

Enhancing Environmental Performance and Climate Proofing of Infrastructure Investments in the Western Balkan Region from an EU integration perspective



The ClimaProof Strategy

Climate indicators

| CLIMATE EVENT   | EFFECTS ON INFRASTRUCTURE  |
|---|--|
| <b>Extreme Rainfall events (local or regional)</b><br>   | <ul style="list-style-type: none"><li>Flooding of road surface</li><li>Erosion of road embankments</li><li>Weakening of the road embankments and road foundation due to standing water</li><li>Landslides and mudflows</li><li>Loss of road structure integrity</li><li>Overloading of drainage systems</li><li>Damage to energy supply and communication</li><li>Traffic hindrance and safety (aquaplaning)</li></ul> |
| <b>Seasonal or annual rainfall (sum)</b><br>   | <ul style="list-style-type: none"><li>Structural integrity of roads, bridges and tunnels (soil moisture levels)</li><li>Damage of the road base due to standing water</li><li>Risk of floods, landslides and slope failures (if change in precipitation pattern)</li></ul>   |
| <b>Max Temperature/ Heatdays</b><br>   | <ul style="list-style-type: none"><li>Pavement integrity (Rutting, cracking and blow-ups of asphalt; migration of liquid bitumen)</li><li>Thermal expansion in bridge expansion joints and pavements</li></ul>   |
| <b>Drought</b><br>  | <ul style="list-style-type: none"><li>Increased risk of wildfires threatening transport infrastructure</li><li>Threats from areas deforested by wildfires (decreased soil integrity)</li><li>Increased generation of smog</li></ul>  |
| <b>Thaw/Frost-Thaw Cycle</b><br>   | <ul style="list-style-type: none"><li>Cracking due to weakening of the road base</li><li>Increased demand for reconstruction</li><li>Increases risk of stone chipping</li></ul>  |
| <b>Extreme wind speed (storm surge, worst gales and wind gusts)</b><br>                                  | <ul style="list-style-type: none"><li>Threat to stability of bridges</li><li>Damage to signs, lightings etc</li><li>Trees, windmill, noise barriers and trucks falling on the road</li><li>Reduced vehicle control</li></ul>   |

 Precipitation Temperature Wind

Component 1

UNDERSTANDING

Understanding the future climate and weather patterns in the target region

ICC-OBS TOOL

MODEL SELECTION TOOL

DOWNSCALING TOOL

Component 2

PLANNING

Planning for the future climate and weather patterns in the target region

FOCUS REPORTS

GAP ANALYSIS REPORTS

RECOMMENDATIONS FOR COUNTRIES

Component 3

BUILDING

Building infrastructure adapted to the future climate and weather patterns

REGIONAL CONFERENCES

WEBINARS

STRATEGY FOR THE WESTERN BALKANS

Green Infrastructure: What are the benefits?

