



## Pillar #4: An Economically, Environmentally and Socially Sustainable Plan

### Introduction

The transportation sector is an economic enabler that promotes competition, job creation and growth in value-added industries. The government of Canada understands the vital importance of the transportation sector and over the past number of years has adopted numerous helpful policies and initiatives. Unfortunately these ventures have been piecemeal and continue to lack a long-term vision. There is no doubt that major investments are required in transportation infrastructure however; wasteful tax and operating constraints coupled with split responsibilities between levels of government continue to clog our transportation regulatory environment.

Last year the Canadian Chamber of Commerce and a coalition of 22 business associations developed a framework for a *National Transportation Strategy*. After extensive consultations, it was determined that to build the safest, most effective and sustainable multimodal transportation system and to place Canada as a gateway into North America, the strategy needed to be based upon four guiding pillars:

- A North American Vision
- A multimodal transportation infrastructure investment strategy
- A competitive regulatory and fiscal environment
- An economically, environmentally, and socially sustainable plan

Time is of the essence. The Canadian government must demonstrate strong leadership and implement practical recommendations to put the strategy into immediate action.



This report builds on the *National Transportation Strategy* and gives specific recommendations to the federal government on *Pillar #4: An Economically, Environmentally and Socially Sustainable Plan*. This marks the last pillar of the series and builds upon the early reports:

*A National Transportation Strategy*

*Pillar #1: A North American Vision*

*Pillar #2: A Multimodal Transportation Infrastructure*

*Pillar #3: A Competitive Regulatory and Fiscal Environment*

## Pillar #4: An Economically, Environmentally and Socially Sustainable Plan

Despite the current recession, the increase in global trade over the past number of years has been substantial. Among NAFTA countries alone, merchandise trade has tripled and with increased trade there is increased reliance on transportation. For Canada to become a competitive North American gateway and develop the safest and most effective multimodal transportation system will require significant and forward thinking infrastructure upgrades, expansions and development. The creation of this multimodal network must balance the economic, social and environmental axes of sustainable development.

Increased emphasis on sustainable development in the transportation sector will require government leadership and must include a clear vision for the future. Updating and expanding Canada's transportation system and infrastructure in a sustainable manner must be a priority for the Canadian government.

In close consultation with relevant stakeholders, the government of Canada must:

- Show leadership by addressing community impacts and environmental concerns
- Work with industry to ensure the supply of skilled workers to meet the needs of the transportation sector
- Increase public awareness of the importance of transportation in relation to the quality of life of all Canadians
- Promote research initiatives tied to the objective of a *National Transportation Strategy*.



# Sustainable Development: Minimizing the Negative Impacts on the Environment

The transportation sector is a critical contributor to Canada's economic activity and is vital to Canada's prosperity. The movement of people and goods also has a significant impact on the environment, which in turn negatively affects the quality of life of Canadians and Canada's economy. In 2007, there were 747 megatonnes of greenhouse gas (GHG) emissions produced within Canada.<sup>1</sup> The Canadian transportation sector contributed 26% of these emissions.<sup>2</sup> Due to rising transportation demand and sector growth, current trends indicate that GHG emissions will continue to increase. Given that the transportation sector is a major source of GHG emissions and is likely to be included in global climate change agreements, it is imperative that greater emphasis be placed on environmental sustainability in relation to transportation.

Over the past number of years there has been a proliferation of the number of initiatives designed to mitigate the negative environmental impacts of the transportation sector. Environmental standards and regulations have increased and new industry programs have been created such as Green Marine. Airport construction projects are increasing their use of recycled materials, new air navigation technology is enabling more efficient routing of aircraft in Canadian airspace, freight shipment by all modes is becoming more fuel-efficient and produces lower emissions, and a growing number of ports are adopting environmental management systems.

While it is true that the transportation sector has made advances in attempting to limit the negative impact on the environment, more needs to be done. In co-operation with the transportation sector, the Canadian government can support the reduction

of transportation GHG emissions and other pollutants by adopting realistic and achievable policy commitments.

This can be accomplished by increasing Canada's reliance on alternative fuels, creating a stable, internationally harmonized and clearly defined regulatory environment and through the use of environmentally and economically efficient technologies and business practices. Policies and regulations must be based upon science and should factor in real reductions in total energy used, falling emissions due to production efficiency and the use of alternative fuels.

The reduction of GHG emissions by using fuel-efficient transportation technologies can reduce the cost associated with the movement of people and goods. Improving the effectiveness of anti-idling technology, the introduction of electric hybrid vehicles, load maximization and freight route optimization as well as ensuring that vehicles are operating at peak performance are all ways to reduce the negative impact on the environment in an economically sustainable way.

