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## Economic Commission for Europe

### Inland Transport Committee

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Item 4 (a) of the provisional agenda

**Strategic questions of a horizontal policy nature**

**UNECE analytical work on Transport**

## UNECE analytical work on Transport

### Note by the secretariat

#### *Summary*

This note provides a brief review of the analytical work undertaken in 2014 by UNECE Transport Division. The analytical work comprises studies related to topical issues on transport, analysis requested by official Groups of Experts and Task Forces, analytical papers prepared to support capacity-building workshops, as well as analytical studies that provide substantive foundation for, or result from, participation in or management of different projects. The note summarizes the work done both within the programme of work of the Working Party on Transport Trends and Economics as well as in the framework of the Transport Division.

The Committee is invited to provide guidance on future directions of the analytical work in the field of transport.

## I. Analytical Work and Capacity Building Workshops Undertaken by the Working Party on Transport Trends and Economics (WP.5)

1. The Working Party on Transport Trends and Economics (WP.5) provides a forum for the exchange of experiences and ideas on the progress in, and particular challenges to, the development of sustainable inland transport in the pan-European region. Its mandate allows it to assume the unique role of a transport “think tank” in the framework of the Inland Transport Committee. As such, it aims to: identify the global trends and

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developments which may have important implications for the transport sector and the challenges that the sector is facing; conduct reviews and provide analyses on said factors based on information provided by member States; and, through consensus, make relevant policy recommendations that should lead to the development of sustainable transport systems.

## **A. Publications - Studies**

### **1. Diesel Engine Exhausts**

2. During 2014 the secretariat finalized the discussion paper Diesel Engine Exhausts: Myths and Realities. The objective of this discussion paper is:

(a) to offer a balanced view on the ongoing debate about the harmful effects of diesel engine exhaust emissions on human health and the environment;

(b) to take stock of recent studies on the harmful effects of diesel exhausts on public health;

(c) to provide information about diesel emissions from different economic sectors, including inland transport;

(d) to review the recent policy developments on the reduction of pollutant emissions to address health and environmental concerns; and

(e) to review any technological developments in diesel engines that reduce or even eliminate harmful effects on public health.

3. The paper concluded that 83 per cent of particulate matter emissions in European Union (EU) countries (EEA, 2012a) and 97 per cent in the United States of America (EPA 2013) and Canada are generated by other economic sectors, mainly the commercial, institutional and household sectors, and that diesel engine exhaust emissions from the transport sector cannot be considered to be the major contributor to the harmful effects of diesel exhausts on public health.

4. In light of the relevance of the theme for several working parties, particularly to WP.29, SC.1, SC.2 and SC.3, they were consulted, had the opportunity to comment on the draft and contribute with valuable information. The final draft was presented to the Committee in 2014 and delegates had the opportunity to send their comments after the Commission session. This way the paper launched a broad consultation process and multi-lateral policy dialogue already during its preparation.

### **2. Climate Change Adaptation for Transport Networks**

5. In 2014 the study on Climate Change Impacts and Adaptation for International Transport Networks was published. This study is the result of two years of activities by the Group of Experts established by WP.5. In the report the effects of climate change on the transport sector and the relevant adaptation measures for roads, railways, inland waterways and ports are examined.

6. The information for this report was meticulously analysed to identify where transport infrastructure and services will be affected, by what climate factor and to what extent. In order to create the most up to date picture, the study reviewed national initiatives, case studies and research projects as well as experiences with adaptation measures specific to a variety of transportation modes. The study also examined existing best practices in national policies for risk management and resilience enhancement.

### **3. Transport Trends and Economics 2012–2013: Sustainable Urban Mobility and Public Transport in UNECE capitals**

7. In 2013–2014 the secretariat finalized the publication on Transport Trends and Economics: Sustainable Urban Mobility and Public Transport in UNECE capitals. This publication will be ready in early 2015 and will be available in an electronic form for the Committee session in 2015. The study was developed for authorities at different levels of government to provide them with a knowledge base on sustainable urban public transport systems and their application. It is structured in the following way:

(a) Chapter 1: reviews the existing knowledge base related to sustainable urban public transport and mobility and draws attention to crucial issues that need to be considered when developing a system;

(b) Chapter 2: evaluates to what extent various UNECE capital cities were able to launch sustainable urban public transport and mobility systems, and provides hints at possible weak points that may require further action;

(c) Chapter 3: provides profiles on 34 UNECE capital cities in the frame of urban public transport and mobility; and

(d) Chapter 4: provides conclusions from the analysis provided in chapter 2, and lists several recommendations for consideration by authorities at various levels on how to further improve urban public transport systems and mobility.

