

C4.1 ROAD ASSET MANAGEMENT

Recommendation to decision makers

The Technical Committee explored three fields of activities during the period:

- Analysis of methods aimed at coordinating the management of all road assets, taking into account infrastructure performance as well as the perception of users and residents;
- Proposal of a structure for obtaining and elaborating performance indicators to explain the condition and function of road infrastructures. Those indicators will be integrated into an overall management system;
- The best practices capable of taking into account the expectations of users and residents.

Road asset management

Goals of road network management are often expressed by optimal long-term customer satisfaction:

- providing road network conditions to satisfy present road users and residents expectations; and
- road network preservation and development to satisfy road owners and society interests, including envisaged future needs among users and residents.

It is very important to optimize an evaluation of alternative options and selection of the option that gives the best ratio between customer satisfaction and costs.

The framework of Road asset management contents three components:

- 1) Owners' objectives (recognition by authorizing entities) & customers' needs (the cost of customer surveys is significant);
- 2) Administrative & business arrangements - Asset management is very useful for outsourcing, competition, public-private partnerships and privatization. But in the trend of outsourcing, there is concern about decreased technical capacity of in-house engineers. And there is a difficulty for optimum investment, when we don't have a sufficient budget; and,
- 3) Technical tools - Integration of indicators / Evaluation of indirect benefit

Indicators

The primary objective of performance indicators is to support decision makers at all levels in the management of road assets, ensuring efficient actions and to make the best use of public resources.

Technical Committee 4.1 highlights the importance of not only the hierarchies between

these indicators (owner/manager/user and operator) but also the fact that they are not all equally important at the same time world wide. Applying the concept presented by the Technical Committee organizations are able to look at problems from a holistic point of view. This holistic approach is necessary for finding efficient solutions through multi disciplinary engineering as well as co-operation with all involved parties.

Technical aspects

Road asset management

Road asset management should be considered as an integrated approach to the management of road asset optimising over many different aspects of the road asset: components, goals, stakeholders, outcomes, etc.

The optimization must be communicated between different units of the road administration, but also to stakeholders, contractors and partners involved. Input for the optimization must be communicated from the data sources to optimizing functions.

Indicators

The term “drawer” is introduced to refer to a methodology that allows road authorities to organize different indicators in a generalized manner under a common objective. The drawer concept is suitable to be customized in a manner that fits the specific needs and possibilities of a country.

With this concept, a special “drawer” is assigned to each area of interest (environment, finance, human resources, travel time, safety, sustainability and social issues...). This allows the user to develop their own system according to their specific needs.

Recommendations to PIARC

Road asset management

Developing countries & countries in transition

The technical committee should consider:

- making a close study of the current status and practices in developing countries and countries in transition; and,
- identifying what assistance and transformation is required to encourage development in that field

Benefit calculation & methodology for AMS

The technical committee should analyze current practices and give recommendation of the best practice for benefit calculation/methodology for AM for each of the main topics (technical tools, administrative arrangements/business arrangements, owners

objectives/customer needs).

Road asset management in the age of outsourcing

The technical committee should:

analyze outsourcing processes in countries with different levels of development;
analyze and recommend optimal role and advantages of private sector in asset management, and also of successive steps in outsourcing; and,
recommend functions which should stay in road administrations and knowledge management in administrations which are required for performing of these tasks.

Indicators

Much more work needs to be done to develop more specific performance indicators based upon agreed levels of service. The main areas that need to be addressed are:
Development of non-technical performance indicators for inclusion in an integrated asset management system;
Reinforcement of information transfer and indicators for developing countries;
Definition of a basis for international benchmarking;
Definition of the “road corridor concept”; and,
Asset management and sustainable development.