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Group of Experts on Climate Change Impacts and Adaptation for Transport Networks and Nodes

Tenth session

Geneva, 7–8 July 2016

Report of the Group of Experts on Climate Change Impacts and Adaptation for Transport Networks and Nodes on its tenth session

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I. Attendance

1. The Group of Experts (hereafter called the Group) on Climate Change Impacts and Adaptation for Transport Networks and Nodes held its tenth session from 7 to 8 July 2016. The session was chaired by the Vice Chair of the Group Mr. Andre Leuxe (France).
2. Representatives of the following United Nations Economic Commission for Europe (UNECE) member States participated: Denmark, Finland, France, Germany, Netherlands, Poland, Portugal, Romania, Slovenia and Spain.
3. Representatives of the following United Nations organizations and specialized agencies attended the meeting: United Nations Conference on Trade and Development (UNCTAD), secretariat of the United Nations Framework Convention on Climate Change (UNFCCC) and World Meteorological Organization (WMO).
4. Representatives of the following bodies attended the meeting at the invitation of the secretariat: Institute for Ubiquitous Meteorology (UBIMET), Regional Environmental Center, Royal Netherlands Meteorological Institute (KNMI) and University of the Aegean (Greece).

II. Adoption of the agenda (agenda item 1)

Documentation: ECE/TRANS/WP.5/GE.3/19

5. The Group adopted the agenda.

III. Climate Change and Transport Networks and Nodes: Presentations of initiatives at national and international levels (agenda item 2)

6. The Group considered presentation made by the representative of Slovenia, Mr. Fedor Cerne who highlighted the challenges of Slovenia's climate diversification when preparing Slovenia's reply on the group's questionnaire. He focused his presentation on climate changes in the country for the last 50 years as well as on expected future climate extremes. An overview of Slovenia's reply to Group's questionnaire was also presented.
7. The Group considered the presentation made by Mr. André Leuxe in his capacity as the representative of France. He outlined the difficulties in completing the questionnaire since the data for the impacts of climate change as well as for the investments for each of the different transport networks either are not available or are available with differences from the requested format. He pointed out that it is also difficult for the investments on adaptation to require pre-assessment of network vulnerability as well as risk analysis on the different works involved. These data are not available in a centralised way with the level of detail required. He thinks that the work program is very ambitious within the given time frames. He proposed to follow a step by step approach for the program of work but most probably additional time might be required. Also, he mentioned that most probably an extension of the mandate of the group for one or two more years might be necessary to achieve the objectives of the Group with a scientific correct way. He also outlined the way that France will respond to the questionnaire.
8. The Group appreciated the presentations made by the experts on initiatives at national and international levels on climate change impacts and adaptation for transport

networks and nodes. The presentations are available from:
http://www.unece.org/trans/main/wp5/wp5_ge3_10.html.

IV. Partners and expected contributions (agenda item 3)

9. The Group recalled that based on its mandate it should achieve its goals by establishing and receiving inputs from different United Nations bodies such as the UNFCCC and WMO secretariats as well as other partners.

10. Dr. Ge Verver (WMO & KMNI) informed the Group about WMO's and Institute's initiatives. He highlighted the work done under the European Climate Assessment and Dataset project which provides information on changes in weather and climate extremes and on the daily dataset needed to monitor and analyse these extremes. He also provided information on Climate Explorer – assessment tools and data (climexp.knmi.nl) which is a publicly available internet tool that performs statistical analysis of changes in climate, generates visualization based on both historical data and projections. Also the European Union programme Copernicus was presented which aims at developing European information services based on satellite Earth Observation and in situ data analyses. This programme also plans for a dedicated service for the European transport sector.

11. Furthermore, Mr. William Kojo Agyemang-Bonsu (UNFCCC) presented the results of a survey conducted by the UNFCCC secretariat among its focal points and the participants of recent workshops on vulnerability and adaptation assessments. This survey was built on Group's questionnaire. The results shown that most respondents acknowledged climate change as a problem for transport in their country and that almost all respondents noted that transport has been impacted by any weather or climate factors in the past 5 years. However, 73.69 per cent of the respondents indicated they have not conducted an evaluation of the implications of climate impacts on transport. The main reasons for the lack of studies on climate change impacts on transport are the lack of financing, the lack of interest from the responsible institutions and the lack of policies / regulations. Another important finding was that the operational models/software tools that are used for the prediction of weather-related risks to transport infrastructure (e.g. forecasting storm surge impacts on ports or flood plain inundation) were not known to the majority of the respondents. The Group reiterated its request to UNFCCC secretariat for the preparation of some case studies to be included in the final report of the Group.

