

### Survey Form 1-1A: Review of Existing Studies, Reports and Plans

Name of Studies /Reports /Plans	Major Problems/Issues Addressed	Major Strategies	Major Proposed Projects/Plans

**Essential/ ITEM A (Bold font)**
 Preferable/ ITEM B
  *Optional/ ITEM C (Italic font)*

## Survey Form 1-1B: Ongoing and Planned Projects

Description: Ongoing, planned and proposed projects in the existing reports or studies, or identified by relevant agencies, should be summarized and listed.  
 Survey Methods: Literature review and interview survey with relevant agencies

Project/Program				Project Status						
	Cost Estimation	Implementing Agency	Brief Description of Project  (such as road length or capacity)	Completed	Ongoing / Under Construction	D/D Stage (Fund Committed)	Waiting Fund	Planning (F/S) Stage	On Pipeline or Some Movement	No Progress

Note: Major projects should be depicted in a single project.

Essential/ ITEM A (Bold font)
Preferable/ ITEM B
Optional/ ITEM C (Italic font)

## Survey Form 1-2A: Outline of Road Network

		Metropolitan Area	Municipal Area	City Core
<b>Road Length</b>	<b>National Highway Length (km)</b>			
	<b>State Highway Length (km)</b>			
	<b>Other Arterial Road Length (km)</b>			
	<b>Secondary Road Length (km)</b>			
<b>Road Density by Road Type</b>	<b>Road Density of Arterial Road (km/km<sup>2</sup>)</b>			
	<b>Road Density of All Roads (km/km<sup>2</sup>)</b>			
<b>Major Road Infrastructure</b>	<b>Number of Rotaries</b>			
	<b>Number of Signalized Intersections</b>			
	<b>Number of Flyovers</b>			
	Number of Railway over Bridge			
	Number of Railway Underpass			
	<b>Number of Railway Level-Crossings</b>			

**Essential/ ITEM A (Bold font)**

Preferable/ ITEM B

Optional/ ITEM C (Italic font)















### Survey Form 1-3A: Availability of Public Transport Types/Para-Transit Modes

	City Core	Urban Area	Suburban Area
Inter-City Bus	(Available or Not-available)		
Large Bus			
Mini Bus			
Taxi			
Auto Rickshaws			
Cycle Rickshaws			
Hand-pull Rickshaws			

 Essential/ ITEM A (Bold font)

 Preferable/ ITEM B

 Optional/ ITEM C (Italic font)

**Survey Form 1-3B (1): Inventory of Bus Operation, Maintenance, and Economic and Productivity Indicators**

Outline of Bus Operation							
Bus Operator:	Type of Operator (Public, Private, or Association of independent drivers)	Number of Bus Vehicles by Vehicle Types	Number of Bus Routes	Operating Vehicle- Distance (Vehicle-km)	Number of Bus Stops	Number of Bus Terminals	Fare structure

Essential/ ITEM A (Bold font)
  Preferable/ ITEM B
  Optional/ ITEM C (Italic font)

## Survey Form 1-3B (2): Inventory of Bus Operation, Maintenance, and Economic and Productivity Indicators

Bus Operation and Maintenance						Economic and Productivity Indicators				
Bus Operator	Vehicle loads	Vehicle headways	Service period	Typical route speeds	Service reliability	<b>Passengers per vehicle-hour or vehicle-km</b>	<b>Cost for employees per vehicle-hour or vehicle-km</b>	Cost recovery	Passenger transfers	Passenger comfort and safety

**Essential/ ITEM A (Bold font)**
 Preferable/ ITEM B
  *Optional/ ITEM C (Italic font)*

### Survey Form 1-3B (3): Economic and Productivity Indicators and Operator Safety Concerns

Operator Safety Concerns						
Bus Operator	Adequacy of safety training programs sponsored or operated by the transport provider	Degree of driver proficiency	Adherence to road regulations	Commitment of management to safety and driver training	Effect of in-vehicle disturbances upon driver performance	Existence of incentives to encourage safe driving and conduct.

