

Economic Commission for Europe

Inland Transport Committee

Working Party on Transport Trends and Economics

**Group of Experts on Climate Change impacts and
adaptation for international transport networks**

Second session

Geneva, 8 November 2011

Item 7 of the provisional agenda

Outline of the contents of the final report of the Expert Group

Draft outline

**GROUP OF EXPERTS ON CLIMATE CHANGE IMPACTS AND
ADAPTATION IN INTERNATIONAL TRANSPORT NETWORKS**

FINAL REPORT

Executive summary

Background and Introduction [previous work, TOR of EG, aims and objectives,
workplan]

**I. CLIMATE CHANGE: AN OVERVIEW OF THE SCIENTIFIC
BACKGROUND AND POTENTIAL IMPACTS AFFECTING
TRANSPORT INFRASTRUCTURE AND SERVICES**

1 Introduction

2 Climate Change: The Physical Basis

- 2.1. Climate Changes: Phenomenology
 - 2.1.1 Temperature, precipitation and sea level rise
 - 2.1.2 Extreme events
- 2.2 Mechanism
- 2.3 Feedbacks and tipping points

3 Climate Change Implications for Transport

- 3.1 Impacts in polar areas
- 3.2 Impacts on coastal areas
- 3.3 Riverine floods
- 3.4 Heat waves and Droughts
- 3.5 Permafrost

4 Information on Select Studies on Climate Change Impacts on Transport

- 4.1. The US Gulf Coast Study
 - 4.1.1 Gulf Coast Study, Phase I
 - 4.1.2 Gulf Coast Study, Phase II
- 4.2 PIANC Study
- 4.3 Scottish Road Network Climate Change Study
- 4.4 Climate change and the railway industry: a review
- 4.5 Future Resilient Transport Networks (FUTURENET)
- 4.6 Rail safety implications of weather, climate and climate change
- 4.7 Climate Adaptation of Railways: Lessons from Sweden
- 4.8 Railway construction techniques in permafrost regions
- 4.9 Quantifying the effects on rail of high summer temperatures
- 4.10 ARISCC Adaptation of Railway Infrastructure to Climate Change
- 4.11 Climate Risk and Business: Ports
- 4.12 Other

II GOVERNMENT [AND INDUSTRY] SURVEY [UNECE /UN] ON CLIMATE CHANGE IMPACTS AND ADAPTATION IN TRANSPORTATION

- 1 Introduction** [including sample/breakdown of respondents/response rate etc]
- 2 Results**
 - Data and information on climate change impacts**
 - Initiatives for adaptation**
 - Mechanisms for collaboration [and funding]**
- 3 Analytical summary of findings** [including identified needs/good practices]
- 4 Proposals for [policy] recommendations**

III INTERNATIONAL CONFERENCE ON ADAPTATION OF TRANSPORT NETWORKS TO CLIMATE CHANGE

- 1 Programme**
- 2 Abstracts (Papers/Presentations)**
- 3 Key issues identified/outcomes/recommendations**

IV EXISTING BEST PRACTICES

V CONCLUSIONS AND RECOMMENDATIONS

ANNEXES

- **Members of the Expert Group/List of Participants**
 - **List of relevant UNECE documents (as appropriate with analytical summary)**
 - **TOR and Programme of Work for EG (ECE/TRANS/WP.5/GE.3/2011/1)**
 - **Questionnaire**
 - **References**
 - **Additional literature of relevance to climate change impacts and adaptation in transport**
 - **[List of useful websites]**
 - **[List of useful contacts]**
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