

KEYNOTE REMARKS

Importance of Transportation Information Canada's Experience

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In the remarks made at this conference, speakers have linked transportation information requirements to the decision-making process. That link is a very important one. Transportation information is needed by numerous stakeholders including policy makers, shippers, carriers, and, of course, the general public.

Those of us in the transportation field face decisions that tend to be linked to some fundamental questions. These questions deal with predicting or determining

- The impact on the transportation system if a new change is introduced or, alternatively, if the status quo is maintained;
- The benefits and costs of proposed changes to the system;
- The effects of a policy or program after it has been put in place;
- Which investments to make, how to set priorities, and where to invest;
- Which parties should make investment decisions, set prices, and manage, build, and maintain transportation infrastructure;
- The capital and operating costs of the transportation system, and how they can be reduced;
- How these costs should be recovered, and from whom;
- The level of charges necessary to achieve self-sufficiency;
- The institutional arrangements needed to manage transportation infrastructure;
- The impact of transportation on the environment;
- The safety of the transportation system and how to improve it;

- The costs of accidents and who pays those costs;
- The costs of accident prevention and, again, who pays those costs; and
- The reliability and efficiency of the transportation system.

We have to remind ourselves that no answer to any of these questions can resolve the issue for once and for all. We live in a dynamic world, a world of continuous change. As changes happen in all sectors of activities, the transport sector, with its derived demand, is dragged into this spiral of changes. This need for constant review means ongoing analysis, ongoing research, and ongoing information requirements.

The role and importance of analysis in transportation has been and will continue to be of capital importance to the legislative process. I would like to use Canada's experience of recent years to illustrate this point.

In 1967, the National Transportation Act was adopted in Canada. This act consolidated economic regulation of transportation under one single agency: the Canadian Transport Commission. However, policy-making functions stayed with the national Department of Transport. Then in 1987, three pieces of legislation were adopted: a new National Transportation Act, the Motor Vehicle Transportation Act, and the Shipping Conference Exemption Act. Each of these moved us toward a deregulated framework for each mode of transportation.

Then came the 1990s, bringing more reforms. Four driving forces behind these reforms stand out: the recession of the early 1990s, the findings of a royal commission on national passenger transportation, the findings of a re-

view commission examining national transportation legislation, and the government's efforts to control its fiscal deficit.

Just look at the reforms Canada saw in the 1990s:

- The implementation of a national airport policy (1994) that commercialized the major federally owned airports.
- The announcement in 1995 of a national marine policy with the objective to commercialize Canada's port system and the St. Lawrence Seaway.
- The termination of the major freight transport subsidy programs of the federal government.
- The Canada Transportation Act of 1996, which fine-tuned the rail deregulation of our rail system.
- The privatization of CN, Canada's largest rail carrier.
- The privatization of the air navigation system.
- The adoption of the Canada Marine Act in 1998, which provided legislative authority for the commercialization of the Canadian portion of the St. Lawrence Seaway system.
- The introduction of public-private partnership approaches to finance transportation projects. The most famous example of such a partnership is Highway 407 in Ontario. But there are other examples as well, such as the Confederation Bridge linking the Prince Edward Island province to the mainland, and a highway in the province of Nova Scotia.

LESSONS LEARNED

What are the lessons learned from all these changes? The first lesson is that the findings of research commissions can have lasting impacts. Consider the legacy of the transportation framework proposed by the Royal Commission on National Passenger Transportation. Under this proposed framework, users pay the full costs of transportation; competition and market forces provide viable and efficient carrier services. Infrastructure investments are made only when benefits exceed costs. The role of government is defined as one of policy making and of setting and enforcing standards. The influence of this framework is undeniable when one considers the 1990s' commercialization of the airport and port systems, privatization of the air navigation system, and termination of subsidy programs.

The second lesson to draw is the importance of analysis and information in influencing decision makers. Each legislative change was preceded by extensive analysis. These analyses supported a better understanding of the issues confronting the Canadian transportation industry, the transportation system as a whole, and the regulatory and legislative framework.

The third lesson has to do with the speed at which changes have taken place. The legislative changes of 1967 came after a very long period. Twenty years later, in 1987, three pieces of legislation were changed the same year. But subsequently, it took only 10 years to revisit and amend virtually every piece of national transportation legislation. The new reality is a dynamic environment in which the rapidity of changes in the marketplace indicates the need to fine-tune legislation more frequently.

