

Transportation Policy and Planning in Canada

Política y Planificación del Transporte en Canadá

John Lawson

Investigador Independiente

Ottawa, Canada

[Ex-Director de Análisis e Investigación, Transport Canada]

Octubre 2015

El presente informe fue elaborado por el autor en el contexto del estudio “Planeamiento Estratégico del Transporte: la Experiencia Internacional”, desarrollado por el Instituto del Transporte de la Universidad Nacional de San Martín (UNSAM). El estudio fue requerido y financiado por el Instituto Argentino del Transporte (IAT), en el marco de la elaboración del Plan Federal Estratégico de Movilidad y Transporte de la República Argentina (PFETRA). Las opiniones aquí vertidas no coinciden necesariamente con las de las instituciones mencionadas.

Transportation Policy and Planning in Canada

This paper intends to provide a brief summary of the existing transport policy and planning process in Canada, in order to contribute to the international comparisons of such procedures by the Transport Institute at Universidad Nacional de San Martín (UNSAM). The paper will attempt to highlight aspects of the Canadian system and process which are unusual internationally.

It will also address explicitly the questions posed to the author by the Institute, namely:

- Is there a national planning system in place, supported by a regulatory and institutional framework?
- Transportation planning: is it clearly linked with broader development objectives (as stated in a national development plan, if available in Canada)?
- Describe the transportation planning process in Canada
 - Planning for different modes is conducted separately or in an integrated manner?
 - Are there established mechanisms to ensure that various stakeholders (sub-national governments, private sector, NGOs) participate in the planning process?
 - What are, in your view, the main advantages of the existing planning process in Canada? And what are the main challenges?
- How are projects included in transport plans identified and prioritized?
- Do transport plans include specific consideration of costs and financing aspects?
- Are there specific mechanisms in place to link transportation plans and the federal budget?
- Is there a public investment system that projects need to go through in order to get public funding? Is information on transport project costs and works progress available to the public?
- Are there mechanisms in place to monitor and evaluate transport plans?

While the emphasis in those questions is clearly on planning processes, those processes exist to implement transport policy, therefore the explanation of the planning processes below will also describe the major policy issues in Canada that have led to the planning processes. Indeed, the original invitation from Jose Barbero to the author on March 23 linked planning and policy, stating: “UNSAM support to the IAT is the comparison of planning procedures and policies among several countries, and the assistance in a series of gatherings organized in different provinces bringing international experts who briefly present the planning practice and the main transport policy issues in their countries.”

The ownership and management of transport networks and operations in Canada is rather different from that in many countries, notably in the extent to which networks and services are provided by the private sector, rather than Governments. Traditional public-sector planning processes therefore play less of a role in Canada than in countries with relatively greater reliance

on public ownership of networks and public delivery of transport services. To explain the relative roles of public and private planning processes, the report sets the scene with a description of the jurisdictional responsibilities for transport in Canada, and provides a very brief history of the development of transport systems and policy. It then addresses the specific questions posed by the Transport Institute at UNSAM.

Context and background on development of Canadian transportation policy

Canada currently has a population of nearly 36 million (2015), and is the world's second largest country of 9.98 million square kilometres. Despite the great size of the country, Canada is substantially urbanised, with about 75% of the population living in cities with populations greater than 100,000; and an even larger proportion living within 100 km of the southern border with the United States.

A constitutional monarchy, the Canadian Federation has 10 Provinces and three (northern) Territories. The Federation is less centralised than some other Federations (even the United States in some respects), with the Federal Government responsible for national defence and security, the Criminal Code, international relations, international and interprovincial trade and commerce; and with authority for national fiscal policy including national direct and indirect taxes, national spending, and monetary policy through the Bank of Canada. Provincial Governments have responsibility for intra-provincial commerce, education, health care and other social policies, with authority to raise their own income and sales taxes; and Territories have similar but somewhat more limited authority, with the Federal Government assuming a greater role in funding. Municipal Governments in Canada are effectively created by Provinces/Territories, having responsibilities which are assigned by Provincial/Territorial legislation. These include regulation of local land use and commerce and provision of municipal services, which are financed by local property taxes and fees, and transfers from Provinces, though some Provinces allow municipalities limited authorities to collect sales taxes.

For transportation networks and services, the separate jurisdictions and authorities have resulted in the following divisions of operational responsibility among the three levels of government, Federal/Provincial-Territorial and Municipal:

The Federal Government is primarily responsible for:

- interprovincial and international networks of rail, air and marine transport and their control systems;
- regulation of transport carriers engaged in international or interprovincial transport (air carriers, major rail carriers, most trucking companies, long-distance bus companies, international marine carriers, interprovincial ferries);

- regulation of safety and emission standards for vehicles/craft (motor vehicles, aircraft, rail locomotives, marine vessels) sold in Canada.

Provincial Governments are primarily responsible for:

- highway networks;
- licensing of road vehicles and drivers;
- regulation of transport carriers engaged in intra-provincial transport (some short-line rail carriers, commuter rail carriers, urban transit companies, local trucking companies);

Municipal Governments are primarily responsible for:

- local road networks;
- urban transit operations.

Some key features of this division of authorities, compared to those in other countries, are:

- The Federal Government has no operational responsibility for the road network nor any authority over driver and vehicle licensing or rules of the road.
- The Federal Government has no operational responsibility for urban transit.
- Nevertheless, the Federal Government may use its extensive funding powers, and revenue sources of national direct and indirect taxes, to make financial transfers to all Provinces/Territories for highway infrastructure investments, which it has done under negotiated cost-sharing agreements; and to make financial transfers to municipalities for local transport investments, including local roads and urban transit.
- Provinces may use their revenue sources to provide transfers to municipalities, notably for urban transit operations.

History of Federal Government Transportation Policy in Canada

To understand the current uses of these various responsibilities and authorities, a brief history of the development of Federal transport policy and operations in Canada follows.¹

Throughout Canada's history, transportation policy has been a major part of national policy. Linking the provinces with the great intercontinental railways was fundamental to the creation of Canada. The scale of the structures and the risks associated with this kind of development were too great for private enterprise alone, so the national government took the lead. The Intercolonial Railway between Ontario and Nova Scotia, and the Canadian Pacific Railway between the East and West Coasts were made possible through land concessions and federal funding. The federal government, as an expression of national policy to encourage regional economic development, also supported subsequent growth of the national rail network providing service to all regions. Several decades later, the St. Lawrence Seaway was built as a public project, jointly between the Canadian and US governments. The federal government also built the country's networks of major ports and airports, provided marine and air navigation systems, and contributed financially

to the construction of the national highway system, to support the development of Canadian society and our economy.

