Improving Climate Resilience and Adaptation Measures in the Indicative Extension of TEN-T Road and rail Networks in Western Balkans

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April 2023
Project Context

Support the parties on the path towards achieving goals

- Ensure the development of the indicative extension of the TEN-T Core and Comprehensive networks to the Western Balkans
- This Project is one of the actions set in the Sustainable and Smart Mobility Strategy for the Western Balkans
- Project assignment focus shall be given to the existing indicative extension of TEN-T roads and railways networks
- Project shall also consider planned sections that are currently under development
**Project objective**

*Reduce climate change risks*

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**Vulnerability analysis**

Undertake the Vulnerability analysis based on the sensitivity and the exposure to climate-related hazards

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**Criticality assessment**

Undertake the Criticality assessment of the road and rail TEN-T network

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**Measures and strategies**

Identify and select adaptation measures and strategies for mitigation of climate hazards on road and rail

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**Build capacity**

Build institutional capacity on climate resilience
The Project commenced on January 26, 2023.

The Project will use transport model outputs from the Technical Assistance for the Deployment of Smart and Sustainable Mobility in the Western Balkans.

Two workshops planned are to be organised.

The network to be considered will be 1) existing, 2) ongoing to be completed by the timeline and 3) mature projects in Five Year Rolling Work Plan for Development.

The TCT shall provide contacts of relevant stakeholders.

Project ends with the end of year 2023.
## Stakeholder Engagement

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Role and Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport Ministry (and/or Infrastructure Ministry)</td>
<td>Ministry-level commitment and accountability; Policy and regulatory influence</td>
</tr>
<tr>
<td>Rail/Road operators (planning department, investment/finance planning department and maintenance department)</td>
<td>Planning department is responsible for ensuring that the rail and road infrastructure is designed, constructed / maintained to withstand the potential impacts of climate change</td>
</tr>
<tr>
<td>Maintenance department</td>
<td>Ensuring that the infrastructure is in good working order and can withstand the wear and tear of daily use, as well as the potential impacts of climate change (including prompt response to climate-related emergencies and restoring operations after a weather event has occurred)</td>
</tr>
<tr>
<td>Investment/Finance planning department</td>
<td>Important for allocating funds to maintain and upgrade existing infrastructure and invest in new projects, and it is directly linked with the Planning department</td>
</tr>
</tbody>
</table>
The Project

Project activities

Tasks

Task 1
- Undertake vulnerability analysis of TEN-T Road/Rail Core and Comprehensive Networks

Task 2
- Carry out a criticality assessment of TEN-T Road/Rail Core and Comprehensive Networks

Task 3
- Identification and prioritisation of adaptation measures

Task 4
- Institutional support
Project Deliverables

Delivery on time

Our work plan and time schedule are ultimately based on the time frame and submission dates for deliverables.
List of data/information needed for the Project, to be obtained from each Western Balkans (WB) Regional Party

<table>
<thead>
<tr>
<th>No</th>
<th>Data/ Information</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Could you please provide us with Information or preferably open database of various hazard occurrence along TEN-T extension of Core and Comprehensive road/ railway corridors: rockfalls, snow storms, and landslides in particular?</td>
<td>By open data base we mean any GIS related data (shape files or other) so we can merge them with other GIS data we are collecting for the Project. For SRB please provide open database from the following link <a href="https://cloud.gdi.net/smartPortal/SRBRefSistem">https://cloud.gdi.net/smartPortal/SRBRefSistem</a></td>
</tr>
<tr>
<td>2</td>
<td>Could you please provide us with information from your data base regarding performed work (maintenance, rehabilitation, reconstruction) on TEN-T extension of Core and Comprehensive road/ railway corridors related to above mentioned hazards occurrence? Data should include: - Type of hazard, - Location, - Type of intervention (maintenance, rehabilitation, reconstruction), - Length of intervention, - General description of works performed, - Type of design documentation prepared, - Value of investment (design + works), - Timeframe: from the start of procurement procedure until the end of works.</td>
<td></td>
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<tr>
<td>3</td>
<td>Could you please provide us with information on current state of the TEN-T extension of Core and Comprehensive road/ railway infrastructure: - rail/road type and category, - monitored state (for example: roughness for roads, etc.), - speed limits, etc.</td>
<td>Please follow below &quot;tabs&quot; to find your Regional Party with details of TEN-T road/ rail sections and links</td>
</tr>
<tr>
<td>4</td>
<td>Could you please provide us with the traffic demand data per road/rail TEN-T sections/ links for 2021/2022?</td>
<td>Please consider to involve Road Safety Agencies/Ministry of Interiors for such data.</td>
</tr>
<tr>
<td>5</td>
<td>Could you please provide us with historic traffic accidents on road/rail TEN-T sections/ links?</td>
<td>Sections/ links as per previous comments. Please consider to involve Road Safety Agencies/Ministry of Interiors for such data.</td>
</tr>
</tbody>
</table>
Project Team

Strong and experienced multi-disciplinary team

Transport Community Treaty Permanent Secretariat (TCT)

Arup’s Project Director
Aleksandar Bajovic

Arup’s Project Manager
Ivana Stevanovic

KE1 Team Leader
Aleksandar Bajovic

KE2 Climate resilience expert
Milos Marjanovic

K3 Transport Expert
Danijel Vuckovic

NON-KEY EXPERTS

NKE IT Specialist
Ranka Stankovic

NKE Road/ Rail Engineer
Ivana Stevanovic

NKE Social Specialist
Ana Pavlovic

NKE GIS Specialist
Nemanja Jevtic

NKE Environmental Specialist
Jelena Stosic

Pool of Non-Key Experts
TBD
Thank you for your attention!
ARUP