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# Opportunities for Energy Transition in the African Transport Sector

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# Dancing around in Circles, 25 Years of ??.....

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## INVESTING IN TRANSPORT IS AN INVESTMENT IN AFRICA'S FUTURE

Oct 20, 1999 · The **high cost** of **transport in Africa** -some 30 to 40 per cent above that in other developing regions- seriously undermines **growth prospects** in the continent. Ways of improving th...

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## Africa: Poor transport infrastructure hindering trade growth

Oct 6, 2022 · However, **high transport costs** continue to **hinder** regional integration since large-scale **transport** infrastructure investments require huge investments. However, once set up, road...

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## Poor transport Infrastructure in Africa hinders trade growth ...

Oct 11, 2022 · **High transport costs** across **Africa** continue to **hinder** regional integration on the continent since large-scale **transport** infrastructure investments require huge investments,...

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## 5 Key Transport Challenges Facing Developing ... - CNBC Africa

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## Former Impact and Remedies

- High transport costs impact:
    - Balance of payments.
    - Rural development.
  - Causes: inefficient public ownership, under-regulation, lack of investment.
  - Remedies: ODA, private financing, regional cooperation.
    - - Example: Maputo corridor in southern Africa.
    - - Importance of promoting rural transport infrastructure.
    - - Call for greater regional cooperation in transport infrastructure development.
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## Opportunities for Mobilizing Investments in Transportation

Undoubtedly, when concentrating on the transport sector in Africa, **the energy transition agenda can be customized to address the unique challenges and opportunities** present in this domain. Here are four opportunities for mobilizing investments in the energy transition for the transport sector in Africa:

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**Electrification of Public Transport:** One of the most advantageous opportunities is the electrification of public transportation. Investing in electric buses, trams, and trains can substantially reduce carbon emissions in urban areas. Governments and investors can join forces to create charging infrastructure and foster the adoption of electric public transportation systems, creating cleaner and more sustainable mobility options.



## Promoting E-Mobility:

Encouraging the adoption of electric vehicles (EVs) and e-mobility solutions in Africa presents a substantial opportunity. This can be achieved through investments in EV manufacturing, charging infrastructure, and incentives for EV adoption. Focusing on two and three-wheel electric vehicles, which are popular in many African countries, can be an effective strategy to promote sustainable mobility.



## Biofuels and Sustainable Fuels

Africa has substantial potential for biofuel production, like bioethanol and biodiesel, from feedstocks available in the area like sugarcane and jatropha. Investing in biofuel production and distribution infrastructure can support a move towards more sustainable fuels for road and air transport. fuels is advantageous.

Synthetic fuels and hydrogen as replacements for traditional fossil

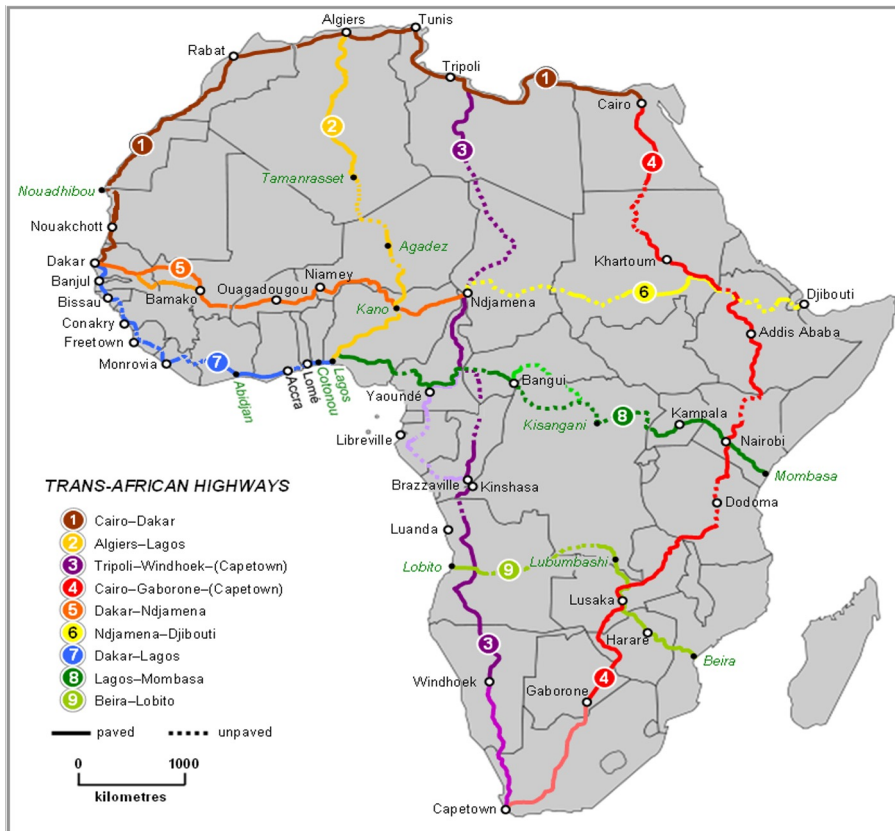




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# The African Transportation Infrastructure: A Growing Opportunity



