

The Planning Process

Planning roads and highways requires a series of decisions at different levels. The organization of the planning process, or the series of steps for making these decisions, can affect the quality of the outcome. The decision process varies from country to country, some requiring detailed public participation, others requiring a decision in a single ministry.

The overriding objectives should be to clarify public goals and provide reliable information in order that decisions are based on good technical information. Decisions are also affected by political considerations, but adequate information enables a much clearer understanding of the added costs or benefits of a political rather than purely technical decision. The policy framework establishes the basis for judging projects, and the technical analysis provides the information for a project to be judged.

The planning process begins with the establishment of an overall framework by the central government, including strategic goals and policy objectives for economic development and transportation. It then involves the preparation of legal plans by the regional road and highway administration. The long-range plan (typically 20 years) identifies general needs and choices and establishes the framework for project and programming decisions. Once the long-range plan is established, the investment programming process identifies and evaluates specific road and highway projects and makes tradeoffs among program areas. The outcome of the investment programming process is the implementation plan, which lists all the projects to be undertaken within a one- to five-year period. The implementation plan must be consistent with local and national program objectives and budget constraints. See the following examples of a planning process:

Long-range Plans

The long-range plan (rolling business plan) presents a long-range vision of the regional road and highway system, providing a perspective for at least a 20-year time frame. The long-range plan should be updated by the regional road and highway administration on a rolling basis, every five years or less, to respond to changing conditions and needs. The plan may include some or all of the following elements:

- A statement of the mission and vision of the road and highway administration;
- Policy goals and objectives for the road and highway system;
- Specific strategies and actions that will be taken (studies, types of projects, policy changes, etc.) to achieve these goals and objectives;
- Identification of important trends influencing highway needs (e.g., population growth, automobile ownership, industry expansion, environmental issues);
- An inventory of the road system and current conditions;
- Identification of key road system needs and identified deficiencies (both current and future);
- Potential projects and other actions to address these needs;
- Major investments and required studies; and

- Budget factors, including required funding for the identified projects, sources of funding, and revenue projections.

The plan should be consistent with overall policy goals related to transportation, economic development, social policy, and environmental protection. The plan should be coordinated with transport planning at other levels of government, including cities and rural road agencies, and for other modes, including transit agencies, ports, and airports. Intermodal linkages and needs (e.g., truck-to-rail, bus-to-rail, and port-to-truck) should be identified and addressed, as should the needs of freight shippers. The plan should be developed through a process that involves all stakeholders including government agencies, business and private sector groups, and the general public. Finally, the plan should be realistic and fiscally sound, including a financial element that identifies future needs and resources as well as possible shortfalls in funding.

Implementation or Short-range Plan

The implementation plan or short-range plan is a complete list and description of funded projects that are to be advanced over the next one to five years. It also includes actions relating to vehicle weights and dimensions, changes in operating policies such as pricing and ITS, and the more traditional transport system management measures. Projects contained in the implementation plan should be consistent with the long-range plan. The selection of projects for inclusion in the implementation plan is based on the outcome of the investment programming process (described in more detail below). Projects should be identified in cooperation with local road and highway planning administrations, including metropolitan and rural agencies, to ensure that projects implemented by different agencies are consistent with each other.

Projects in the implementation plan should be identified by program area (capital, maintenance, etc.), and project scheduling and costs should be identified by the year in which they will occur. An important characteristic of the implementation plan is that it is financially constrained. This means that the plan should identify the sources of funding for all proposed projects in the plan, while ensuring the continued operation and maintenance of the existing transportation system. The implementing agency (the national or regional road and highway administration) is responsible for scheduling projects for implementation once included in the plan. See the following examples of implementation plans and guidance on the World Bank transport web site.



<http://www.worldbank.org/transport/roads/>

Corridor management in India

Many parts of NHDP have been commissioned, and the focus needs to now shift from construction to “corridor management”, i.e. the process of managing the highway so as to deliver maximal throughput in terms of velocity and number of vehicles, while minimizing the cost to the economy of accidents.

Road safety is a particularly important area of focus, particularly given India's lack of experience with high speed roads. The maintenance of completed sections of the National Highways is being carried out by NHAI through short-term improvement and road maintenance contracts and long-term performance based maintenance contracts. The scope of work includes road maintenance, road property management, incident management, engineering improvement of toll-fee collection, traffic management, facility management, planning of operation and maintenance (O & M) center, training and road safety provisions.

In order to make the journey safe, under the corridor management policy, various safety measures are being provided on the National Highways:

- Provision of thermoplastic line marking on carriageway;
- Provision of crash barriers at location of high embankments;
- Provision of informatory, cautionary and mandatory sign boards;
- Provision of declinators, studs and railing at the central median; and
- Provision of shrubs and plantation in the central median.
- Preliminary Identification of Potential PPP Projects

Based upon the medium-term highway development program, the government or highway agency can evaluate its program for potential PPP projects at an early stage.

Module 5 indicates in stage 1 how such an evaluation can be formally undertaken through multi criteria analysis.

At an early stage all projects can be evaluated through a simple ranking procedure into several categories. These categories could be high, medium, low and no potential for PPP.

Criteria could include at this stage

- Economically viable
- High total project value (but only average capital cost per km)
- Tolling is possible
- Levels of Traffic demand: for example <10,000 vpd: 10-20,000vpd: >20,000 vpd
- Types of traffic: % Heavy Goods; Specific access etc
- 'Acceptable' Risks
- 'Acceptable' Social and environmental impacts

Reporting Mechanisms

It is important to generate reports on the results of planning efforts and to make these reports publicly available. Regional long-range highway plans, implementation plans, and corridor or project studies should be available to all parties affected by the plans, including other government agencies, transportation agencies, businesses, interest groups, and the general public.

This should include the release of plans in draft form, for public comment and review, as well as the release of final plans. The feedback from this process helps ensure that

the selected projects are the most effective projects in terms of improving both freight and passenger travel. Public reporting also allows people and businesses to anticipate changes that will take place as a result of the plan, allowing businesses (for example) to plan their operations to take advantage of the road and highway improvements.