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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**

Third session

Geneva, 24 April 2012

Item 6 of the provisional agenda

**Questionnaire for collection of information on existing
and potential climate change impacts on transport,
as well as degree of preparedness and relevant policies for adaptation**



CLIMATE CHANGE IMPACTS AND ADAPTATION IN INTERNATIONAL TRANSPORT NETWORKS

Questionnaire

2012

UNECE Transport Division Experts Group

Date

Name Position

Address Organization

City State Zip Code Phone Number

Country Email

SUBJECT I. Level of awareness, availability of information and data on climate change impacts on transport

QUESTION 1. On a scale of 1-10 (1= not at all, 10= very much) to which extent do you consider climate change to be a problem for transport in your country/region?

Not at all 1 2 3 4 5 6 7 8 9 10 Very Much

QUESTION 2. Please specify over which time-scale you consider climate change to be a problem.

Please select

QUESTION 3. On a scale of 1-10 (1= no knowledge at all, 10= very good knowledge on all topics) how would you rate knowledge and level of awareness about the impacts of climate change on transport in your country region

No knowledge at all 1 2 3 4 5 6 7 8 9 10 Very good knowledge on all topics

QUESTION 4. In your view, who should be the main target audience when raising awareness about climate change impacts on transport (e.g. transport ministry, industry managers, operators, investors, etc.)

Please explain

QUESTION 5. *As applicable, please indicate whether transport in your country has been impacted by any weather or climate factors (rising temperatures, extreme events, droughts, floods, sea level rise and storm surges, melting permafrost etc.).*

Not at all 1 2 3 4 5 6 7 8 9 10 Very Much

Please add details

QUESTION 6. *As applicable, please indicate whether the impacts relate to a specific mode or specific modes of transport, or a network linking various transport modes and interchange platforms?*

Please explain

QUESTION 7. *Has your country undertaken any specific assessment of the vulnerabilities of transport (segments, modes, networks, operations, infrastructure, etc.) to various weather and/or climate change factors (rising temperatures, extreme events, droughts, floods, sea level rise and storm surges, melting permafrost etc.)?*

YES NO

Please explain

QUESTION 8. *Has your country conducted studies evaluating the implications of climate impacts on transport or estimated the costs of actual or potential damages to transport, in particular infrastructure?*

YES NO

a. *As applicable, please indicate which specific weather or climate change impacts on transport infrastructure have been/are being studied?*

1.	Impacts of rising temperatures	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2.	Impacts of floods	Yes <input type="checkbox"/>	No <input type="checkbox"/>
3.	Impacts of droughts	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.	Impacts of storms/extreme winds	Yes <input type="checkbox"/>	No <input type="checkbox"/>
5.	Impacts of heat waves	Yes <input type="checkbox"/>	No <input type="checkbox"/>
6.	Impact of sea level rise and storm surges	Yes <input type="checkbox"/>	No <input type="checkbox"/>
7.	Impact of melting permafrost	Yes <input type="checkbox"/>	No <input type="checkbox"/>
8.	Other impact (<i>please explain</i>)		

b. As applicable, please indicate which specific weather or climate change impacts on transport operations/services have been/are being studied?

1.	Impacts of rising temperatures	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
2.	Impacts of floods	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
3.	Impacts of droughts	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
4.	Impacts of storms/extreme winds	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
5.	Impacts of heat waves	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
6.	Impact of sea level rise and storm surges	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
7.	Impact of melting permafrost	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
8.	Other impact (<i>please explain</i>)				

QUESTION 9. If there has been little or no study of climate change impacts on transport in your country, please indicate which, in your view, are the main reasons:

1.	Lack of financing	<input type="checkbox"/>
2.	Lack of interest from the responsible institutions	<input type="checkbox"/>
3.	Lack of awareness among the general public	<input type="checkbox"/>
4.	Lack of scientific expertise and human resources	<input type="checkbox"/>
5.	Though interest in the topic existed, more pressing needs have taken precedence	<input type="checkbox"/>
6.	Other impact (<i>please explain</i>)	

QUESTION 10. On a scale of 1 - 10 (1 = least important, 10 = most important) to what extent do you consider is involvement of the following actors/entities important for the study/research/dissemination of information on climate change impacts on transport?

