# CHAPTER - 2

# STUDY OBJECTIVES AND METHODOLOGY

### 2.1 STUDY GOALS

The present study goals include:

- Development of transportation network to achieve convenient and cost effective accessibility to places of employment and education for the next 20 years;
- ii) Optimal utilization of funds and human resources.

# 2.2 OBJECTIVES OF THE STUDY

- i) Identify travel pattern of residents of the local planning area of Bangalore which is co-terminus with the territorial jurisdiction of Bangalore Development Authority (BDA);
- ii) Select, develop and operationalise an Urban Transport Planning model using state of the art modeling techniques and software package, appropriate to the conditions and planning needs of the study area;
- iii) Assess the relevance of the existing strategy, identify the consequences of pursuing alternative transportation strategies and recommend / update a long term comprehensive transportation strategy for the study area up to 2025 (2015 and 2025);
- iv) Identify for all modes, a phased program of appropriate and affordable investments and policy proposals; and also integration of various modes of mass transits.
- v) Help strengthen transport planning skills, and transfer all data, planning model/tools and knowledge obtained through the study to KUIDFC and other agencies such as BDA, BMTC, KSRTC, South Western Railway, BMRTL, Traffic Police, etc.
- vi) Strategize transport policy as an integrate part of urban planning
- vii) Recommend institutional mechanism for inter agency co-ordination
- viii) Assess existing infrastructure and forecast requirement short term and long term.

### 2.3 SCOPE OF THE STUDY

In line with the specific objectives of the study described above, the scope of work is divided roughly into the following areas of activities as follows.

- i) Collecting household, land use, and travel demand data
- ii) Development and operation of an urban transport model
- iii) Formulation of transport strategy and institutional mechanism;

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- iv) Identification of a phased program of transport investments and management proposals; and
- v) Training and knowledge transfer to the concerned agencies

#### 2.4. STUDY METHODOLOGY

The adopted study methodology to achieve the set objectives and scope is given in **Figure 2.1**. The study methodology adopted can be broadly divided in to five stages.

## Stage 1:

Finalisation of study methods

- Secondary data collection and analysis.
- Finalization of zone plans and hierarchy of zones
- Detailed sampling basis and questionnaires for Household interviews, Business interviews and Roadside interviews.
- Base road and public transport network survey.
- Draw up Proposal for traffic surveys like speed- flow, parking, traffic counts, network inventory, and their analysis.
- Required computer program suites etc.

### Stage 2:

The second stage was the collection of information, and review of existing transport scenario. In order to collect various travel information following surveys were conducted.

- Household interviews
- Roadside interview surveys
- Public transport surveys
- Traffic surveys
- Road network inventory
- Speed and delay studies

The data so collected was analyzed and validated to the existing traffic scenario which forms an input to the transport models.

#### Stage 3:

Development of detailed operational model forms the fourth stage of the study, this included

- Development of observed trip matrices
- Calibrate and validate trip end models
- Formulation of projects necessary to fulfill the requirement of master plan using forecast models
- Calibration and validation of trip distribution modal split model
- Validation of Assignment models and running them for different schemes / combination of facilities
- Formulation of management policies

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# Stage 4:

The fourth stage involved development of Transport Strategy for Bangalore

- Taking stock of current situation of Bangalore Urban Transport Policy, Economic growth, current initiative, land use plans both existing and proposed etc.,
- Analyzing the traffic situation in terms of present situation and constraints and future growth.
- Proposed land use based on the newly prepared Master Plan.
- Analyzing the transportation demand vis-à-vis the supply and the constraints.
- Analyzing the present institutional arrangement and future requirement.

#### Stage 5:

The fifth and the final stage of CTTS study involve the following:

- Development of various strategies to address the transport requirements
- Evaluation of strategies based on selected criteria (mobility, congestion, safety, environmental and economic) and recommendation of suitable strategy
- Drawing up a Transport Plan for BMA and investment requirements
- Preparation of investment program for various schemes in operational plan,
- Carrying out a financial analysis of the proposals identified for Implementation in regard to implementing agencies with funding options
- Carrying out economic analysis for the recommended strategy to establish viability
- Recommending Organizational set up and institutional arrangement for implementation of plan.

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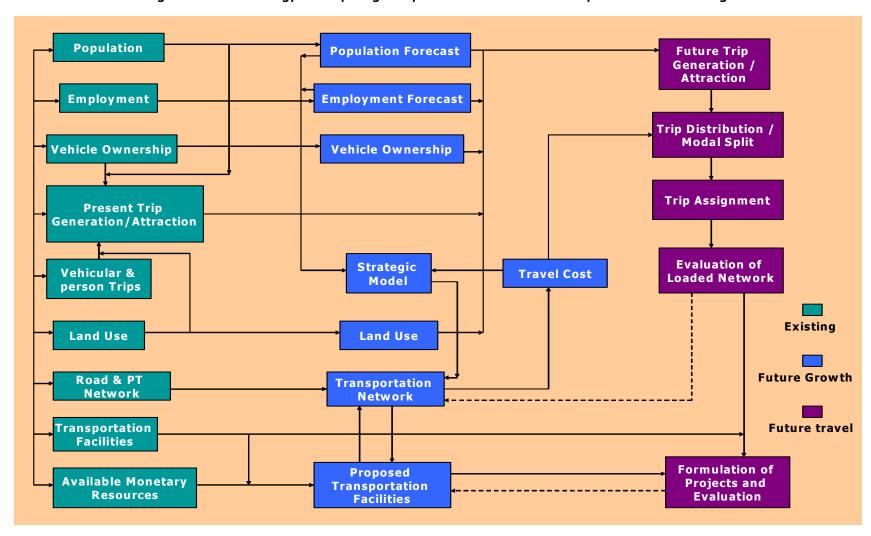


Figure: 2.1 Methodology for Preparing Comprehensive Traffic and Transportation Plan for Bangalore

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