Climate Change Adaptation for International Transport: Preparing for the Future

16 to 17 April 2019

Climate Resilient Transport Financing, Insuring, Investing and Partnering

Presentation by

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CLIMATE RESILIENT TRANSPORT
Financing, Insuring, Investing and Partnering

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World Bank Climate Finance

Sectoral 2018

IBRD + IDA (US$ millions)
“The integrated landscape management nexus brings together agriculture, forestry, environment, water, and transport to improve overall productivity and sustainability measured in economic and ecological terms.”

1. **Boost adaptation financing**
   
   The WBG will ramp up its direct adaptation climate finance to reach $50 billion over FY21–25. This financing level—an average of $10 billion a year—is more than double what was achieved during FY15–18. The WBG will also pilot new approaches to scale up private finance for adaptation and resilience.

2. **Drive a mainstreamed, whole-of-government programmatic approach**
   
   The WBG intends to help countries shift from addressing adaptation as an incremental cost and isolated investment to systematically managing and incorporating climate risks and opportunities at every phase of policy planning, investment design, implementation and evaluation.

3. **Develop a new rating system to create incentives for, and improve the tracking of, global progress on adaptation and resilience**
   
   A new rating system will be developed to promote public and private sector investments in adaptation. It will be designed to create incentives for donors and countries to engage in more and better adaptation; more effectively report on what the WBG and clients are doing; and aim to establish a global standard for financial markets and public procurement. The new system will be piloted over FY19–20 with an anticipated roll-out to projects in relevant sectors by FY21.
Risk Financing and Insurance

**Market-Based Instruments**
- Risk transfer for assets such as property insurance or agricultural insurance and risk transfer for budget management like parametric insurance, cat bonds/swaps

**Contingent Financing**
- Financial instruments that provide liquidity immediately after a shock

**Budgetary Instruments**
- Reserve funds specifically designated for financing disaster related expenditures, general contingency budgets, or diverted spending from other programs

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**Instruments**

<table>
<thead>
<tr>
<th>Instruments</th>
<th>Indicative Costs (multiplier)</th>
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<tbody>
<tr>
<td>Donor Support (relief)</td>
<td>0-1</td>
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<tr>
<td>Donor Support (recovery and reconstruction)</td>
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<tr>
<td>Budget Contingencies</td>
<td>1-2</td>
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<tr>
<td>Reserves</td>
<td>1-2</td>
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<td>Budget Reallocations</td>
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<td>Contingent Debt Facility (e.g., CAT DDO)</td>
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<td>Domestic Credit (bond issue)</td>
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<td>External Credit (e.g., emergency loans, bond issue)</td>
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<tr>
<td>Parametric Insurance</td>
<td>2.5 up</td>
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<td>ART (e.g., CAT bonds, weather derivatives)</td>
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<tr>
<td>Traditional (indemnity based) Insurance</td>
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**Climate Change as a Business Interruption Multiplier**

Crumbling roads and bridges isolate companies and trigger business interruption losses.

By: Katie Dwyer | April 9, 2018 - 9 min read
Resilience Financing Across Infrastructure Lifecycle

Methodology: Mainstreaming Climate Resilience in Road Transport Management in Serbia
### Risk Assessment: Strengthening Critical Infrastructure against Natural Hazards in Tajikistan

<table>
<thead>
<tr>
<th>Bridge</th>
<th>Glacial Lake Outburst</th>
<th>Flood</th>
<th>Landslide</th>
<th>Snow Avalanche</th>
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Vanj River near Chikhok (Bridge B6)

### Risk Mitigation: Dedicated Freight Corridor Corporation of India Ltd.

- Continuous Welded Rails (CWRs)
- Re-Railing Ramps
- Guard Rails on all the Bridges
- Height Gauges on all Road Under Bridges (RUBs)
- Inspection Platform around Piers and Abutments
- Design of Structures taking into Seismic, Hydrological, Wind Forces Consideration
- Safety Fenders around Piers in Navigation Channels
- State of the Art Inspection and Monitoring Systems
- Safety Wall on Top of Cuttings and in Dense Habitation Area
WHO WE ARE

Housed by the World Bank, we are a global partnership platform of over 50 leading actors representing all modes of transportation with a shared ambition to achieve sustainable mobility.

OUR SHARED VISION

A world where the global mobility system is an important part of the solution to addressing 21st century global challenges.

- Climate change
- Poverty reduction
- Economic development and jobs
- Access to social services including education and health
OUR AMBITION

Transforming the global mobility system, across modes

**POLICY GOALS**

**UNIVERSAL ACCESS**
Connect all people, including women, and communities to economic and social opportunities.

**EFFICIENCY**
Optimize its predictability, reliability and cost-effectiveness.

**SAFETY**
Drastically reduce fatalities, injuries, and crashes (SDG Target 3.6)

**GREEN**
Abate the environmental footprint of mobility (GHG emissions, noise and air pollution)

THANK YOU FOR YOUR ATTENTION!

Daniel Kull
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