The fourth lesson is Canada's introduction of "institutionalized monitoring." The National Transportation Act of 1987 included an annual comprehensive review requirement, equivalent to a program evaluation. Now, those tasked with producing these annual reviews curse them. But one has to admit that they support broader availability, accessibility, and circulation of information on the transportation system. The reports add transparency to policy making and promote better decisions.

The last lesson from the Canadian experience centers on the difficulty of obtaining good information. Under the 1987 legislation, we allowed stakeholders to provide the needed monitoring information on a voluntary basis. However, this voluntary approach failed to create a reporting "culture" among certain stakeholders. Subsequently, when we introduced regulations to define a new reporting scheme, we faced undeniable resistance. We use legislative and regulatory reporting requirements to obtain data, but we have no built-in incentives to stimulate reporting, as you do in the United States. This lack of incentives is increasingly problematic because some stakeholders report inconsistently or provide poor information. Such behavior is not penalized in any way, and thus, indirectly, we end up penalizing those who rigorously and consistently submit good data.

TRANSPORTATION CHALLENGES

Let me now turn to the transportation challenges we face in Canada, some of which you also have in your country, and present the implications of these challenges for information requirements.

In Canada, maintenance of our transportation system is one of our greatest challenges. This is especially true in our low-density areas; in these locations, maintenance is especially costly on a per capita basis and difficult to justify in a commercial decision-making setting. In the current context of pressures to reduce taxes and government expenditures, this challenge is particularly acute. From the perspective of information requirements, detailed information on all elements of the transportation system is important if one plans to focus on strategic maintenance expenditures.

The next challenge is to improve the existing transportation infrastructure. Because needs change over time,

many parts of the transportation system require periodic investment. A broad spectrum of information is required to assess these needs.

Another challenge concerns the expectations of the transportation system's users. Users now place as much or more importance on the quality and efficiency of service as they do on the cost of the service. Carriers' performance is linked, in turn, to the transportation system. So performance of the system must be monitored in order to strategically schedule changes to the system to optimize results. Information is a key to successful intervention. I should add here that the dawning of the global economy implies that information requirements are not limited by borders. As globalization changes trade patterns, information must be accessible across borders.

Another challenge is to develop our transportation system in a manner consistent with the goal of sustainability. Sustainability has three pillars:

- Economic and financial sustainability, which implies an efficient use of resources and proper maintenance of assets in order to make transport more cost-effective and continuously responsive to changing demands;
- Environmental and ecological sustainability, which requires us to take fully into account external effects of public or private transport decisions; and
- Social sustainability, which concerns the equitable distribution of the benefits of improved transportation to all segments of the community.

We have only barely started to identify the types of transportation information needed to address these sustainability issues. For example, work on climate change discloses the limits of current information on transportation activities by equipment type, energy consumption information, and integrated modal activities. The need to

allocate costs fairly indicates the need for advances in total cost accounting and methodologies for allocating costs to different categories of vehicles.

NEW INITIATIVES

In January of this year, Canada took an important step toward filling one of our major data gaps when we launched a new Canadian vehicle survey. This survey will allow annual estimates of vehicle kilometers for the entire road vehicle fleet, including trucks and buses, stratified by characteristics of the vehicles, the drivers, and the trips.

We also are in the process of starting a major research project to adapt analytical tools to some of the challenges that I alluded to earlier, such as sustainability. The intent is to create an intermodal transport efficiency model, which will integrate three models: (a) a general equilibrium model, with transportation more explicitly defined than in a traditional general equilibrium model, including a spatialization of activities; (b) a modal accounting system, similar to the transportation satellite accounts developed in the United States but also with some social cost components to capture costs related to the environment and safety; and (c) a component that deals with the performance of our assets. This research initiative is to take five years.

In closing, I would like to stress that the nature of our information requirements cannot be dissociated from the nature of the transportation challenges we face. It is certain, however, that our information requirements will demand that we view transportation through a wider lens that both looks into the future and beyond borders. And all the while, we must remember that every piece of information at our disposal comes at a cost to those who must collect and report it.