Case Study of Canadian Transportation "SUSTAINABILITY"

Sustainability, as a policy objective, has been addressed in recent policy documents of various states. It relates to a wide range of issues such as climate change, balanced economic growth, corporate social responsibilities and much more. It asks for a new approach to tackle the complex relationships between the society, economy and the environment. The Canadian government is committed to contribute to this development.

Sustainability is a concept that promotes a balance of the economic, social and environmental dimensions of any sector. To strengthen our economic systems, national governments are to provide a framework that addresses these three elements. This understanding is embedded in the SKEMA Policy Index as the three dimensions are taken equally into consideration in order to offer a completed framework for policy issues. Therefore, for the future economic prosperity, it is important to deal with sustainable transportation on a micro-level since the quality of transport is a vital factor for improving the quality of life.

If we look at the Canadian strategy for sustainable development, it is understood that the government is committed to encourage better environmental performance from the transport sector. To accomplish this, the administration plans to[1]:

- enshrine commitment to environmental responsibility in the National Transportation Policy declaration set out in the *Canada Transportation Act* to signal the importance of environmental issues in Canada's transportation policies of the future;
- promote vehicles and fuels that produce fewer emissions;
- promote increased use of alternative modes of transportation;
- launch a national awareness campaign to help Canadians make more environmentally sustainable transportation choices;
- collaborate with industry, other governments and transportation experts to determine the full cost of transportation, including external costs in pricing.

From this perspective, the objective of this case study is to present Canadian transportation plans in terms of improving environmental performance from the transport sector, particularly the maritime sector. The conclusions will be useful for comparative analysis with the EU environmental regulations.

Transport Canada's "Sustainable Development Strategy 2007-2009" and "Straight Ahead: A Vision for Transportation in Canada" focus on areas where the national administration can make a real difference to achieving sustainable transportation. The primary goal is to present a result-based approach to achieving the policy-makers' long-term vision for sustainable transportation.

[1] Transport Canada, "Sustainable Development Strategy 2007-2009

Transport activities are a significant source of CO2 emissions, contributing to increased smog and pollution from airborne toxins. Canadian standards on particulate matter and ozone, as well as Canada-US agreements, also require reductions of smog precursors.

To accomplish all these reductions in emissions and solid waste as a result of implementing regulatory, economic and voluntary incentives, they will have to be coupled with more efficient vehicles and systems, cleaner fuels and the use of pollution-controlled technology.

The case study, itself, is based on the above mentioned documents - Transport Canada's "Sustainable Development Strategy 2007-2009" and "Straight Ahead: A Vision for Transportation in Canada". They define a framework that will address all aspects of developing an environmental programme for sustainable transportation. For instance, the new Canadian regulations on fuel consumption of road motor vehicles will be added to the existing the *Motor Vehicle Fuel Consumption Standards Act.* The initial schedule is for these new regulations to take effect in 2011.

In 2008 and 2009, the administration plans to advance the prospects of an environmental incentive programme in the marine sector by developing business cases for the key players, including any interested Canadian port. A number of issues in this field will be tackled, including the strategic partnerships that need to be strengthened further to help harmonise emission reduction efforts. One of the targets is to improve the fuel efficiency for freight shippers and forwarders by 2011.

To promote sustainable development, the administration will:

(1) examine the sulphur emissions from ships;

(2) assist in the development of shipboard treatment systems;

(3) develop the legislative structure required to put a HNS (hazardous and noxious substances) regime in place together with the regulations;

(4) improve the provision of ship waste management;

(5) and continue to increase the effectiveness of the national Aerial Surveillance programme by increasing the frequency of patrols as well as expanding the surveillance to areas not normally patrolled, such as the Artic.

Table 3 below demonstrates all specific actions that the Canadian government plans to undertake in the next couple of years:

Table 1: Pollution Control

Commitments	*Targets*	*Performance*
1. Sulphur Emission Control Areas (SECA)	Establishing SECA in selected areas of the country by 2009/2010	(1)Number of areas identified (2) Sulphur emission levels
2. Ballast water management	Developing and approving of shipboard treatment systems capable of meeting international performance standards by 2009	(1) Number of systems developed and approved
3. Hazardous and noxious substances (HNS)	1. Developing legislative structure to put a HNS regime in place; 2. Creating the required HNS response mechanism in order to provide a nationally consistent method; 3. Actions to permit Canada to accede to the OPRC-HNS Protocol starting in 2009/2010	(1) Number of regulations and standards developed (2) Effectiveness of national HNS incident response framework (3) IMO indication of Canada's accession to the OPRC-HNS Protocol.
4. Ship waste management	Finalising a programme to improve the provision of shore side waste reception in ports by 2009	(1) Improvements to waste management at ports
5. Aerial Surveillance	Improving the effectiveness of the Aerial Surveillance	(1) Number of pollution patrol hours (2) Number of ship source pollution incidents (3) Number of vessels visually observed and number identified by the aircraft's Automatic Identification System
6. Partnerships	Cooperation with Environment Canada, Fisheries and Oceans Canada, Canadian Coast Guard, private sector, associations, regulatory bodies, federal departments and other levels of government.	

Source: Sustainable Development Strategy 2007-2009, Transport Canada

To reorganise the sector such that the environmental management is incorporated into the normal business practise, it is important to delineate the future regulations as frameworks providing incentives to improve efficiency and risk management. In a long-term perspective there is a challenge with facilitating this adjustment not only for the national administrations but also for the sector. Companies that will respond flexibly to the regulatory and economic incentives will gain a competitive advantage. Governments that provide appropriate incentives for improving environmental

performance will reduce emissions from transportation sector significantly. Therefore promoting environmental management in order to reorganise the sector towards higher efficiency seems to be a priority not only to the Canadian government but also to many other policy-makers.

Moreover, the markets provide incentives for this adjustment too since environmental issues become more important and companies develop sophisticated corporate and socially-responsible strategies. There are now incentives provided by capital markets' indicators for social responsibility. Their function is to give the right signals to the market by highlighting those companies that meet the certain criteria[2]. Thus combining the governmental regulations with the market incentives offers various ways of tackling environmental issues.

[2] Three socially responsible investment indices have already been established where companies are included if they meet the following criteria - environment, human rights, supply-chain labour standards and stakeholder policies - these are the FTSE4Good index, Dow Jones Sustainability Index and the Calvert Social Index. These indices represent a broadly constructed benchmark for measuring the performance of large, socially-responsible companies.