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Economic Commission for Europe**World Health Organization
Regional Office for Europe**High-level Meeting on Transport, Health
and Environment**Steering Committee of the Transport, Health
and Environment Pan-European Programme****Tenth session**

Geneva, 14 and 15 November 2012

Item 1 of the provisional agenda

THE PEP 2012 Symposium**THE PEP 2012 Symposium: Green and health-friendly
mobility for sustainable urban life****Concept note prepared by THE PEP secretariat***Summary*

At its seventh session (Geneva, 22–23 October 2009), the Steering Committee of the Transport, Health and Environment Pan-European Programme (THE PEP) discussed ways to more actively engage member States and other stakeholders on priority issues for THE PEP (ECE/AC.21/SC/2009/7–EUR/09/5088363/7, para. 8). To that end, the Committee agreed that, beginning with its eighth session, in-depth discussions, or symposiums, would be organized, including speakers from the private sector, academia, government and civil society (ECE/AC.21/SC/2009/8–EUR/09/5088363/8, para. 46).

Topics would be in line with the four priority goals adopted by the Third High-level Meeting on Transport, Health and Environment (Amsterdam, 22–23 January 2009) and address one goal per year of the Amsterdam Declaration (*ibid.*).

THE PEP 2012 Symposium will be held on Wednesday, 14 November 2012 at World Health Organization Headquarters in Geneva, Switzerland, beginning at 3 p.m. The focus will be on Goal 3 of the Amsterdam Declaration: “To reduce emissions of transport-related greenhouse gases, air pollutants and noise”. Participants are encouraged to participate actively in the Symposium.

I. Introduction to the issues

1. *The challenge.* Transport and mobility play essential roles in society and in the lives of individuals: how people interact, work, play, develop and get access to goods and services relies, to a large extent, on the ability to get from one place to another. Despite the increasing awareness of the health and environmental benefits of urban transport policies that promote active transport (cycling and walking) combined with public transport, current patterns of mobility continue to impact our health and environments through congestion, air pollution, greenhouse gas (GHG) emissions, injuries and noise. The Amsterdam Declaration, adopted in January 2009 at the Third High-level Meeting on Transport, Health and Environment, included Priority Goal 3: “To reduce emissions of transport-related greenhouse gases, air pollutants and noise.” The Transport, Health and Environment Pan-European Programme (THE PEP) 2012 Symposium aims to review state-of-the-art knowledge about present levels of emissions and their health effects and to identify the appropriate policy response.

2. *Air pollutants and their health effects.* Transport involves the combustion of fossil fuels to produce energy translated into motion. Air pollution is created from combustion reactions, unburned hydrocarbons, other elements present in the fuel or air during combustion and, in the case of road transport, also from brake and tire wear. These processes produce pollutants of various kinds, including carbon dioxide (CO₂), carbon monoxide, fine and coarse particulate matter (PM_{2.5} and PM₁₀), volatile organic compounds, black carbon (soot), nitrogen oxides, nitrous oxide (N₂O), ash and lead. Primary pollutants can, in turn, react in the atmosphere to form ozone and other damaging secondary pollutants. The health effects of air pollution in populations that are affected by high concentrations and/or long-term exposure include cardiovascular and respiratory diseases and infection, lung irritation and inflammation and impairment of immune system defence, asthma, emphysema and cancer.¹ In particular, diesel engine exhaust has been recently classified as carcinogenic to humans by the World Health Organization (WHO) International Agency for Research on Cancer.²

3. *GHG emissions³ from the transport sector and the health effects of climate change.* The most prevalent GHG emission from transport and the most well-known is CO₂, but transport also emits methane and N₂O. GHG emissions have led to an irreversible trend towards global warming. Changes in the climate are expected to lead to increased incidences of extreme weather events like droughts, heat waves, storms, cyclones and floods. Climate change in turn impacts human health,⁴ for example, through changes to the

¹ Michal Krzyzanowski et al. (eds.), *Health effects of transport-related air pollution*, (Copenhagen, World Health Organization Regional Office for Europe (WHO/EURO), 2005). Available from <http://www.euro.who.int/en/what-we-do/health-topics/environment-and-health/air-quality/publications/pre2009/health-effects-of-transport-related-air-pollution>.

² Lamia Benbrahim-Tallaa et al. on behalf of the International Agency for Research on Cancer, “Carcinogenicity of diesel-engine and gasoline-engine exhausts and some nitroarenes”, *The Lancet Oncology*, vol. 13, No. 7 (July 2012).

³ GHG is a gas in an atmosphere that absorbs and emits radiation within the thermal infrared range. This process is the fundamental cause of the greenhouse effect. The primary greenhouse gases in the Earth’s atmosphere are water vapour, CO₂, methane, N₂O and ozone. GHGs greatly affect the temperature of the Earth; without them, the Earth’s surface would be on average about 33° C (59° F) colder than at present.

