PERFORMANCE INDICATORS FOR THE ROAD SECTOR
EXECUTIVE SUMMARY

Road administrations are increasingly recognised for their contribution to the economic performance of a nation, the quality of the environment and to the quality of life. This larger role coupled with the trend for accountability have broadened the scope of self-evaluation that road administrations apply to their performance. In the past, the principal measure was the delivery of services to the public at minimum cost. In the new context, performance indicators for a wide range of measures are useful for evaluating the most important aspects of a road programme and for helping to identify the interventions that will have the most leverage.

To meet this important need for broad self-evaluation and to provide a comprehensive framework for assessing the performance of road administrations, the OECD Road Transport Research Programme established a Scientific Expert Group on Performance Indicators for the Road Sector. The Group included participation by fourteen Member countries, the World Bank, PIARC/WRA and AASHTO.

The report lays out a road map for the future. The OECD Road Transport Research Programme is committed to follow-up the Group’s findings. It is expected that the international field test proposed will provide new insights and directions for Member countries transport agencies.

APPROACH AND AIM OF THE REPORT

The Group strove to approach the question of performance indicators holistically in order to maximise their applicability. This approach emerged from a desire to help answer three questions: “Is the road administration doing the right things?” “Is the road administration doing things right?” and “What things done by others significantly affect the road sector?”

The organising concepts reflect the view that the road administration collects data, undertakes analyses and makes day-to-day decisions. But, government officials (elected and selected) and the public do have direct input into decision-making processes. They are ultimately responsible for ensuring that the data collected and analyses undertaken reflect their concerns and affect project selection as well as the actions performed.

This report is mainly intended to serve the management of a road administration. It aspires to be sensitive to overall political, economic and social circumstances in Member countries. It seeks to address three central questions.
1. What is the appropriate framework, the mental model, for the performance indicators of a road administration – a model that is conceptual but can still be adapted and quantified to suit each country's unique needs?

2. What are the most important indicators to assess the performance of the road sector but which also allow creative approaches to be developed? What are the associated requirements for data and analytical procedures?

3. How should the performance indicators be applied so that the process of evaluation will contribute to the creation of a learning organisation? This issue evolved during the work of the Group to be the most important, even more important than the performance indicators themselves.

The Group proposes a field test to assess the use of a select number of performance indicators in practice. The details and scope of the field test are presented in Chapter VII of the report. The OECD Steering Committee for Road Transport Research has endorsed this proposal.

CONCEPTUAL MODEL

In the model which the Group adapted as the mental model for performance indicators, the transport system has three sub-systems: the human subsystem, the physical subsystem and the activity subsystem. The system is called self-adaptive as its goals and objectives are dynamic responses to outputs, processes, outcomes, and consequences.

The model can also be called the management-by-results model. It illustrates how the road administration carries out activities using resources allocated to it. The products and services -- outputs and concomitant outputs -- are judged in relation to standards or criteria. Outcomes are judged relative to requirements for the objectives which the road users and the community desire. These requirements are characterised both in terms of the quality of the outputs (e.g. road condition) and the outcomes achieved in terms of user satisfaction (e.g. degree of attainment of objectives for accessibility).

SUGGESTED PERFORMANCE INDICATORS

After extensive discussion in which the mental model was operationalised, it was decided to opt for a classification of performance indicators which recognises the fundamental roles of transport as being represented by important groups of objectives (mobility, accessibility, safety, environment, equity, community, and economic development) and equates them with the strategic system level (planning). The dynamic, goal-seeking transport system and its continuous evolution are represented by the three major activities of the road administration: programme development, service delivery, and system operation. The perspectives of government (including stakeholders), the road administration, and the user/community are maintained for all categories of indicators. The Group identified and classified performance indicators in eight categories (accessibility and mobility, safety, environment, equity, community, programme development, programme delivery, programme performance) and from three perspectives.
The taxonomy for performance indicators and the suggested performance indicators are shown in Table III.1. The primary indicators are shown in **bold** and the secondary indicators in *italic* type-face. There are 40 primary indicators (10 - Government/ 20 - Road Administration/ 10 - Road User) and 35 secondary indicators (15/10/10). All suggested performance indicators are described and discussed in detail in Chapter IV of the report.

**USE OF PERFORMANCE INDICATORS**

Historically, a key component of most successful road projects and programmes is a well-defined set of goals and objectives. This has been the case in developed and developing countries alike. It was also observed, nonetheless, that it has been difficult to establish that well-defined goals and objectives have been the cause or even antecedent to success. Thus, a central argument of this is that the use of performance indicators has multiple dimensions. They go well beyond evaluating the degree to which goals and objectives have been achieved or attempting to identify those inputs, processes, outputs, outcomes and consequences associated with a project (or programme) required to achieve the goals and objectives. Additionally, comparing performance indicators of two or more road administrations to establish their rank is only one among many other uses.

Instead, performance indicators can serve in six broad circumstances in road programme evaluation, planning, and organisation management:

- development of alternative courses of actions and performance targets;
- evaluation of the achievement of goals and objectives
- organisation and management of road administrations;
- development or periodic re-evaluation of goals and objectives;
- assessment of the efficiency and effectiveness of the road administration;
- as an aid to a learning organisation.

**CONCLUSIONS**

The general conclusion of this OECD report is that the performance indicators chosen after reflective discussions over a period of time do give a broad-based picture of the road sector from several different perspectives. In addition, this report concludes that:

- Road user views should be solicited and incorporated into policies, plans, programmes and service delivery and that more should be done on that score than is presently the case.
- Road administration professionals want the public to know what they know. This is clearly reflected in the performance indicators for the road programme cycle.
- Road professionals genuinely feel that more can and should be known about the issues reflected in the performance indicators. This conclusion is not well conveyed by the performance indicators for equity, community, and economic development, but is rather rendered by the
observed lack of these dimensions in current work. Research should be directed to studying them.

- Performance indicators should both encourage an institution to learn and serve a learning institution. None of the participants in the Group felt that the indicators tell one story but rather that there are many interpretations for every indicator and that the causes of a particular outcome-number should be investigated. The vignettes are reported describing how indicators can be used to examine causes and take corrective actions.

The end-product of the work was not what one would have expected. There is much less emphasis on numbers – though there are critically important numbers – and much more on qualitative reflection on what purposes the road programme is serving and whether these purposes reflect the views of the public. There was much confidence that the road administrations can deliver, or can cause to be delivered, once it is known what should be delivered. And there is consensus that this information should be gained and used. The major contribution of the indicators is probably that they tell the story of what objectives are being served, why and at what costs.