Improvements to transport statistics dissemination

Note by the secretariat

I. Background

1. The United Nations Economic Commission for Europe (UNECE) disseminates data through two biennial publications (Inland Transport Statistics for Europe and North America and Statistics of Road Traffic Accidents in Europe and North America), through the annual production of Transport Statistics Infocards in advance of the annual session of the Inland Transport Committee (ITC), and through regular updates to its online transport statistics database (w3.unece.org/PXWeb/en). The data for each is collected through the Web Common Questionnaire (WebCoQ) and specialized questionnaires sent to countries. These data are updated on a regular basis with the most up-to-date data found in the online database.

2. Since the most recent session of the Working Party, the Inland Transport Statistics for Europe and North America publication was produced and disseminated and the Infocards were similarly disseminated online in December 2018. The Statistics of Road Traffic Accidents in Europe and North America will be published in late 2019. The online database was updated through the year and substantial improvements were made to the quality and availability of the data disseminated.
II. Improvements in 2018-2019

A. Publication of new indicators

3. Since 2013, detailed data on road vehicle fuel type have been collected from countries through WebCoQ. Due to lack of data, these data have not previously been published on the secretariat’s online database. Given the increased usage of vehicles powered by diverse fuel types and the corresponding increase in response rate from countries on these vehicles, the secretariat began publishing these data in its online database in December 2018 for both vehicle stock and for new registrations of vehicles. In addition to the previous breakdown by Petrol, Diesel, Electric and Other Alternative, indicators are now published for Petrol (excluding hybrids), Hybrid electric-petrol, Plug-in hybrid petrol-electric, Diesel (excluding hybrids), Hybrid electric-diesel, Plug-in hybrid diesel-electric, Compressed natural gas (CNG), Liquefied natural gas (LNG), LPG, Bioethanol, Biodiesel, Bi-fuel vehicles, and Hydrogen and fuel cells for all road vehicle categories. Publishing these indicators will allow users to compare data between countries and track a larger variety of road vehicle fuel types.

4. As a result of a decision from the Working Party, an additional set of indicators on level crossing accidents were collected through a pilot questionnaire sent in 2017. The secretariat sent this questionnaire to all ECE member States not covered by the database of the European Union Agency for Railways (all 28 European Union Member States, plus North Macedonia, Norway, Switzerland and Turkey). These indicators report the number of level crossings as well the number of accidents at level crossings and the resulting number of killed or injured persons broken down by the type of level crossing and the type of user. The data are now available on the secretariat’s online database.

B. Continued data validation

5. The secretariat has also improved the quality of disseminated data through continued data validation since the Working Party’s previous session. An algorithm for detecting outliers in the current online database is used periodically to identify combinations of countries and indicators for which time series are erratic. A new internal tool is also now available to visualize these possibly anomalous data for easier identification.

6. To address data quality issues prior to dissemination, the secretariat uses a data validation workbook which conducts sum checks and provides an easier visual country-by-country check of data for analysis when uploading data from WebCoQ. This improves data quality by helping to identify potentially incorrect data prior to dissemination on the secretariat website.

7. While transport data disseminated by the secretariat, Eurostat and the International Transport Forum (ITF) all use WebCoQ as the primary source, differences remain between the three organizations due to supplementary questionnaires and/or different treatment of WebCoQ data prior to dissemination in their respective websites and statistical publications. In January 2019, the secretariat began working together with the ITF to harmonize disseminated data where possible and understand differences in the scope of collected data where they exist. This collaboration will be ongoing with an initial focus on recent data and indicators required for the measurement of the Sustainable Development Goals. Further collaboration with Eurostat is also likely in the future.

8. After identifying indicators requiring follow-up through each of the validation methods noted above, the secretariat, in collaboration with the ITF and Eurostat, contacts countries on an annual basis with specific questions on unusual time series to either correct
or better understand breaks in data series. Based on responses, the secretariat updates the relevant data in the database or adds footnotes as necessary. The most recent follow-up exercise was conducted in February 2019.

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III. Future work

9. The secretariat will continue to work to improve its data dissemination and review its methods to find areas for improvement. The Working Party is requested to provide any suggestions for future improvements.