⁴ Bettina Menne et al. (eds.), *Protecting health in Europe from Climate Change* (Copenhagen, WHO/EURO, 2008). Available from <http://www.euro.who.int/en/what-we-do/health-topics/environment-and-health/Climate-change/publications/pre-2009/protecting-health-in-europe-from-climate-change-2008>.

distribution of vectors of infectious diseases and to agriculture and food security, resulting in malnutrition and the potential for displacement and migration. Flooding can lead to an increase in water-borne diseases and drought can lead to an increase in respiratory tract infections, eye and skin infections. Moreover, increasing temperatures may exacerbate the effects of air pollution. Extreme weather can result in injuries (e.g., drowning and road traffic injuries), impede access to vital infrastructure, such as health facilities and emergency transport vehicles — presenting health risks in particular to vulnerable populations, such as the elderly, disabled, youth and the poor — and can result in damage to housing and public buildings.

4. *Noise pollution and its health effects.* Emissions of noise, including from transport, impact the quality of life in urban areas, but also are increasingly seen as a health hazard. Noise is defined as an “unwanted or disturbing sound”. Sound becomes unwanted when it either interferes with normal activities such as sleeping or conversation, or disrupts or diminishes one’s quality of life. As one cannot see, taste or smell it, noise tends to receive less attention from policymakers than other types of pollution. Excessive noise seriously harms human health and interferes with people’s daily activities at school, at work, at home and during leisure time. It can disturb sleep, lead to cardiovascular and psychophysiological effects, reduce performance and provoke annoyance responses and changes in social behaviour. One in five Europeans is regularly exposed to sound levels at night that could significantly damage health.⁵ In addition, new evidence has emerged indicating that at least 1 million healthy life years are lost every year in Europe as a result of noise from road traffic alone.⁶ The social costs of traffic noise in 22 States of the EU⁷ are over €40 billion per year, and passenger cars and lorries (trucks) are responsible for the bulk of costs.⁸

II. The policy response

5. Priority Goal 3 of the Amsterdam Declaration makes reference to proposed policy actions to achieve the goal of reduced emissions from transport-related GHGs, air pollutants and noise, namely:

- (a) Supporting a shift in the vehicle fleet towards zero- or low-emission vehicles and fuels based on renewable energy;
- (b) Promoting a shift towards clean transport modes;
- (c) Fostering electric mobility as well as eco-driving.

6. As noted in the Amsterdam Declaration, policy responses to emissions of transport-related GHGs, air pollutants and noise include: mobility management (modal shift,

⁵ WHO/EURO, “Noise”, 2012. Available from <http://www.euro.who.int/en/what-we-do/health-topics/environment-and-health/noise>.

⁶ WHO/EURO, *Burden of disease from environmental noise: Quantification of healthy life years lost in Europe* (Copenhagen, 2011). Available from <http://www.euro.who.int/en/what-we-publish/abstracts/burden-of-disease-from-environmental-noise.-quantification-of-healthy-life-years-lost-in-europe>.

⁷ All the current member States of the EU except Cyprus, Estonia, Latvia, Lithuania and Malta.

⁸ Eelco den Boer and Arno Schroten, “Traffic noise reduction in Europe: Health effects, social costs and technical and policy options to reduce road and rail traffic noise” (Delft, the Netherlands, CE Delft, March 2007). Available from http://www.cedelft.eu/publicatie/traffic_noise_reduction_in_europe/821?PHPSESSID=ad8353cb75ccfdf097561c2fc46a6f6a.

telecommuting, promotion of active transport like walking and cycling, along with public transport), support for clean and efficient fuels and fostering electric mobility.

7. Such policy responses, however, also require a greater awareness of the need for an integrated approach to the cities of the future: this includes an awareness of both the health and environmental impacts of emissions from transport, but also of the link between reduction in transport-related emissions and healthy and active livelihoods in urban areas for a greater sense of vibrancy, economic stimulus, community health and well-being.

8. Policies that aim to reduce emissions and noise from transport should seek to engage citizens in healthy and active (less sedentary) transport and to promote sustainable urban transport and land-use policies that contribute to the holistic well-being of citizens, reflecting demographic trends (e.g., new entrants to the urban area through migration and an increasingly active and healthy aging population), as well as vulnerable groups (e.g., socio-economically disadvantaged persons and persons with disabilities). This is where the THE PEP approach towards an integrated policy approach can be effective, in changing mind-sets, adapting behaviour to more sustainable practices, and in allowing policymakers in the transport, health and environment sectors to recognize and cultivate the links among these areas and adopt strategies that serve all three.

