

Nova Scotia Department of Transportation and Public Works

Highway Infrastructure and Economic Growth

Highways and Economic Growth: An Overview

Historically, governments have invested in transportation infrastructure to encourage and support economic development. Highways, in particular, have played a significant role in driving economic activity - nationally, regionally, and in key sectors.

Highways contribute to economic development by enabling industry to access new resources, facilitating the transport of raw materials and finished goods, and providing mobility for workers and consumers to reach the work place and market place.

Over the past decade, the inter-relationships between highways and economic and social development have risen to the forefront of attention. A diverse literature shows that efficient highways can:

- reduce business costs and increase business productivity;
- support a more developed and diverse economy; and
- contribute to a range of other beneficial social impacts.

Conversely, *failing* to invest in a highway system in the right ways and at the right times can deter economic and social prosperity. Production costs may increase, output may fall, new business may invest elsewhere, and the social benefits of efficient highways may disappear.

Highways and Nova Scotia's Economy

Overall, Nova Scotia's economy is 75% services-oriented and 25% goods-producing. Traditional resource-based mining, fishing, forestry industries and manufacturing remain important, though the economy has diversified over the past decade. Given their reliance on road transportation, highways have the greatest potential to directly influence the goods-producing sectors -- agriculture, primary resources, and manufacturing -- as well as wholesale and retail trade.

Nova Scotia's economy is centred around the Halifax region. Efficient highways leading to and from Halifax are of strategic importance given that one-third of the province's businesses and one-half of wage income is earned in this region. Furthermore, a concentration of the province's activity in manufacturing and wholesale/retail trade occurs here - sectors that rely on highway transportation and are expected to experience strong growth in the future.

The primary industries -- forestry, mining, and fishing -- are generally located in the Southern and Cape Breton regions. Three quarters of the province's agricultural activity occurs in the Annapolis Valley and North Shore regions. The expected growth in output of these primary industries identifies the importance of strategic support, including support on secondary (non-100-series) highways used by these industries to secure resources.

A service sector that relies heavily on highway services is tourism. In 1998, over 2 million tourists visited Nova Scotia (as overnight visitors). In addition, Nova Scotians made another 4 million trips within the province. Tourism is a substantial contributor to the economy, supporting \$1.1 billion in direct revenues, 33,000 jobs, and \$106 million in provincial and municipal taxes.

Nova Scotia is a major trading partner for other Canadian provinces. In total, about \$4.1 billion in exports, and \$6.5 billion in imports are traded annually. Transborder trade is of particular interest, given the necessary and critical role of highways, and road transportation costs, in ensuring that the conditions for successful trade prevail. While statistics are unavailable identifying highway-based trade exclusively, highways linking Nova Scotia (especially Halifax) to New Brunswick are critical, given that 87% of interprovincial exports and 98% of imports pass through New Brunswick.

Nova Scotia also engages in significant international trade: about \$3.1 billion in goods is exported, and another \$5.2 billion imported annually. Nearly 70% of exports were destined for the US, largely for the eastern seaboard, highlighting the importance of trade corridors extending from Nova Scotia (especially Halifax) through the U.S. eastern seaboard. *(Hagler-Bailly Canada, Ltd. Strategic Highways and Economic Growth - draft report. FY2000-01.)*

Issues and Challenges - Deterrents to Economic Growth

Funding Pressures

The NS Department of Transportation and Public Works is responsible for maintaining 3,840 bridges and over 26,000 km. of provincial roads/highways. As single lanes, provincially-delivered highways are of sufficient length to reach across Canada nine times - they truly represent an engineering feat and require substantial investments to maintain.

Overall, the Department's budget has decreased from about 10% of the provincial total in the early 1980s, to less than 6% in recent years. The Department's capital budget is of even greater concern, having fallen by about 10% annually over the past three years. Cost-shared agreements with the federal government which have traditionally been a significant contributor to highway capital programs have fallen from \$85 million in 1997/1998, to \$15 million in 1999/2000, to an expected \$5 million in 2001/2002. No new cost-shared agreements have been confirmed, and remaining agreements will expire in 2001/2002. Without a further source of funding, Nova Scotia's capital budget is expected to decrease

dramatically, limiting the economic development benefits that can be conveyed.

There is little debate that the secondary road system is in severe need of repair and reconstruction. Most federal agreements over the years have focussed on the construction of new highways, or upgrading of 100-series highways, leaving the secondary road system to fall into disrepair. In recognition of this challenge, additional dollars have been provided by the provincial government to assist in upgrading secondary roads. Starting in this fiscal year, the province is contributing \$9 million per year for four years under the Rural Mitigation Fund. While commendable, this amount of funding can only provide a level of preventive maintenance for a limited number of roads.