### **4. Transport Trends and Economics 2014–2015: Financing Transport Infrastructure**

8. This publication will make use of the workshops organized during the Committee session and its Policy segment in 2013, as well as in the past two years of the WP.5 sessions on “Financing Transport Infrastructure” and on “Good Practices and New Tools for Financing Transport Infrastructure”. Analysis and data collection has already started and the publication will be ready in 2016. This study will include data, analysis and presentations of pre-feasibility or feasibility studies on priority infrastructure projects received from member Governments participating in the Euro-Asian Transport Links (EATL), Trans-European Motorways (TEM) and Trans-European Railway (TER) projects and will focus, inter alia, on:

(a) Presentation of best practices or innovative models regarding financing of transport infrastructure;

(b) Presentation of best practices regarding medium and long-term scheduling, management and delivery of such projects;

(c) Presentation of specific national experiences regarding the financing of their transport infrastructure, including the illustration of specific studies for such projects, types of financing and data provided by the Governments;

(d) Presentation of International Financial Institutions and other donors’ investment portfolios regarding investments or lending in transport infrastructure.

## **B. Workshops**

### **1. Workshop on Good Practices and New Tools for Financing Transport Infrastructure**

9. During the twenty-seventh session of WP.5 (8–10 September 2014) the joint Euro-Asian Transport Links project, Trans-European Motorways (TEM) and Trans-European Railway (TER) projects and the Working Party on Transport Trends and Economics workshop on “Good practices and new tools for Financing Transport Infrastructure” took

place. The importance of modern and efficient transport infrastructure as well as the development of new and innovative tools for financing transport infrastructure was highlighted. Furthermore, the benchmarking of transport infrastructure construction costs – a significant and complex parameter when Governments calculate the costs of projects – was a key point addressed by the workshop.

10. In conclusion, the participants:

(a) Noted that electronic toll collection systems (ETC), which are based on the “user- and polluter-pays” principle, are tools for (re)financing transport infrastructure;

(b) Noted that transport system taxes are gradually being replaced with more effective instruments such as road pricing;

(c) Observed that Public-Private Partnership (PPP) models for financing transport infrastructure encompass several risks such as political risk (change of Government), construction risk (unforeseen ground conditions), high capital cost (need for capital contribution), demand risk (passenger revenues), and availability of finance (market liquidity);

(d) Noted that PPP schemes are not always the best solution for financing transport infrastructure and very careful steps should be taken and considered before proceeding with such an investment tool;

(e) Agreed that the benchmarking of transport infrastructure construction costs is significant for having realistic construction costs and a stable investment programme with no cost explosions. The participants also agreed that the benchmarking of construction costs could be useful for cost estimates and for the control of projects’ cost developments;

(f) Noted that transport infrastructure costs are driven by life-time expectancy, historical costs versus replacement costs, linear versus non-linear depreciation, and the time span between maintenance costs and interest rates, while also noting that different transport modes have different components for their infrastructure costs.

## **2. Workshop on Transport Trends and Economics in the Mediterranean Region: Sharing Experiences among EuroMed and UNECE Countries**

11. A EuroMed delegation consisting of four EuroMed experts and 18 country experts from six EuroMed countries participated in the workshop on Transport Trends and Economics in Mediterranean Region: Sharing Experiences among EuroMed and UNECE Countries, which was organized in the framework of UNECE-EuroMed cooperation.

12. Participants noted that the EU-funded EuroMed Road, Rail and Urban Transport (RRU) project is being developed under the European Neighborhood and Partnership Initiative (ENPI) – South. It covers Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine, Syria and Tunisia. The main objectives of the project are the development of land transport including regulatory reform and adaptation, operational conditions facilitating cross-border transport, safety in land transport modes, sustainable and efficient transport in urban areas and sharing of experiences with other countries, especially those from the Mediterranean region.

13. Representatives from Jordan, Morocco, Tunisia (EuroMed region), Sweden, the Russian Federation, Poland (UNECE region) and the Centre for Transportation Studies for the Western Mediterranean (CETMO) exchanged information and shared their experiences on transport policy and good practices implemented in their countries with all workshop participants.

### **3. Workshop on Ports Hinterland Connections and Customs Procedures: The Case of the European Union Programme MedNet**

14. The workshop took place during the twenty-seventh session of WP.5 (8–10 September 2014). The MedNet project's main objective is the establishment and operation of a network of port authorities and transport experts in the Mediterranean region focusing on the exchange of experiences in port operations, customs procedures and the simplification of clearance for vessels and cargoes. This objective will be achieved through the enhancement of interoperability, which leads to seamless transport supply chains, and through the development of a common understanding of custom procedures and clearance of vessels.

15. The development of the Port Operations Observatory in the Mediterranean is one of the project's main activities. This is an advanced web-based platform for port authorities and stakeholders who disseminates ad hoc knowledge and best practices, facilitates the exchange of views and records activities and procedures related to port operations. Different cases from Albania, Croatia, Italy and Spain were presented at the workshop.

