Improving Access to Climate Finance for Transport

Regional Cooperation Mechanism on Low Carbon Transport: Establishment and Implementation of Low Carbon Transport Targets and Timelines in Asia and the Pacific– 16 July 2024

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World Resources Institute is a global research organization that turns big ideas into action at the nexus of environment, economic opportunity and human well-being.
WRI’s Approach

**Collect data**
Analyze findings
Deliver top quality, unbiased research, and share data publicly

**Propose solutions**
Influence decision makers
Provide on-the-ground implementation support and technical assistance

**Leverage partnerships**
Coordinate and engage with national, regional, local, and global stakeholders

SCALE IT
COUNT IT
CHANGE IT
Why transport?

- **Transport** accounts for **15% of total global GHG emissions.** Road transport contributes 72% of transport related CO2 emissions.

- Net-zero by 2050: 21% of the carbon savings will from transport.

- A net-zero urban transformation would require **new investment of ~2% of global GDP** per year.

*Note: The striped wedges reflect the mitigation potential achievable through decarbonisation of electricity. Source: Climate Watch n.d.; Stockholm Environmental Institute for the Coalition for Urban Transitions, 2019*
Road to green, sustainable transport

- The transport sector will need to abate energy usage by **10% by 2030** and **25% by 2035**, with an energy mix that goes from a **5% share of green sources** to **20% in 2030** and over a third by 2035.

- This also includes the need to double the share of fossil fuel free land transport, particularly, which constitutes over 70% of transport emissions.

Source: IEA Net Zero Roadmap
Countries should set **targets for fossil fuel-free transport** for land transport and ideally for the whole sector. Subsector commitments should complement with:

- **Scaling up public transport** infrastructure and services
- Investing in **active mobility** (walking and cycling)
- Addressing **freight**: electric medium and heavy-duty vehicles, shifting to rail
- Phasing in all **electric fleets** for cars, public transport, and two- and three-wheelers
- Goals on **inland water transport**
- **Sustainable fuels** for aviation and maritime, shifts to rail on short distance intercity travel
- Connections to powering the sector through **renewable energy**

Infographic source: [SLOCAT](http://www.slocat.net)
Lack of access exacerbates poverty: People who cannot move around cannot access services and opportunities.

Car-first transport policy delivers air pollution and road safety issues: Air pollution is the world’s #1 environmental health risk and there are 1.35 million road deaths annually (and increasing).

To transition to low-carbon transport, we need to ‘avoid’ unnecessary travel, ‘shift’ to public transport, walking and cycling, and ‘improve’ vehicle and fuel efficiency (e.g., electrify vehicles).

Individual & collective expectations:

<table>
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<tr>
<th>Clean</th>
<th>Reliable</th>
<th>Safe</th>
<th>Efficient</th>
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But transport is more than about emissions.
Mobilizing climate finance is more important than ever.
Improving access to climate finance (ACF) for transport projects in low- and middle-income countries (LMICs)

Supported by:

Consortium partners:
The project will accomplish the following major activities:

1. **Assess the current state of knowledge on climate finance**
   - Develop a state of knowledge research report

2. **Produce clear decision support tools, criteria and guidelines**
   - Develop a policy guide
   - Develop a digital climate finance toolkit
   - Communicate and disseminate the processes and results of the research
   - Consult financing, climate, transport experts and stakeholders
State of Knowledge Research Report

01 Landscape of climate finance for transport
- Reviewed global databases on 13 climate funds, multilateral development banks, bonds and private finance
- Collated data of 850 transport projects that accessed climate finance (2015-2023)

02 Case studies on barriers, lessons learned
Explored 16 cases to identify key barriers, constraints and lessons learned focused on Asia, Africa and Latin America and the Caribbean (LAC)

03 Stakeholder consultation
Consulted climate, transport, and financing experts from MDBs, DFIs, and other NGOs and verified findings
Stakeholder convening & consultation

- **June 2024**: Organized 2 stakeholder consultation workshops in Hanoi & Ho Chi Minh, Vietnam
- **May 2024**: Organized a stakeholder consultation workshop in Nairobi, Kenya
- **March 2024**: Co-organized with the World Bank a roundtable “Climate finance in transport: Pooling and scaling funding and financing” on 18 March 2024, bringing together over 60 representatives from MDBs, DFIs, other NGOs
- **March 2024**: Co-organized with the World Bank “Transforming Transportation”, themed “Mobilizing Finance For Climate Action” in Washington DC
- **January 2024**: Organized an international Consultation Workshop *(virtual)*: “Access to climate finance for transport”, convening over 30 financing, transport and climate experts
- **November 2023 – March 2024**: Attended a series of Climate Parliament roundtables which brought together parliamentarians and senators from Africa
What is climate finance?