**Essential/ ITEM A (Bold font)**
 Preferable/ ITEM B
  *Optional/ ITEM C (Italic font)*

## Survey Form 1-3C: Inventory of Para-Transit

<b>Name of Operators</b>	<b>Number and Type of registered vehicles</b>	Fare	Revenue	Cost (operating and fixed)	Operating distance and hours (km and hour)	Average age of vehicles	Condition of vehicles	Type of ownership and degree of regulation	Jurisdictional areas of operators (if any)	License fees and franchise costs

**Essential/ ITEM A (Bold font)**
 Preferable/ ITEM B
  *Optional/ ITEM C (Italic font)*

### Survey Form 1-3D (1): Inventory of Major Intermodal Interchanges

<b>Name of interchange facilities</b>	<b>Location</b>	<b>Layout and size of facilities</b>	Determination of capacity and geometric characteristics of pedestrian walkways	Number of daily and hourly (peak) passengers	Number of hourly/daily vehicle movements	Number of transport operators housed	<b>Number of loading berths</b>	Ability of loading berths to accept various bus types

**Essential/ ITEM A (Bold font)**
 Preferable/ ITEM B
  *Optional/ ITEM C (Italic font)*

## Survey Form 1-3D (2): Inventory of Major Intermodal Interchanges

Name of interchange facilities	Number of routes serviced	Condition of waiting areas	Level of passenger convenience and comfort	Existence of passenger amenities	Provision of passenger information (static)	Provision of passenger information (real-time)	Clarity of transfer directions	Directness of required transfer movements	Identification of management authority

 Essential/ ITEM A (Bold font)

 Preferable/ ITEM B

 Optional/ ITEM C (Italic font)

### Survey Form 1-3E: Inventory of River Transport

Name of Ferry Operator	Type of Operator (public, private, or association of independent drivers)	Boat/Ferry types	Number of Boat/Ferry by Vehicle Types	Number of Boat/Ferry Routes	Number of Passenger by Routes	Number and location of Boat/Ferry Jetties	Fare structure of boat operators

**Essential/ ITEM A (Bold font)**
 Preferable/ ITEM B
  *Optional/ ITEM C (Italic font)*

### Survey Form 1-4A: Summary of Traffic Accidents

	5 years ago	4 years ago	3 years ago	2 years ago	1 year ago
<b>Total number of accidents</b>					
<b>involving pedestrians</b>					
<b>involving cyclists</b>					
<b>Involving cars</b>					
<b>Involving buses</b>					
<b>Number of injured or dead</b>					
<b>Number of dead</b>					
<b>Number of injured</b>					
<b>Identification of hazardous locations</b>					
<b>Major accident causes</b>					

 Essential/ ITEM A (Bold font)

 Preferable/ ITEM B

 Optional/ ITEM C (Italic font)

## Survey Form 1-4B: Summary of Enforcement

	Municipality Area	Metropolitan Area
<b>Number of Traffic Police</b>		
<b>Existing Traffic Regulations</b>		
<b>Costs and types of violations</b>		
<b>Fines for traffic violations</b>		
<b>Number of police trap activities</b>		
<b>Manner of enforcement</b>		
<b>Organizational structure of enforcement body</b>		

 **Essential/ ITEM A (Bold font)**

 **Preferable/ ITEM B**

 *Optional/ ITEM C (Italic font)*

## Survey Form 1-5A: Inventory of Agencies/Organizations Relating to Urban Transport

<b>Name of agency/department</b>	<b>Function and responsibility of agency/department</b>	<b>Relationship to other agency</b>	<b>Organization chart</b>	<b>Number of staffs</b>	<b>Annual budget</b>	<b>Profitability and financial sustainability (only for operators)</b>
<b>State Government</b>						
- Transport Department						
- Public Works Department						
- Regional Transport Authority						
- State Transport Company						
<b>Municipality</b>						
<b>Metropolitan Development Authority</b>						
<b>State Government</b>						
Transport Department						
Bus operators						
Associations of Rickshaws or Taxis						
Ferry operators						
Other relevant agencies (if any)						

 Essential/ ITEM A (Bold font)

 Preferable/ ITEM B

 Optional/ ITEM C (Italic font)

