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Item 8 of the provisional agenda

Managing the Transport, Health and**Environment Pan-European Programme****The 2018 Symposium: Achieving multiple benefits through
active mobility: reduced emissions and noise, better
environment and improved human health**

Concept note prepared by the 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 engage member States and other stakeholders more actively on priority issues (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 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 THE PEP Priority Goals, adopted at the Third High-level Meeting on Transport, Health and Environment (Amsterdam, 2009), and would reflect one Goal per year.

With the adoption of the Paris Declaration¹ at the Fourth High-level Meeting (Paris, 2014), Priority Goal 5 (“to integrate transport, health and environmental objectives into urban and spatial planning policies”) was added. Following that Meeting, the extended Bureau of the THE PEP Steering Committee confirmed its wish to hold annual in-depth

¹ https://thepep.unece.org/sites/default/files/2016-10/Paris_Declaration_in_English_Final.pdf.



discussions in the form of symposiums. At its fifteenth session, the Committee decided that the 2018 Symposium would address Priority Goal 3 (“to reduce emissions of transport-related greenhouse gasses, air pollution and noise”) (ECE/AC.21/SC/2017/2–EUPCR1612201/4.4/SC15/2).

This concept note was prepared by the secretariat as background on the content and format of the 2018 Symposium and the issues to be addressed.

I. Transport and urbanization trends with an impact on health and environment

A. Facts and figures about transport, health and environment

1. Transport is a major sector of the European economy: in the European Union alone, it employs 10 million people and accounts for 4 per cent of gross domestic product (GDP). While transport is an essential component of life, providing access to services, goods and activities, it places a significant burden on the environment, health and well-being and on national economies in the region through emissions of air pollutants, greenhouse gases, noise, land take, traffic congestion, injuries and reduced opportunity for physical activity. Many of these sources of pressure occur in urban environments, where 73 per cent of Europeans live today and over 80 per cent are expected to live by 2030.

2. Air pollution remains the most significant environmental health risk; new data from the World Health Organization (WHO) show that 9 out of 10 people in the world breathe air containing high levels of pollutants.² In recent decades, air quality across the pan-European region has improved, but a large portion of the population is still exposed to air pollution that exceeds WHO air quality guidelines. In 2016, approximately 600,000 premature deaths were attributable to the joint effects of household and ambient air pollution in the region.³

3. According to a 2015 study by the WHO Regional Office for Europe and the Organisation for Economic Co-operation and Development (OECD),⁴ the economic cost of deaths and diseases from air pollution in the WHO European Region amounts to \$1.6 trillion, equivalent to one tenth of GDP for the European Union in 2013.

4. The transport (and predominantly the road transport) sector accounts for up to 50 per cent of ambient air pollution in urban areas and is responsible for nearly one quarter of all energy-related carbon dioxide (CO₂) emissions.

5. Road traffic is also the major cause of human exposure to noise pollution in our cities. According to the European Environment Agency (EEA), 100 million people in the 33 EEA member countries are exposed to road traffic noise at a level higher than recommended in the WHO guidelines and 32 million of these people are exposed to very high noise levels. Up to 1.6 million healthy life-years are lost every year due to transport noise.⁵

6. The large urban areas of the region suffer from serious road congestion, which, in the European Union, costs nearly €100 billion (1 per cent of GDP) per year.⁶ By 2030, a combination of population growth and per capita increase in GDP is likely to generate more traffic and congestion throughout the region's road transport network.

² www.who.int/news-room/detail/02-05-2018-9-out-of-10-people-worldwide-breathe-polluted-air-but-more-countries-are-taking-action

³ www.euro.who.int/en/health-topics/environment-and-health/air-quality/news/news/2018/5/over-half-a-million-premature-deaths-annually-in-the-european-region-attributable-to-household-and-ambient-air-pollution

⁴ [www.euro.who.int/en/media-centre/sections/press-releases/2015/04/air-pollution-costs-european-economies-us\\$-1.6-trillion-a-year-in-diseases-and-deaths,-new-who-study-says](http://www.euro.who.int/en/media-centre/sections/press-releases/2015/04/air-pollution-costs-european-economies-us$-1.6-trillion-a-year-in-diseases-and-deaths,-new-who-study-says)

