

Air Pollution



Lessons learned in the reduction of emissions arising from road transport in Europe

Transport-related pollution is one of the major sources of air pollution, in particular of nitrogen oxides (NO_x) and particulate matter (PM). According to recent findings of the World Health Organization, air pollution in general, and PM specifically, has been found to be carcinogenic to humans and is now classified as the world's largest single environmental health risk, causing cardiovascular and respiratory diseases and leading to premature death. To address the issue, the Working Group on Strategies and Review under the United Nations Economic Commission for Europe (UNECE) Convention on Long-range Transboundary Air Pollution (Air Convention) held a special session on 2 July 2014 to address air pollution from the transport sector, organized in cooperation with the UNECE Transport Division. At the session, air pollution policymakers and practitioners exchanged views and experiences, and discussed integrated policymaking options conducive to sustainable transport and environment policymaking.

It was observed that much more stringent emission limits for air pollutants from road transport have been introduced over the past few decades — with some limits reduced by up to 98% — while at the same time technical innovations and associated improvements in the fuel-efficiency of vehicles have been encouraged. In spite of these positive changes, however, pressures and other factors, including the increasing demand for road transport; delays in the expected time frames for vehicle fleet renewal; the availability of cleaner fuels and measures to shift to other cleaner forms of transport; and the gap between real-world emissions from vehicles compared with emissions measured in lab tests, make it necessary to further improve the environmental performance of the transport sector in an aggressive, well-targeted way.

In 2012, 15% of total European Union (EU) emissions were attributable to the road transport sector, making it the second largest emission source for fine particulate matter (PM_{2.5}) and the third largest for coarse particulate matter (PM₁₀) emissions (13%). With a 39% share, it was also the biggest emitting economic sector for NO_x. The gap in real world emissions of nitrogen oxides, in particular, led to the failure by several Air Convention Parties to meet their NO_x reduction targets for 2010 under the Gothenburg Protocol to Abate Acidification, Eutrophication and Ground-level Ozone.

Air pollution policymakers also noted the efforts towards reducing harmful air pollutants, such as NO_x and PM, undertaken as part of UNECE Inland Transport Committee work, and in particular the recent development of a new test cycle for light vehicles. The Worldwide harmonized Light vehicle Test Procedure (WLTP) is expected to better represent real driving conditions, and thus to improve future projections of air pollution levels and enable the development of more effective measures to address them.

The Madrid City Council reported a 40% reduction in the average concentration of PM₁₀, a 50% reduction of PM_{2.5} emissions and a 40% reduction in NO_x emissions during the past decade. These achievements were the result of a complex package of actions, including clean technology investments in the public bus fleet, the establishment of voluntary agreements with local companies to create corporate mobility plans and an innovative newly regulated parking system based on vehicle technology and occupancy guided by the polluter pays principle.

A representative of Switzerland shared the Swiss experience regarding the challenges the country faces in shifting the transalpine freight traffic from road to rail to reduce the impacts of air pollutant emissions in the sensitive alpine environment. As part of its efforts, Switzerland has, for the first time in Europe, internalized the external costs of freight transport (estimated to have amounted to 1.746 billion Swiss francs in 2007) by establishing a distance-related heavy vehicle fee which encouraged the shift from road to rail and favoured cleaner vehicles.

A representative of France demonstrated how to address exceptionally high emissions of PM and NO_x in an urgent and short-term manner, sharing experiences related to the Paris high pollution episode in March 2014. Such short-term measures included the banning of heavy duty vehicles from accessing the city as well as providing free access to public transport in several municipalities.

The meeting also raised awareness on the Transport, Health and Environment Pan-European Programme (THE PEP) which provides a platform for sharing best practices with a focus on the integration of transport, health and environment policies to promote environmental sustainability and better health. The UNECE Environment and Transport Divisions jointly provide THE PEP secretariat with the WHO Regional Office for Europe and implement relevant activities to achieve THE PEP goals.

Overall, it was noted that many different policies, strategies and measures already exist to reduce human and environmental exposure to air pollution from road transport. These can include regulatory, economic, voluntary and informational measures which are aimed at the shifting from individual car use to public transport and active mobility (walking and cycling). For the latter, however, more compact urban development, as well as the construction of cycling lanes and sidewalks is necessary. It is also important to shift freight from roads to other more environmentally friendly modes, such as railways and inland water transport. A major action to be taken is to ensure the availability of cleaner fuels to facilitate the penetration of cleaner vehicles, equipped with modern emission control devices, onto the market.

