

Making the Linkage between Air Issues and Human Health: An ENGO Perspective on Sustainable Transportation Policy in Central Ontario. Q. Chiotti

Background and Context

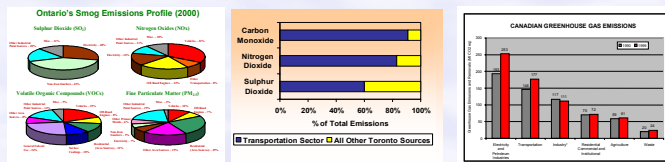
The identification, development and implementation of strategies for effective air quality (and climate change) management that leads to measurable improvements in human health and the environment is a challenging task. While it undoubtedly involves a number of scientific, technical and economic considerations, the pathway from recognizing a significant environment and health hazard to the implementation of policy is rarely smooth and straightforward. While sound scientific data on the health risks associated with air issues may be necessary to inform policy decisions, in practice such information is insufficient to generate desired policy outcomes. This is certainly the case for transportation, one of the leading emission sources contributing to smog and climate change. A number of obstacles and challenges exist, including uncertainty in health and atmospheric science, the complexity of the transportation problem, limitations in technology, jurisdictional conflicts, competing interest groups, among others. To address this problem, Pollution Probe and the York Applied Centre for Applied Sustainability organized a national conference on Transportation, Air Issues (air quality and climate change), and Human Health, which attracted over 140 participants including 25 speakers representing government, industry, health and environmental groups.

Convergence of Understanding and Policy Response

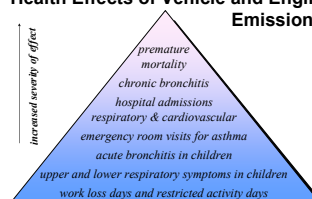
Since Pollution Probe first transportation conference in 1996, there has been growing scientific and medical evidence in attributing emissions from transportation and other sectors to air quality problems and adverse human health effects. The problem is no longer making the link, but rather what transportation actions need to be taken to reduce emissions causing smog and climate change. Indeed, there are numerous national and provincial emission commitments that are due by the end of the decade (e.g. Ozone annex, Kyoto Protocol). Following successful reductions in SO₂ emissions, it is forecast that due to improvements in fuels and technology, emissions of NO₂, VOCs and PM_{2.5} are expected to decrease substantially from current levels by 2010. As part of the National Climate Change Strategy, the Federal Government has pledged to work with the auto industry to obtain a 25% improvement in fuel efficiency. Sales of fuel inefficient SUV's, light trucks and mini-vans however continue to out pace more fuel efficient compact passenger vehicles. Urban sprawl, population and economic growth are also forecast to increase substantially over the next 20-30 years in many regions of Ontario, especially the Greater Toronto Area. This has prompted the Provincial Government of Ontario to consider "Smart Growth" concepts into the planning process, such reshaping where and how people live, unlocking gridlock and protecting the environment. There are some inherent contradictions to these policy goals however, and it is uncertain, if not unlikely, that such measures will lead to substantial emission reductions.

Future policies that will help achieve improved air quality and health include regulated corporate average fuel efficiency, an urban gas tax that is used to improve public transit, the adoption of the net gain approach as a framework from which to inform land use and transportation decisions, and the implementation of a national TDM strategy. However, despite best intentions, there is some degree of air pollution and climate change that is inevitable, and adaptation will be necessary at the individual level and for health infrastructure. Future success will require a collective and collaborative effort by government, industry and NGOs that is committed to achieving environmental sustainability.

The Evidence

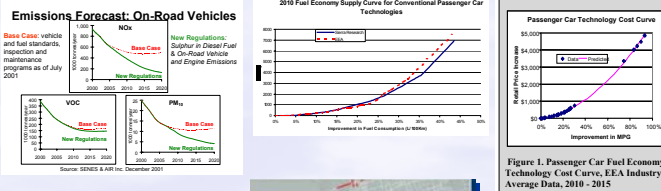


Health Effects of Vehicle and Engine Emissions



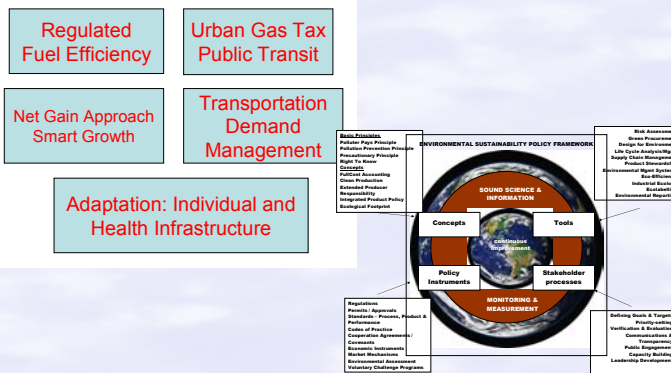
30% of GHG emissions in Ontario are from transportation sources; for Canada, GHG emissions from transportation have increased 21% from 1990 to 1999

Forecasts



- 64% increase in auto trips by 2021
- Triple the number of congested roads and double the commute time
- \$3 Billion congestion costs and 2,500 premature deaths due to air pollution

Pathway Forward



Notes: This poster draws heavily from the proceedings to the Transportation, Air Issues and Human Health Conference, by Keating, M., Chiotti, Q., Ogilvie, K. and Bell, D. (2003), which is available online: www.pollutionprobe.org