

Bridging the Gap:

# Transport Infrastructure as Africa's Economic Catalyst



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Africa's economic potential hinges on its ability to move goods, people, and ideas efficiently—yet its transport infrastructure remains a critical bottleneck. Poor roads, aging rail systems, and underdeveloped ports stifle trade, limit job creation, and undermine sustainability across the continent.

More than 640 million Africans have no access to energy, giving an electricity access rate for African countries at just over 40 percent—the world's lowest (AfDB, 2015). This goes to show the level of infrastructure deficit present in the African landscape of economic development. The World Bank estimates that inadequate transport infrastructure slashes Africa's productivity by up to 40%, a staggering loss that keeps economies fragmented and globally uncompetitive. Conversely, efficient transport networks, spanning roads, railways, and ports, can unlock significant gains: boosting GDP, linking rural producers to urban markets, and supporting green goals like reduced emissions. The African Continental Free Trade Area (AfCFTA), launched in 2021, amplifies this urgency, with projections of a 28% rise in freight demand by 2030 (UNECA, 2022). Meanwhile, global decarbonisation trends demand sustainable solutions, including electric vehicles and low-carbon rail, to align Africa with climate commitments.

This brief argues that strategic investments in sustainable transport infrastructure are not just an option but a necessity to unleash Africa's economic potential. By focusing on high priority

areas like connectivity and innovation, the continent has the unique advantage of turning its infrastructure deficit into a driver of growth, trade, and resilience.

## Africa's Transport Infrastructure Gap

Africa's economic potential is vast, but it remains hampered by a deep-seated barrier: weak transport infrastructure. While home to some of the planet's most rapidly expanding economies and rapidly growing populations, the continent's transport backbone remains weak. This weakness is most starkly apparent in its road infrastructure. Research shows that only 47% of African roads are paved, a figure lesser than the global average (World Bank, 2010). Such a low coverage of road infrastructure hinders access to markets, health, education, and employment—especially rural and landlocked territories.

The effects are widespread. Bad road networks add to the cost of trade, both national and international. Commodities shipped over long distances are bogged down by routine delays arising from poor roads, check-points, and slow border crossings. Intra-African trade is among the most expensive in the world, according to the World Bank (World Bank, 2010). Transport costs in Africa are 63% greater than in industrialised countries. Transport costs account for 30% to 50% of the continent's entire export value, compared to an average of 17% in other emerging countries (AfDB, 2013). UNCTAD affirms that at 11.4% of the value of imports, African

African Development Bank. AfDB to support electricity access for all by 2030 with African Renewable Energy Initiative. [AfDB to support electricity access for all by 2030 with African Renewable Energy Initiative | African Development Bank Group](#)

World Bank. (2010). Africa's Infrastructure: A Time for Transformation. Washington, DC: World Bank. Retrieved from <https://www.worldbank.org/en/region/afr/publication/africas-infrastructure>

United Nations Economic Commission for Africa. (2022). Private sector as the backbone of the AfCFTA implementation. <https://www.uneca.org/sites/default/files/ATPC/16June2022/Policy%20brief%20-AfCFTA%20and%20private%20sector%20final%20%281%29.pdf>

countries paid more for international transport than any other region in 2005–2014. Not so much has changed since then. This exorbitant transport makes African businesses less competitive and diminishes the attractiveness of regional integration, something very important for fulfilling the targets of the AfCFTA (UNECA, 2022).

On top of this, African cities have increasingly inadequate, aging transport infrastructure. Cities such as Lagos, Nairobi, and Kinshasa struggle daily with congestion, inefficient public transport, and high levels of accidents (UN-Habitat, 2020). These issues have the greatest impacts on poor areas, who must endure long, costly commutes. Lack of investment in infrastructure for non-motorised modes of transport like sidewalks and cycling lanes also denies mobility and perpetuates social exclusion.