Within Canada, transportation service providers are increasing their focus on green supply chain management (GSCM). So far, companies that have adopted GSCM have seen a marked improvement in their environmental performance with positive impacts on their businesses. The adoption of GSCM practices can reduce the cost of energy consumption, which accounts for as much as 55% of air transportation costs and 29% of truck transportation costs.<sup>3</sup> According to the Supply Chain and Logistics Association of Canada, transportation service providers that

<sup>1</sup> Transport Canada. Ecofreight. Last updated November 10<sup>th</sup> 2009.

<sup>2</sup> *Ibid.*

<sup>3</sup> Industry Canada, State of Logistics: The Canadian Report 2008, 2008

have successfully adopted GSCM practices have reported improved distribution efficiency and services differentiation, reductions in distribution costs and increased customer retention.<sup>4</sup> Environmental benefits from the adoption of GSCM practices include reductions in energy consumption and waste production. While the use of these initiatives is increasing, the government of Canada should work with industry to increase awareness and promote the adoption of such environmentally and economically sustainable initiatives.

The development of economically viable green technologies that minimizes the negative impact on human health and the environment while allowing Canadian business to grow is critical for the development of a sustainable *National Transportation Strategy*. Government support for research and development of green technology is essential. While increasing the support for innovation is one way to promote the availability of green technology, the government should also assess and consider incentives for first adopters. These incentives could include tax credits, fee-reductions or low interest loans.

Increasing numbers of shipping companies are reducing their environmental footprint by undertaking sustainable programs. To encourage further adoption of these initiatives, the Canadian government needs to ensure that the environmental regulatory framework remains predictable and manageable. A clearly defined and stable regulatory environment is critical to the development of a sustainable transportation strategy. Furthermore, as Canada is a part of an international transportation network, our regulations must work in tandem with those of our trading partners, particularly within North America.

There is a need to promote public policy and government initiatives that encourage the development and use of economically sustainable energy sources and technologies and that consider all options. All government environmental initiatives that will affect the transportation sector should include an assessment to ensure that they are effective and economically viable in the long term.

#### **Recommendations:**

- The government must ensure that environmental regulations are clearly defined and predictable. Canada is a part of an international transportation network and, as such, our regulatory system needs to work in tandem with the rest of North America.
- The growing emphasis on green technologies and practices necessitates increased research and development in these areas within Canada. The government of Canada must improve the support and resources available to Canadian-based green research initiatives.
- The Canadian government must show leadership and work with industry to encourage the adoption of green practices which are both economically and environmentally sustainable. To encourage the adoption of green technologies and practices, the government should assess and consider incentives for first adopters. These incentives should offset initial costs and could include tax credits, fee-reductions or low interest loans.

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<sup>4</sup> Supply Chain and Logistics Association of Canada, Green Supply Chain Management Logistics & Transportation Services – A Canadian Perspective, 2009

# Ensuring a High Quality of Life for all Canadians

There is no doubt that there is a need to expand and improve Canada's transportation infrastructure. Canada's population is expected to grow from approximately 33 million in 2005 to close to 40 million by 2031.<sup>5</sup> To keep pace with population growth, significant investment in Canada's transportation network will be required. The quality of life of all Canadians depends upon upgrading our transportation network in a safe, reliable and environmentally friendly way.

Investment in Canada's multimodal public transportation network can promote the reduction of GHG emissions by increasing the use of public transportation. Enhanced linkages between the various passenger modes of transportation will encourage public use, further reducing congestion on highways by minimizing commuter traffic and help to reduce the carbon footprint of the transportation network.

Improvements and expansions of Canada's transportation system will benefit Canadians from coast to coast. We must recognize that major investments to infrastructure can negatively influence the quality of life of residents in host communities. Increased noise, air pollution, traffic congestion and construction due to infrastructure expansion can inconvenience local populations. To be sustainable, the development of a *National Transportation Strategy* will need to mitigate these impacts wherever possible.

As Canada's urban communities grow, transportation networks need to expand to meet increasing demand. Minimizing traffic bottlenecks, maintaining infrastructure and updating public transportation will require increased coordination among relevant parties. Transportation planners and urban developers have to work in tandem to ensure that growth in urban areas is met with equal expansion of transportation systems. Greater consideration of human safety will also be needed where new developments coincide with transportation corridors. Municipal expansions must factor in the transportation network to ensure the safety and comfort of residents in new developments. Building community support for these projects and increasing public involvement with the decision making process is also needed. Communities directly affected by planned infrastructure improvements must be allowed to provide input into how these projects will be developed to minimize the negative affects on the quality of life in surrounding areas. Ensuring that the consultation process results in balanced and timely decisions is critical.

