

Environment

Changes in urban mobility have direct impacts on the quality of the built and natural environment. These impacts concern primarily air quality and CO₂ emissions as well as noise levels, vibration and visual intrusion - and in nearly every case they are adverse and getting worse. The urban poor in developing countries are especially vulnerable to these adverse environmental impacts of urban mobility.

Many initiatives have been implemented to reduce negative environmental impacts. There have been significant gains with respect to specific pollutants (notably carbon monoxide and lead) and from the application of regulations controlling vehicle emissions and fuel quality. However, many measures lack effective implementation - in particular those targeting automobile use and dependency and reductions in carbon dioxide emissions - but also those concerning noise and visual intrusion. Continuing growth in transport activity is offsetting the gains achieved. Overall, insufficient progress has been made towards achieving environmental sustainability in the urban transport sector.

There are essentially three ways to improve air quality and reduce greenhouse gas emissions from urban transport:

- Avoid travel or avoid travel by motorised modes;
- Shift to more environmentally friendly modes; and
- Improve the energy efficiency of transport modes and vehicle technology.

Transport noise, particularly from road vehicles, is a major source of external acoustic nuisance in most urban areas. Although engine noise has been reduced through stringent standards, tyre and road noise levels have remained largely unchanged and have even increased.

Most people now agree that environmental improvements can only be achieved by developing truly sustainable urban mobility systems. Such systems would:

- provide for safe, economically viable, and socially acceptable access to people, places, goods and services;
- meet generally accepted objectives for health and environmental quality (e.g., those set forward by the World Health Organisation for air pollutants and noise);
- protect ecosystems by avoiding exceedances of critical loads and levels for ecosystem integrity; and
- not aggravate adverse global phenomena, including climate change, stratospheric ozone depletion, and the spread of persistent organic pollutants.



Photo credits: "Pollution" by sergiopigo

Resources

Documents

- **Analysis of Environmental Costs of Mobility due to Urban Sprawl - A Modelling Study on Italian Cities**, 2006, Chiara M. Traversi, Roberto Camagni and Peter Nijkamp, Tinbergen Institute, (The Netherlands)
- **De-coupling of urban mobility need from environmental degradation in Singapore**, 2002, Dr. Shobhakar Dhakal, Institute for Global Environmental Strategies, (Japan)
- **Environmental Zones in Europe**, 2002, Annika Feychting, Magnus Jacobsson, Ann-Sofie Nilsson, Dave Ryan at J&W Civils Stockholm, Stockholm Real Estate and Traffic Administration, (Sweden)
- **Investing in Sustainable Urban Transport the GEF Experience**, 2009, Global Environment Facility (USA)
- **Promoting Global Environmental Priorities in the Urban Transport Sector**, 2006, Rama Chandra Reddy and Sarath Guttikunda, Global Environment Operations, Environment Department, The World Bank (USA)
- **Transport at a crossroads**, 2009, European Environment Agency (EU)

Media

- **Explore the NOISE**, European Environment Agency (EU)

For further information

Contact Peter Midgley, gTKP Urban Mobility Theme Champion at peter.midgley@gtkp.com

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global Transport Knowledge Partnership,
chemin de Blandonnet 2,
1214 VernierIGeneva,
Switzerland

Email: info@gtkp.com