Besides economic inefficiencies and social injustice, the infrastructure deficit has an environmental cost. Africa's heavy reliance on old, fuel-guzzling vehicles and deteriorated road networks translates into higher emissions of greenhouse gases and air pollutants (AfDB, 2022). Urban transport emissions are rising exponentially, compounded by excessive idling in slow traffic (IEA, 2021). With little investment in rail or clean transport modes, the African region risks committing itself to carbon-intensive transport systems, which go against its climate goals under the Paris Agreement.

Sealing the transport infrastructure gap in Africa is not just a question of economic

development—it's one of social inclusion, environmental sustainability, and regional integration. The solution lies in a comprehensive, multi-stakeholder approach that encompasses increased public investment, innovative financing arrangements (e.g., public-private partnerships), and robust policy environments favoring inclusive, low-carbon transport systems.

Particularly, expansion of investment in climate-resilient road construction, more rail and mass transit infrastructure, and promoting digital technologies for logistics management can help bridge the gap. Harmonisation of transport policies within regions to facilitate free cross-border movement of goods and people is also very important.

The challenge of transport infrastructure in Africa is great but not insurmountable. By proper planning and collective effort, the continent can transform its roads, rail network, and transit systems into the drivers of inclusive growth and sustainable development.

## Leveraging Transport for Growth

It is likely the most immediate benefit of increased transport infrastructure, which comes from connectivity and trade. Better roads, contemporary railways, efficient ports, and computerised logistical networks are required to realise this promise. Improved infrastructure allows easier cross-border trade, minimises delays, lowers logistical costs, and connects manufacturers to wider markets, especially in landlocked and rural places (UNECA, 2022). Effortless connectivity between African countries may free up billions of dollars

African Development Bank. (2013, April 15–19). Market brief: Africa economic & financial brief, 15–19 April 2013. <https://www.afdb.org/en/documents/document/market-brief-africa-economic-financial-brief-15-19-april-2013-34304>

United Nations Conference on Trade and Development. (2015, October 13). At 11.4 per cent of the value of imports, African countries paid more for international transport than any other region in 2005–2014. <https://unctad.org/press-material/114-cent-value-imports-african-countries-paid-more-international-transport-any-other>



in commerce, raise GDP, and drive investment in industrial and agricultural value chains (AfDB, 2022).

Aside from economic efficiency, transport infrastructure provides a strong foundation for green innovation. With the current global climate crisis, Africa can accelerate its growth by investing in low-carbon transportation. Increased usage of electric vehicles (EVs), combined with hydrogen-powered freight and mass transit, as well as infrastructure that allows for walking, cycling, and clean public transportation, can significantly reduce emissions (IEA, 2022). These will contribute to Africa's climate ambitions under the Paris Agreement, create green jobs, improve urban air quality, and reduce reliance on fossil fuel imports (AfDB, 2022).

Equally important is the role of youth engagement in shaping Africa's sustainable transport future. With over 60% of Africa's population under the age of 25, investing in the skills, creativity, and leadership of young professionals is a strategic priority (United Nations, 2023). Involving youth in transport planning, policy design, digital mobility innovations, and green infrastructure development fosters ownership, ensures long-term resilience, and creates pathways to employment in emerging sectors. From local start-ups building mobility apps to engineering students piloting solar-powered buses, youth are already transforming the transport space across the continent.

Opportunity	Action	Economic Impact	Environmental Impact	Youth Engagement
Trade Connectivity	Upgrade roads, rail, and ports	+8% GDP by 2035	N/A	+2 million jobs
Green Innovation	Deploy EVs and hydrogen transport	+500,000 green tech jobs	-25 million tons CO <sub>2</sub> by 2030	Training and upskilling in green tech
Smart Infrastructure	Integrate IoT and data analytics	+33% trade efficiency	-10% fuel use in urban transport	Innovation hubs and digital labs

**Figure 1:** Benefits of Transport Infrastructure Investments

UN-Habitat. (2020). World cities report 2020: The value of sustainable urbanization. United Nations Human Settlements Programme. [https://unhabitat.org/sites/default/files/2020/10/wcr\\_2020\\_report.pdf](https://unhabitat.org/sites/default/files/2020/10/wcr_2020_report.pdf)