12. Mr. Greg Spencer (REC) presented the ClimaCor Project. The ClimaCor Project is a methodology for the assessment of the climate impacts on transport corridors. The ClimaCor method borrows the general approach of ROADAPT Quick Scan method – 'crowd sourcing' of experts, rather than gathering of data and mathematical analysis. It adds in consideration of railways and inland waterways and it simplifies and shortens procedure (three-day workshop to one-day). It can be considered a "Pre-Scan" that can guide decisions about where to focus more scientific trouble shooting. It actually focus on a workshop involving local climate and transport experts who (a) identify top climate threats in studied corridor; (b) Map the main threats; and (c) Propose response strategies for these threats.

13. Mrs. Regina Assariotis (UNCTAD) provided information on different initiatives of the secretariat that would eventually contribute to the Group's program of work. This included information on the joint UNCTAD/Commonwealth Secretariat/International Ocean Institute (IOI) seminar with a focus on "Oceans Economy and Trade: Sustainable Fisheries, Transport and Tourism", that was held on 10–12 May 2016 in Geneva. This three-day seminar included a session on sustainable and resilient transport infrastructure and services in support of the Sustainable Development Goals and highlighted the

regulatory framework pertaining to ship-source pollution in the context of the Sustainable Development Goals, in particular also Sustainable Development Goal 14(c) and the importance of effectively adapting ports and other coastal transport infrastructure and services to the impacts of climate variability and change. Furthermore, information was provided on the UNCTAD capacity-building project on "Climate change impacts on coastal transport infrastructure in the Caribbean: Enhancing the adaptive capacity of Small Island Developing States". A technical expert group meeting of the project was held in Geneva on 29 June – 1 July 2016 which allowed for constructive review of the draft national case-studies and methodology by individuals with expertise in relevant related fields.

14. Mr. Stefan Eisenbach, (UBIMET) illustrated a tool for the management by the railways of weather and natural hazards. The goals of the rail weather information and warning systems are to:

- (a) Highly precise weather forecasts along the railway lines;
- (b) Severe weather warnings for the safety of railway operation;
- (c) Exact snow forecasts for the planning of winter services.

This system includes on demand weather forecasts by special infrastructure weather models, reliable weather warning system, real time weather station data, communication channels as well as open interface for additional data.

V. Discussions on the structure of the final report of the Group of Experts (agenda item 4)

Documentation: ECE/TRANS/WP.5/GE.3/2016/3, ECE/TRANS/WP.5/GE.3/2016/4

15. The Group considered documents ECE/TRANS/WP.5/GE.3/2016/3 and ECE/TRANS/WP.5/GE.3/2016/4 prepared by the external consultant and the secretariat on an overview of recent climate change trends and projections affecting transportation in the ECE region. This overview would be the first chapter of the final report of the group. The experts appreciated the work done by the consultant and agreed that such a generic analysis and overview should be included in the final report. However, they stated that a chapter with more specific and detailed forecasts for each country in the ECE region should exist depending on countries' input, feedback and available data.

16. The experts analysing the data / projections on different climatic factors requested the secretariat to contact UNFCCC and WMO secretariats to identify what kind of data exists, which format and what can be provided to the Group. In parallel, the experts agreed that they should also exchange some ideas and information by email to come to a decision on what specific data as well as information about existing methodologies, tools and case studies should be requested from the respective organizations.

17. The secretariat provided some information on the transport infrastructure networks along ECE available in a GIS environment as well as on the number of responses to the questionnaire. So far, ten countries have replied to the questionnaire and at least other 12 have expressed interest to reply. Experts agreed that more time should be given to Governments to reply to such demanding questionnaire. The questionnaire was uploaded on Group's web site at: www.unece.org/trans/main/wp5/climate_change_questionnaire_2016.html.

VI. Other business (agenda item 5)

18. There were no other items.

VII. Date and place of next meeting (agenda item 6)

19. The Group of Experts eleventh session is tentatively scheduled to take place in Geneva on 3 and 4 October 2016.

VIII. Summary of main decisions (agenda item 7)

20. The Group adopted its main decisions of its tenth session and requested the secretariat and the Chair to prepare the full and complete report for circulation to the members of the Group for comments on items other than those contained in its main decisions.