⁵ www.euro.who.int/__data/assets/pdf_file/0019/341128/Fact-Sheet-1-City-Transport-health-and-environment.pdf?ua=1

⁶ https://ec.europa.eu/transport/themes/urban/urban_mobility_en

7. Road traffic injuries have a huge impact on health and development. They are the leading cause of death among young people aged 15–29 and cost governments approximately 3 per cent of GDP. Although the ECE region has the world’s lowest road traffic mortality rate, road traffic accidents in the region killed about 115,600 people in 2015. Moreover, for every person who dies from a road crash, at least 41 have non-fatal injuries requiring hospital admission.

8. The ambitious goal of halving the number of road deaths and injuries by 2020, adopted as part of the 2030 Agenda for Sustainable Development, reflects growing recognition of the contribution of road safety to health, development and broader environmental objectives and the potential for action.

9. Excessive reliance on car transport can have a negative impact on access to public and green areas and opportunities for physical activity; inactivity is now identified as the fourth leading global risk factor for mortality. According to WHO, worldwide, 23 per cent of adults and 81 per cent of adolescents (aged 11–17) do not meet the global recommendations for physical activity.

10. Insufficient physical activity is associated with nearly 1 million deaths per year in the WHO European Region. Globally, the cost of inactivity is estimated at \$54 billion in direct health care, of which 57 per cent is incurred by the public sector, and an additional \$14 billion is attributable to lost productivity.

B. Introduction to the issue

11. Since the 1950s, the transport policy strategies of the majority of countries in the European region have privileged investment favouring the use of motor vehicles. Even today, many governments tend to give new road construction priority over other forms of urban transport investment. In some countries, this trend is viewed as a sign of modernization, progress and development although from many perspectives (pedestrians, cyclists, residents, aesthetics, health risks and environmental quality) it is actually a step backward.

12. In contrast, a growing number of countries are embracing a new vision of the liveable city, in which all residents have access to open space and parks, health and community services and leisure and culture activities. In this kind of city, public transport, shared cars and bicycles are the preferred modes of transport and digital technology supports their use; the more people share transportation, public space, information and new services, the more attractive the city is considered to be.

13. Owing to urban space limitations, it is generally almost impossible to build new motorized transport infrastructure and conflicts may arise when discussing the (re)allocation of public space to different modes of transport and/or other uses of public value (e.g. recreational and green spaces). Motorized transport requires more land than cycling, and transport infrastructure can have a permanent – and often irreversible – impact on land use and land intrusion although innovative solutions, such as the conversion of disused rail lines to cycle paths and disused rail sidings to new urban developments, have been found.

14. Moreover, because any new investment can place a burden on public budgets, central and local authorities need to consider how to achieve the best return on investment, optimize the use of existing roads and develop new infrastructure for active travel users in order to relieve the pressure on urban areas arising from private passenger and freight road transport. It is essential to better accommodate and manage the ever-increasing demand for mobility and to facilitate urban commuting for those who live farther from work and thus cannot avoid using motorized transport for at least part of their journey.

15. In recent years, numerous official papers and scientific studies have emphasized the importance of keeping cities liveable. In 2007, the European Economic and Social Committee declared that “important as cars are in modern society, car-oriented cities are neither possible nor desirable. Instead, public transport and environmentally friendly private transport (e.g. cycling or walking) should be the mainstays of modern urban transport planning”.⁷

16. Despite intensive discussion of the health and environment benefits of sustainable transport systems, many cities and urban areas in the region are facing challenges in their efforts to limit the use of private cars, improve public transport systems, encourage non-motorized modes, create pedestrian zones and, in general, meet urban sustainability standards.

17. A fundamental change in approach from governments and people is needed in order to achieve more efficient, equitable, healthy, safe and environmentally friendly transport. One important way to promote healthy, sustainable transport alternatives is to ensure that health and environmental issues are clearly on the agenda when the spectrum of transport solutions are evaluated, decisions made, and policies formulated.

