# Policy Advice Paper

## E-Mobility Policy Advice Paper for the Ministry of Works and Transport Tanzania


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## Title

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## About this report

This document is a dynamic work-in-progress developed as part of the SOLUTIONSplus project, aimed at assisting the Tanzanian government in facilitating the adoption of electric mobility. It provides a comprehensive framework for policy development and collaboration. Currently, the policy advisory paper is being refined in consultation with the Tanzanian government and relevant stakeholders to ensure it meets the nation's specific needs and objectives.


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## Disclaimer


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# Current Status of Tanzania

Tanzania's population exceeded 63 million in 2023, with a youthful demographic where 63% are under 24 years old. The country comprises over 120 tribes, with 36% of the population residing in urban areas and significant internal migration from rural to urban regions, especially in the densely populated northern and eastern parts. The country's expansive topography includes an extensive Indian Ocean coastline, plains, and notable mountains such as Kilimanjaro and Meru, alongside major lakes like Tanganyika, Nyasa, and Victoria. With a Gross Domestic Product (GDP) of $281.31 billion in 2023, Tanzania's rapidly growing economy is driven by agriculture (cotton, coffee), tourism (Serengeti, Kilimanjaro, Zanzibar), and mining (gold, diamonds). The transport infrastructure in Tanzania heavily relies on roads, which accommodate 90% of passenger traffic and 75% of freight traffic. The country's road network spans 86,472 kilometres and is managed by two primary agencies, TANROADS (Tanzania National Roads Agency) and TARURA (Tanzania Rural and Urban Roads Agency). In addition to roads, Tanzania's transportation network includes railways operated by TRC (Tanzania Railways Corporation) and TAZARA (Tanzania-Zambia Railway Authority), covering a total of 3,676 kilometres. The aviation sector is supported by 58 airports and over 300 private airstrips across the country. Electrification in Tanzania improved from 13% in 2008 to 40% in 2023. The country is aiming to increase electricity access by 75% as of 2033. Tanzania's energy network is supplied by multiple resources. Hydropower makes up 45% of the country's electricity, however infrequent rain, which may have been attributed to climate change at some point, has resulted in water shortages that affect the generation of electricity. The construction of the Nyerere hydroelectric power dam is expected to help increase energy supply. There has also been a drive to increase the production of energy through other means such as solar, wind, biomass, and natural gas.



**Highlights**

**Population**
> 63 million
63% youthful demographic
**GDP**
$281.31 (2023)
**Road Network**
86,472 KM
**Electrification**
40% (2023)

02

# Summary of Low-Carbon Policies in Tanzania's Transport and Energy Sectors

The Paris Agreement, adopted in 2015 under the United Nations Framework Convention on Climate Change (UNFCCC), aims to limit global warming to well below 2 degrees Celsius and pursue efforts to limit it to 1.5 degrees Celsius above pre-industrial levels. This international treaty requires participating countries to set and periodically update their Nationally Determined Contributions (NDCs) to mitigate greenhouse gas emissions and strengthen resilience to climate change impacts. Tanzania's Nationally Determined Contributions (NDC) for 2021 outline its commitment to reduce greenhouse gas emissions by 30-35% relative to the Business-As-Usual (BAU) scenario by 2030. This reduction target translates to an expected decrease of approximately 138-153 million tons of carbon dioxide equivalent (MtCO2e) in gross emissions. Tanzania's NDC aligns with its broader sustainable development agenda, emphasizing the country's commitment to combating climate change while pursuing economic growth and development. To reduce greenhouse gas (GHG) emissions in its transport sector, Tanzania is focusing on enhancing its rail and road networks to promote the use of public transportation. Improved connectivity and infrastructure development are crucial in decreasing reliance on individual motorized vehicles, thereby contributing to lower emissions. Significant initiatives include the improvement of rapid transit systems and the construction of the Standard Gauge Railway (SGR), which utilizes electric trains. These efforts are central to Tanzania's strategy to mitigate emissions by offering more efficient and low-carbon alternatives to traditional transportation modes. Apart from its Nationally Determined Contributions (NDCs), Tanzania benefits from a comprehensive framework of regional, national, municipal, and city-level policies that support low-carbon transport initiatives.

## 2.1 Regional Policies

At the regional level, Tanzania has embraced a multi-level policy framework to support low-carbon transportation solutions. As part of the East African Community (EAC), Tanzania benefits from regional policies aimed at establishing emission standards and improving infrastructure for non-motorized vehicles. The EAC sets permissible emissions limits for common pollutants found in motor vehicle exhaust, including carbon monoxide, particulate matter, nitrogen oxides, and hydrocarbons. These limits apply to all vehicles, including cars, commercial vehicles, and motorcycles, and cover new, imported used, and in-use vehicles. The EAC Gazette also sets air quality standards (EAS 1047:2022). Additionally, the EAC Climate Change Policy requires member countries to develop air pollution emission standards, particularly for the industry and transport sectors, focusing on increasing the quantity and efficiency of public transport systems and improving accessibility for all users, especially for gender inclusivity. The EAC Climate Change Master

Plan (2011-2031) promotes transportation infrastructure for non-motorized transport to enhance safety. The Master Plan suggests investment in low-carbon and low-cost public transport, including Bus Rapid Transit (BRT), and recommends increased investment in rail systems, stricter emissions standards on motor vehicles, and more effective transportation and urban planning to enhance efficiency and reduce reliance on motorized transport.

