

МИНИСТЕРСТВО ТРАНСПОРТА РОССИЙСКОЙ ФЕДЕРАЦИИ Минтранс России





# INTERNATIONAL CONFERENCE TO RAISE AWARENESS ABOUT THE NEEDS TO ADAPT TRANSPORT SYSTEMS TO CLIMATE CHANGE

# **CONFERENCE AGENDA**

# Assessment of Climate Change Impacts: Deployment of New Technologies and Materials for Maintaining Nominal Road Quality During Adaptation of Transport Infrastructure to Climate Change

November 15-16th, 2021 Russian Transport Week – 2021

Please note that the Conference will be held in person and online format: 1., Moscow, 12, Akademika Sakharova Av., Analytical Center under the Government of the Russian Federation

2. For the online participation please use the provided conference entrance link

# November 15th, 2021

# 10:00 – 10:30AM CONFERENCE OPENING

- Mr. Stanislav Naboko General Director, FAI "ROSDORNII", PhD in Economics.
- Mr. Konstantinos Alexopoulos, Chief: Transport Facilitation and Economics Section, Sustainable Transport Division, United Nations Economic Commission for Europe (UNECE)
- **Dr. Stephanie Hänsel**, Acting Chair, UNECE Group of Experts on assessment of climate change impacts and adaptation for inland transport, Manager, Deutscher Wetterdienst, Germany

# Moderator of the conference

Ms. Ruslana Bakulova, MA in Pedagogics and Psychology, FAI "ROSDORNII" Leading specialist of Department for Information and Educational Technologies

# 10:30 - 10:45AM PRESENTATION

**Climate change mitigation, adaptation to climate change in view of observed changes and projected trends** – **Dr. Stephanie Hänsel**, Acting Chair, UNECE Group of Experts on assessment of climate change impacts and adaptation for inland transport, Manager, Deutscher Wetterdienst, Germany

# 10:45-11:00AM PRESENTATION

Climate variability and change, observed changes and projected trends in the Russian Federation – Ms. Oksana Lipka, Leading Researcher, Institute of Global Climate and Ecology (Lead Author of the 6th Assessment Report of the Intergovernmental Panel on Climate Change, Working Group 2 - Impact, Adaptation, Vulnerability)

# 11:00AM - 12:00PM PANEL SESSION

# Implications for transport due to climate variability and change, techniques to assess the impacts

- Climate change risk in transport planning and operational processes Dr. Andrew Quinn, Reader in Atmospheric Science and Engineering, University of Birmingham
- Climate change and issues of vehicle operation in the context of the Central Asia region Prof. Yusufzhan Shadimetov, Tashkent State Transport University
- Assessment of climate risks at transport infrastructure facilities
  Dr. Yuri Trofimenko, Moscow Automobile and Road Construction State Technical University (MADI), Professor-Academician, Chair of "Technosphere Security" Department, Honored Science Worker of the RF
- Impact of global warming on asphalt pavement in China

Prof. Yinghao Miao, National Center for Materials Service Safety, University of Science and Technology, Beijing

## 12:00 – 12:30PM COFFEE BREAK

## 12:30-1:15PM PANEL SESSION CONTINUATION

- Sustainability and adaptation of transport infrastructure to climate change Prof. Yvonne Andersson-Scheldt, Environment and Transport, VTI, Sweden
- Techniques for assessment of future climate impacts Dr. Paul Bowyer, Senior Scientist, Climate Service Center, Germany
- Indicator-based Criticality Analysis Mr. Lennart Meine, BASt, BMVI Network of Experts, Germany

# 1:15 – 2:45PM LUNCH BREAK

### 2:45 - 4:00PM DISCUSSION

# Analysis of climate impact on the important transport corridor connecting Europe and Asia

### **D**discussion moderator

**Piet de Wildt,** former Senior Advisor, Ministry of Infrastructure and Water Management of the Netherlands, former Vice-chair of the Group of Experts