In acknowledgement of the importance of transport to national development, the federal government became a major direct operator of facilities and services. When railways failed in the early 20th century, the government took over freight and passenger operations of a number of them, having decided that they were essential. It consolidated them into Canadian National Railways, which it then operated for most of the remainder of the century. Ownership of those railways also brought federal ownership of their subsidiary east coast ferry services. These examples of public transport enterprises already existed when air services began to develop and it was a logical extension for the government to build and operate the airport and navigation infrastructure and to set up a publicly owned airline, Trans-Canada Airlines (subsequently re-named Air Canada), to operate domestic services.

Throughout much of this period, companies were granted exclusive right to routes in return for providing services on other specified routes. This approach was considered efficient as it allowed services to be extended and guaranteed to smaller communities that would not otherwise have been provided by private enterprise. As the resulting monopolies could not be allowed complete pricing freedom, the government created boards to set or approve rates and monitor services.

Quality of services and fairness of rates remained the subject of controversy throughout the first century of rail travel. In rail more specifically, it was the sole concern or the major issue of six Royal Commissions of Inquiry between 1917 and 1959.

Unusually among major developed countries, along with the creation of publicly-owned rail and air networks and carriers in Canada, there were always major private carriers in those modes. Federally-owned Air Canada operated services in parallel to privately-owned carriers, notably Canadian Pacific Air Lines, each having exclusive rights to some domestic as well as international routes, but operating in competition in some major domestic trunk routes. And privately-owned Canadian Pacific Railway operated a national freight network in parallel to that of federally-owned Canadian National Railways, with exclusive service to many communities, again while competing on major trunk routes. Nevertheless, the airlines and mainline railways were initially forbidden to compete on price, and were instead subject to regulated prices. They were also restricted in their ability to cease unremunerative services, and railways forbidden to abandon track, effectively requiring higher revenues from higher-volume services to support losses on others.

As competition developed with new modes of transportation – motor vehicles in particular – the scope of the national debate broadened. Competition for freight between rail and truck was the main concern of the MacPherson Royal Commission in 1959-1962, which recognized the potential for intermodal competition to serve the public policy purposes of reducing transportation costs and rates and stimulating service improvements. The coming into force of the *National Transportation Act* in 1967 subsequently relaxed the regulation of rail freight rates to permit the

railways to compete with trucking. The Act also implemented the Commission's recommendation to include a formal declaration on national transportation policy. The declaration, which survives in modified form in section 5 of the current *Canada Transportation Act*, emphasized the national interest in economically efficient transportation. It included qualifications to protect the public interest, notably that the resulting service should be adequate and that the prices should not discriminate unfairly between users.

The relaxation of rail regulation in the 1960s provided some stimulus to freight rail cost and rate reduction but competition between railways was still restricted, as it was among air, truck and bus carriers, by market entry and price regulations.

Intercity passenger rail services were also provided by both major rail networks, but had by the 1970's declined considerably and become increasingly dependent on public subsidy since the growth of motor vehicle and air travel. In 1977 were all taken into public ownership and combined under VIA Rail, a federal Crown Corporation.

By 1980, and even into the 1990s, much of transport in Canada was provided one way or another by governments – municipalities built and maintained roads and owned the carriers providing urban public transit, provinces built and operated arterial highways and owned some intercity bus, rail and air carriers. The federal government built and maintained airports, ports, the Seaway, air navigation services, marine navigation services and some bridges, and owned the major air, freight rail, passenger rail and east coast ferry carriers. It also provided substantial subsidies to carriers for the transport of grain, and for truck or rail freight in Atlantic Canada, made contributions to some provinces and territories for highway expansion, and gave more minor subsidies to smaller passenger rail carriers and urban transit companies. The amounts of spending on all those various structures and services were determined essentially in government budget negotiations, from wish lists of investments prepared by planners and engineers, wish lists of services from the government carriers, and political negotiation with users and carriers for subsidies.

In the early 1980's, accumulating evidence of the success of competition and deregulation in other sectors and other countries in achieving cost reductions and innovation led to another round of policy changes aimed at stimulating competition within modes. Articulated in the government's policy paper *Freedom to Move* in 1985 and then incorporated in the *National Transportation Act of 1987*, the changes liberalized market entry rules and pricing constraints for air carriers and further liberalized rail freight rate regulation. Confidential rail freight contracts were permitted together with measures intended to increase competition among rail carriers and to provide recourses against abuse of market dominance. Companion legislation, the *Motor Vehicle Transport Act of 1987*, also eased the entry rules for extra-provincial truck carriers, allowing greater competition among them.

Experience with deregulation and market competition among carriers and the successes of federal policy in privatizing services in other sectors focused attention on transportation services that were still delivered or funded by the federal government. Further bold policy actions were taken during the 1990s. Incentives to reduce costs were strengthened by the reduction or elimination of federal subsidies to private carriers and for federal infrastructure. Air Canada and Canadian National Railways, both operating in competition with private sector companies, were made subject to the same market forces as their competitors through privatization, in 1988 and 1995 respectively. Further stimulus to rail carrier efficiency was provided in the *Canada Transportation Act* of 1996, easing the process for rail-track rationalization and encouraging the creation of short-line railways while maintaining provisions limiting unfair use of monopoly power.

However, in providing greater pricing discretion to the mainline railways, provisions to prevent abuse of market power were strengthened. These include the long-standing provisions of running rights and regulated interswitching rates, augmented by allowing shippers to request regulated “competitive line rates”. Rail freight shippers, in common with all shippers, could also take advantage of the Final Offer Arbitration procedure introduced in 1987, to challenge rates offered by carriers. Subsequent to these revisions to pricing regulation, the 1996 Act permitted greater freedom to railways to sell or abandon track.

