Science for Environment Policy

Europe makes tentative progress in reducing transport’s environmental impact

A new report indicates that some progress has been made towards meeting key sustainable transport targets, but challenges remain. Improvements in passenger vehicle efficiency have led to reductions in emissions, however, reductions in oil consumption are not sufficient to meet targets, with more policy initiatives and continued monitoring needed to ensure that sustainability goals are achieved.

The Roadmap to a Single European Transport Area aims to increase the resource efficiency and sustainability of Europe’s transport system. Transport has a major role to play in achieving a sustainable economy and on-going monitoring is needed to assess progress and identify best practice for the future.

The report, published by the European Environment Agency, evaluates progress towards targets set by the Roadmap using a core set of indicators, including greenhouse gas (GHG) emissions, energy efficiency and uptake of cleaner fuels. The report considers the impacts of transport use, rather than vehicle manufacture and disposal, including the private, public and freight sectors. Progress is achieved in three ways: avoiding use of transport where possible; shifting towards more sustainable forms of transport and improving the efficiency of transport.

The results demonstrate many positive changes; however, improvements are still needed. GHG emission reductions (excluding maritime emissions, but including aviation) were on track to meet the target of a 60% reduction of CO$_2$ from 1990 levels by 2050, with average annual reductions of 0.5% since 1990. CO$_2$ emissions from new cars, following effective legislation, were also on track, and dropped from 140.2 grams of CO$_2$/km in 2010 to 135.7 g CO$_2$/km in 2011.

Overall fuel consumption has fallen by 4.3% since 2007, however, it rose by 0.1% between 2010 and 2011. Since 2009, oil consumption has reduced by 0.3% per year and the percentage share of renewable energy in transport rose by 0.5%. However, neither of these improvements is sufficient to meet 2050 targets if current trends continue.

There are signs of a modest shift towards more sustainable transport; sales of electric cars are increasing and the overall proportion of alternatively-fuelled vehicles (including electric, hydrogen, biofuel, methane and liquid petroleum gas powered vehicles) in the European fleet has doubled, from approximately 2% in 2004 to over 4% in 2010. The report suggests that improved information regarding vehicles and fuels could allow consumers to compare conventional and alternative options more easily, and possible financial incentives may further encourage use of alternative fuels.

Finally, the results showed little evidence of avoided transport use. Passenger demand, mainly in the form of car journeys, has grown steadily since 1995. The year 2010 showed a slight reduction, however, this was probably the result of economic decline and rising fuel prices.

The report concludes that, although some targets cannot be assessed yet due to lack of data, modest progress towards reduced environmental impact has been achieved. Improvements are mainly the result of increased efficiencies, rather than a shift towards sustainability or avoidance of non-essential journeys, and more policy initiatives and continued monitoring are needed to meet sustainability targets under the Roadmap.