- **Climate finance**: The UNFCCC defines climate finance as the financial resources, whether from public, private, or alternative sources, that **support efforts to mitigate and adapt to climate change**.

- **Uses**: mitigation vs. adaptation

*Source: UNFCCC n.d.; World Bank 2015; 2024 Iberdrola*
Sources of climate finance connected to the end-use by sector

- Global climate finance reached $1.3 trillion in 2021/2022
- Insufficient and inconsistent across regions & sectors
- Transport received 29% of the global mitigation climate finance with $336 million

**Public & private climate finance**
Deployed directly by public and private entities

**Private sector**
Investments in climate projects seeking commercial returns
- Commercial finance institutions
- Corporation
- Funds e.g., Private equity, venture capital
- Households / Individuals
- Institutional investors e.g., insurance companies, asset management firms, pension funds

**Public Sector**
Domestic resources mobilized for climate actions
- Government budget
- State-owned enterprises
- National development finance institutions
- State-owned finance institutions

**International public climate finance**
Deployed through international mechanisms: multilateral and bilateral

**UNFCCC Financial Mechanisms**
- COP
- Standing Committee on Finance
- Multilateral institutions
- Clean Development Mechanism
- Joint Implementation
- Loss & Damage Fund
- Green Climate Fund
- Adaptation Fund
- Global Environment Facility
- Market

**Non-UNFCCC Financial Mechanisms**
- Multilateral development banks
- Climate Investment Funds
- World Bank
- Asian Development Bank
- African Development Bank
- Inter-American Development Bank
- European Bank for Reconstruction and Development
- Islamic Development Bank
- Asian Infrastructure Investment Bank
- Non-market
- Least Developed Countries Fund
- Special Climate Change Fund
- Bilateral development finance
- Deployed through climate-focused funds
- Nordic Development Fund
- NAMA Facility
- International Climate Initiative
- Joint Crediting Mechanism

**Contributors**
- Norway
- Denmark
- EU
- UK
- Germany
- Japan
- Australia
- Canada
- US
- France
- Spain
- Others
- Subnational

Notes: The diagram is indicative and does not include all climate finance funds and initiatives. NAMA Facility was active from 2012 to 2023. The Mitigation Action Facility is a continuation of it.

Sources: Adapted from Watson et al. 2024; Plavec et al. 2024
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<th>Accredited By</th>
<th>Name of Project</th>
<th>Description</th>
<th>Geography</th>
<th>Country</th>
<th>UNFCCC Country Desk</th>
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**850 transport projects that accessed climate finance (2015-2023)**
International climate finance for transport

We focused on projects from the Africa, Asia-Pacific and Latin America and the Caribbean regions (LAC)

Source: WRI authors.
Evidence from available data on the transport sector

Road transport projects dominate the projects analysed (75%).

There are 121 rail transport projects, 79 maritime projects, and 14 inland water transport projects.

Source: WRI authors.
Evidence from available data on the transport sector

Nearly half of the road transport projects are related to roads, highways, and bridges and enhancing connectivity.

There is a small proportion explicitly aimed at enhancing climate resilience.

Other focus areas include scaling up electric mobility (EVs, e-buses, electric 2/3Ws), promoting public transport, and capacity building.

Source: WRI authors.
Evidence from available data on the transport sector

Different financing models are used for transport projects with varying degrees of success.

**Loans and grants** are the most common financial instruments used for financing transport projects in LMICs via international public sources.

Financing modalities used to reduce risks and catalyze private investment are present, including blended finance.

*Source: WRI authors.*
Case countries/regions
South Africa: Commuter Transit-Asset-Backed Structured Finance
Financing for minibus owners, particularly SMEs ($107 million from AfDB and associated facility)

**Financial**
- Minibus operators or motorcycle owners are considered high-risk and having low returns
- Challenges with accessing finance, leading to fragmented purchases among owners

**Institutional**
- Difficult socio-economic circumstances and political risk
- The minibus industry in SA is less stable than in previous years. As economic activity slowed, SA Taxi experienced many defaults on taxi loan accounts (Shaun 2023).

