



**XXIV<sup>th</sup> World  
Road Congress  
Mexico 2011**  
Mexico City 2011.

# **TCC.3 Managing Operational Risk in Road Operations**

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# Natural Disasters and Man-made Disasters

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## □ Natural Disasters:

Hurricanes, Flooding, Tornadoes, Drought, Wildfires, Earthquakes, Tsunami, Volcanoes, Landslides, Ice storms, Climate change

## □ Man-made Disasters:

Oil and chemical spills, Building fires, Traffic accidents, Explosions, Terrorism



# Issues for TCC.3

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- 1) Introduce Risk Management Techniques in the Road Sector
- 2) Risks Associated Natural Disasters, Climate Change, Man-made Disasters and Security Threats
- 3) Social Acceptance of Risks and Their Perception



# TCC.3 Meetings and International Seminars

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- 1) 1<sup>st</sup> meeting, 22 participants, Paris
- 2) 2<sup>nd</sup> meeting, 28 participants, Madrid
- 3) 3<sup>rd</sup> meeting, 30 participants, Vancouver
- 4) 4<sup>th</sup> meeting, 32 participants, and  
1<sup>st</sup> International Seminar, 140 participants, Iasi, Romania
- 5) 5<sup>th</sup> meeting, 35 participants, Rome
- 6) 5<sup>th</sup> meeting, 30 participants, and  
2<sup>nd</sup> International Seminar, 190 participants, Beijing
- 7) 7<sup>th</sup> meeting, Osaka was cancelled due to the Great East Japan Earthquake



# 1<sup>st</sup> International Seminar, Iasi, Romania



Opening Session,



The seminar was held at Iasi city hall.



# 2<sup>nd</sup> International Seminar, Beijing, China



Opening Session,



Participants of the seminar



# Final Reports

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- 1) Summary Report
- 2) WG1 Report
- 3) WG2 Report
- 4) WG3 Report
- 5) Two Seminar Reports
- 6) Results of International Survey

Many best practices/ case studies of RM are collected from all over the world



# TCC.3 Session PART 1

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## **"Introduce Risk Management Techniques in the Road Sector"**

"Overview of the WG #1 final report"

Mr. Johan HANSEN, Swedish Transport Administration, Sweden

"Proactive risk management in winter maintenance", Mr. Kai Tattari, The Centre for Economic Development, Transport and Environment for Uusimaa, Finland

"Hazard based approach to the management of operational safety risk on highways schemes", Mr. Ryszard Gorell, Export House, Cawsey Way, Working, Survev, UK

**[Discussion ]**





# TCC.3 Session Part 2

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## **"Risks Associated with Natural Disasters, Climate Change, Man-made Disasters and Security Threats"**

"Overview of the WG #2 final report" Ms. Connie YEW, Federal Highway Administration, USA

"The Great East Japan Earthquake Disaster", Dr. Keiichi Tamura, Public Works Research Institute, Japan

"Managing Risks Associated with Climate Change in Road Sector", Mr. Gustavo Moreno, Seguros Especializados, Mexico

"Natural risk assessment in Chilean road network", Mr. Tomas Echaveguren, Dept. of Civil Eng. Univ. of Concepcion, Chile

"Landslide Hazard and Risk Assessment, Management and Mitigation for the Scottish Road Network", Mr. M. G. Winter, Transport of Research Laboratory, UK

**[Discussion]**



# TCC.3 Session Part 3

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## "Social Acceptance of Risks and Their Perception"

"Overview of the WG #3 final report"

Mr. Roberto ARDITI, SINA S.p.A., Italy

"UN Millennium Development Goals and transport policies : how risk assessment and measures for road safety could play a rewarding role for regions with economies in transition", Ms. Luciana Iorio, Italian Ministry of Infrastructures and Transports, Italy

**[Discussion]**