Nova Scotia's roads are already 50% older than the Canadian average, and bridges are over 100% older. Furthermore, 23% of provincial highways are overdue for repaving. Given the deterioration of the highway system, the cost to bring it up to an acceptable level - of efficiency, safety and economic prosperity - is substantial. (*Departmental Business Plan, FY2000-01* www.gov.ns.ca/tran/otherinformation/businessplan.stm)

Loss of Economic Opportunities

Funding pressures have reduced highway maintenance expenditures to their most basic levels, and the overall condition of our roads continues to deteriorate. The necessity to stretch limited dollars as far as possible to address maintenance requirements makes it extremely difficult for TPW to respond to specific situations where an economic opportunity or setback occurs.

There are many circumstances in which realization of new economic activity in rural Nova Scotia is dependent on reasonable highway access, or existing employment in important industries in rural Nova Scotia is placed in jeopardy by road closures or weight restrictions that prevent the movement of product to market or substantially increase the cost of doing business in Nova Scotia. Those highway projects that proceed in response to economic considerations usually do so only after protracted, complicated negotiations with potential funding partners. Many more projects simply do not proceed. Examples of highway projects associated with new economic activity include the gypsum mine at Melford, with road access to the mine entailing a \$2 Million expenditure by TPW, and offshore related road work in Antigonish and Guysborough counties, with TPW expenditures in excess of \$500,000. Projects undertaken to reinforce existing industry include road access to resource-based activity (lumber, pulp, peat, salt) and industrial parks.

As stated in a previous section, the tourism sector is one of growing importance to the Nova Scotian economy. The revenues and employment generated by the tourism industry make it a critical component of the economy. Given that 80% of tourists travel by road, the quality of Nova Scotia's highways play a critical role in how these tourists perceive the Province, how long they stay, how much they spend, and whether they return.

The Changing Role of the Federal Government

Over the past few years, transportation departments across the country have been vigorously pressing the federal government to make a significant long-term funding commitment to a National Highway Program, with the total requirement estimated to be \$17 billion.

These efforts culminated in a federal allocation in the February 2000 budget of only \$600 million for highways over four years, beginning in 2002-2003. This amount is insignificant in relation to the need, with Nova Scotia's share likely being in the order of \$20 million over the four-year period.

In April, federal officials initiated discussions with all provincial and territorial jurisdictions on bilateral highway agreements pursuant to the federal funding identified in the budget, essentially moving away from the notion of a national program and pursuing one-off arrangements with each province. The focus of these arrangements will be the 100-series highways, and if Nova Scotia is successful in negotiating a bilateral agreement, the provincial share of the funding will have to be diverted from secondary roads to the 100-series highways. The 100-series highways constitute about 8% of the 26,000 kilometres of highway network in Nova Scotia; the secondary roads are, in many cases, in far greater need of repair.

With these challenges in mind it is imperative that an economic strategy for Nova Scotia address the importance of a *strategic* approach to highways, ensuring that funding is available for reinvesting in *both* the primary and secondary highway systems.

Addressing Highway Infrastructure Challenges

The ability of the Department to respond to the needs of the highway system is directly related to the budget levels provided for capital and maintenance work. In times of fiscal constraint and low budget levels, emphasis must be placed on doing as much as possible to preserve the existing highway system and to operate it in a safe and efficient manner. So while a standard set of needs assessment criteria exists (i.e., capacity, safety, travel speed, asset preservation, policy, and economic development), the overall poor condition of many roads makes consideration of factors such as economic development very difficult, and often impossible.

As budget levels increase, emphasis can be shifted to stabilizing the condition of the highway system to prevent further deterioration, and to undertaking projects that will improve overall system efficiency *and economic growth*. In the hope that additional funding will become available, the Department has outlined the province's infrastructure needs and is now in the process of estimating funding requirements for various highway infrastructure improvements. A *10-Year Highway Needs Summary (draft document - in process)* examines four major program areas: system expansion, pavement preservation, gravel

road rehabilitation and bridge repair and rehabilitation. The *Summary* will provide an assessment of the highway improvement needs over the coming decade and the associated fiscal pressures to be placed on the Province.

The bottom line: the extent to which funding is committed to highway improvements will determine the Department's infrastructure priorities. With sufficient funding, the Department will be able to restore highway infrastructure to an efficient level of operation, and simultaneously contribute to sustainable economic growth in the province.