African Development Bank. (2022). African economic outlook 2022: Supporting climate resilience and a just energy transition. <https://www.afdb.org/en/documents/african-economic-outlook-2022>

International Energy Agency. (2022). Africa energy outlook 2022. IEA. <https://www.iea.org/reports/africa-energy-outlook-2022>

United Nations. (2023). World population prospects 2022: Summary of results. United Nations Department of Economic and Social Affairs, Population Division. [https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/wpp2022\\_summary\\_of\\_results.pdf](https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/wpp2022_summary_of_results.pdf)

African Union Commission. (2014). Programme for infrastructure development in Africa (PIDA): Interconnecting, integrating and transforming a continent. [https://www.au.int/sites/default/files/documents/30314-doc-pida\\_brochure\\_lowres\\_english.pdf](https://www.au.int/sites/default/files/documents/30314-doc-pida_brochure_lowres_english.pdf)

World Bank. (2021). Smart cities in Africa: Leveraging technology for urban development. <https://www.worldbank.org/en/topic/urbandevelopment/publication/smart-cities-in-africa>





Africa's transport potential is already being served by visionary ventures and future innovation. An example is the Trans-African Highway (TAH) network, an ongoing project still in progress to connect major cities and economic hubs of the continent. Made up of nine highways spanning over 60,000 kilometers, the TAH network is poised to enhance regional integration, reduce transportation time and price, and enhance cross-border commerce (AUC, 2014). By linking landlocked countries to seaport terminals and harmonising road networks, this network supports the aspirations of the AfCFTA and serves as a template model for regional integration (UNECA, 2022).

Apart from these traditional infrastructure projects, Africa is also experiencing a surge in intelligent infrastructure solutions that combine technology with transport systems. For instance, Internet of Things (IoT) technology is being used in city traffic management systems in Kigali and Nairobi (World Bank, 2021). IoT technologies use sensors, GPS, and real-time data analytics to monitor jams, optimise traffic movement, and increase commuter satisfaction. These innovations not only address urban mobility challenges but also draw attention from Africa's growing population of tech-savvy youth (UN-Habitat, 2020). They also reveal modalities in which a hybrid approach that combines mega-infrastructure with

digital innovation is able to yield both short-term and long-term benefits.

## Policy Recommendations

To transform Africa's transport infrastructure into a driver of economic growth, a strategic, sustainable, and inclusive policy framework is critical. These recommendations provide a roadmap for impactful, future-ready transport systems.

### 1. Invest Strategically in High-Impact Projects

African governments should prioritise transboundary initiatives like the 69 priority projects under the Programme for Infrastructure Development in Africa (PIDA), which promise rapid, scalable benefits (AUC, 2014). Closing the \$100 billion annual infrastructure funding gap (AfDB, 2022) demands innovative public-private partnerships (PPPs). Legal frameworks, tax incentives, and credit guarantees can de-risk investments, attracting private capital to projects like the Trans-African Highway, enhancing connectivity and trade under AfCFTA (UNECA, 2022).

### 2. Prioritise Green Transport Solutions

Sustainability must anchor Africa's transport future. Dedicated funding for electric vehicle (EV) charging corridors

UN-Habitat. (2020). World cities report 2020: The value of sustainable urbanization. United Nations Human Settlements Programme. [https://unhabitat.org/sites/default/files/2020/10/wcr\\_2020\\_report.pdf](https://unhabitat.org/sites/default/files/2020/10/wcr_2020_report.pdf)  
 African Development Bank. (2022). African economic outlook 2022: Supporting climate resilience and a just energy transition. <https://www.afdb.org/en/documents/african-economic-outlook-2022>  
 International Energy Agency. (2022). Africa energy outlook 2022. IEA. <https://www.iea.org/reports/africa-energy-outlook-2022>  
 United Nations. (2023). World population prospects 2022: Summary of results. United Nations Department of Economic and Social Affairs, Population Division. [https://www.un.org/development/desa/pd/sites/www.un.org/development/desa/pd/files/wpp2022\\_summary\\_of\\_results.pdf](https://www.un.org/development/desa/pd/sites/www.un.org/development/desa/pd/files/wpp2022_summary_of_results.pdf)

and low-carbon rail networks can cut emissions while creating jobs (IEA, 2022). Leveraging Africa's lithium and copper reserves for battery manufacturing reduces fossil fuel reliance and boosts local industries (USGS, 2023). These investments align with Paris Agreement goals, positioning Africa as a leader in clean mobility and renewable energy integration (AfDB, 2022).

