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Working Party on Transport Statistics

Workshop on Statistics on the Volume of Road Traffic (vehicle-kilometres)

(Copenhagen, 1-2 December 2005)

REPORT OF THE WORKSHOP

ATTENDANCE

1. The Workshop on Statistics on the Volume of Road Traffic (vehicle-kilometres) was hosted by the Danish Ministry of Transport and Energy, the Danish Road Directorate and Statistics Denmark and organized by the Danish delegation and the UNECE.
2. The Workshop took place in Copenhagen, Denmark, on 1 and 2 December 2005 under the chairmanship of Mr. Erik Grib (Denmark). Representatives of the following UNECE member States participated: Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Latvia, the Netherlands, Norway, Poland, Slovakia, Sweden, Switzerland, the United Kingdom and the United States of America. The UNECE secretariat, the European Commission (EC), Eurostat, the European Environment Agency (EEA), and the EUSafetyNet Project were also present.

ELECTION OF CHAIRMAN

3. The Workshop **elected** Mr. Eric Grib (Denmark) as the Chairman.

ADOPTION OF AGENDA

4. The Workshop **adopted** the provisional agenda prepared by Denmark and the secretariat (TRANS/WP.6/AC.5/2005/1/Rev.1)

INTRODUCTORY REMARKS

5. Mr. Knud Erik Andersen, of the Danish Road Directorate, **welcomed** the participants.

PRESENTATION OF NATIONAL METHODOLOGIES

6. The participants presented their national methodologies on the statistical coverage of the volume of traffic (vehicle-kilometres). Each presentation was followed by an in-depth discussion of problems and achievements.

7. Presented papers (formal and informal), as well as all other meeting-related documents, are available on the following web address:

<http://www.unece.org/trans/main/wp6/transstatac5agenda.html>

CONCLUSIONS

8. The Workshop **addressed** the important issue of the statistical coverage of road traffic performance (vehicle-kilometres). This issue is highly important because of a multiplicity of reasons which include: transport policy; fuel consumption; pollution; spatial planning; planning of public transport; planning of intermodal transport; taxation; investment in infrastructure; risk exposure (accidents); and international comparisons.

9. The Workshop also **considered** issues that include availability of data; their usefulness; comparability and accuracy (errors). There is a need to collect, estimate and supply data on vehicle-km; person-km and fuel consumption/km.

10. Four types of methodologies were identified: the traffic performance could be estimated based on the vehicle; the driver; the road; or the fuel consumption. Countries that had applied more than one methodology simultaneously reported that the level of estimates may be influenced by the method chosen.

11. **VEHICLE METHODOLOGY:** Statistics based on **odometer readings** will cover only vehicles registered in the country. Additional surveys would be required to obtain statistics for the national territory. Statistics may be biased if the distance between the odometer readings are long. In certain countries, young vehicles were only included in the survey after three to four years. In some countries, the odometer was read every other year, in other countries, every year. Measurement errors do occur. In addition, precise estimation of kilometres driven abroad is a problem.

12. **DRIVER METHODOLOGY:** **Household surveys** were used in some countries to obtain statistics on the traffic performance. Questions were added to existing mobility surveys or other household surveys or a separate survey instrument was established. Statistics may be affected here by the sample size and by the memory effect related to questions about the annual driven kilometres.

13. **ROAD METHODOLOGY:** Some countries use **traffic counts** on road segments. Such sample surveys will include traffic by foreign vehicles. Some manual counting stations and

automatic counting stations may be able to identify the nationality of the vehicles. The traffic flow on the sampled segment is used as a basis for computing the traffic performance. Most countries only had regular counting on the trunk road network and estimates for the residual network had to be estimated from other sources.

14. FUEL CONSUMPTION METHODOLOGY: Information about the **fuel consumption** in transport vehicles was applied in some countries for the derivation of the traffic performance. Technical coefficients relating to kilometre driven per litre fuel may relate to unrealistic driving situations. Road quality, weather conditions, congestions, driving habits and supplementary energy consuming equipments in the vehicles may influence the real energy consumption of the vehicles. Border traffic for tanking of fuel and a black market for fuel may affect statistics. Further the fuel consumption of off-roaders etc. may impact the estimation of the traffic performance.

15. The Ad hoc Meeting revealed that there is a demand and necessity for more reliable data on road traffic performance by vehicles for analysis, international comparisons and policymaking. Even though there are certain similarities among countries in their statistical methods and practices in this area, there are important differences and gaps in coverage. Hence, there is a need for recommendations concerning methodologies that may be applied, and pros and cons relating to the chosen methodology.

16. The Ad hoc Meeting **decided** to continue work on this topic. It **requested** the secretariat to organise and coordinate this work in the future. This work would include the following actions:

- a. To invite countries to form task forces that would consider the issues of user needs; definitions and methodology with the aim of: describing the needs for statistics in the domain of road traffic performance; establishing a handbook on the methodology on the subject of road traffic performance reflecting the above identified four types of methodologies; giving an overview of the methods applied in the various countries; and present recommendations for international definitions relating to the subject. A draft handbook should be presented to the Ad hoc Meeting in 2007;
- b. To organize and coordinate meetings of these task forces throughout 2006. These meetings will be held in places that would be easily accessible to the participants of the task force.
- c. Organize another ad hoc meeting that would consider the draft handbook.

17. The Meeting **decided** that the secretariat should invite interested persons to participate in the task forces as soon as possible.

18. The Ad hoc Meeting **decided** to submit on this document to the next meeting of the Working Party on Transport Statistics for **approval**.
