

Barriers, challenges, and financing issues to energy transition in the transport sector

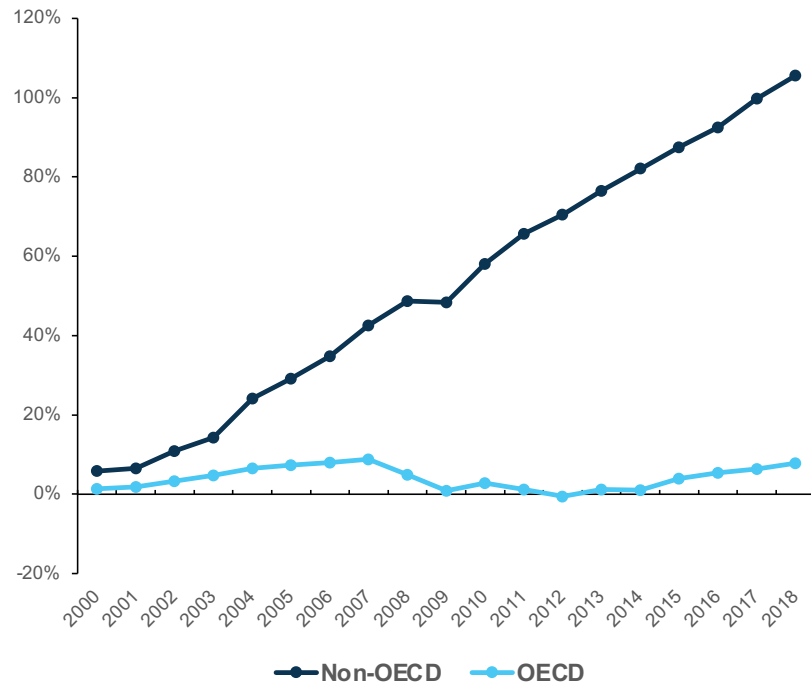
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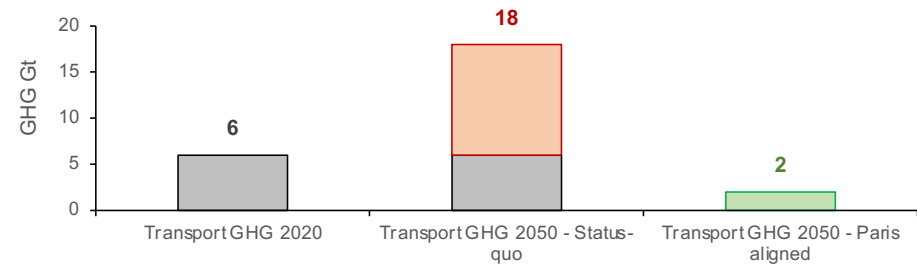


Setting the challenge

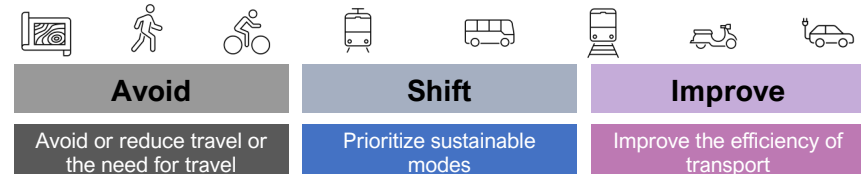
Cumulative growth in transport GHG since 2000



Transport accounts for a **quarter of all GHG emissions** and is the fastest growing source of emissions globally, especially in **LMICs**



The World Bank advocates for the **Avoid-Shift-Improve** framework to promote a path to net zero by 2050