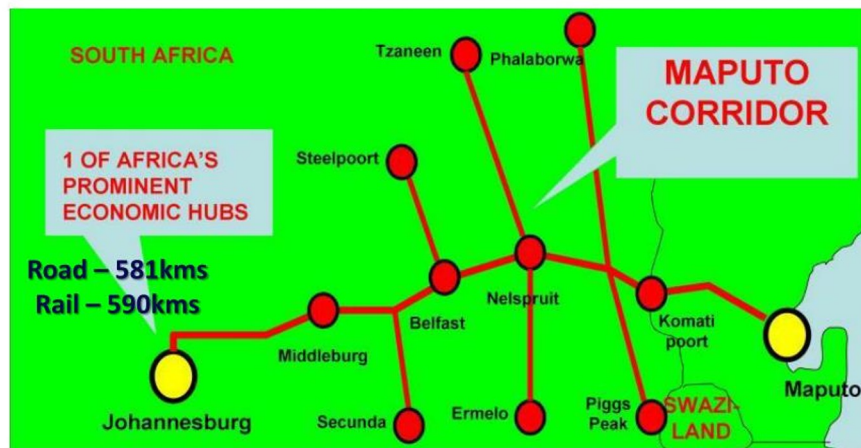
## Mobilising Investment for the Trans African Highway

- Rapid urbanization and population growth drive increased demand for transportation.
- African countries have the opportunity to invest in sustainable and energy-efficient transportation systems.
- Investment can start from the ground up, creating a sustainable foundation for future transportation.





## Example 1: The Maputo Corridor



The Maputo Corridor connects South Africa's provinces (Gauteng, Limpopo, and Mpumalanga) to Maputo, Mozambique.

It encompasses roads, railways, ports, and border facilities, **facilitating trade and transportation.**

The corridor connects industrial, mining, and agricultural areas to deepwater ports in Mozambique.

**Collaboration** among transport organizations and border control agencies aims to improve transport efficiency and trade facilitation.

The project, **initiated in 1994 for rehabilitating disused transport links**, has expanded with **over \$5 billion invested.**

### THE MAPUTO TRANSPORT CORRIDOR



## Harnessing Renewable Energy for Transport Electrification

Africa's abundant renewable energy resources (solar, wind, hydro) are ideal for electrifying transport.

Investments in electric buses, trains, and charging infrastructure can reduce the transportation sector's carbon footprint.

This approach aligns with sustainability goals and contributes to lower emissions.



## Strategies to unlock the potential of green hydrogen in Africa.

- Establish supportive government policies and incentives.
  - Foster public-private partnerships (PPPs).
  - Invest in local manufacturing and infrastructure.
  - Innovate financing mechanisms.
  - Build workforce capacity.
  - Promote green hydrogen adoption across sectors.
  - Monitor and ensure transparency.
  - Collaborate internationally.
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## Policy, Regulation, and International Collaboration

- Clear and stable policy and regulatory frameworks are essential to attract investors.
  - Setting emission reduction targets, fuel economy standards, and a clear transition roadmap are critical.
  - International collaboration with organizations like the United Nations and the World Bank can provide funding and expertise for sustainable transport projects in Africa.
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## Example: The Global Facility to Decarbonize Transport (GFDT)

- - A World Bank initiative.
- - Aims to uncouple mobility from harmful emissions.
- - Accelerates investments and innovation in climate-smart transport.

### Four Key Principles of GFDT

- AVOID: Discourage unnecessary motorized transport.
  - SHIFT: Promote cleaner modes for passengers and freight.
  - IMPROVE: Enhance transport efficiency with technology.
  - STRENGTHEN: Build resilient transport systems for the long term.
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## GFDT's Approach: Building on World Bank's Successes

- Prioritizes practical solutions supported by data.
  - Invests in pilot projects with measurable climate benefits.
  - Customizes projects to address each country's unique challenges.
  - Modernizes policies, regulations, and institutions to promote low-carbon transport.
  