Entry into international aviation and trucking has since also been liberalized, though to a lesser extent. US and Canadian trucking regulations permit the operation of each other’s carriers across the border, but continue to prohibit competition for each other’s purely domestic traffic (“cabotage”). In aviation, international services remain subject to the Chicago Convention’s rules on designation of national carriers and bilateral agreements on market entry, capacity, pricing and other operating conditions. Canada has gradually liberalized relationships with other countries to permit more competing carriers access to Canada’s market, having concluded the major Open Skies agreement with the US in 1995. That essentially permitted carriers from either country to enter any transborder route, while continuing to prohibit unlimited “cabotage”. Renewal of the agreement in 2007 further relaxed entry rules, allowing reciprocal “6th Freedom” rights (i.e. the ability of a carrier to serve traffic from a foreign origin to a foreign destination through the carrier’s home country). Canada in 2006 adopted a “Blue Skies” policy,² of bilateral liberalisation with any willing party, and has subsequently concluded such agreements with a number of other countries. More significantly, Canada signed a major Air Services agreement on liberalisation with the EU in 2009, which potentially includes full cabotage in a future phase.³

For the federal network of airports and ports, new governance models were adopted from the late 1990s, described by Transport Canada as intending “to introduce elements of market discipline while maintaining the public interest in providing essential services and avoiding the exercise of excessive market power in pricing or spending.” The national system of major airports was built and operated by the Federal Government: by 1994 of a total of about 250 airports nationally, 147 were owned, operated and/or subsidised by the Federal Government. In that year

a policy of “commercialisation” was adopted, in which all airports were to be divested to provincial/territorial or local governments or the private sector, apart from the 26 most important airports. Essential facilities in remote areas continued to receive direct support from the federal government. Small regional or local facilities were offered for transfer to local public or private agencies or destined for closure if insufficient interest existed. For the 26 “national” airports, the policy of commercialisation did not extend as far as outright privatisation – i.e. sale or transfer to a normal for-profit corporation – but instead transferred them to a new form of private corporation. The sites of these national airports and ports remained under federal ownership but local interests took over their operation in not-for-profit corporations. They were required to be financially self-sufficient from fees from user carriers and passengers, and given freedom to set prices and fees, though constrained by the requirement that they remain not-for-profit. Boards of the corporations must include some appointees of the Federal Government and of the user carriers, which are therefore involved in and committed to investment and pricing decisions. The corporations must also adhere to public accountability principles. Together, these conditions were designed to provide the ability to be self-sustaining, including financing future expansions, but to deter both excessive spending and abusive pricing. Federal ownership was retained to ensure the national assets remain in public hands in the national interest. They were also required to pay rents to the Federal Government for the lands and facilities, negotiated separately in each case (and remaining a source of controversy among airports and user carriers).

Most of the other federal airports were divested, but remain eligible for federal support through a relatively modest Airports Capital Assistance Program; and the Federal Government continues to own and operate a small number of remote and arctic airports for which divestiture has not proven possible. The Federal Government also regulates all airports for safety.

A similar program of divestiture was undertaken for the nearly 570 ports that were owned, operated and/or subsidised by the Federal Government in 1996. A total of 18 of the ports of greatest national significance and traffic were leased to newly-created Canada Port Authorities, not-for-profit corporations required to be financially self-sufficient. An additional 422 ports have been transferred, demolished or have had their public harbour status terminated. Of those, 8 were demolished, 211 were decommissioned, 42 transferred to provincial governments, 137 transferred to other local interests. A further 66 were transferred from Transport Canada to other Federal departments, and the remaining un-divested minor or remote ports remain under Transport Canada operation. Some residual Federal capital funding remains for smaller facilities.

In the case of air navigation services, another unique form of not-for-profit corporation was created in 1996, named NAVCanada, which purchased the assets from the Federal Government, and then took responsibility for provision of future services. The enabling legislation required the corporation to follow government-specified pricing principles and specified its governance structure. The Board of Directors is comprised of 15 Directors, all of whom must be Canadian citizens:

- four Directors elected by commercial air carriers through the National Airlines Council of Canada (NACC);
- one Director elected by business and general aviation through the Canadian Business Aviation Association (CBAA);
- three Directors elected by the Government of Canada;
- two Directors elected by employee unions;
- four independent Directors elected by the Board;
- the Chief Executive Officer.

This structure means that strategic decisions on investment and funding through pricing are made collectively, including acceptance by user carriers. The corporation has operated successfully since 1996 with no government funding.

In a similar policy innovation, the St. Lawrence Seaway Management Corporation was created as a not-for-profit corporation to operate the Seaway with user involvement in day-to-day decisions. The Corporation is required to be financially self-sufficient in covering its operating costs through user fees; though it is not expected to be fully self-sufficient in meeting requirements for capital renewal.

Consequences of the policy reforms

Transport Canada has examined output, productivity, costs and prices across carriers in the transport sector since the early 1980s, and compared them to the performance of the economy as a whole (reported in the various Annual Reports on Transportation under the 1996 Act⁴). The Department concludes that the overall success of these reforms was demonstrated in carriers' economic performance, as summarised below.

The period was one of major change and volatility in the national economy, including periods of severe recession as well as of rapid economic growth, substantial restructuring of business and government activities, and liberalized trade, particularly with the US. The transport sector was affected by all of these changes in the broader economy, as well as by the changes in federal transport policy, and some severe fluctuations and reorientation occurred in transport demand. Nevertheless, general trends in performance have been identified by the Federal Department. The total output of transportation services (measured by the physical extent of passenger and freight movements) more than doubled between 1981 and 2000. When productivity is assessed, taking account of the contributions of all the resources used in production (so-called "total factor productivity"), it increased among transportation carriers over the period by 43%, averaging 1.9% annually. The increase was particularly strong during the 1990's, averaging 2.6% annually following the major structural reforms of the 1987 Act. For the economy as a whole productivity was less than 10% over the entire period from 1981 to 2000, or 0.5% annually.

By the end of the period, annual transport costs had fallen in total by over \$13 billion in 2000 compared to the annual costs that would have been sustained if productivity had not improved. Users benefited from these cost reductions through prices for transport that fell in real (inflation-adjusted) terms by 25% - a saving of nearly \$10 billion in 2000. Carriers also benefited from an increase in net income.

The performance of rail carriers was particularly impressive. Productivity of Canadian National and Canadian Pacific combined improved by more than 70% between 1981 and 2000, and by 56% during the 1990s alone. Output of services expanded by about 18% and total costs fell during the period by over 70%, compared to the level they would otherwise have reached at that level of output. Overall, carriers retained less than 20% of the cost reductions, though the proportion rose toward the end of the period, allowing them to achieve greater financial self-sufficiency. Prices to users fell in inflation-adjusted amounts by more than 50% over the period. During the 1990s, rail freight prices also fell in absolute amounts on average.