Realizing the importance of such solution-oriented exchanges, UNECE plans to continue to offer a platform for similar events focusing on the reduction of emissions from other sectors. □

All presentations are available on the website of the Air Convention: <http://www.unece.org/index.php?id=33280>.

SPECA

From Environmental Indicators to the System of Environment-Economic Accounting

The 9th meeting of the SPECA Project Working Group on Statistics on the topic *Environmental Information systems: from Environmental Indicators to the System of Environment-Economic Accounting (SEEA)* took place in Baku, Azerbaijan, on 25-27 June. The meeting's goal was to address the call of the Rio+20 Summit and post-2015 agenda aimed at providing support to governments in integrating relevant data into national statistics for monitoring sustainable development in all its dimensions, particularly green growth/economy and the preservation of ecosystems.

As raw and processed data for environment comes from multiple sources both inside and outside national statistical offices, the compilation of environment statistics and the SEEA requires coordination amongst all data providers and producers of official statistics. The participants agreed to establish national environmental-economic accounts working groups involving users and data producers to address these coordination challenges. The meeting also stressed the importance of establishing priorities for focusing resources towards a sustainable programme for producing a regular time series and involving continuous improvements to data quality. SPECA countries expressed the need for international and bilateral technical support during the process of the implementation of the SEEA through targeted international seminars and training workshops. Donors and beneficiaries were urged to participate in the two annual surveys developed by Eurostat and UNECE on donor coordination and follow-up of the implementation of recommendations as a prerequisite for the successful implementation of the UNDA project: *Strengthening National Capacities for the Sustainable Development of Statistics*.

The meeting was jointly organized by the State Statistical Committee of Azerbaijan, the European Free Trade Association (EFTA), the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) and the United Nations Economic Commission for Europe (UNECE). It also benefited from the participation and substantive contributions from Statistics Norway, TurkStat, Eurostat, the Interstate Statistical Committee of the Commonwealth of the Independent States (CIS-STAT) and the Institute Cadaster (Russian Federation). □

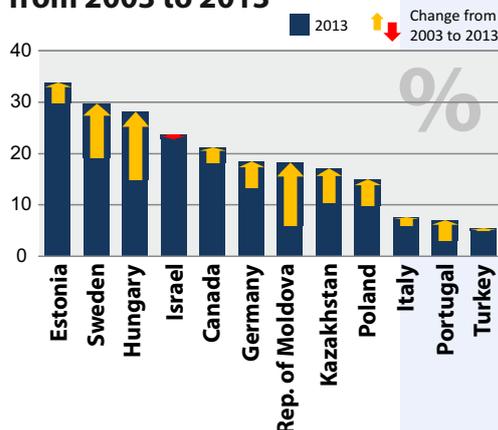
For more information, please visit: <http://www.unece.org/stats/documents/2014.06.speca.html> or contact: statcoop@unece.org.



Facts and Figures

Large variation among UNECE countries in share of female police staff

Percentage of police staff who were female in 2013, and changes from 2003 to 2013



Female employment amongst police staff is of interest to gender equality because it reflects attitudes towards the masculinity or femininity of certain occupations, and secondly because it may influence the reporting behaviour of female victims of crime.

In those UNECE countries for which data was available, the share of female police staff increased from 2003 to 2013, except in Israel, which saw a slight decrease. Based on the latest data, a large variation exists between countries for the share of female police staff: Estonia has the highest share at 34 per cent, whilst Turkey has the lowest at under 6 per cent.

The largest increase in female police staff occurred in Hungary – from 15 to 28 per cent – and in the Republic of Moldova – from 6 to 18 per cent.

The countries with the greatest shares of female police generally tended to be located in northern Europe, whereas those with the lowest shares tended to be towards the south of Europe. □

Source: UNECE Statistical Database. 2013 data for Germany and Italy refers to 2012, and data for Canada, Estonia and Sweden refers to 2011. Data for Germany includes support staff, while data for Estonia includes border organisations after 2010. Data for Canada excludes the 3 northern territories.

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