Dual objectives for a just transition in the sector



1. Contribute to climate change mitigation and adaptation

&



2. Continue to contribute to development



Reduce dependency on fuel imports



Improve air quality



Promote a shift to less polluting modes of travel



Reduce carbon intensity of travel



Improve resilience of transport infrastructure



Enable compact and efficient cities



Improve access to healthcare



Improve access to education



Improve access to employment



Reduce congestion and accidents



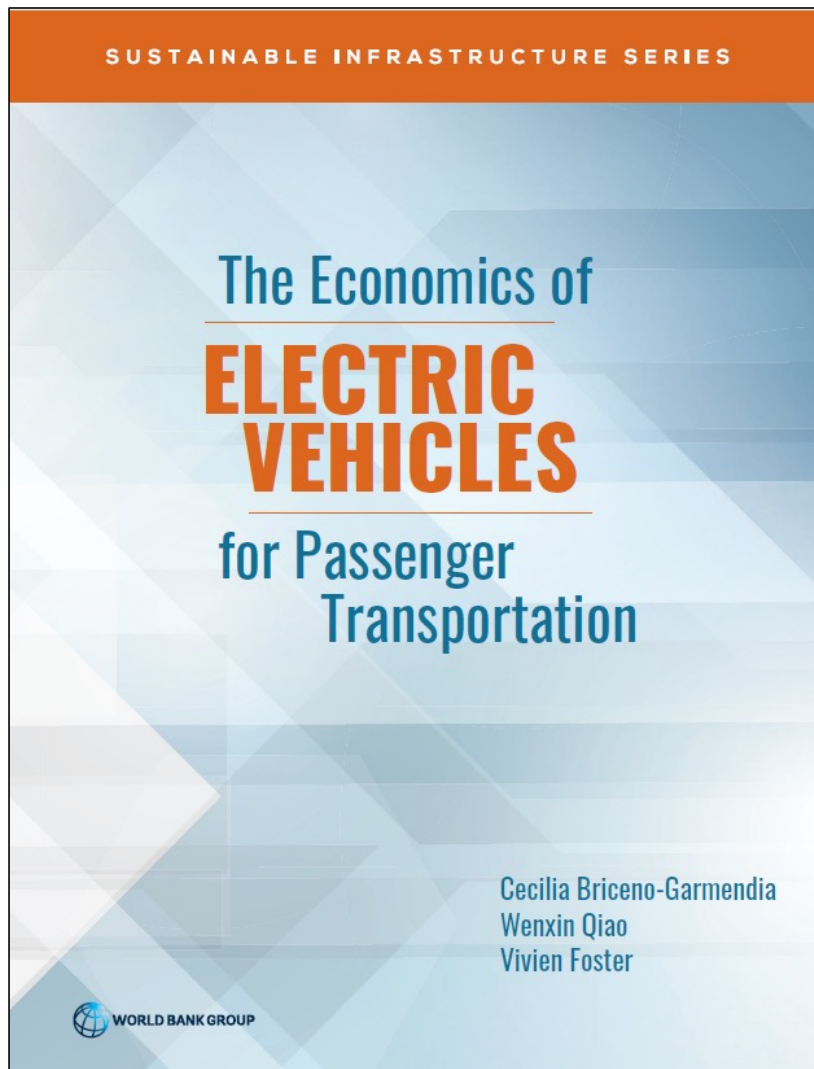
Improve food security



Promote trade integration and productivity gains



Promote industrial development



Can E-mobility be a Relevant Development Solution?

- ☐ **Why** is electric mobility for passenger transportation relevant to the developing world?
- ☐ **When/Where** does it make sense for developing countries to proactively pursue the transition?
- ☐ **How** can policymakers accelerate adoption of electric passenger vehicles?



<https://openknowledge.worldbank.org/handle/10986/38265>

Economics of E-Mobility: Key Takeaways

- The **economic case** for the electrification of transport is viable in half of the countries studied and may improve over time as technological change brings down the cost of vehicles.
- Two-wheelers and e-buses are already viable in 90% and 80% of the cases studies
- E-mobility brings **GHG reductions** even when the energy mix relies heavily on fossil fuels.
- For many developing countries, environmental benefits will primarily come from **local air quality improvement**.
- The most relevant market segments to develop e-mobility are **two wheelers**, followed by **e-buses**.
- **Innovative Financing instruments** to aggregate demand and pool financing is needed to accelerate EV adoption in developing countries.
- Electrification alone will NOT be enough to fully reach decarbonization targets. EV policies need to be embedded in a comprehensive national sustainable transport strategy targeting all pillars of the **ASI-R framework**.

Fragmented trucking and urban / inter-urban freight logistics

- The trucking industry in SSA is mostly made up of individual owner-operators who do not have income and incentives to finance fleet renewal, nor the track record to access affordable finance
- Trucking costs in Africa are among the highest in the world, affecting Africa's competitiveness in the global value chain
- A depreciated fleet, frequent empty hauls and long border crossings impact the efficiency of the freight industry
- Use of technology to provide logistic services is at its infancy at best and mostly non-existent
- Axle load control is lax or rarely enforced, and regulatory standards and enforcement varies by country.
- Financing for trucks is unavailable as domestic financial industry see the trucking sector as non-credit worthy



Barriers to developing the financing landscape for cleaner vehicles and mobility services

Demand side

- Vehicle sales market are fragmented and do not have large-enough demand to attract investment or lending from financial institutions and investors
- Investment size is small, often few buses or vehicles at a time. African countries lack vehicle sale aggregators, leasing companies, fleet companies and dealers to aggregate investment demand
- Lending for small investment has high-transaction costs for financial institutions, as well as borrowers
- Governments have limited fiscal space to support public transport investment and/or to incentivize fleet renewal, and associated infrastructure (e.g., charging facility)