A radical restructuring of the rail industry was also stimulated by the 1996 legislative changes to track abandonment procedures, with the devolution of sections by the mainline carriers to "short-line" operators. By 2001, more than 40 short-line or regional railways were operating 15,900 kilometres, nearly one-third of the entire rail network.

The performance of Canadian air carriers following deregulation was also impressive, though less so than that of rail carriers. Productivity improved by about 35% between 1981 and 2000, more than the general average for Canadian business. The improvement was mostly in the earlier years of that period, and subsequent recessions of the late 1990's and late 2000's, and particularly the catastrophe of Sept 11, 2001, had serious effects on aviation operations and profitability. Nevertheless, the fully-private Air Canada has remained viable, and new Canadian carriers have entered the market.

The author participated in the above assessment for Transport Canada⁵, and concurs with the results of the statistical analysis. His independent summary of the Canadian policy reforms is that the essence of the policies of deregulation, privatisation and commercialisation in Canada has been to allow market forces to generate efficiencies and determine service levels. Route/service monopolies and pricing regulation were removed. In freight rail prices were deregulated, permitted divestiture to allow short-lines to be created, and some unique possibilities were added for railways to access each other's lines. Market entry and pricing were liberalised in aviation and trucking. The largest of the federal transport carriers, CN and Air Canada were privatised. And the Federal Government was arguably particularly creative in commercialising federal infrastructure, creating unique corporate forms for airport and port authorities, NAVCanada, and the Seaway Corporation. The policies have for major parts of transport networks and services transferred the decision-making on levels of service, investment and pricing to the autonomous processes of markets, from political judgements and negotiation.

But they have not done so for all networks and services. The remaining major exceptions are:

- roads, provided almost exclusively by Provincial and Municipal Governments as public goods (except for Highway 407 in Ontario), and without direct cost recovery (except for 407 and a few bridges);
- urban transit, provided almost exclusively by Municipal Governments, subsidised by Municipal and Provincial Governments for more than half total costs (about \$2-3b p.a.);
- marine navigation, ice-breaking, and Coast Guard services, provided by the Federal Government with cost recovery from users of about 10-20%;
- remote airports and harbours, provided by the Federal Government with little cost recovery;
- passenger rail services provided by VIA Rail and some minor railways, with Federal subsidies of half or more of total costs;
- intercity bus services, where market entry conditions in many Provinces continue to require provision of local services by cross-subsidy from dense routes.

Transportation Planning Processes in Canada

The processes will be explained as responses to the questions posed to the author by the Institute. As noted above, with the split of jurisdiction over transport networks and services among the 3 levels of Governments in Canada: Federal, Provincial/Territorial and Municipal, there are regional and local differences in planning processes. The responses below attempt to identify which of the 3 levels of Government are involved, and indicate major differences among their practices.

Is there a national planning system in place, supported by a regulatory and institutional framework?

(a) The Canadian Federal Government does not produce any National Development Plan, in the sense of a schedule of actions for development of particular economic activities or their spatial distribution. Nor does it produce a National Transportation Plan. As described above, the Federal Government does not own much of the national transport network, nor operate many transport services. The main rail, air and marine networks and facilities are managed and operated by private profit-making corporations (rail) or not-for-profit corporations (airports, ports, air navigation, St Lawrence Seaway), while the road network is provided and managed by Provinces/Territories and Municipalities; and transport carriers are private corporations. For all these facilities and services, the Federal Government does not involve itself in planning. The few exceptions are noted above, in which the Federal Government remains the operator and/or financial supporter – VIA Rail, remote airports and harbours, marine navigation etc. And while the Federal Government has become a provider of substantial subsidies to Provinces/Territories for highways and to Municipal Governments for urban transit, it negotiates the funding levels and principles with the relevant partners, but does not become involved in planning the networks or services.

Rather than such specific development plans, the Federal Government management system is based on expenditure planning to support parliamentary decision-making on expenditures. The Government submits its spending plans, tax changes and an economic policy statement to parliament for approval annually in the Federal Budget. Then spending plans are submitted to Parliament in Appropriation bills, with details of spending by Department, based on documents known as the Estimates. These are in three parts:

- Part I (Government Expenditure Plan) provides an overview of federal spending.
- Part II (Main Estimates) lists the financial resources required by individual departments, agencies and Crown corporations for the upcoming fiscal year.
- Part III (Departmental Expenditure Plans) consists of two documents. Reports on Plans and Priorities (RPPs) are expenditure plans for each appropriated department and agency

The Reports on Plans and Priorities describe departmental priorities, strategic outcomes, programs, expected results and associated resource requirements, covering a three-year period beginning with the current year. Departmental Performance Reports (DPRs) are individual department and agency accounts of actual performance, for the most recently completed fiscal year, against the plans, priorities and expected results set out in their respective RPPs. DPRs inform parliamentarians and Canadians of the results achieved by government organizations.

Federal transportation policy-making, regulatory and operational activities are undertaken by Transport Canada. That Department's Performance Reports identify in some detail the objectives of departmental activities and actions taken and forecast.⁶ Expenditures are reported by activity, and indicators of performance are provided.

Federal transfers to the Provincial/Territorial as contributions to highway spending have been authorized by Parliament in various multi-year national infrastructure development programs, of varying magnitudes and duration. The amounts of transfers are determined by bilateral negotiations with the relevant Governments, based on the budgets approved by Parliament, and usually based to some extent by the nature of projects proposed by the recipient Government; but usually without Federal involvement in project planning.

