. The following paragraphs describe in detail the components of a resettlement plan.

1.1.1 IDENTIFICATION OF AFFECTED AREA

The first task is to identify the affected area due to the project. Towards this, an inventorisation of existing land available for the project is required to be done. While estimating the need for land acquisition, care should be taken to minimize acquisition of private properties to the extent possible. For this purpose, an inventory of government lands available in the project area or its immediate vicinity may be prepared. Table 4 gives the format for preparation of such an inventory.

Table 1: Format for Government Lands in Project Area

S.No	Locality Name	Survey No	Ownership (Specify Department)	Location with respect to Project Siting	Suitability for Project Purposes

Subsequent to the identification of the land, the same has to be notified in the official gazette. The notification would include area of villages/localities as an affected zone of the project. These areas are to be shown on the map as the affected zone. Also, the same shall be published in at least two daily newspapers with one of them being in Local language. The official notification is to be circulated in each of the affected villages on the notice board of the ULB and or prominent places in the affected zone. The next step is to conduct a socio-economic baseline survey of the affected persons. This is explained in detail in the subsequent sections.

1.1.2 BASELINE SURVEYS

Census and other baseline surveys are to be carried out for the purpose of preparation of the R&R Plan. The surveys shall be undertaken by the authority identified for the same. The surveys to be conducted include:

- Census survey of PAPs;
- Socio-economic survey of PAPs;
- Inventory of cultural properties;
- Inventory of common property resources.

Care should be taken to record the information of the PAPs with respect to categories. The categories of the PAPs are based on the type of loss. The major types of losses likely due to the projects include:

- Loss of Agricultural Land;
- Loss of Structure- Residential and Commercial; and
- Loss of Livelihood.

1.1.3 TIMELINE FOR CONDUCTING SURVEYS

The surveys shall be completed within a period of ninety days from the date of declaration. The survey details shall be published. After 30 days of publication of the draft of the details of the survey, final details of survey shall be submitted to the State Government. Within forty-five days from the date of receipt of the survey details, the State Government shall publish the final details of survey in the Official Gazette.

1.1.4 DRAFT SCHEME/PLAN FOR R&R

THE SOCIAL IMPACT ASSESSMENT SHALL INCLUDE THE ASSESSMENT OF IMPACTS ON THE FOLLOWING:

- Public and community properties;
- Assets and infrastructure, particularly roads, public transport, sanitation, sources of safe drinking water, sources of drinking water for cattle, community ponds, grazing land, plantations, public utilities, such as post offices, fair price shops, etc, food storage godowns, Electricity supply, health care facilities, schools and educational/training facilities, places of worship, land for traditional tribal institutions, burial and cremation grounds, etc.

The SIA report shall be examined by an independent multi-disciplinary expert group constituted for the purpose by the appropriate Government. Two non-official social science and rehabilitation experts, the secretary/secretaries of the department (s) concerned with the welfare of Scheduled Castes and Scheduled Tribes of the appropriate Government or representatives shall be nominated to be part of this expert group. The SIA clearance is mandatory for all projects.

1.1.5 DRAFT SCHEME/PLAN FOR R&R

After completion of base line survey and census of Project Affected Families and assessment of requirement of land for resettlement, a draft scheme/plan for the Resettlement & Rehabilitation of the Project Affected Families in consultation with representatives of Project Affected Families including women, ward councilors in cities, within which the Project area is situated would be prepared. Every draft scheme/Plan of resettlement and rehabilitation prepared is to contain the following information.

□ LAND ACQUISITION PLAN

The land acquisition plan shall include the following details:

- Extent of land acquisition by village;
- Estimate of government and private land;
- List of titleholders and non-titleholder according to survey numbers and the land area to be acquired;
- Prepare list of PAPs to receive compensation'
- Timeline for land acquisition process; and
- Monitoring formats for land acquisition (filled at regular intervals).

□ SOCIO-ECONOMIC PROFILE

A socio-economic profile of the affected persons is required to be done in order to ascertain the nature of impacts. The following information of the PAPs needs to be compiled:

- Number of family members by age and sex;

- Number of physically handicapped if any;
- Income level of the household to ascertain whether household is below or above poverty line;
- Whether the household belongs to vulnerable groups- scheduled caste, scheduled tribes, etc;
- Occupational status/type of the family especially the head of the household;
- Assets within the house/property.

□ ENTITLEMENT FRAMEWORK

A list based on entitlement framework as given in Table 3 is to be prepared. The format for the same is given in Table 5.

Table 2: Entitlements

S.No.	Village Name	Name of PAP	Type of Loss*	Entitlement (Amount)		Total Amount to be given
				Compensation	Assistance	

Note: * Categories include loss of agricultural land, loss of non-agricultural land, loss of residential structure, loss of commercial structure, loss of institutional structure

□ CONSULTATION PLAN

A consultation plan has to be attached in the R&R report. The R&R report should include the minutes of such meetings held. The format for recording the consultation sessions has been given in Table 6. The stages at which the consultations are to be conducted are given in section on *stakeholder participation and consultation*.

Table 3: Format for Recording Consultations

S.No.	Village Name	Date of Meeting	Stakeholder's Present*	Issues Discussed

Note: * Attach a list of stakeholder names along with signatures

□ RELOCATION PLAN FOR CPRS AND CULTURAL PROPERTY

The relocation plan for the common property resources and cultural property shall be based on consultations with the local community. Based on discussions with the community, a consensus need to be arrived at with respect to the following:

- Classification of properties needing relocation and enhancement;
- Identification of land for relocation, preferably within the village;
- Finalizing the design for the relocation as well as enhancement of the property;
- Estimation of the costs involved.

