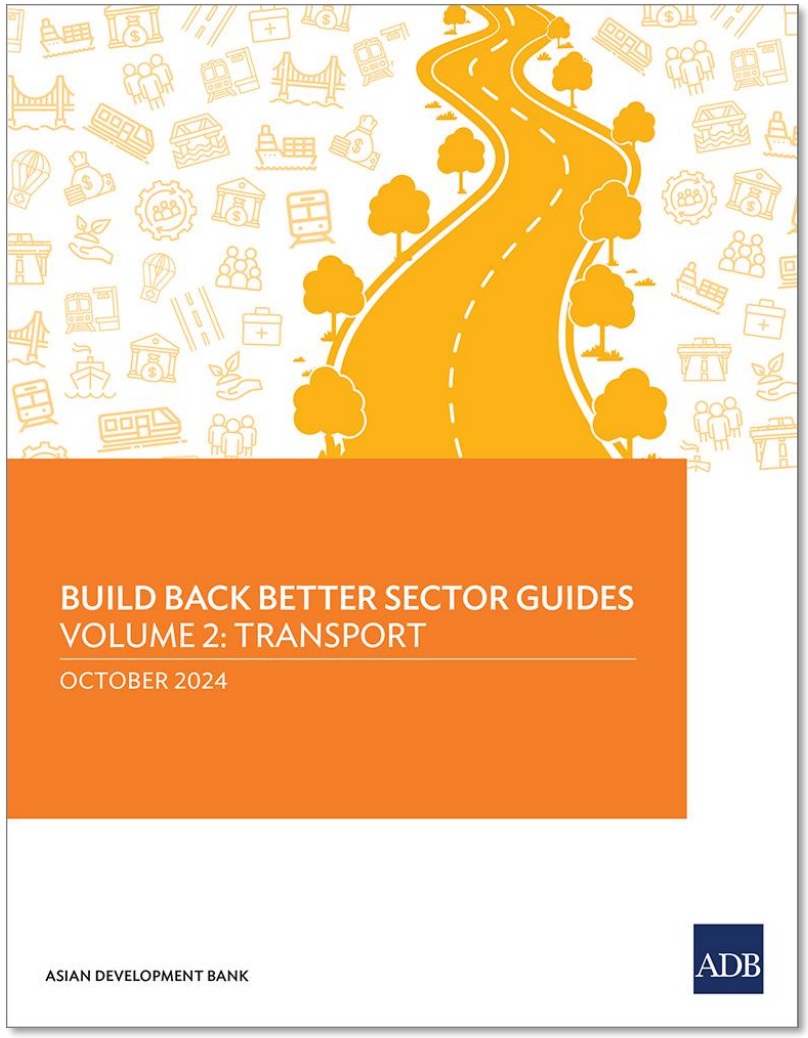
Objectives for post-disaster transport recovery & reconstruction

Post-disaster recovery should reduce future damage and loss; improve the resilience of transport assets, users, owners, and operators, and….

- Improve **connectivity and reliability** to enable long-term economic recovery and revitalization, with future growth and transport needs in mind.
- Improve **transport accessibility and equity**, particularly for women and girls, the poor, disabled, elderly, and other marginalized populations.
- **Enhance transport safety** and address the chronic socioeconomic burden of road trauma through design, road user education, and capacity building.
- Leapfrog to **green, efficient, smart, and low-carbon solutions** that promote decarbonization and demotorization of the transport sector, in support of Nationally Determined Contributions and healthy environments.



https://www.adb.org/publications/series/build-back-better-sector-guides

Resilient Recovery Challenges for Transport

- **Time pressure.** While many post-disaster assistance projects are under significant time constraints, transport projects particularly are, given the need for the speedy delivery of relief, reparation of assets, and economic recovery.

- **Knock-on impacts of decision-making.** Following severe damage or heightened risk levels (e.g., slope failure or destabilization), decisions on whether to reinstate, realign, or decommission transport infrastructure as part of a transport recovery plan have significant impact on people, existing infrastructure, and regional connectivity, particularly in the case of a managed retreat.

- **Labor and material needs.** Transport projects, particularly in the case of road restoration, require significant volumes of construction materials and labor, compared to other sectors.

Climate & Disaster Resilience Measures

- Network Planning, Integration, and Redundancy
- Green Transport Networks
- Intelligent Transport Systems
- Resilient Structures
- Resilient Materials Selection
- Enhanced Drainage
- Slope Stabilization and Erosion Control
- Transport Sector Capacity Development

Network Planning, Integration and Redundancy

Reconstruction on a wide scale presents an opportunity to review the performance of transport systems and existing bottlenecks from the local to national levels, so that network improvements will enhance performance in future emergencies.

