Inland transport networks and nodes of international importance (roads, railways, waterways, terminals, ports) are instrumental to ensuring market access for people and goods. Medium to longer-term disruptions on those assets may lead to adverse effects on economies but also human well-being. Extreme climatic events could potentially cause severe disruptions to the transport networks, and there is a critical need for a long-term transformation in the face of climate change.

The UN Economic Commission for Europe (UNECE), in collaboration with the World Meteorological Organization (WMO), has been working on identifying inventories of transport assets vulnerable to climate impacts and on awareness raising, using a multi-model ensemble of regional climate model simulations from the Euro-CORDEX project. A “business-as-usual” scenario (RCP 8.5) and a low-emission one demanded by the goals of the Paris Agreement (RCP 2.6), were used.

Further effort is required to understand in detail the effect of climate changes at the local scale of the transport networks and nodes.

A second-step analysis should include assessing transport asset geomorphology, its conditions and quality and its specific structures.

Geographical data for inland transport networks and nodes, at least for infrastructure of international importance, should be made available and shared by Governments for a better assessment of climate change impacts and possible adaptation measures.