	1	2	3	4	5	6	7	8	9	10
Ministry of the Environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ministry of Transport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
International organizations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Universities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Private companies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Technical/ Engineering Institutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NGOs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (<i>please specify</i>)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

QUESTION 11. In your view, what, if any, are the opportunities that may arise for transport in your country in connection with climate change? (Examples could be e.g. increased tourism; growth in agricultural production...)

Please explain

SUBJECT II. Level of preparedness and existing and planned transport adaptation policies, measures and initiatives.

QUESTION 12. *Has your country adopted or is planning to adopt a general adaptation strategy to climate change impacts (not sector specific)?*

- 1. Not at all
- 2. Planned
- 3. Already adopted
- 4. Adopted and implemented
- 5. Not applicable/Do not know

Please explain

QUESTION 13. *Has a cost-benefit analysis been conducted with regard to any climate change adaptation plans/strategy in your country?*

- 1. Not at all
- 2. Planned
- 3. Already conducted
- 4. Not applicable/Do not know

Please explain

QUESTION 14. *Has your country adopted or is planning to adopt a transport specific strategy for adapting to climate impacts?*

- 1. Not at all
- 2. Planned
- 3. Already adopted
- 4. Adopted and implemented
- 5. Not applicable/Do not know

Please explain

QUESTION 15. *If yes, please provide further details about the objectives and modalities of such adaptation strategy.*

Please explain

QUESTION 16. *On a scale of 1 to 4 (1 = not effective at all and 4 = very effective), please indicate how you would rate the results/effectiveness of any transport specific adaptation strategy adopted?*

Strategy (please indicate)	1	2	3	4
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

QUESTION 17. *How is (or will) the effectiveness of adaptation measures taken currently or in future be monitored/ evaluated?*

Please explain

QUESTION 18. *What concrete actions, if any, have been, or are planned to be, taken with a view to building resilience of transport networks to climate change impacts in your country [for which your organization is responsible]?*

Please explain

QUESTION 19. *Please explain and clarify the extent to which these actions relate to transport planning, investment, design, construction, operation, management and maintenance?*

	1 (Not at all related)	2 (To some extent)	3 (To a great extent)	4 (Not applicable / do not Know)
Planning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Investment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Design	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Operation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maintenance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All of the above	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
None of the above	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other, please explain

QUESTION 20. *If new transport infrastructure developments are being undertaken/planned, do relevant plans take into account climate change effects (e.g. extreme events, increased rainfall, rising sea levels, etc)?*

- 1. Not at all
- 2. To some extent
- 3. To a great extent
- 4. Not applicable/Do not know

Please explain

QUESTION 21. *Based on the experience of your country [organization/company] what are, in your view, some of the main best practices and lessons that could be drawn with respect to adaptation action in transport?*

Please explain

QUESTION 22. *Has your country [organization/company] developed or is planning to develop emergency response systems for all business sectors, the transport sector or transport sub-sectors?*

- 1. Not at all
- 2. Planned
- 3. Already adopted
- 4. Adopted and implemented
- 5. Not applicable/Do not know

Please explain

QUESTION 23. *Has the insurance industry in your country integrated climate change considerations into products offered to the transport sector/industry?*

- 1. Not at all
- 2. To some extent
- 3. To a great extent
- 4. Not applicable/Do not know

Please explain

SUBJECT III. Information data and research needs and other requirements, including financing.

QUESTION 24. What are, in your view, the type of information, data or predictions that would be most valuable for achieving effective preparedness to climate change impacts and designing adequate adaptation responses in transport? (Multiple answers possible)

- Temperature-related
- Precipitation-related (e.g. rain, snow, fog, humidity, floods, etc.)
- Inland strong wind and storms
- Coastal storms/surges and sea level rise
- Other

Please explain

QUESTION 25. What are the main data/information sources that are currently used for the purposes of studying climate change impacts/developing adaptation measures in transport?

