

Resilient Transport in a Changing Climate

COP22 Declaration on Accelerating Action on Transport Adaptation

We, the undersigned organizations, recognize the critical need for transport systems and services to be more resilient to climate change. We commit ourselves to accelerate our efforts to make transport infrastructure, systems and services more resilient to climate change, by integrating adaptation into all our policies, plans, investment decisions, infrastructure design, maintenance and construction parameters, as well as transport operations.

Climate change is one of the greatest challenges of our time and will have profound impacts on the transport sector. For this reason we welcome the focus given to adaptation by the Moroccan presidency of COP22.

Adaptation in the transport sector is necessary for both developed and developing countries, as transport systems worldwide are vulnerable to the increasing impacts of a changing climate, increase the potential for catastrophic impacts. Also, resilient transport is important in disaster recovery. Transport systems and services are already being severely disrupted by climate related events with an ever growing number of incidents in both the developed and developing world. The systemic nature of transport means disruption in one mode can severely impact another.

Climate Hazard	Potential Impacts
<ul style="list-style-type: none"> • Increase in extreme weather events: rainfall, wind, storms, fog • Sea-level-rise • Changes in precipitation average and intensity; seasonal changes in precipitation; drought • Permafrost degradation; ice extent; snowmelt • Heat waves, extreme cold • Changes in water temperature 	<ul style="list-style-type: none"> (a) Infrastructure damage and destruction (b) Functional interruptions and operational disruptions (c) Increase in rehabilitation & maintenance costs (d) Changes in sedimentation affecting inland water transport and ports' functionality and operations (e) Change in soil and slope stability (slope failure and landslides) (f) Safety hazards for transport providers and users

Figure 1: Climate Hazards and Potential Impacts for surface transport

Transport services provide access to jobs, goods and services and are essential for agricultural, industrial and commercial activities. Disruptions to transport services have a direct impact on the economy and social well-being of communities. Left unmanaged, climate change will significantly affect the

operational, financial, environmental and social performance of Transport (Figure 1). In addition, climate change presents a significant risk for global transport infrastructure investments, estimated globally at \$1.4 trillion to \$2.1 trillion per year.¹

The Paris Agreement agreed by 196 countries at COP21 places unprecedented importance on the need for adaptation to climate change impacts. So far the primary focus of the transport sector has, however, been on mitigating greenhouse gas emissions from the transport sector. The relative neglect of adaptation in the transport sector is reflected at:

Policy Level: 86 percent of the Nationally Determined Contributions (NDCs), communicated by 189 Parties of the Convention, include provisions for economy-wide adaptation. However, only 16 percent of the NDCs communicated identified transport as a priority area for adaptation and only 4 percent specify adaptation measures for the transport sector.²

Climate Finance: To date, climate finance has been sparsely used for climate change adaptation, especially in the transport sector. Only six percent of the transport projects included in the Transport Climate Finance Data base of the Partnership on Sustainable, Low Carbon Transport³ have adaptation as main focus.

This highlights the need for much greater awareness of transport's role in economic and social resilience and of transport's own vulnerabilities to climate change. It is imperative that the transport sector starts playing a larger role in using climate finance to leverage public and private investments for climate resilience and adaptation.

Climate change scenarios are uncertain and the severity of climate impacts also varies greatly with the geophysical risk exposure of individual locations, their resilience and adaptive capacity. Nevertheless, decisions on adaptation must be made today, especially with respect to long-lived transport infrastructure assets that have the potential to lock-in development patterns for many decades. Pro-active adaptation can be a low/no-regret option in cases where project savings accrued over the infrastructure life-cycle offset the higher construction and operational costs of inaction. Decision making on adaptation, especially in the case of transport infrastructure and systems with a long lifetime needs to allow flexible responses to a changing climate allowing for adaptive management.

Crucially, sustainable passenger and freight transport systems must adapt to climate change to maintain reliability and increase market share, in order to achieve their full mitigation potential.

The signatories to this Declaration -many of whom are already engaged in important initiatives to enhance the climate resilience and sustainability of transportation:

1. acknowledge the need for additional focus and efforts to strengthen the resilience of transportation systems and services to climate change;
2. commit to:
 - a. Raise the profile of adaptation in discussions on climate change and transport.

¹ Lefevre, Leipziger, Raifman. 2014. "The Trillion Dollar Question: Tracking public and private investment in transport." Working Paper. World Resources Institute, Washington, DC.

² http://www.ppmc-transport.org/overview_indcs/

³ <http://www.ppmc-transport.org/slocat-climate-finance-transport-database/>

- b. Promote climate risk screening and vulnerability assessment of existing transport systems, services and all new projects.
 - c. Adopt a policy of 'adapt at construction and at asset renewal'.
 - d. Encourage the adoption of industry relevant technical standards to ensure transport infrastructures are climate resilient with appropriate adaptive capacities to minimize future risk.
 - e. Leverage additional climate finance to shift public and private investments towards resilient transport systems.
 - f. Integrate adaptation into system design and operation, including through enhanced emergency preparedness and adequately resourced maintenance activity.
 - g. Strengthen coordination across agencies.
 - h. Build capacity at local, national and international levels on transport adaptation.
 - i. Integrate transport into general adaptation programs and activities and strengthen coherence between sectors,
 - j. Develop appropriate metrics, monitoring, evaluating and reporting procedures so we can continuously learn and adapt over long timescales, and
3. the signatories also call on the High Level Champions on Climate Change to highlight transport in a pro-active manner in their activities on adaptation under the Global Climate Action Agenda (GCAA), and call on the Paris Process on Mobility and Climate to track and report on the implementation of this Declaration through the periodic update reports on the implementation of Transport Initiatives under the GCAA.