### **Topics to discuss:**

- Investigating climate impacts in the UNECE region: experience from the UNECE Expert Group Dr. Paul Bowyer, Senior Scientist, Climate Service Center Germany
- Weather and climatic factors in ensuring functional and environmental safety of land transport Dr. Irina Karapetyants, Professor, Director of the Institute of International Transport Communications of the Russian University of Transport
- Analysis of climate-related risks on road network of state company "Avtodor"
  Mr. Sergey Ilyin, Deputy Director, Department of Design, Technical Policy and Innovative Technologies, State Company "Avtodor"

#### **Participants:**

- Ms. Syeda Hashmi, University of Birmingham,
- Mr. Andrzej Maciejewski, TEM Project Manager, Poland
- Prof. Qiang Du, Dean, Professor/Doctoral supervisor Chang'an University
- Prof. Hui Li, Professor, Tongji University,

- **Prof. Yinghao Miao**, Professor National Center for Materials Service Safety, University of Science and Technology, Beijing
- Mr. Vladislav Rumyantsev, Academician, Chief of St. Petersburg Scientific Center of the Russian Academy of Science, Russia
- **WIT. V yachesiav Kybkin**, Fresident of the Scientific Council on Integral Transport Infrastructure of St. Petersburg Scientific Center of the Russian Academy of Sciences, Russia
- Experts of SOVTRANSTEH company

#### 4:00 – 4:20PM COFFEE BREAK

#### 4:20 - 5:15PM DISCUSSION

## Prevention of negative socio-economic impacts of climate change

#### **Discussion moderator**

Mr. Nickolai Denisov, ZOINET (Zoï environment network)

#### **Topics to discuss:**

Socio-economic assessment of climate change consequences, in the context of the Russian Federation climate features

Mikhail Ivannikov, Chief, Data Processing and Analysis Department, FAI "ROSDORNII"

- Exchange of ideas on measures to prevent negative socio-economic impacts on international road E 20/ E 30 and railway line C-E 24
- Platform for regular data exchange on activities for adaptation of transport to climate change Mr. Lukasz Wyrowski, Economic Affairs Officer, Sustainable Transport Division, United Nations Economic Commission for Europe (UNECE)

#### **Participants:**

- Mr. Sergey Smirnov, President of the Scientific and Educational Center of Innovative Development of Passenger Rail Transportation of St. Petersburg State University of Railway, Russia
- Ms. Malgorzata Kopczynska, TER project Manager, Poland
- Mr. Andrzej Maciejewski, TEM Project Manager, Poland
- Mr. Benoit Lebot, Chargé de mission affaires internationales, Direction Générale des Infrastructures, des Transports et de la Mer (France)

# **Transport infrastructure adaptation. Deploying best practices**

- Structuring adaptation measures in the BMVI Dr. Lara Klippel, Deutscher Wetterdienst, Germany
- **Stephnie Haensel,** Chairperson of the expert group of UNECE, manager of German meteorological service (Germany)
- Relevant directions of international scientific and technical cooperation in the field of sustainable development of Eurasian international transport corridors
   Mr. Stanislay Mamulat, Deputy Head of the Research Innovation Center under the Evecutive Committee

**Mr. Stanislav Mamulat,** Deputy Head of the Research Innovation Center under the Executive Committee of the Transport Coordination Board of the Commonwealth of Independent States, Advisor to the President of the Siberian state automobile and highway university, Russia

- Road industry "Accelerator". How global trends influence deployment of new technologies Ms. Yulia Oganova, Head of Acceleration Department, FAI ROSDORNII
- Consequences of climate change for land transport in the Russian Federation Marina Klyueva, Leading Specialist, Federal State Budgetary Institution "Main Geophysical Observatory named after A.Voeikov"
- Necessity to take into account regional, natural and climatic conditions for designing, constructing and operating highways
   Dr Sergey Efimenko, Dean, Faculty of Road Construction, Department of Highways, Tomsk State University of Architecture and Civil Engineering
- Sustainability and asset management

Prof. Adam Zofka, Research Institute of Roads and Bridges of Poland (IBDiM))