Please explain

QUESTION 26. How do you rate the availability of relevant data/information in your country on a scale of 1 - 5 where 1 is poor and 5 is excellent:

- 1. Poor
- 2. Bad
- 3. Good
- 4. Very Good
- 5. Excellent
- 6. Not applicable/Do not know

QUESTION 27. How do you rate the suitability/ relevance/quality of relevant data/ information in your country? (on a scale of 1 - 5, where 1 is Poor and 5 is excellent):

- 1. Poor
- 2. Bad
- 3. Good
- 4. Very Good
- 5. Excellent
- 6. Not applicable/Do not know

QUESTION 28. *To your knowledge, are there any 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)?*

YES NO I do not know

QUESTION 29. *If yes, please list the models/software tools, indicating for each the level of aggregation (Tier 1, 2 or 3 according to the Intergovernmental Panel on Climate Change - IPCC tier 1, simplest method, activity data available to all countries; tier 2, technology-specific emission factor; tier 3, more detailed or country-specific methods. For more information see also unfccc.int/files/meetings/unfccc.../ipcc_good_practice_guidance.ppt)*

Please explain

QUESTION 30. *Please identify any existing or potential funding mechanisms that could support further adaptation action in transport (including study of impacts)?*

Please explain

QUESTION 31. *Overall, please indicate the specific priority areas that require further attention to enable effective adaptation strategies in transport and that are tailored for your local conditions?*

Please explain

SUBJECT IV. Collaboration mechanisms at national / local, regional and international levels.

QUESTION 32. *Which existing or potential mechanism(s) for cooperation do you consider most useful in addressing the issue of climate change adaptation for transport?*

Please also state briefly your reasons, the type of cooperation/partners involved and the mode or type of transport infrastructure/service/operational aspect you are referring to?

Please explain

QUESTION 33. *Do you consider the current level of cooperation at the national or local level adequate/sufficient?*

- | | | |
|----|-----------------------|--------------------------|
| 1. | Not at all | <input type="checkbox"/> |
| 2. | Somewhat | <input type="checkbox"/> |
| 3. | Adequate / Sufficient | <input type="checkbox"/> |
| 4. | Very Good | <input type="checkbox"/> |

As appropriate, please indicate any specific suggestions for improvements/enhanced cooperation:

Please explain

QUESTION 34. *Are regional or sub-regional cooperation and information exchange on climate change part of existing practice and policy in your country? If so, how much of this cooperation addresses transport in particular and in what ways?*

YES NO

Please explain

QUESTION 35. *Do you consider the relevant current level of cooperation at the regional/sub-regional level adequate/sufficient?*

- | | | |
|----|-----------------------|--------------------------|
| 1. | Not at all | <input type="checkbox"/> |
| 2. | Somewhat | <input type="checkbox"/> |
| 3. | Adequate / Sufficient | <input type="checkbox"/> |
| 4. | Very Good | <input type="checkbox"/> |

As appropriate, please indicate any specific suggestions for improvements/enhanced cooperation

Please explain

QUESTION 36. *Do you think that possibility of amendments to existing UNECE infrastructure agreements (European Agreement on Main International Traffic Arteries (AGR), European Agreement on Main International Railway Lines (AGC), European Agreement on Main Inland Waterways of International Importance (AGN), European Agreement on Important International Combined Transport Lines and Related Installations (AGTC)) merits serious consideration with a view to promoting/facilitating climate change adaptation of transport networks?*

Please explain

QUESTION 37. Do you consider the current level of cooperation at the international level adequate/sufficient?

- | | | |
|----|-----------------------|--------------------------|
| 1. | Not at all | <input type="checkbox"/> |
| 2. | Somewhat | <input type="checkbox"/> |
| 3. | Adequate / Sufficient | <input type="checkbox"/> |
| 4. | Very Good | <input type="checkbox"/> |

As appropriate, please indicate any specific suggestions for improvements/enhanced cooperation

Please explain

QUESTION 38. In your view, which type of further international cooperation would be of value in addressing climate change impacts and adaptations requirements?

Please explain

QUESTION 39. Please provide any additional comments/suggestions

Send us your reply easily and quickly!

press the "print form" button, print your answers and send them by fax to +41 22 917 00 39 (secretariat's fax).

or press the "submit by email" button and your answers are sent automatically to the email of the secretariat.

Print Form

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