

As a result, if current trends continue, total transportation energy demand in Canada is projected to rise by over 50 percent from 1990 to 2020, with major increases in the demand for gasoline and diesel and aviation fuels leading the way. The modes showing the greatest growth—private automobiles, trucking, and aviation—have the greatest impact on the environment, primarily due to air emissions and land use. Actions we are taking in Canada to promote sustainable transportation are discussed below in the section Global Problems: Local Solutions.

In the long term, technology holds the promise of providing Canadians with transportation options that are safe, efficient, and environmentally friendly. It takes time to commercialize new technology, retool manufacturing plants, provide support for parts and services, and generate consumer acceptance. In the case of automobiles, turning over a fleet of millions of vehicles may take twenty to thirty years under current conditions and markets. Furthermore, transportation infrastructure has evolved over the last one hundred years and will also take time to change.

Some of the challenges to sustainable transportation that we face in Canada—increased demand due to population and economic growth, moving people and goods more efficiently, and reducing greenhouse gas emissions, air pollution, and congestion—are challenges faced by many countries around the world. Other challenges—moving people and goods across the rugged terrain of our vast country in all kinds of weather and often under extreme conditions—are uniquely Canadian.

Although some sustainable transportation issues involve trade-offs, solving some problems can have benefits on all three counts—economic, social, and environmental. Reducing congestion in urban centres would be a good example of a win-win-win scenario because economic losses resulting from delays, time spent on the road, and air emissions that contribute to both local air pollution and climate change would all be reduced. A shift from single-occupancy vehicles to public transit can significantly reduce congestion, but large capital investments are required to ensure that systems can effectively handle increased use. While building more roads may decrease congestion in the short term, it is likely to cause an increase in traffic over time. What would be the impact of increasing the cost to drivers through road tolls, for example? What is the role of intelligent transportation systems?

Although work has been done to improve information on transportation activities, there is more to be done. This incomplete state of



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