18. THE PEP 2018 Symposium will highlight the multiple benefits of sustainable urban mobility and discuss in depth how improvements in sustainable mobility management and transport system efficiency can benefit the environment and human health (THE PEP Priority Goal 3).

II. The policy response

A. Linking active mobility, health and environment

19. Physical activity has multiplicative health, social, environmental, cultural and economic benefits for communities and nations. Regular physical activity is a well-established factor in protection from and prevention of the leading noncommunicable diseases (NCD), including, among others, heart disease, stroke, diabetes and breast and colon cancer. It also contributes to the prevention of other important NCD risk factors, such as hypertension, overweight and obesity, and is associated with improved mental health, delay in the onset of dementia and improved quality of life and well-being.

20. In May 2018, recognizing a need for stronger global, regional and national coordination in respect of physical activity, WHO member States endorsed the global action plan on physical activity 2018–2030.⁸ The plan’s goal is a 15 per cent reduction in the global prevalence of physical inactivity by 2030 (using 2016 as a baseline). Its vision of “more active people for a healthier world” will be achieved through a shared mission: ensuring that “all people have access to safe and enabling environments and to diverse opportunities to be physically active in their daily lives”.

21. In this context, active mobility (mainly through walking, cycling and the use of public transport) as a means of transportation is a highly promising approach to the integration of physical activity into individuals' daily lives. Active mobility has an impact not only on the health of individual travellers who decide to walk, cycle or use public transport, but on society as a whole. Investment in policy action in this regard offers great

⁷ Opinion of the European Economic and Social Committee on Transport in urban and metropolitan areas, available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52007AE0615>.

⁸ <http://apps.who.int/iris/bitstream/handle/10665/272722/9789241514187-eng.pdf?ua=1>.

socioeconomic benefits and can contribute directly to achievement of the goals of the WHO plan and of the Sustainable Development Goals.

22. However, if taken in isolation and not accompanied by other transport measures, active mobility entails health risks, such as increased rates of traffic injuries and inhalation of air pollution, which active travellers need to consider.

23. As part of the European-Union-funded project, Physical Activity through Sustainable Transport Approaches (PASTA), a systematic literature review was carried out and a health impact assessment tool was used to quantify the health impact of active mobility.

24. Studies have concluded that the health benefits of physical activity outweigh the estimated detrimental effects of personal air pollution exposure, and even the risk of traffic incidents.⁹

25. Moreover, reduction of emissions from harmful pollutants, noise and greenhouse gases from car traffic and congestion, as well as better accessibility and reduced travel time, can increase the economic competitiveness of urban areas by dramatically improving environmental sustainability.

26. A 2014 study estimated that if the world expanded public transportation and walking and achieved a modal shift to 11 per cent cycling in cities, carbon dioxide emissions could be reduced to 1,700 megatons per year by 2050.¹⁰

27. The study also shows that if 14 per cent of travel in the world's cities was by bike or e-bike in 2050, carbon dioxide emissions from urban transportation would be 11 per cent lower than if efforts to promote sustainable transportation sidestepped bicycling.

28. All of this would require getting people out of their cars and stimulating sustainable alternatives leading to a cleaner, safer and more efficient urban transport system.

B. Encouraging sustainable transport

29. The integration of health, environment and other social concerns into transport policies requires high-level political commitment to intersectoral cooperation and willingness to change current strategies. It is essential that decision-makers in national and local governments understand the issue and undertake to transform transport policy and urban development and to make improvements that are both sustainable and sustained. Once decision-makers have a strong vision for transformation, the implementation phase should begin.

30. As priority tasks, national and local authorities should ensure that:

(a) Non-private transport services¹¹ serve the mobility needs of the population and public transport networks adequately cover residential areas;

⁹ www.pastaproject.eu/fileadmin/editor-upload/sitecontent/Publications/documents/PASTA_LessonsFromHealthImpactAssessment.pdf.