## Survey Form 1-5B: Assessment of Planning, Implementation and Coordination Capacity

	Assessment
<b>Planning and Implementation Capacity:</b>	
- Staffing capacity for urban transport planning	
- Data capture capability e.g. systems for periodic traffic data collection	
- Financial resources to implement planned transportation projects	
- Experience in Public-Private Partnerships (PPP)	
<b>Coordination Capability:</b>	
- Control over small private developers in planning supporting infrastructure	
- Systems or processes to integrate transport and urban planning agencies	
- Systems or process to integrate land use plans with transport plans	
- Role and impact of workers/transport operator's unions	
- Division of duties between State Government and Urban Local Bodies (ULB)	
- Planning and Implementation Capacity:	

 Essential/ ITEM A (Bold font)

 Preferable/ ITEM B

 Optional/ ITEM C (Italic font)

### Survey Form 1-6A: Inventory of Environmental Monitoring Data

	Standard	Location 1	Location 2	Location 3	Location 4	Location 5
Ambient Air Quality Data						
NOx						
SOx						
Pb						
Noise						
Water Quality						

**Essential/ ITEM A (Bold font)**

Preferable/ ITEM B

Optional/ ITEM C (*Italic font*)

## Survey Form 1-7A: Typical Urban Transport Issues

Issue	Severity
<b>Traffic Congestion</b>	
City-Wide Traffic Congestion	
Traffic Congestion on Major Roads at Peak Hours	
Narrow Streets Contributing to Congestion	
Waiting or Parked Vehicles Contributing to Congestion	
Slow Vehicles (Bicycle, Cycle Rickshaw, Auto Rickshaw, Two wheeler) Contributing to Congestion	
<b>Existing Bus Systems</b>	
Lack of (Public) Bus Operator	
Lack of Bus Routes (i.e. bus routes are far from residence/commercial area)	
Lack of Bus Vehicles	
Poor Maintenance of Publicly Operated Bus Vehicles (e.g. level of breakdowns and pollution generation)	
Poor Maintenance of Privately Operated Bus Vehicles	
Proliferation of Disorganized Private Bus Services (including mini buses)	
Low Profitability of Bus Operators	
Lack of Bus Driver Training	
<b>Parking</b>	
Major Streets are too Narrow for Parking	
Problems Caused by Parking of Private Vehicles	
Problems Caused by Parking/Waiting of Rickshaws and Auto-Rickshaws	
Lack of Parking Areas at Station/Bus Terminals	
Lack of Land for Off-Street Parking Lots	
Lack of Regulations for Parking Measures (including development control standards)	
Parking Policy and Guidelines	
<b>Traffic Safety</b>	
Vehicle-Vehicle Accidents	
Accidents Involving Pedestrians	
Accidents Involving Cyclists	
Accidents Involving Auto/Cycle Rickshaws	
Level of Driver Education Training/Licensing	
<b>Enforcement</b>	
Enforcement of Illegal Traffic Movements or Speeding	
Enforcement of Illegal Traffic Parking	
Enforcement of Unlicensed Private Vehicle Motorists	
Enforcement of Illegal Bus/Para-Transit Operators	
Lack of Enforcement Resources (traffic police and equipment)	
<b>Environmental</b>	
Air Pollution	
Traffic Noise	
<b>Planning and Implementation Capacity</b>	
Guidance for Making City Transport Policy/Plans	
City Master Plans Do Not Reflect Actual Situation on the Ground	
Lack of Sufficient Urban Transport Planners within the City Government	
City Officials Dealing with Transport Planning Lack Experience or Training in Transport Planning	
Lack of Data Collection Capability e.g. Periodical Traffic Surveys (inc. traffic volume survey)	
Lack of Financial Resources to Implement Planned Transportation Projects	
Lack of Knowledge of Public-Private Partnerships (PPP)	

Issue	Severity
<b>Coordination Capability</b>	
Small Private Developers Do Not Make Strategic Provision for Transport Infrastructure	
Transport and Urban Planning Agencies Do Not Coordinate or Integrate Plans and Processes	
Land Use Plans are Not Coordinated with Transport Plans	
Workers/Transport Operator's Unions Obstruct Improvements	
Division of Duties between State Government and Urban Local Bodies (ULB) is Not Clear	
<b>Transport/Traffic Regulations</b>	
Bus/Paratransit (Auto-Rickshaw, Cycle Rickshaw) Operators are Not Adequately Regulated	
Para Transit Vehicles are Not Adequately Regulated	