III. Organization of THE PEP Symposium

A. Proposed content of Symposium

9. The proposed topic of THE PEP 2012 Symposium is “Green and health-friendly mobility for sustainable urban life”, reflecting the different components of Amsterdam Goal 3. It makes reference to the quality of life in urban environments, including more healthy and sustainable patterns of transport, promotion of green spaces and active mobility, i.e., policies that support the use of walking and cycling in urban areas. Questions to be answered and issues to be addressed at THE PEP 2012 Symposium may include the following:

(a) What are the trends in the ECE/WHO Regional Office for Europe (WHO/EURO) region in emission of air pollutants, GHGs and noise for the transport sector, especially road transport?

(b) What is the most recent evidence of the effects of air pollutants and noise on health? What steps are being taken and should be taken by road transport to reduce or stabilize road transport-related emissions (e.g., through legislation, voluntary agreements and fiscal measures)?

(c) What are the existing regulatory frameworks in the ECE/WHO/EURO region governing noise pollution?

(d) How can transport policy and planning take into account the need to reduce emissions of air pollutants, GHGs and noise, while at the same time adapting and preparing for an expected increase in extreme weather events due to global warming?

B. Proposed format of Symposium

10. The Symposium will be part of the tenth session of THE PEP Steering Committee (Geneva, 14–16 November 2012). It will take place at WHO Headquarters on 14 November 2012 from 3 to 6 p.m., with interpretation (English, French, Russian), opening with a keynote address, followed by two policy and evidence-based briefings. Subsequently, a

panel discussion will be held, beginning with brief statements from three to four panellists, followed by a moderated discussion.

11. The secretariat will summarize the discussions for the Steering Committee on the following day, 15 November, under item 5 of the provisional agenda. The Committee will be invited to review the results of the Symposium and to consider possible follow-up actions in the context of THE PEP and its future work programme. A detailed programme of THE PEP 2012 Symposium, including speakers and titled presentations, will be available in October 2012. Below is a proposed programme, to be revised as speakers are confirmed.

Annex

THE PEP 2012 Symposium

Green and health-friendly mobility for sustainable urban life

Wednesday, 14 November 2012, beginning at 3 p.m.

3–3:10 p.m.

Welcome and opening remarks (THE PEP Chair and moderator)

3:10–3:30 p.m.

Keynote address: “Co-benefits to health of cleaner, greener transport”

Abstract: Recent analyses of transport policies aiming at reduction of GHGs, notably as identified by the International Panel on Climate Change support the notion of “co-benefits”, i.e., the opportunity to maximize the impact of, and the return on investments on, policies that not only reduce emissions of GHGs, but also address the health effects of air pollution, noise and reduced opportunities of physical activity.^a The speaker will illustrate the main results of a recent WHO study on co-benefits to health of climate change mitigation and adaptation policies.

3:30–4 p.m.

Two policy briefings: “Air pollution and noise — still a Pan-European concern?”

Abstract: The most recent Transport and Environment Reporting Mechanism (TERM) report by the European Environment Agency highlights that, although significant progress has been made since 1990 in reducing emissions of many air pollutants from the transport sector, nevertheless, many cities are facing challenges in meeting concentration limits set in legislation for air pollutants as road transport in particular makes a large contribution to urban air quality.^b The adverse impact of air pollution on human health has been well documented. In addition, new evidence has emerged indicating that at least 1 million healthy life years are lost every year in Europe as a result of noise from road traffic alone.^c This session will include two briefings to review the understanding of the health effects of air pollution and noise.

4–4:20 p.m.

Discussion

4:20–4:40 p.m.

Coffee break

^a Jamie Hosking, Pierpaolo Mudu and Carlos Dora, *Health in the Green Economy: health co-benefits of climate change mitigation — transport sector*, (Geneva, WHO, 2011). Available from http://www.who.int/hia/green_economy/transport_sector_health_co-benefits_climate_change_mitigation/en/index.html.

^b European Environment Agency (EEA), *Laying the foundations for greener transport — TERM 2011: transport indicators tracking progress towards environmental targets in Europe*, EEA Report No. 7/2011 (Copenhagen and Luxembourg, 2011). Available from <http://www.eea.europa.eu/publications/foundations-for-greener-transport>.

^c WHO/EURO, *Burden of disease from environmental noise*.

4:40–5:30 p.m.

Panel discussion: “Green and health-friendly mobility: what is the policy response?”

Abstract: Brief interventions by three to four panellists (Convention on Long-range Transboundary Air Pollution, private sector, other) of seven minutes each, followed by a general discussion with panel, stimulated by questions from the moderator and subsequently opened up for questions from the floor.

5:30–5:50 p.m.

General discussion with interventions from the floor

5:50–6 p.m.

Final considerations, conclusions and closing remarks