Supply side

- Domestic financial institutions perceive high risk in lending to vehicles and mobile assets
- The mobility and logistics sector in SSA is largely informal and poorly regulated, making it hard for financial institutions to engage with the industry.
- International development financing and climate finance mostly go to financing physical infrastructure rather than vehicle and mobility services
- Small project size, lack of standardized procurement, informality of the sector, and asymmetry of information on risks prevent climate and private finances from going into clean mobility investments
- Current climate financing architecture is difficult to access by borrowers in Africa

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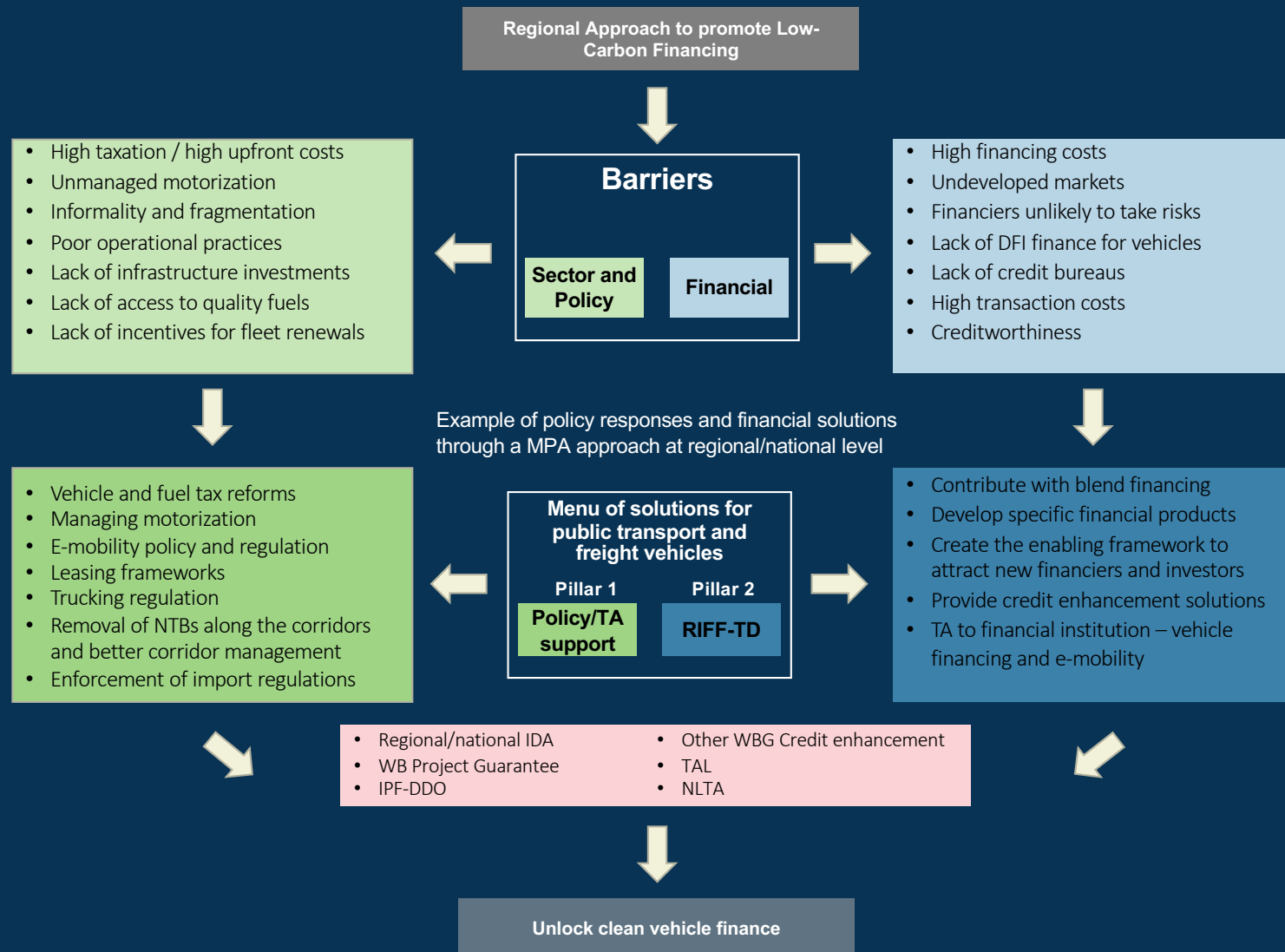
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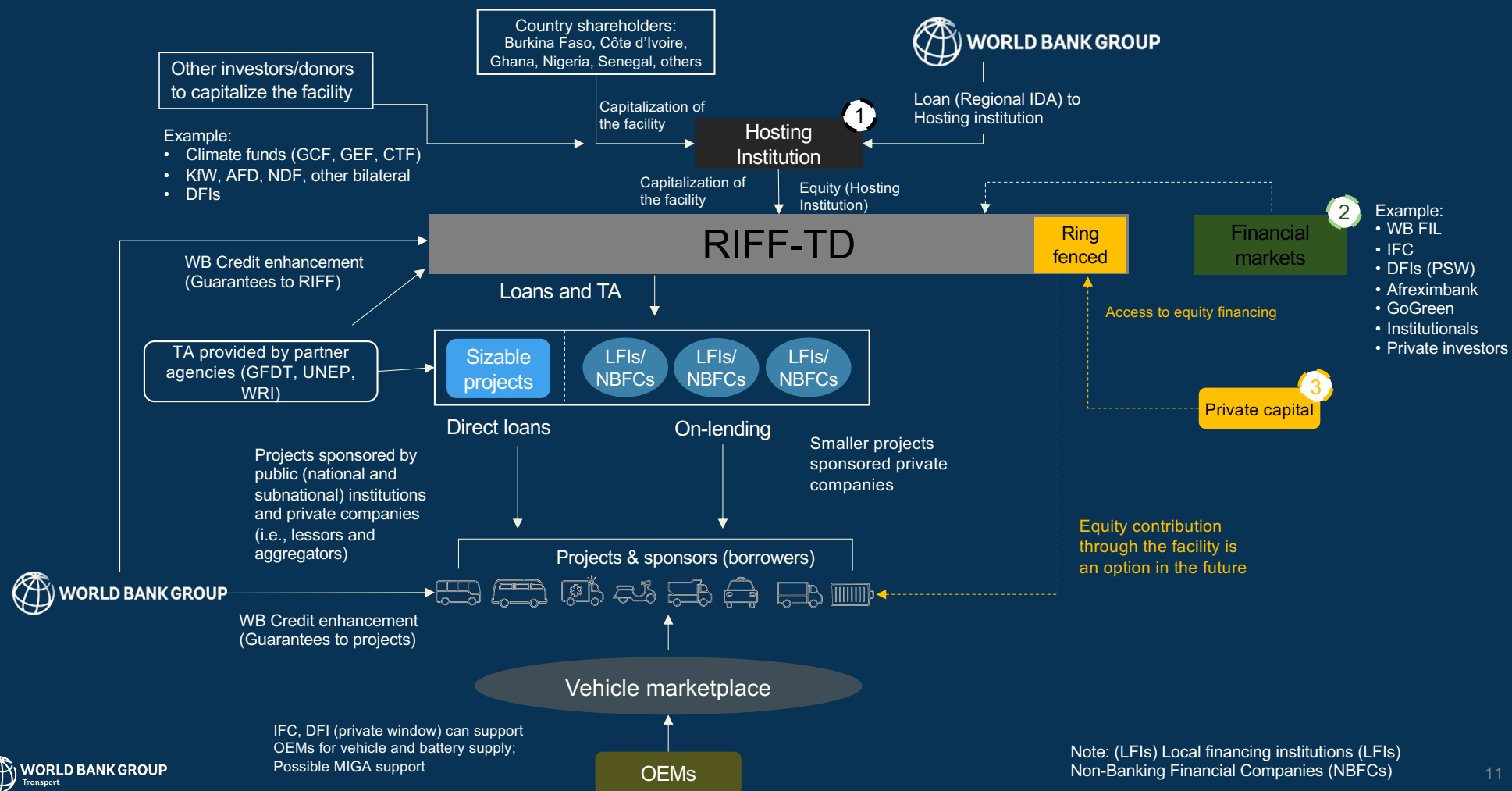
Why a regional facility is an effective way to channelize financing for clean mobility investments

- Aggregate fragmented and small-scale investments into a sizeable program that can be attractive to investors and financial institutions
- Diversify risk across different borrowers and projects, thus develop bankable pipeline projects
- Reduce transaction costs for investors and financial institutions by dealing with a regional facility rather than with each small-scale borrower and project, whose risks are hard to assess
- Make it easier to individual borrowers to access financing that fits their needs
- Allow different investors and financial institutions to pool their resources together and create a large funding pool to support low-carbon transport investment
- Consolidate climate finance into a regional facility, thus reduce the transaction cost for individual borrowers to access climate financing
- Offer blended financing and credit enhancements at a scale to decrease cost of borrowing and unlock climate and commercial financing
- Create market signal to OEMs and other market players (leasing, fleet companies) to invest in the manufacturing and sales of vehicles, including bus assembly or 2/3-wheeler manufacturing
- Standardize procurement and business models for clean buses and thus create scale and reduce upfront capital cost
- Support domestic financial institutions to lend for clean mobility and promote new business models
- Complement traditional DFI financing for infrastructure by supporting mobility services (e.g., BRT infrastructure through DFI, e-buses through the regional investment facility)

An ecosystem approach to support clean vehicle financing in SSA



How will the facility work?



Financial solutions to a just transition