**Lessons learned:** Leveraging data & tracking daily revenue can provide evidence of a driver’s stable income, which can help shift negative perceptions of them being “high-risk.”

Thailand: E Smart Bangkok Mass Rapid Transit Electric Ferries Project
Deploy 27 electric ferries for public transport and install three charging stations ($5.6 million from ADB, $5.5 million from the Clean Technology Fund)

**Financial**
- Scaling financing past initial pilot projects - A new electric boat costs about USD$1 million

**Technological**
- Technical assistance in integrating water transport with its existing public transport system

**The role of MDBs/DFIs:** providing guarantees and credit enhancements to enhance the bankability and financial sustainability, technical assistance to enhance govt. capacity
Comoros: Road Network Rehabilitation
Improve the road transport infrastructure, particularly the national road RN2 (UA 20 million African Development Fund, Transition Support Facility, govt. counterpart)

Financial
• Domestic and external debt compounded in late payments and piling up of debt arrears;
• Uncertainty and inadequate financing windows and opportunities (cancelled funds from the EU)

Institutional
• Limited governance & institutional capacity (recipient)
• Numerous authorities with unclearly defined responsibilities
• Macroeconomic risks and limited local capacity for taking on loans
• Technical and administrative complexity of donor-funded programs (funder)

Tanzania: Dar es Sallam BRT Phase II
Constructing 20.3km of exclusive bus rapid transit (BRT) lanes ($159 million funded by AfDB, Africa Growing Together Fund, govt. budget)

Financial
• Identifying how much public subsidy is needed to support operations alongside farebox revenue
• Private finance is not accessed to finance the BRT infrastructure

Institutional
• Distrust in the public sector and lack of transparency
• Contract was awarded without a competitive process
• Institutional capacity to administer and implement projects is challenging
### Barriers

**Impeding access to financing transport projects**

#### Financial
- Inadequate financing sources, products, windows, opportunities
- Accessing the right financing sources
- Identifying private investors
- Identifying bankable projects
- Scaling investment past initial pilot projects
- Limited profitability, uncertain revenue streams
- Volatile exchange rates in LMICs

#### Institutional
- Lack of political will/Political instability
- Limited technical capacity, organizational silos, unclear mandates *(recipient)*
- Onerous & resource intensive funding requirements *(funder)*
- Potential negative outcomes
- Inadequate institutional and regulatory framework
- Limited transparency & accountability on spending

#### Informational
- Lack of monitoring tools and data on impacts or outcomes
- Lack of knowledge and awareness of transport measures

#### Technological
- Difficulty in financing new technologies due to costs
- Technical limitations of new technologies (range, performance, capacity)
How to Improve Access to Climate Finance for Transport?
**Aggregated demand model**

**India “Grand Challenge” scaling up e-buses**
- The world’s largest e-bus tender in May 2022, 5,450 buses across five cities in India
- Reduced costs 23-27% compared to diesel/CNG with subsidies
- Currently, 1,464 buses procured are operational
- Standard technical and contractual terms (e.g., delays, termination, bus safety standards)
- A National level Payment Security Mechanism (PSM)
- Delinking components like bus, battery, charging infrastructure, parking and depot space, operations and financing can bring down the risks borne by various players.

**Aggregate projects into investor-friendly products/vehicles incl. aggregation and standardization to achieve size, secure returns and lower risks.**

*Source: CESL 2022*
De-risking private finance

**Bogota:** 400 e-buses: IDB Invest and the UK Sustainable Infrastructure Program underwrote 50% of 134 million in loans while the private bank BNP Paribas contributed remaining amount

**Nairobi:** Millenium Challenge Corporation brings blended finance for procuring e-buses for new BRT corridor – $12 million
**Blended finance**

Mobilizing the private sector is not easy – and a track record goes a long way. Blended finance is a valuable tool for building markets.

- Blended finance combines concessional finance with non-concessional, often private, capital.*
- It is a structuring approach.

Opportunities to scale up financing for transport

**Policy**
- Create enabling environment for climate investments
- Enhance coordination across agencies, accountability and transparency
- Attract private investments with de-risking instruments

**Capacity**
- Build capacity in accessing climate finance, and preparing bankable projects
- Build capacity in managing and implementing projects
- Gather good data, integrate technology, monitor & evaluate

**Project**
- Better pipeline development and project preparation
- Build gender-inclusive activities into the project design
- Better analysis of projects implementation to improve future project
Thank you!

For any questions or clarifications:
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