# 11:30 - 12:00PM COFFEE BREAK

### 12:00 – 13:00PM PANEL SESSION

# Technologies and solutions supporting climate mitigation and adaptation actions

- Climate adaptation: meteorological protection of transport infrastructure from severe floods Mr. Arkady Koldaev, Scientific Director, Federal State Budgetary Institution "Central Aerological Observatory"
- Decreasing transport climate impact: potential of transport planning Ms Ekaterina Bryazgina, acting deputy of general director on Intelligent Transport Systems development, FAI "ROSDORNII"
- Emission Influence and future impacts of climate change on Europe-Asia transport corridor development
   Ms. Yulia Zvorykina, Deputy CEO, Autonomous Nonprofit Organization "Research and Expertise

Institution of Vnesheconombank", Russia

• Considering climate change in view of maintaining design road characteristics Alexander Bobkov, Deputy Head, Department for Development of Sectoral Estimated Standards, FAI "ROSDORNII"

### 1:00 – 2:30PM LUNCH BREAK

## 2:35 – 3:30PM DISCUSSION

and Asia: whether it is possible to make transport system resilient to extreme climatic events

#### **Discussion moderator, greetings**

Dr. Stephanie Hänsel, Manager, Deutscher Wetterdienst, Germany

- Operational technologies of meteorological support and numerical weather forecasting, including forecasts of extreme atmospheric events: current state in future conditions of changing climate»
  Dr. Gdaliy Rivin, Head of the Laboratory for Numerical Weather Forecast of the Federal State Budgetary Institution "Hydrometeorological Center of Russia", Professor of the Department meteorology and climatology of the Moscow State University;
  Dr. Inna Rozinkina, Head of the Laboratory of Medium-Range Hydrodynamic Weather Forecasting, Federal State Budgetary Institution "Hydrometeorological Center of Russia"
- Impact of climate change on transport sector of the Republic of Armenia
  Dr. Prof. Yeghiazar Vardanyan, National University of Architecture and Construction of Armenia
  Valerik Harutyunyan, Candidate of Technical Sciences, Associate Professor, National University of Architecture and Construction of Armenia
  Chinar Nersesyan, National University of Architecture and Construction of Armenia
- Flooding and destruction of transport infrastructure in Western Europe in the early summer of 2021: can the transport system be made resilient to extreme events
   Dr. Stephanie Hänsel Acting Chair, UNECE Group of Experts on assessment of climate change impacts and adaptation for inland transport, Manager, Deutscher Wetterdienst, Germany
- Studying Transport Fault Tolerance to Extreme Weather Conditions Prof. Qiang Du, Dean, Professor/Doctoral supervisor Chang'an University

#### **Participants:**

- **Mr. Benoit Lebot**, Chargé de mission affaires internationales, Direction Générale des Infrastructures, des Transports et de la Mer, France
- Mr. Leonid Ratkin, PhD in Economics, scientific secretary, Russian Academy of Sciences, academician of International Academy of Transport

#### 3:30-4:00PM COFFEE BREAK

4:00 - 5:15PM DISCUSSION

#### **Permafrost thaw: ways to adapt**

#### Moderator

Mr. Victor Dosenko, President of the International Transport Academy

#### Greetings

Professor Guy Doré, Department of Civil Engineering and Water Engineering, Université Laval (Canada)

#### • Transifrost engineering

- Methods for adapting transport infrastructure facilities to predicted climatic changes in permafrost regions
- **Dr. Yuri Trofimenko**, Moscow Automobile and Road Construction State Technical University (MADI), Professor-Academician of the International Academy of Transport
- Design for road and airfield pavements made of local soils and materials reinforced with modified mineral binders, taking into consideration climatic features of Siberia and the Far East

Mr.Victor Vtorushin, PhD in Engineering, General Director of JSC "NTK Aerotechnical Center"

#### Participants:

- Mr. Michael Zheleznyak, Permafrost Institute named after Pavel Melnikov, Siberian Department of the Russian Academy of Sciences, Yakutsk
- Mr. Yuri Savchenko, Academician of the International Academy of Transport, Russia

5:15 – 5:30PM Closing