¹⁰ Jacob Mason and others for the Institute for Transportation and Development Policy and the University of California, Davis, *A Global High Shift Cycling Scenario: The Potential for Dramatically Increasing Bicycle and E-bike Use in Cities Around the World, with Estimated Energy, CO₂, and Cost Impacts* (2015), available at https://3gozaa3xxbpb499ejp30lxc8-wpengine.netdna-ssl.com/wp-content/uploads/2015/11/A-Global-High-Shift-Cycling-Scenario_Nov-2015.pdf. The results of the study are based on a comparison between a business-as-usual scenario and a high shift scenario for the quantity and quality of public rapid transport services.

(b) Authorized bus services are environmentally friendly, reliable, convenient, fast, comfortable and safe;

(c) Various systemic measures, such as establishing dedicated bus lanes on existing roads, synchronizing timetables, harmonizing the prices of public transport tickets, integrating ticketing with other modes of transport and providing incentives for frequent travellers, could be introduced.

31. The authorities would need to promote cycling as an equal component of an integrated transport and mobility policy. This requires both powerful political support at all levels in order to develop a national cycling culture, and the creation of an enabling environment for increased cycling. Such a strategy would entail the construction and maintenance of a cycling infrastructure, services such as bicycle repair, bicycle-sharing schemes, bicycle couriers and urban freight deliveries. High-quality cycle routes should also be suitable for less confident cyclists; however, they should not be developed at the expense of footpaths in urban areas.

32. A survey coordinated by the European Commission reviewed transport habits in the European Union and the frequency with which various modes of transport were used. The results showed that less than one in five people used public transport (16 per cent) or bicycles (12 per cent) while half used a car every day.¹²

33. Successful change in existing policies requires that citizens be involved in the planning process from the outset. While most people might agree that transport-related emissions and traffic congestion are a problem, not all of them would be ready for change.

34. In light of the foregoing, governments need to motivate people to shift from motorized transport to cleaner, healthier travel, particularly for shorter journeys. These measures may include awareness-raising and communication campaigns designed to influence public opinion; and policy instruments and tools, including fiscal incentives, to encourage people to get out of their private vehicles.

35. There is can be no single policy solution; effective, coordinated national efforts to reverse current trends and promote active travel will require a strategic combination of policy responses tailored to the nuances of the country's context, particularly where urban policy initiatives and actions fall within the mandate not of national, but of local or regional governments.

III. Policy frameworks and supportive tools that promote sustainable transport initiatives

36. Several regional and global policy frameworks are in place to promote sustainable transport initiatives in the pan-European region. One of the main policy instruments for improving air quality at the regional, national and local levels in the United Nations Economic Commission for Europe (ECE) and WHO/Europe region is the ECE Convention on Long-range Transboundary Air Pollution (Air Convention), to which 51 States are

¹¹ Non-private transport services include both traditional public transport and new services such as on-demand taxis and ride- and bike-sharing schemes.

¹² "TNS Opinion & Social, Attitudes of Europeans towards urban mobility", *Special Eurobarometer* 406 (2013), available at http://ec.europa.eu/commfrontoffice/publicopinion/archives/ebs/ebs_406_en.pdf.

Parties. The Convention and its eight protocols lay down the principles of international cooperation for air pollution abatement and provide the leading example of the ability of a regional multilateral environmental agreement to bring together research and policy.

37. In 2016, the Eighth Environment for Europe Ministerial Conference (Batumi, Georgia) endorsed the voluntary Batumi Action for Cleaner Air (BACA) initiative for improving air quality within the ECE region. The ministers recognized the need for swift action to address emissions from key sources, including transport, and undertook to improve air quality for a better environment and human health, including by integrating air pollution reduction measures into financial and development policies, as well as other sectoral policies.

38. The Sixth Ministerial Conference on Environment and Health (Ostrava, Czechia, 13–15 June 2017) adopted the Ostrava Declaration on Environment and Health,¹³ in which member States committed themselves to “supporting the efforts of European cities and regions to become healthier and more inclusive, safe, resilient and sustainable through an integrated, smart and health-promoting approach to urban and spatial planning, mobility management, the implementation of effective and coherent policies across multiple levels of governance, stronger accountability mechanisms and the exchange of experience and best practices in line with the shared vision established by the New Urban Agenda”.