Federal transfers to Municipal Governments as contributions to urban transit or other transport were rare until the last two decades or so, but have now been institutionalized, with legislation and Parliamentary commitments to transfer portions of revenues from Federal excise taxes on fuels. The 2005 Federal Budget created a "Gas Tax Fund" for five years, initially 1.5 cents per litre, growing to 5 cents/litre by FY 2009-10 (compared to Federal tax rates of 10 cents/litre for gasoline and 4 cents per litre for diesel). The total for 2009-10 was \$2 billion (of total federal road fuel tax revenues of about \$5 billion¹). The transfers were renewed and made permanent by legislation in

¹ The exact amount of federal revenue from road fuels is remarkably obscure: the figures in the Public Accounts for Canada distinguish gasoline excise from diesel excise, but the latter includes fuel used for

2011, transferring the same fixed amount - \$2 billion per year – for the 4 fiscal years to 2013-14. The specific link to fuel tax revenues therefore no longer applies. Furthermore the funds are not necessarily or even primarily for roads or other transport. The Federal Government transfers the funds to Provinces under bilateral agreements, on condition they be disbursed to municipalities in proportion to population, to be spent on specified types of municipal capital. Their expressed purpose is for capital spending on “environmentally sustainable municipal infrastructure” or “capacity building” projects, aimed at “reduced GHG emissions, cleaner water and cleaner air.” In the period 2005-8, spending on local roads and bridges took (in rounded figures) 20% of total disbursements, while urban transit took 30%, and “active transportation” (bicycle and pedestrian facilities) another 1%. The remainder, approximately half of total disbursements was for projects other than transportation.⁷

(b) Provincial/Territorial Governments do not produce any high-level Development Plans for economic activity. Nor do they usually produce any overall Transportation Plans. However, most produce plans for highway construction and maintenance operations, which are of course their prime operational responsibility for transportation. Plans are updated and usually published annually, typically providing information particularly on new construction projects over 3-5 years. As examples, see references to the current highway plans of the Provinces of Alberta, Saskatchewan, Ontario, Quebec and Nova Scotia.⁸

In addition, policy and planning for land use development by Municipal Governments are important Provincial/Territorial responsibilities. Provinces typically have a “Planning Act” which specifies principles and standards for land use development and processes by which they are to be implemented. They apply to Provincial operations that affect land use, notably development of highways and other transport facilities, but their main purpose is to direct the operations of Municipal Governments. They typically require Municipal Governments to produce Land Use Plans and adopt land-use zoning bylaws and construction permit processes, constrained by the provincial principles and standards. Transportation systems must of course be included in the plans. And the Acts specify requirements for public consultation processes.

For example, the Province of Ontario’s Planning Act⁹ requires that municipal plans be consistent with a Provincial Policy Statement issued by the relevant Ministry.¹⁰ The declared intent of the Statement is to provide for appropriate development while protecting resources of provincial interest, public health and safety, and the quality of the natural environment. It provides broad direction on land use patterns, forms of development and management of some natural resources, and other issues, such as natural hazards. It includes planning direction for woodlands, wetlands, wildlife habitat, air quality, and the quality and quantity of water, as well as for agriculture, transportation, and other types of infrastructure. The Act requires Municipalities to provide opportunities for public involvement in land use planning processes, including

rail, marine and aviation; and the figures are not consistent with other estimates of fuel consumption multiplied by the relevant tax rates.

participation in the development, amendment and review of local planning tools such as official plans and zoning by-laws, through public availability of written plans and public attendance at open house information sessions and other public meetings. Members of the public also have some rights to appeal to the Ontario Municipal Board, an independent adjudicative tribunal responsible for settling disputes over land use planning and other municipal issues. In determining appeals, the OMB interprets and applies policies, such as the Provincial Policy Statement, as well as other provincial laws and policies.

The Ontario Provincial Policy Statement includes policies on transportation systems and requires that “transportation and land use considerations be integrated at all stages of the planning process”. It promotes a land use pattern, density and mix of uses “that minimize the length and number of vehicle trips and support the development of viable choices and plans for public transit and other alternative transportation modes, including commuter rail and bus.”¹¹

Given the nature of congestion on the roads and highways of Southern Ontario, the plan states that public transit will have first priority for transportation infrastructure planning and major transportation investments, and includes policies that “support a transportation network that links urban growth centres through an extensive multi-modal system anchored by efficient public transit along with highway systems to move people and goods.”

Other Provinces have similar legislation and stated principles (though Ontario’s focus on urban congestion and therefore public transit solutions is not necessarily shared by those with less dense populations and urban areas).

(c) Municipal Governments then are responsible for local planning of land use, including transportation as well as other municipal infrastructure, all commercial and residential development, and environmental protection. Following the relevant Provincial/Territorial Planning Acts and other relevant legislation, Municipal Governments institute by-laws for zoning and building codes, and put in place procedures for preparation of official plans, including consultation processes. Municipalities prepare and publish their official plans, including plans for transportation infrastructure and services.

As an example of a comprehensive and long-term official plan, see that of Toronto, Canada’s largest City.¹² The current version of the Plan, adopted in 2010, extends to 2031, including its “Vision”, policies and proposed implementation programs to that date. Transportation is addressed throughout the Plan, as a major component of the proposal to meet the overall Vision, with a major focus on congestion reduction as well as facilitation of access to areas and activities designated for growth. Specific transportation policies are described, and programs outlined for Travel Demand Management, goods movement and active transportation (walking and bicycling). The Planning Department website also provides information on the Plan and its process, including the opportunities for public participation.¹³

Other examples of official municipal plans include those for the next two largest municipalities in Canada, namely that for Montreal¹⁴ and that for Vancouver.¹⁵ Both again illustrate the importance of transportation policies to achieve municipal development goals.

Transportation planning: is it clearly linked with broader development objectives (as stated in a national development plan, if available in Canada)?

As noted above, there is no National Development Plan for Canada prepared by the Federal Government, nor National Transportation Plan. Federal transport operations are planned through the Departmental Plans and Priorities procedures, and implemented as allowed by budgets approved annually by Parliament. Federal

Provincial/Territorial Governments do not produce any high-level Development Plans for economic activity, nor overall Transportation Plans. They plan their highways operations internally, and implement them as permitted by their Government budgets approved by their Parliaments.

Municipal Governments certainly link transportation to broader land use development objectives, as noted above and illustrated by the official plans for Toronto, Montreal and Vancouver referenced.

Describe the transportation planning process in Canada

Planning for different modes is conducted separately or in an integrated manner?