### 3. Empower Africa's Youth

With the youth population set to double by 2050 (United Nations, 2023), national strategies must harness this potential. Establishing mentorship programs, innovation hubs, and mobility incubators in transport engineering, green tech, and digital solutions builds capacity and ensures sector resilience (UNECA, 2022). Engaging youth as co-creators through startups or training drives long-term growth and job creation.

### 4. Harmonise Governance for Regional Integration

Disjointed regulations hinder intra-African trade efficiency. Harmonising customs, logistics, and infrastructure standards across regional economic communities (RECs) can slash trade costs by up to 33% under AfCFTA (UNCTAD, 2021). Streamlined governance accelerates cross-border projects, boosting competitiveness and reducing delays (World Bank, 2010).

## Implementation Approach

Bringing these policy proposals to fruition hinges on robust financing, effective planning, and concerted implementation. Funding from the African Development Bank (AfDB), Green Climate Fund (GCF), and development finance institutions (DFIs) can be a catalyst, unlocking the finance needed for transformative transport projects. The AfDB's investment of \$8.5 billion in infrastructure in 2022 (AfDB, 2022) is one such example, with an emphasis on climate-resilient roads and rail. The Green Climate Fund (GCF) provides grants and loans for low-carbon initiatives, including sustainable transport projects like electric vehicle (EV) infrastructure, with over \$6 billion in direct funding allocated to Africa since its inception in 2015 (Green Climate Fund, 2025). DFIs, such as the World Bank and the European Investment Bank, can co-finance PPPs, leveraging their combined annual lending capacity to de-risk private investment. In 2024 alone, the World Bank financed projects worth \$38 billion in Africa (World Bank, 2024). Blending these funds with green bonds and national budgets can bridge the \$100 billion a year infrastructure gap, scalability and sustainability.

Data-driven planning is also essential to drive greater impact and equity. Geographic Information Systems (GIS) mapping can identify high-need corridors—such as between rural



communities and AfCFTA trade hubs—optimising resource allocation (UNECA, 2022). Mobility surveys, such as those tracking urban congestion in Nairobi or Lusaka, reveal demand patterns, guiding equitable infrastructure placement (UN-Habitat, 2020). Digital monitoring tools, including IoT-enabled traffic systems, provide real-time data to refine operations and reduce emissions, as seen in Kigali’s smart traffic pilots (World Bank, 2021). These tools ensure investments prioritise underserved regions and align with decarbonisation goals.

Success requires collective effort across stakeholders. Governments must align policies and streamline regulations, while the private sector brings innovation and finance (e.g., through EV manufacturing or charging infrastructure). Youth stakeholders, who are growing in numbers and have tech-savvy skills, should co-design solutions through incubators and training programs (United Nations, 2023). Such multi-stakeholder cooperation can deliver sustainable, inclusive transport systems that propel Africa’s economic transformation, fostering trade, jobs, and resilience.

## Conclusion

Africa’s economic future hinges on the unlocking of its transport infrastructure from a hindrance to a driver of growth. This brief report demonstrates that strategic investment in roads, rail, and ports can boost GDP by 8% by 2035, lower trade costs by 33%, and create millions of jobs, while green technologies like EVs and hydrogen transport cut 25 million tons of CO<sub>2</sub> by 2030. Policymakers must prioritise financing and coordinated regulation, companies must drive innovation and investment, and Africa’s youth, over 60% of the population, must co-create solutions with skills and technology.

By 2035, imagine a successful Africa: efficient, green transportation networks propelling smooth trade under AfCFTA, powering industrial hubs, and spurring youth-led innovation. Action today makes this a reality, unleashing prosperity, sustainability, and resilience on the continent.



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