As Canada's population grows, increased investments in the country's transportation network will be required, not only to ensure the efficient movement of people and goods but also to improve the quality of life of Canadians. The development of a sustainable Transportation Strategy requires that these investments take

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<sup>5</sup> Statistics Canada "Population Estimates and Projections." July 1, 2008

into account the existing quality of life in host communities and weigh them against the benefits that will materialize for all Canadians. The effectiveness of Canada's transportation network is a critical component of our economic competitiveness. Without co-operation between relevant parties, our network will not be able to effectively adapt to future demands.

**Recommendations:**

- Canada's transportation network needs to expand to meet increasing demand. The development of a sustainable *National Transportation Strategy* will require increased

co-operation between transportation planners and urban developers to ensure that the movement of people and goods remains efficient while factoring in the social and environmental costs to host communities. To this end, the government of Canada should ensure that federal infrastructure investments factor in the multimodal nature of Canada's transportation network and are linked to urban planning functions at the provincial/territorial and municipal level. This should be done through the creation of a dedicated task force that pulls together federal, provincial/territorial, municipal, local and industrial stakeholders.



# Addressing the Skills Gap: The Need for Qualified Individuals

In upcoming years, Canada will face a workforce shortage affecting many sectors of the economy. If left unaddressed, structural changes in the labour market will prove to be a significant barrier to growth in the transportation sector.

Increasing labour mobility, an aging population and increased competition from other sectors of the economy for a dwindling workforce will affect labour supply within the transportation sector. Shortages in traditional transportation skills and waves of imminent retirement are creating additional challenges for the availability of skilled labour in the transportation sector.

Building the public image of transportation as a valuable source of employment is a critical first step in addressing the skills gap. While transportation has historically been viewed as labour intensive, it is increasingly becoming an innovative, knowledge-based sector. To properly address the labour shortage, the transportation sector needs to be marketed as an attractive, knowledge-based industry, especially with young Canadians entering the labour market.

The continuous and rapid advancement of transportation technologies requires a highly skilled and adaptable workforce. Greater emphasis needs to be placed on supporting innovation in the transportation sector and increasing the funding available to training programs.

## **Recommendations:**

- The continued growth of the transportation sector depends upon the availability of a skilled workforce. The government of Canada, in collaboration with the private sector must ensure that human resource Sector Councils are created to address all aspects of the transportation sector. These councils should focus on the development and implementation of sector specific strategies to address the anticipated labour shortages.
- Due to the anticipated shortage of highly skilled labour, the government of Canada must work with the provinces to ensure that funding is appropriately allocated and that it addresses the need for training in highly skilled areas. The government should also encourage the development of partnerships between post-secondary institutions and businesses to ensure that transportation programs are up to date and designed to attract youth into the workforce.

# Conclusion

For the transportation sector to be effective and to secure Canada as a competitive North American gateway, Canadian infrastructure and regulatory projects need to be weighed against the economic, social and environmental axes of development. *Pillar #4 An Economically, Environmentally and Socially Sustainable Plan*, puts forward specific recommendations on how to expand and preserve Canada's transportation system in an economically viable way while minimizing the negative social and environmental impacts. The Canadian Chamber of Commerce's *National Transportation Strategy* is meant to position Canada as a gateway to North America while developing the safest, most effective and sustainable multimodal transportation system.

## Recommendations:

- *Minimizing the Negative Impacts on the Environment*

The government must ensure that environmental regulations are clearly defined and predictable. Canada is a part of an international transportation network and as such, our regulatory system needs to work in tandem with the rest of North America.

The growing emphasis on green technologies and practices necessitates increased research and development in these areas within Canada. The government of Canada must improve the support and resources available to Canadian based green research initiatives.

The Canadian government must show leadership and work with industry to encourage the adoption of green practices which are both economically and environmentally sustainable. To encourage the adoption of green technologies and practices, the government should assess and consider incentives for first adopters. These incentives should offset initial costs and could include tax credits, fee-reductions or low interest loans.

- *Ensuring a High Quality of Life for all Canadians*

Canada's transportation network needs to expand to meet increasing demand. The development of a sustainable *National Transportation Strategy* will require increased co-operation between transportation planners and urban developers to ensure that the movement of people and goods remains efficient while factoring in the social and environmental costs to host communities. To this end, the government of Canada should ensure that federal infrastructure investments factor in the multimodal nature of Canada's transportation network and are linked to urban planning functions at the provincial/territorial and municipal level. This should be done through the creation of a dedicated task force which pulls together federal, provincial/territorial, municipal and industrial stakeholders.

- *Addressing the Skills Gap: The Need for Qualified Individuals*

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Due to the anticipated shortage of highly skilled labour, the government of Canada must work with the provinces and territorials to ensure that funding is appropriately allocated and that it addresses the need for training in highly skilled areas. The government should also encourage the development of partnerships between post-secondary institutions and businesses to ensure that transportation programs are up to date and designed to attract youth into the workforce.

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