In Samoa, the **Cross Island Road** provides a critical alternative between the island's northern and southern coasts in the event of cyclone and tsunami. After the devastating impacts of Tropical Cyclone Evan in 2012, a significant portion of the road network fell into disrepair. The ADB funded project (51268-001) upgraded 20 kilometers of the main road link for future safe evacuation. The project also addressed climate-responsive road maintenance and the capacities of Samoa's Land Transport Authority

Source: ADB. Samoa: Central Cross Island Road Upgrading Project.

Green Transport Networks

Repair and reconstruction of transport corridors provides an opportunity to prioritize water management and nature-based solutions as part of planning and design for some components of the transport network.

The ADB **Pakistan: Flood Emergency Reconstruction and Resilience Project** (49038-001) supported the rehabilitation and reconstruction of high-priority infrastructure, including roads and bridges following the 2014 flooding and landslides in Pakistan's northern regions. Nature-based solutions and bioengineering were employed as a slope stabilization technique to reduce future landslide risk. Planting of road corridors provided a vital post-disaster income opportunity to community members, including a large proportion of women.

Source: ADB. Pakistan: Flood Emergency Reconstruction and Resilience Project.

Green Transport Networks

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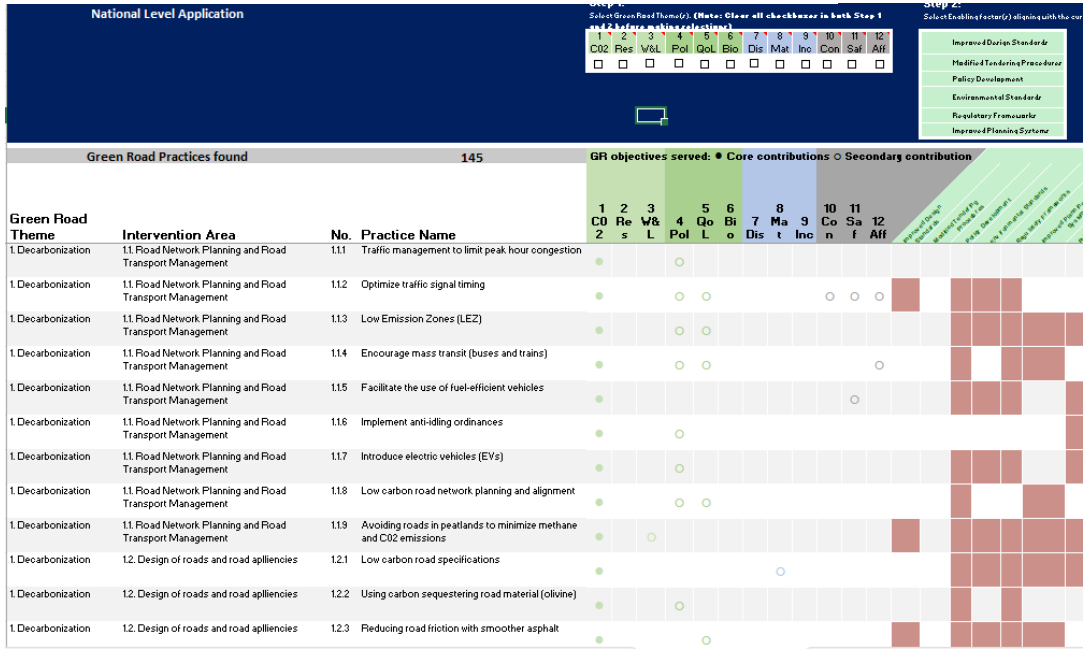
Green Roads Toolkit



https://data.adb.org/dataset/green-roads-toolkit

Transport Sector Capacity Development

Support to transport authorities and stakeholders enhance budgeting; network risk assessment; risk monitoring; contingency and evacuation planning; and risk-informed infrastructure design and O&M can enhance the impact of post disaster recovery projects.

In 2009, the **China, People's Republic of China of: Emergency Assistance for Wenchuan Earthquake Reconstruction Project** (42496-013) of the Asian Development Bank provided capacity building to executing and implementing agencies on adopting recent updates to seismic engineering standards and codes, risk-informed operation and maintenance practices; and management, technical, and administrative capacities in the construction and maintenance of rural roads, bridges, and schools. Experience gained from the project has benefited other government-financed projects.

Source: ADB. People's Republic of China: Emergency Assistance for Wenchuan Earthquake Reconstruction Project.