National transportation policy integration is the major focus of the Federal Department, Transport Canada. As the agency responsible for national transport legislation and regulations governing market entry and operating practices for interprovincial and international rail, air, marine and trucking operations, Transport Canada conducts continuous monitoring, analysis and consultation on transport system performance, and is able to amend legislation or regulations to adapt to changing competitive positions. The Department has argued that maintaining competitive neutrality among carriers in each mode, and among modes, is an objective of its policies.¹⁶ That objective is expressed in the National Policy Statement in the Canada Transportation Act¹⁷ which is quoted in its entirety below:

“5. It is declared that a competitive, economic and efficient national transportation system that meets the highest practicable safety and security standards and contributes to a sustainable environment and makes the best use of all modes of transportation at the lowest total cost is essential to serve the needs of its users, advance the well-being of Canadians and enable competitiveness and economic growth in both urban and rural areas throughout Canada. Those objectives are most likely to be achieved when

- (a) competition and market forces, both within and among the various modes of transportation, are the prime agents in providing viable and effective transportation services;
- (b) regulation and strategic public intervention are used to achieve economic, safety, security, environmental or social outcomes that cannot be achieved satisfactorily by

- competition and market forces and do not unduly favour, or reduce the inherent advantages of, any particular mode of transportation;
- (c) rates and conditions do not constitute an undue obstacle to the movement of traffic within Canada or to the export of goods from Canada;
 - (d) the transportation system is accessible without undue obstacle to the mobility of persons, including persons with disabilities; and
 - (e) governments and the private sector work together for an integrated transportation system.”

Note the emphasis on achieving economic efficiency through competition within and among modes. That reflects the Federal Government’s confidence in competitive markets to achieve the most efficient balance among modes, which it has implemented over the last 20 years through its policies of deregulation of market entry and pricing, and commercialization/privatization of networks and carriers, particularly in freight rail and aviation.

However, the operation of commercial markets in transportation of course remains limited in a fundamental way by the continuing provision in Canada of highways and local roads and urban transit by governments. There are still therefore the substantial challenges of achieving modal balance between use of roads and alternative modes, including between intercity highway use by private car for passengers and alternative air, bus and intercity rail, between urban use of private vehicles and public transit, and between trucks for freight and alternative rail, air and inland water freight services. Transport Canada would argue that its reliance on private and self-financing networks and carriers in rail, aviation and water transport achieve some modal balance automatically, in that users choosing among unsubsidized modes automatically achieve economic efficiency. But a debate rages among experts in Canada whether road networks and services meet their financial costs, and whether all modes also meet their external costs in a balanced manner. Serious attempts to examine the issue have been made by Transport Canada in its “Full Costs Investigation,”¹⁸ which showed that users’ payments for interurban and urban road use, through fuel taxes and fees, come close to meeting financial capital and operating costs. Independent analysis of costs and revenues in Ontario recently made a similar conclusion, finding user revenues close to financial plus external social costs throughout the Province and revenues greater than those costs in the main conurbation.¹⁹

The Federal Department also explicitly attempts integration among modes in some of its cooperative programs with Provinces and Municipalities. A recent major example is Transport Canada’s Gateways and Corridors initiative.²⁰ This gives priority to improving transport systems and performance in parts of the network considered strategically important, particularly for international trade. Those identified are the Asia-Pacific Gateway and Corridor, linking the ports of Vancouver and Prince Rupert with the inland supply chain and the rest of the continent, the Ontario–Quebec Continental Gateway, which links the main industrial heartland of Ontario and Quebec with the US border, and Canada’s Atlantic Gateway and Trade Corridor, terminating at Halifax, connecting North America to markets in Europe, the Caribbean, Latin America, and Asia via the Suez Canal. Transport Canada intends to facilitate improvements in facilities and service

in these locations by bringing together all relevant Provincial and Municipal Governments, private sector carriers and other interests, identifying opportunities for more efficient transport, attempting to remove administrative or regulatory barriers, and contributing financially through cost-sharing agreements. Integration of freight modes is an explicit part of the objective of the initiative, to improve efficiency, and much of their focus is on easing freight transshipments between marine shipping, rail and trucking.

On a minor note, the Federal support for intercity passenger rail services, delivered by VIA Rail, remains an anomaly in the search for modal integration and modal neutrality. Such services are a very minor part of Canadian national travel (only 0.2% of total national passenger-km, according to a recent estimate²¹), but the subsidies remain an anomaly compared to entirely unsubsidized services provided privately by intercity bus and air carriers. They continue to be supported by the Federal Government despite recommendations from independent sources that the services be commercialized, or discontinued.

Are there established mechanisms to ensure that various stakeholders (sub-national governments, private sector, NGOs) participate in the planning process?

As noted above, municipal planning procedures in Canada include procedures for publication of proposals, public information sessions and encouragement of public participation. Provincial highway plans are typically published and available for public comment. Federal Government procedures for major policies will also elicit participation by “stakeholders,” particularly private sector industries, as well as representatives of the public (e.g. consumer groups). All Governments in Canada, Federal, Provincial/Territorial or Municipal, are subject to Freedom of Information legislation, requiring release of all official documents, with very limited exceptions.

What are, in your view, the main advantages of the existing planning process in Canada? And what are the main challenges?

Canada’s Constitution and division of authorities between levels of Government means that the Canadian Federal Government does not follow any process to produce National Development Plans. Rather, its main influence on national policy is through its fiscal powers of revenue-raising and expenditures, which it uses to set policy directions for the country, and to administer programs within its areas of authority. In the field of transportation, the Federal Government does plan its own operations, but they are very limited. Its policies of economic regulation and commercialization/privatization effectively remove the need for Federal planning of networks (rail, aviation, marine) and carriers. That I view as an advantage, as I believe it has proved that networks and services can operate efficiently and meet the demands for freight and passenger transport.

The main disadvantages pointed out by critics of the Federal Government’s reliance on markets are that the network facilities and carriers take advantage of elements of local monopoly (e.g. many freight shippers have immediate access only to a single freight rail carrier; air travellers are often reliant on a single airport). Critics suggest, despite the Federal Government’s regulations to

prohibit restrictive practices by network-providers and carriers, the ability to use market power reduces the quality of services provided, reduces the pressures to control costs and raises the price of services. They suggest railways overcharge “captive” freight shippers, and airports spend too freely, “gold-plating” their facilities and overcharging carriers and travelers.

Provincial/Territorial Governments do plan their major transportation operations, notably their provision of highways. I believe their planning is responsible: certainly it is influenced strongly by public participation in the planning procedures. My criticism would be that it is excessively responsive to political influence – from elected politicians and their constituents – compared to objective assessments of needs, based on cost-benefit comparisons of option.

Provincial/Territorial Governments are also able to influence decisions of Municipal Governments on transport facilities and urban transit operations, through their financial transfers to support such activities, without direct involvement in planning. That again I consider an advantage, given the limitations of the different jurisdictions in Canada.

Municipal Governments produce local land use development plans, following elaborate procedures of consultation and democratic decision-making. These have the substantial advantage of responding to the needs of stakeholders and the public. Again, the criticism would be that they are still too dependent on decisions by local politicians, responding to political influence rather than objective assessments of costs and benefits of proposed changes to networks and services.