## **C. Group of Experts - Projects**

### **1. Group of Experts on Climate Change Impacts and Adaptation to International Transport Networks**

16. A document was prepared (ECE/TRANS/2015/6) on the future work of the Group of Experts on Climate Change Impacts and Adaptation to International Transport Networks for consideration by the Committee. The Group of Experts completed its work in 2013 and submitted a full report that included policy-oriented recommendations for improving the long-term sustainability of transport infrastructure, with an emphasis on international connections. It also included the best practices of different national policies which address the issues of transport network resilience against climate change impacts. At its last session, the Working Party on Transport Trends and Economics approved the Terms of Reference (ToR) for the second phase of the Group of Experts' work and changed its title to the Group of Experts on Climate Change Impacts and Adaptation for Transport Networks and Nodes.

### **2. Group of Experts on Euro-Asian Transport Links**

17. A document was prepared (ECE/TRANS/2015/10) on the current work of the Group of Experts on Euro-Asian Transport Links for consideration by the Committee. The Ministerial Meeting that took place during the 75<sup>th</sup> session of ITC (26 February 2013), in its Joint Statement, supported the continuation of the project into phase III. The main objectives of this phase are to analyse, promote and present to international financial institutions and other donors high priority EATL projects; to identify cargo flows (quantities and types) that could be transported along the nine Euro-Asian rail and road transport links; to facilitate the coordination of integrated time schedules and tariffs for the nine rail and road transport links; to promote the Euro-Asian inland transport routes and to Update and upgrade of the Geographical Information Systems (GIS) application.

## **II. Analytical Activities on cross-cutting issues realized in the framework of the Transport Division**

### **A. Introduction**

18. Analytical activities are essential supporters of policy dialogue, capacity building and technical assistance. Usually they are directly linked to the regulatory work and the implementation of the UN legal instruments in transport under the purview of the Inland Transport Committee. Because of these inter-linkages they are also discussed under those themes. For example, the ForFITS tool, an outstanding analytical product has been delivered in the framework of a UNDA funded capacity building project. The use of the tool can serve policy dialogues and capacity building in addressing climate change mitigation in transport, and at the same time it can lead to studies at local, national, sub-regional, regional and global levels. For more information see ECE/TRANS/2015/5.

### **B. Publications - Studies**

#### **1. Review of the Transport and Logistics System of the Republic of Belarus**

19. This study was published by UNECE in 2014 and had as its main objective the analysis of the current conditions of the freight transport and logistics market in the Republic of Belarus. Furthermore, the objective of the study was to provide concrete recommendations regarding the further development of the logistics sector in Belarus and its integration into the European logistics system. In order to address the project's objectives, research in this study covered:

- (a) Evaluation of the results of the economic integration of Belarus with the Russian Federation and the Euro-Asian community;
- (b) Analysis of the current state of international road freight carriers of Belarus and its transport infrastructure;
- (c) Evaluation of the main ports that are used for exports and imports in Belarus;
- (d) Evaluation of the status of the logistics system in Belarus;
- (e) Analysis of the legal framework in the field of international road haulage;
- (f) Determination of transit cargo traffic in Belarus and neighbouring countries.

#### **2. Transport for Sustainable Development**

20. To raise awareness about the importance of the transport sector in promoting sustainable development, the 2011 UNECE paper on Transport for Sustainable Development in the ECE Region has been taken as a basis for an up-dated and global publication to be prepared – in cooperation with the other Regional Commissions and with the support of relevant international organizations such as the International Union of Railways (UIC), the International Road Transport Union (IRU) and the International Road Federation (IRF). The study, expected to be published in early 2015, aims:

- (a) To contribute to the process of formulating the post-2015 development framework;
- (b) To explain the significance of transport for sustainable development;

(c) To re-enforce the vision of the three pillars of sustainable development (economic, social and environmental) and their translation into transport perspectives, i.e. access, affordability, safety and security, and environmentally friendly development.

## **C. Group of Experts - Projects**

### **1. Transport Development Index**

21. With the support of a task force from the Working Party on Transport Trends and Economics (WP.5) the project “Supply Chain Challenges for National Competitiveness through Transport” is in the process of designing a “Transport Development Index”, (TDI). The TDI follows the principle of the Human Development Index (HDI) with regard to simplicity and condensed message. The TDI model can indicate the level of development of the transport sector and how it contributes to the national economic performance and competitiveness. It also takes into account the challenges of sustainable development and, in particular, of environmental, safety, security and some social issues. The TDI can help governments to better position their transport sector in the economy and design their national transport policy accordingly. Once it is calculated on a regular basis, it will also offer the possibility to monitor changes over time.

22. The development of the TDI is in a well advanced stage. However, a lot of work remains to be done in fine tuning its design and in preparing the index as a user friendly application that could be efficiently used by all interested countries. When this task is completed its pilot phase will commence where countries would be invited to take part and try out the model.

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