## Survey Form 2-1A: Population and Socio-Economic Situation

	Total in Metropolitan Area	Total in Municipality Area	Ward 1	Ward 2	Ward 3	Ward 4.....
<b>Population</b>						
<b>Number and size of household</b>						
<b>Population growth trend</b>						
<b>Population density</b>						
<b>Number of Workers by category</b>						
<b>Main Workers</b>						
<b>Cultivator</b>						
<b>Agriculture</b>						
<b>Labour</b>						
<b>Household industry</b>						
<b>others</b>						
<b>Marginal Workers</b>						
<b>Non workers</b>						
<b>Average personal income</b>						
<b>Average Household Income</b>						
<b>Fuel Price</b>		-	-	-	-	-

 Essential/ ITEM A (**Bold font**)

 Preferable/ ITEM B

 Optional/ ITEM C (*Italic font*)

## Survey Form 2-1B: Vehicle Ownership Data

	<b>Total in Metropolitan Area</b>	<b>Total in Municipality Area</b>	Ward 1	Ward 2	Ward 3	Ward 4.....
<b>Number of Registered Vehicles by Type</b>						
<b>Passenger Vehicle</b>						
<b>Small Passenger Vehicle</b>						
<b>Small Truck</b>						
<b>Heavy Truck</b>						
<b>Auto Rickshaws</b>						
<b>Cycle Rickshaws</b>						
<b>Buses</b>						
<b>Mini Bus</b>						
<b>Motorcycles (two wheeler)</b>						
<b>Number of households having Bicycle</b>						
<b>Number of households having Scooter, Motorcycle, Mope</b>						
<b>Number of households having Car, Jeep, Van</b>						
<b>Number of Licensed Drivers by License Type</b>						

 Essential/ ITEM A (Bold font)

 Preferable/ ITEM B

 Optional/ ITEM C (Italic font)



### Survey Form 2-2B: Traffic Count Survey (Intersection Turning Movement Survey)

<b>Location:</b>	<b>Direction From:</b>		<b>Date/Month/Year:</b>
<b>Count Station No.</b>	<b>Direction</b>	<b>Right Turn/Straight/Left Turn</b>	<b>Day:</b>
<b>Road Name &amp; No:</b>			

	PASSENGER VEHICLES								GOOD VEHICLES			GRAND TOTAL	
	HEAVY FAST	LIGHT FAST			SLOW			TOTAL	HEAVY FAST	LIGHT FAST		TOTAL	
	BUS	MINI BUS	CAR	2-WHEEL	3-WHEEL	CYCLE	OTHERS		TRUCK	LCV	OTHERS		
6-7 am													
7-8 am													
8-9 am													
9-10 am													
10-11 am													
11-12 am													
12-1 pm													
1-2 pm													
2-3 pm													
3-4 pm													
4-5 pm													
5-6 pm													
.....													

Essential/ ITEM A (Bold font)
  Preferable/ ITEM B
  Optional/ ITEM C (Italic font)





## Survey Form 2-3A (1): Household O-D Survey

### Household Summary

Date/Day : _____		Enumerator : _____				Sample No:		
1.Address		2. Head Of The Household:						
		3.Numbers Of Family Members						
		4.Vehicles Owned:		Passenger Car	2- Wheeler	Bicycle	Auto	Others
				5 Years Ago				
Pin No: _____ Tel.: _____				Present				

5. Details Of Household Members									
Member No	Sex M/F	Age	Occupation*	Monthly Income (Rs.)		Monthly Expenditure On Transport (Rs.)		Availability of Driver License	Working/School Location
				5 Years Ago	Present	5 Years Ago	Present		
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									

\*Occupation: 1.Govt.Service, 2.Pvt. Service, 3.Business, 4.Student, 5.House-Wife, 6.Retired Person, 7. Unemployed

Essential/ ITEM A (Bold font)
Preferable/ ITEM B
Optional/ ITEM C (Italic font)







### Survey Form 4-1: New Development Areas

Name of Development Area	Land Area (km <sup>2</sup> )	Target Year	Number of Future Residential Population	Number of Future Labour Force

 Essential/ ITEM A (Bold font)       Preferable/ ITEM B       Optional/ ITEM C (Italic font)