How are projects included in transport plans identified and prioritized?

Highway Plans of Provincial/Territorial Governments include projects identified primarily by their engineering and analytical staff, with of course input from user groups and the public about network conditions and demands. Engineering departments typically base maintenance and rehabilitation projects for existing highway links based on life-cycle preventative maintenance schedules, plus measurements of surface condition, etc. Proposals for new links are based on analyses of current traffic and expectations for land use development and therefore traffic demands. The extent of analysis and measurement differs among Provinces and Territories with differing resources.

The examples of recent Provincial Highway Plans referenced above for Alberta, Saskatchewan, Ontario, Quebec and Nova Scotia illustrate the nature of the projects.²² They typically reflect priorities, among types of provinces, regions of Provinces and particularly timing of projects by year. But they do not explain the priority-setting processes. Unlike practice in many developed countries, notably in Europe, and in developing countries that follow World Bank guidance, Canadian Provincial/Territorial Governments do not typically follow explicit and mandated priority-setting processes that include systematic and consistent comparisons of estimated costs and benefits of projects. The major current exceptions are the Provinces of Ontario and British Columbia, both of which require projects to be assessed using consistent analytical processes, with official guidance on monetary values and assumptions. Ontario’s Highway Element

Investment Review process, explained in its Guidelines,²³ requires proposed capital projects to be evaluated and compared using cost-benefit analysis, applied in a spreadsheet developed by the Ministry. As is usual in such processes, the Ministry also recognizes a number of non-quantifiable factors to be taken into account in setting priorities, in addition to the cost-benefit analysis. British Columbia's procedures are similarly systematic, requiring preparation for each project of a "Business case", which is described as using a "multiple account evaluation" of expected impacts.²⁴ The core of the evaluation is again a cost-benefit analysis, based on spreadsheet modelling developed from the "MicroBENCOST" program created for cost-benefit analysis of transportation projects in the early 1990's through the US Transportation Research Board's National Cooperative Highway Research Program. The BC Ministry of Transportation and Infrastructure issues its own detailed Guidelines for application of the evaluation procedures.²⁵

Other Provincial/Territorial Governments certainly do evaluations of major projects, including detailed estimations of costs, and some form of benefits assessment. These may be as comprehensive as those in Ontario and British Columbia, especially for major development projects. But they do not publish and their procedures and analytical guidelines.

The practice of Municipalities in priority-setting appears to vary substantially, but is not documented comprehensively. It is certainly the case that major projects are subject to quantitative analyses of costs and benefits (see for example the most prominent recent example: The Greater Toronto-Hamilton Area planning agency Metrolinx's "The Big Move",²⁶ including detailed cost-benefit analyses of each major project). However, such municipal analyses are usually undertaken by outside consultants, using their own assumptions for the analyses, including e.g. discount rates, economic values of travel time, accidents and emissions. Those are not therefore consistent among projects. Nor do they typically prioritise alternative projects, or alternative means of delivering the same projects, instead undertaking the analysis of the chosen projects.

Do transport plans include specific consideration of costs and financing aspects?

See response to previous question to describe project cost estimation.

Financing (which I interpret to mean raising the funds for investment projects) is not usually a concern of the Department of a Provincial/Territorial or Municipal Government that delivers the highway or land use plans. They are typically provided their annual capital and operating budgets by higher-level decisions, led by Departments of Finance or Treasuries.

However, for major projects, the operational departments of Provinces/Territories and Municipalities will often consider Public-Private Partnerships, given their successes in delivering major projects in Canada and other countries. The Transport Institute at UNSAM is no doubt familiar with such projects, but might not be aware of the experience in Canada: a summary of that experience is provided in Vining and Boardman.²⁷

Financing would also be a concern if the operational departments were to collect user fees to contribute to transportation investments. As in many countries, tolls were a normal feature of early road provision in Canada, but were superseded by Government-provided roads and highways with the advent and expansion of motorized travel. Currently in Canada there are a

very few isolated examples of tolled sections of Provincial/Territorial highways and bridges, and the one major privately-operated and tolled Highway 407 around metropolitan Toronto, but otherwise no policies of funding through tolls. Provincial/Territorial Governments levy and collect fuel taxes on transportation fuels, as does the Federal Government, but there is no direct dedication of such funds to transportation – instead the revenues are deposited in general revenue accounts by the Governments, without any direct linkage to budgets for transport investments and operations.

Are there specific mechanisms in place to link transportation plans and the federal budget?

See description above of Federal Government expenditure management process.

Is there a public investment system that projects need to go through in order to get public funding?

See description above of evaluation processes of Provinces in highway planning and Municipalities in investments in roads and urban public transit.

The Federal Government also has written procedures for evaluation of investment projects and regulations, including cost-benefit analysis. However, as noted, the Federal Government is not generally responsible for direct investments in transport networks or services, so the central guidance has been mostly for evaluation of regulations.²⁸

Is information on transport project costs and works progress available to the public?

See above response on public participation in planning processes.

Are there mechanisms in place to monitor and evaluate transport plans?

Practice varies. Monitoring of transportation performance is extensive, among all levels of government – see for example Transport Canada’s Annual Reports on Transportation,²⁹ which provide extensive information on traffic and other aspects of performance, and have in some years included unusually thorough analyses of transportation productivity by mode. Annual reports of relevant departments of Provincial/Territorial and Municipal Governments generally include some information of traffic and performance.

However, explicit evaluations of plans are much rarer. There have been high-level assessments of performance in Federal inquiries, including the various Royal Commissions on transport mentioned above, of which the MacPherson Commission of 1959-61 was the most prominent.³⁰ In more recent years, the Canada Transportation Act Review of 2000-01 included detailed assessments of the performance of networks, services and their governance procedures.³¹

ENDNOTES

¹ The following draws liberally from the relevant section drafted by the author of the document: *Straight Ahead: A Vision for Transportation in Canada*, Transport Canada, 2003.

² See Transport Canada Blue Skies policy at <https://www.tc.gc.ca/eng/policy/air-bluesky-menu-2989.htm>.

³ For an independent review of Canadian policy and the agreements see Hüscherlath, K, Niemeier, H-M, Wolf, H, Gillen, D and Forsyth, P (eds): *Liberalization in Aviation: Competition, Cooperation and Public Policy*.