The above information need to be compiled for every cultural and common property and is to be included as part of the R&R plan.

Annex – 10

TYPICAL REPORTING SYSTEM FOR EMP AND RAP IN SUTP

A) EMP Reporting System

Format 1: Target Sheet for Pollution Monitoring

Construction Stage: Report - Date _____ Month _____ Year _____

(Locations at which monitoring to be conducted as per EMP)

SI. No	Chainage	Details of Location	Duration of Monitoring	Instruments Used	Completion Target		Reason for Delay if any
					Target Date	Date of Completion if task completed	
Air Monitoring							
1							
2							
3							
4							
5							
Water Monitoring							
1							
2							
3							
4							
5							
Noise Monitoring							
1							
2							
3							
4							
5							

Certified that the Pollution Monitoring has been conducted at all the locations specified in the EMP and as per the directions of the CSC

Contractor

Project Engineer

(Supervision Consultant)

Format 2: Tree Plantation and Landscaping

Post Construction Stage: Report -Date____ Month____ Year____

Sl. No	Activity	Physical Target					Financial Target			Completion Target			
		Target (tree/shrubs to be planted in Package for this Quarter)			Target Achieved		% of task completed	Total (lakhs)	Budget Spent	% used	Target Date	Date of Completion/% completed	Reason for Delay if any
		unit			No. of Trees	Survival Rate (%)							
1	Tree Plantation along roadside	km-km											
2	Landscaping of Road Junctions	Nos.											
3	Plantation at Incidental Spaces	Nos.											
4	Plantation at Locations identified for enhancement	Nos.											

Certified that the above information is correct

PIU / Implementing Agency

(B) RAP Reporting System

Format 1: Verification of land to be Acquired

Report - Date _____ Month _____ Year _____

S.No.	Survey No.	Locality Name	Agricultural Land (Sq. M)*	Residential Land (Sq. M)	Commercial Land (Sq. M)	Department Land (Sq. M)	Total Land to be Acquired (Sq. M)

**Representative
of Revenue
Department**

**Environment and
Social Officer, PIU**

*Note: * Agricultural land so as to cover the presence of any form of urban agriculture present in the project cities.*

Format 2: Status of Land Acquisition

Report - Date_____ Month_____ Year_____

S.No.	Survey No.	Name of owner	Type of land (Rese/Comm/Agri*/ department/indust)	Date of publication of section 6 of LA Act	Date of declaration of award	Date of compensation amount transferred	Date of possession taken

**Representative
of Revenue
Department**

**Environment and
Social Officer, PIU**

*Note: * Agricultural land so as to cover the presence of any form of urban agriculture present in the project cities.*

Format 3: Progress on Census Survey

Report - Date_____ Month_____ Year_____

S.No.	Survey No.	Name of owner	Date of conduct of census survey	Type of loss

**Environment and
Social Officer, PIU**

Format 4: Progress on Socio-Economic Survey

Report - Date_____ Month_____ Year_____

S.No.	Survey No.	Name of owner	Date of conduct of socio-economic survey	Type of loss

**Environment and
Social Officer, PIU**

Format 5: Verification of PDFs

Report - Date_____ Month_____ Year_____

S.No.	Survey No.	Locality Name	Name of Head of household	Number of family members

**Environment and
Social Officer, PIU**

Format 6: Verification of Squatters

Report - Date_____ Month_____ Year_____

S.No.	Survey No.	Locality Name	Type of structure (residential /commercial)	Name of PAP

**Environment and
Social Officer, PIU**

Format 7: Verification of Encroachers

Report - Date_____ Month_____ Year_____

S.No.	Survey No.	Locality Name	Type of structure (<u>agricultural</u> */residential /commercial)	Name of PAP

**Environment and
Social Officer, PIU**

*Note: * Agricultural land so as to cover the presence of any form of urban agriculture present in the project cities.*

Format 8: Distribution of Entitlements and Assurances

Report - _____ Date _____ Month _____ Year _____

S.No.	Survey No.	Name of PAP	Total amount	Replacement cost	Replacement cost	Replacement cost of crops	Assistance for land	Assistance for	Assistance for livelihood	Signature of PAP	Date

Environment and Social Officer, PIU

Format 9: Progress of Relocation of CPRs

Report - Date_____ Month_____ Year_____

S.No.	Survey No.	Locality Name	Type of CPR	Land Loss (Sq. Mts)	Structure Lost (Sq. Mts)	Construction completion date	Photograph of new structure

**Environment and
Social Officer, PIU**

Format 10: Progress of Relocation of Cultural Property

Report - Date_____ Month_____ Year_____

S.No.	Survey No.	Locality Name	Type of cultural property	Land Loss (Sq. Mts)	Structure Lost (Sq. Mts)	Construction completion date	Photograph of new structure

**Environment and
Social Officer, PIU**

Format 11: Progress of Relocation and Site Clearance

Report - Date_____ Month_____ Year_____

S.No.	Survey No.	Locality Name	Name of Head of household of PDF	Relocation site allotted	Construction completion date at relocation site	Dare of relocation	Date of Physical possession taken	Site Clearance date

**Environment and
Social Officer, PIU**

Format 12: Community Consultations

Report - Date_____ Month_____ Year_____

S.No.	Date of consultations	Number of People Attended*	Issues Raised	Adderssal of Issues	Remarks

**Environment and
Social Officer,
PIU**

Note: *: Attached a signature list of people who attended the community consultations

Format 13: Progress of Grievance Redressal

Report - Date_____ Month_____ Year_____

S.No.	Locality	Name of Applicant	Date of grievance received	Issues	Judgement made	Vide GRC meeting date	Persons present

**Environment
and Social
Officer, PIU**