  - Examples of innovative projects:
    - - Abidjan, Cote d'Ivoire: Bus Rapid Transit system.
    - - Dakar, Senegal: BRT project reducing GHG emissions.
    - - Quito, Ecuador: Co-financed metro system.
    - - Egypt: Taxi recycling project reducing CO2 emissions.
-

## Expanding Opportunities with GFTD

- - Identifies opportunities in countries needing support.
- - Conducts research and analytical work to prepare high-impact projects.
- - Complements traditional World Bank financing.
- - Focuses on innovative solutions.
- - Meeting the Financing Gap: - The annual transport infrastructure financing gap could reach \$944 billion through 2030.

- GFDT's role: Attract investors and mobilize resources for climate-smart transport.

African IPAs to leverage projects like GFTD to attract investment toward infrastructure

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- Governments can collaborate with the private sector to mobilize investments.
  - PPPs help share financial burdens, bring in technical expertise, and drive innovation in transport projects.
  - The African context provides fertile ground for such partnerships, given the need for both funding and expertise.
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## Investment Trends: Infrastructure Optimisation through Technology

### Enhancing Transportation Efficiency:

Improving the efficiency of transportation systems can reduce energy consumption. Investments in intelligent transportation systems (ITS) and the development of eco-friendly infrastructure, such as dedicated bus lanes and bicycle paths, can promote sustainable transport. Additionally, supporting initiatives like ride-sharing and carpooling can help optimize vehicle usage.

Startups

### **Nigerian shared mobility startup Shuttlers raises \$1.6M, plans pan-African expansion**

Tage Kene-Okafor @ulonnaya / 12:03 PM GMT+4 • November 16, 2021

Comment



# The PPP Solution

To change the status quo and accelerate major transportation projects in Africa, a combination of public and private investments, as well as innovative financing mechanisms, should be explored. The specific amount and types of investment required can vary depending on the project's scale, complexity, and regional context.

## 1. Public Sector Investment:

- Governments in Africa should allocate a significant portion of their budgets to transportation infrastructure development.
- National and local governments can explore partnerships with international development agencies and financial institutions to secure concessional loans, grants, and technical assistance.

## 2. Public-Private Partnerships (PPPs):

- Engaging the private sector through PPPs can bring substantial capital and expertise to transportation projects. These partnerships can involve build-operate-transfer (BOT), build-own-operate-transfer (BOOT), or other models.
  - Attractive investment environment by streamlining regulatory processes and ensuring a stable legal framework.
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## Other Investment Channels

**3. Multilateral and Bilateral Aid:** - African countries can collaborate with multilateral institutions such as the World Bank, African Development Bank, and regional development banks to access long-term loans and grants for transportation projects.

- Bilateral donors and countries can provide financial and technical assistance to support specific initiatives.

### 4. Infrastructure Bonds and Sovereign Wealth Funds:

- African governments can issue infrastructure bonds to raise capital from domestic and international markets. These bonds can be linked to specific projects and offer attractive returns to investors.
- Some countries may explore establishing sovereign wealth funds dedicated to infrastructure development, leveraging revenues from natural resources or other sources.

### 5. Green Financing and Climate Funds:

- Given the focus on sustainability, projects can tap into green financing mechanisms such as the Green Climate Fund and the Global Environment Facility to fund projects that reduce greenhouse gas emissions and promote environmentally friendly transportation options.
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## 6. Private Investment and Equity Financing:

- - Infrastructure development companies, pension funds, and impact investors, can provide equity financing for transportation projects in exchange for a share of project ownership and future revenue.

## 7. Innovative Financing Instruments

- Innovative financing solutions, such as revenue-sharing agreements, infrastructure guarantees, and blended finance, can be explored to attract a diverse range of investors and mitigate financial risks.

Project proponents should ensure transparent procurement processes, project bankability, and robust financial management to attract investments.

Collaboration between governments, international organizations, and the private sector is essential to mobilize the necessary resources for these transformative transportation initiatives. It's important to conduct thorough financial due diligence and continuously monitor and manage project finances to ensure their success.

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# Thank You



## Main Programmes



Support the efforts of the government of Nigeria to attract needed investments and technology for industrial development, especially towards SMEs;



Linkages: Nigeria and AFCFTA member states with other developed countries to promote mutually beneficial industrial and technology cooperation.



Manufacturing sector assistance through knowledge sharing, technology infusion, building competitiveness and resilience fostering technology leadership in the AfCFTA



Expanding partnerships with public and private actors on innovation and technology transfer that will address the adverse effect of climate change and aid in the smooth transition to a **greener economy**.



Intensifying technical assistance to MSMEs, through capacity building, build strategic technology, innovation and investment partnerships and value-chains across Africa;



## Ecosystem Building Approach