⁴ See Transport Canada: Annual Reports on Transportation in Canada, at <https://www.tc.gc.ca/eng/policy/anre-menu.htm>

⁵ The author also undertook some analysis of the effects of deregulation while on secondment from Transport Canada as Co-Director of Research for the Canada Transportation Act Review of 200-2001, see the review report "Vision and Balance", Queen's Printer, Ottawa 2001, available at <http://publications.gc.ca/collections/Collection/T22-107-2001E.pdf>.

⁶ See latest Transport Canada Departmental Performance Report for 2013-14 at <https://www.tc.gc.ca/eng/corporate-services/planning-dpr-2013-14-1169.html>.

⁷ Source: Infrastructure Canada: "Evaluation Report: National Summative Evaluation of the Gas Tax Fund and Public Transit Fund," August 2009.

⁸ See examples of published Provincial plans:

Alberta: 2015-18 Tentative Major Construction Projects, Provincial Highway and Water Management Projects,

<http://www.transportation.alberta.ca/Content/docType614/Production/2015%20Provincial%20Const%20Program.pdf>

Saskatchewan: Ministry of Highways and Infrastructure: Plan for 2015-16, <http://finance.gov.sk.ca/PlanningAndReporting/2015-16/HighwaysPlan1516PRINT.pdf>.

Ontario: Ministry of Transportation: Southern Highways Program 2015-2019,

<http://www.mto.gov.on.ca/english/highway-bridges/pdfs/southern-highways-program-2015-2019.pdf>,

Ontario: Ministry of Transportation: Northern Highways Program 2015-2019 <http://www.mto.gov.on.ca/english/highway-bridges/pdfs/northern-highways-program-2015-2019.pdf>

Quebec: Investissements routiers 2015-2017, <https://www.mtq.gouv.qc.ca/infrastructures-transport/investissements-routiers-2015-2017/Pages/default.aspx> (in french).

Nova Scotia: 5-Year Highway Improvement Plan 2015-16 Edition, http://novascotia.ca/tran/highways/5yearplan/Plan_2015_16.pdf.

⁹ *Planning Act*, Revised Statutes of Ontario, 1990.

¹⁰ Ontario Ministry of Municipal Affairs and Housing: 2005 Provincial Policy Statement, <http://www.mah.gov.on.ca/AssetFactory.aspx?did=10463>

¹¹ *Ibid* Policy 1.6.5.4.

¹² Toronto Official Plan, 2010, at http://www1.toronto.ca/static_files/CityPlanning/PDF/chapters1_5_dec2010.pdf.

¹³ See <http://www1.toronto.ca/wps/portal/contentonly?vgnextoid=7ac5d58db2581410VgnVCM10000071d60f89RCRD>.

¹⁴ Montreal Plan summary in English: http://ville.montreal.qc.ca/pls/portal/docs/page/planifier_mtl_fr/media/documents/demainmtl_resume_nouvelle_en.pdf;

full Plan in French: http://ville.montreal.qc.ca/pls/portal/docs/page/planifier_mtl_fr/media/documents/pdm_demain_montr_eal.pdf.

¹⁵ *Metro Vancouver: Shaping Our Future*: <http://www.metrovancouver.org/services/regional-planning/PlanningPublications/RGSAadoptedbyGVRDBoardJuly292011.pdf>.

¹⁶ See *Straight Ahead*, cited in note 1 above.

¹⁷ See section 5 of the Canada Transportation Act, available at <http://laws-lois.justice.gc.ca/eng/acts/c-10.4/>.

¹⁸ Transport Canada, Economic Analysis Directorate: Estimates of the Full Cost of Transportation in Canada, report TP 14819, August 2008 http://publications.gc.ca/collections/collection_2009/tc/T22-165-2008E.pdf

¹⁹ Gill, VJ and Lawson, J: "Where the Rubber Meets the Road: How Much Motorists Pay for Road Infrastructure," Conference Board of Canada, October 2013, available at <http://www.conferenceboard.ca/e-library/abstract.aspx?did=5697>.

²⁰ See Transport Canada Gateways and Corridors, <https://www.tc.gc.ca/eng/policy/anre-menu-3023.htm>

²¹ See J. Lawson: "The contribution of the transport sector to an efficient greenhouse gas strategy," Canadian Transportation Research Forum annual meeting, Calgary, 2012, available at <http://ctrf.ca/wp-content/uploads/2014/07/13LawsonTHECONTRIBUTION.pdf>

²² See note 8 above.

²³ See "Ontario Highway Investment Review Guidelines," summarised in Ministry of Transportation "Road Talk," 13(3), Fall 2007; Armstrong, J *et al*: "The Highway Element Investment Review (HEIR) Guidelines: Making the Right Decisions in Ontario," prepared for presentation at the 2008 Annual Conference of the Transportation Association of Canada, Toronto, Ontario. The Highway Element Investment Review Guidelines is available electronically by request to: wilf.roy@ontario.ca.

²⁴ http://www.th.gov.bc.ca/publications/planning/Guidelines/Business%20Case%20Guidelines/Overview_of_Planning_in_MoTI_2014-04-16.pdf

²⁵ <http://www.th.gov.bc.ca/publications/planning/Guidelines/BenefitCostAnalysisGuidebook.pdf>

²⁶ Metrolinx The Big Move <http://www.metrolinx.com/thebigmove/en/default.aspx> , and the plan itself: http://www.metrolinx.com/thebigmove/Docs/big_move/TheBigMove_020109.pdf ; and specific "Benefits Case Analyses" at http://www.metrolinx.com/en/regionalplanning/projectevaluation/benefitscases/benefits_case_analyses.aspx

²⁷ Vining AR and Boardman AE Public-private partnerships in Canada: Theory and evidence, *Canadian Public Administration*, 51(1), 9-44, March 2008.

²⁸ See Treasury Board of Canada: *Canadian Cost-Benefit Analysis Guide Regulatory Proposals*, <http://www.tbs-sct.gc.ca/rtrap-parfa/analys/analys-eng.pdf>

²⁹ Transport Canada Annual Reports on Transportation <https://www.tc.gc.ca/eng/policy/anre-menu.htm>.

³⁰ Royal Commission on Transportation (MacPherson Commission), Ottawa: Queen's Printer, 1961-1962.

³¹ See the CTA Review's report "Vision and Balance" referenced in note 5 above, and the contributing research reports mentioned within that document.