



PIARC TC 1.4 Climate Change and Resilience of Networks

Virtual Workshop on Climate Change Impacts and Road Resilience

Date: 02 & 04 June 2021
13.00 – 15.30 Berlin time

About the Workshop

PIARC Technical Committee (TC) 1.4 Climate Change and Resilience of Road Networks aims to update the PIARC International Climate Change Adaptation Framework for Road Infrastructure (developed in previous PIARC cycles) and seeks to identify uniform and holistic methodological approaches to climate change and other hazards resilience. This workshop will provide an overview of the challenges to managing climatic impacts and road resilience by presenting approaches and case studies from different countries.

The workshop is organized and supported by members of the Federal Highway Research Institute (BAST) and the BMVI-NoE, which brings together expertise of seven departmental research facilities and executive agencies of the Federal Ministry of Transport and Digital Infrastructure (BMVI). Its objective is to address future transport issues through innovations in the areas of adaption to climate change, environmental protection and risk management.

The workshop provides an opportunity to share international knowledge and comprises of six sessions, over two days:

Day 1 (02 June):

- Session I: Climate impact assessment
- Session II: Resilience Management
- Session III: Adaptation to climate change

Day 2 (04 June):

- Session IV: Hazards assessments
- Session V: Criticality assessments
- Session VI: Climate change and regulations

During these six sessions, representatives of the [Federal Ministry of Transport and Digital Infrastructure Network of Experts](#) (BMVI-NoE) as well as of the [World Road Association PIARC Technical Committee \(TC\) 1.4](#) will present their work on the different topics with the aim of including these important findings into the work being developed by TC 1.4.

The two-day workshop will take place on Wednesday, 02 June 2021 and Friday, 04 June 2021 as a virtual meeting. The total duration per day will be about 2.5 hours, starting at 01:00 p.m. Berlin time (CEST/GMT +2).

RSVP: To register for the Workshop please follow the link below and confirm your attendance. After registration, you will receive a confirmation email with information to join the Workshop.

<https://zoom.us/meeting/register/tJUtf-moqjlsGNR5WaEurnsa5V9cNutLD7Pd>

Schedule

starting time is 01:00 p.m. Berlin time (CEST/UTC+2)

Wednesday, 02 June 2021		Friday, 04 June 2021			
Time	Agenda Item	Speaker	Time	Agenda Item	Speaker
13:00	Greeting	Patrick Mallejacq^a Birgitta Worringen ^b Caroline Evans ^c	13:00	Introduction	Ernesto Barrera^g Caroline Evans
13:15	Introduction to Session I	Martin Klose^d	13:10	Introduction to Session IV	Stuart Woods^h
	Presentation Session 1.1	Anne-Farina Lohrengel		Presentation Session 4.1	Lennart Meine
	Presentation Session 1.2	Kees van Muiswinkel		Presentation Session 4.2	Tala Suliman Jamel Abu Shuqair
	Q&A	Martin Klose		Q&A	Stuart Woods
14:00	Introduction to Session II	Gordana Petkovic^e	13:50	Introduction to Session V	Martin Klose^d
	Presentation Session 2.1	Martin Klose		Presentation Session 5.1	Norman Voß
	Presentation Session 2.2	Martine Holm Frekhaug		Presentation Session 5.2	Jeffrey Meek
	Q&A	Gordana Petkovic		Presentation Session 5.3	Juan Fernando Mendoza Sánchez
14:45	Short Break			Q&A	Martin Klose
14:50	Introduction to Session III	Norman Voß^d	14:45	Short Break	
	Presentation Session 3.1	Thomas Bles	14:50	Introduction to Session VI	Marie Colinⁱ
	Presentation Session 3.2	Nkululeko Leta		Presentation Session 6.1	Marvin Stell
	Q&A	Norman Voß		Presentation Session 6.2	Yinghao Miao
15:30	Conclusion & End of Day I	Miguel Caso Florez^f	15:30	Conclusion & End	Miguel Caso Florez & Beata Kriegerⁱ

^a PIARC Secretary General, France

^b Federal Ministry of Transport and Digital Infrastructure, Germany

^c Chair PIARC TC 1.4, Australia

^d BAST, BMVI-Network of Experts, Germany

^e Norwegian Public Roads Administration

^f Technical Director PIARC General Secretariat

^g PIARC Strategic Theme 1 Coordinator, Chile

^h New Zealand Transport Agency

ⁱ Centre for Studies and Expertise on Risks, the Environment, Mobility and Urban Planning, France

^j BAST, TC 1.4 Case Study Taskforce Leader, Germany

Session Program

Session I: Climate impact assessment

Anne-Farina Lohrengel (BMVI-NoE, BAST, Germany): Climate impact assessment for the federal trunk road network of Germany

Kees van Muiswinkel (Rijkswaterstaat, Netherlands): Climate stress testing the Dutch highways

Session II: Resilience Management

Martin Klose (BMVI-NoE, BAST, Germany): A resilience management concept for the federal trunk road network of Germany

Martine Holm Frekhaug (NPRA, Norway): A resilience system for managing natural hazards on Norwegian roads

Session III: Adaption to climate change

Thomas Bles (Deltares, Netherlands): Mainstreaming Disaster Risk Management to sustain local road infrastructure in the Philippines

Nkululeko Leta (ReCAP, South Africa): Guidelines for a holistic approach to sustainable climate adaptation and resilience for rural road infrastructure in Africa

Session IV: Hazard assessments

Lennart Meine (BMVI-NoE, BAST, Germany): Blue spot analysis approach for the federal trunk road network of North Rhine Westfalia, Germany

Tala Suliman Jamel Abu Shuqair (MoEI, United Arab Emirates): Climate Change Impact on Traffic Safety and Transportation System Performance in the UAE

Session V: Criticality assessment

Norman Voß (BMVI-NoE, BAST, Germany): Indicator-based criticality analysis: development of criticality indicators and an evaluation approach to assess the criticality of road sections

Jeffrey Meek (MnDOT, United States of America): Assessing Resilience and Criticality in a Changing Climate

Juan Fernando Mendoza Sánchez (IMT, Mexico): Criticality Assessment in road projects in Mexico

Session VI: Climate change and regulations

Marvin Stell (BMVI-NoE, BAST, Germany): Standards and regulations in the context of climate change: identification of adaptation needs with regard to climate change unexpected events

Yinghao Miao (USTB, China): Research on the Influence of Global Warming on Asphalt Pavement in China