39. The 2030 Agenda sets quantitative goals and targets across the social, economic and environmental dimensions of sustainable development. Although transport is not represented by a stand-alone Sustainable Development Goal, it is a cross-cutting theme of several Goals and targets, especially those related to health, energy, infrastructure and cities and human settlements. Key policy, institutional and regulatory measures need to be put in place in order to create an enabling environment for mainstreaming the Goals into national policies and programmes and ensuring the necessary coordination.

40. Addressing the complex challenge of integrating policies and assessing the health and environmental effects of the transport sector requires analytical tools that have only recently become available. New methodologies for making integrated assessments and monitoring progress while accounting for social and environmental costs and identifying the strategies with the greatest net benefits have been developed, promoted and applied.

41. Several such methodologies have been developed under THE PEP. The WHO/Europe health economic assessment tool (HEAT) for walking and cycling is a user-friendly online tool designed to help urban planners, transport authorities and health practitioners to make the case for new investment in active mobility and to quantify the economic value of active mobility.

42. The fourth version of HEAT, launched in September 2017, includes new modules on mortality from air pollution and road traffic injury and a module for estimating changes in carbon emissions resulting from modal shifts towards cycling and walking.

43. WHO/Europe has also developed a step-by-step manual for drafting national transport, health and environment action plans (NTHEAPs), which are key mechanisms for developing sustainable and healthy transport at the national level. They entail cross-sectoral work and comprehensive intersectoral planning and implementation of transport, health and environment measures.

44. The ECE Sustainable Transport Division had developed the For Future Inland Transport Systems (ForFITS) tool in order to evaluate transport activity, energy use and

¹³ www.euro.who.int/__data/assets/pdf_file/0007/341944/OstravaDeclaration_SIGNED.pdf.

carbon dioxide emissions in a range of policy contexts. It allows governments to assess the likely impact of changing transport policies on carbon dioxide emissions.

45. The Pan-European Master Plan on Cycling Promotion, being developed under a THE PEP partnership, is a potentially important framework for promoting active mobility in the region. The Plan's overall objective is to promote cycling at the pan-European level and establish it as an equal mode of transport. It is expected to be considered for adoption by member States at the Fifth High-level Meeting on Transport, Health and Environment (Vienna, 2019).

IV. Organization and format of the 2018 Symposium

46. In order to focus attention on the situation described above, the issues and questions that might be addressed by presenters and during the interactive discussion at the 2018 THE PEP Symposium may include the following:

(i) What are the mobility demand management trends in the ECE–WHO/European region?

(ii) To what extent do these trends address the issues of noise and air pollution, especially in cities?

(iii) How effective are current policies in managing mobility, improving efficiency and addressing the impact of air pollution, noise, greenhouse gas emissions and congestion from transport? What can be done to make them more effective? What are the financial incentives and how effective are they?

(iv) How can public transport services be made more attractive to citizens?

(v) What is the situation in the pan-European region with regard to the promotion of active mobility? What cycling policies are in place and what instruments are used to ensure the effectiveness of measures designed to promote active mobility?

(vi) What has been or could be done to promote cycling as an integral mode of transport system and mobility management?

(vii) How should roles and responsibilities be distributed between central governments and local authorities with a view to optimal results in the promotion of cycling?

(viii) How might new technologies help to achieve sustainable transport in cities?

(ix) What can governments, city authorities, business and civil society do to promote active modes of transport?

47. The Symposium will be held at WHO headquarters in Geneva from 10 a.m. to 1 p.m. on 12 December 2018 as part of the sixteenth session of the THE PEP Steering Committee (Geneva, 12–14 December 2018). A keynote address will be followed by a moderated panel discussion. Interpretation into English, French and Russian will be provided.

48. The secretariat will then summarize the discussions for the Steering Committee, which will be invited to review the outcomes of the Symposium and consider follow-up in the context of THE PEP and its future work programme. A detailed agenda for the Symposium, including its speaker and panellists, will be available in November 2018.