## 2.2 National Policies

At the national level, the National Climate Change Response Strategy (NCCRS) guides Tanzania's climate change initiatives from 2021-2026. It outlines key objectives, strategies to achieve them, targets, indicators, estimated budget, timeframes, means of tracking, and responsible institutions. Regarding energy, the strategy promotes the development of less carbon-intensive energy infrastructures, climate-resilient infrastructure for human settlements and industry, smart cities and eco-smart villages, and the development of low-carbon technologies such as renewable energy microgrids to facilitate economic development. In transportation, the NCCRS promotes efficient transport systems with minimal greenhouse gas (GHG) emissions by increasing low-cost and low-carbon mass transport networks, including BRT. The strategy also encourages non-motorized transportation (NMT) through cycling and pedestrian walkways, improved railway networks, and integrated urban transport planning.

Other national policies promote automotive fuel efficiency by recommending the use of natural gas to fuel cars, mandating this for city commuter buses, restricting vehicle imports to Euro 4+ standards, and taxing non-compliant vehicles to reduce emissions.

The National Transport Policy (2003) makes recommendations to improve NMT infrastructure in poorer areas of cities, residential areas, and peri-urban areas, including updated bus terminals, street furniture, and improved pedestrian space. It stresses congestion issues with growing transport demand, particularly in urban centres like Dar es Salaam, and proposes increased private sector participation, separating public transit into dedicated lanes, and encouraging NMT and mass transport usage. The policy also emphasizes gender-based accessibility and reduced costs for NMT in rural areas and recommends rail, tram, and water transport solutions to address street congestion.

The Tanzania Bureau of Standards (TBS) sets standards, including those for vehicle performance, safety requirements, and emissions controls, ensuring that vehicles entering the Tanzanian market meet high-quality and safety standards. The Tanzania Revenue Authority (TRA) and the Ministry of Finance and Planning (MOF&P) set applicable taxes for vehicle imports. However, registering electric vehicles through the Tanzania Revenue Authority is currently challenging because the process has not been reviewed to include electric two and three-wheelers. Electric three-wheelers lack comprehensive regulations as they are not classified as commuter services; they are reported to be limited to carrying three passengers and one driver to be licensed, although this limitation is not specified in legal texts. One of the major barriers to the adoption of electric three-wheelers is the high taxes and fees associated with their importation, typically amounting to 46.7%, significantly inflating their cost.

## 2.3 Municipal and City Policies

At the municipal and city levels, national policies are often replicated, but Dar es Salaam stands out with its ambitious Climate Action Plan (CAP) aligning closely with global emissions reduction goals. The CAP demonstrates an unwavering commitment to achieving Tanzania's Nationally Determined Contributions (NDCs), aiming for a 29% reduction in emissions by 2030 and a 65% reduction by 2050. Dar es Salaam aims to promote sustainable transport modes, including ultra-low emission vehicles, and to ensure clean and secure energy sources. The city has implemented a Bus Rapid Transport program designed to enhance mobility, decrease vehicle emissions, and improve the efficiency of sustainable transit modes. Dar es Salaam established the Dar Rapid Transit Agency (DART) in 2007 to lead the transition to sustainable urban mobility. The first Bus Rapid Transit (BRT) line commenced operations in 2016, with Phase 1 comprising two lines totalling 21 km. Phase 2, spanning 20.3 km, nears completion, while Phases 3 and 4 are currently under construction. Upon full completion across six phases, the BRT network will feature 154.4 km of segregated corridors, 18 terminals, and 288 stations, integrating feeder services and non-motorized transport options near stations. Plans are underway to introduce electric buses in the future phases of the BRT network, a significant stride towards promoting low-carbon transportation in Dar es Salaam.

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# SOLUTIONSplus Project in Dar es Salaam

In Dar es Salaam, the project promoted the electrification of three-wheelers ("Bajaj"), tested new mobility options in the form of pedal-assist electric bicycles used for urban deliveries, raised awareness on electric mobility, and identified policies to remove barriers to sustainable electric urban mobility.

Very positive results have been achieved, from no electric three-wheelers ("E-three wheelers") for passenger services at the start of SOLUTIONSplus in 2020, to five supported companies currently testing different new or retrofitted electric three-wheelers. These companies, all using lithium-ion batteries, contrast with the rest of the electric fleet, using environmentally damaging lead-acid batteries having lower energy efficiency. SOLUTIONSplus introduced pedal-assist electric bicycles for urban deliveries, a vehicle type not previously used in Dar es Salaam. The E-Mobility Forum in March 2023 was the first large event on electric and sustainable urban mobility in Dar es Salaam gathering key Tanzanian and sub-Saharan stakeholders'.

Key metrics of the SOLUTIONSplus project:

- 39 new electric three-wheelers (Bajaj) locally assembled
- 4 retrofitted electric three-wheelers, converted from former fossil-fuel vehicles
- 1 large and collaborative Feasibility Assessment to electrify three-wheelers
- 16 pedal-assisted electric vehicles daily transporting urban deliveries & medical supplies
- 1 E-Mobility Forum, the first high-level e-mobility event and EV Exhibition in Dar es Salaam
- Numerous capacity-building activities training beneficiaries at local and regional levels, in-person at the Dar es Salaam Institute of Technology and online
- Numerous policy papers and roadmaps at the city, country, and regional levels
- 35 persons trained in the assembly of pedal-assist electric bicycles.

Key results of the Impact Assessment with the SOLUTIONSplus companies (extracts)

- Financial viability for E-three-wheeler companies, with an Internal Rate of Return of 22.5%, yet with challenges such as risks of drivers' payment default
- 82% of surveyed drivers were interested in moving to electric three-wheelers, and the large majority desired a lease-to-own model
- GHG emission reduction of 76% with E-three wheelers compared to Internal Combustion Engine (ICE)-three-wheelers, from the base case technology in the

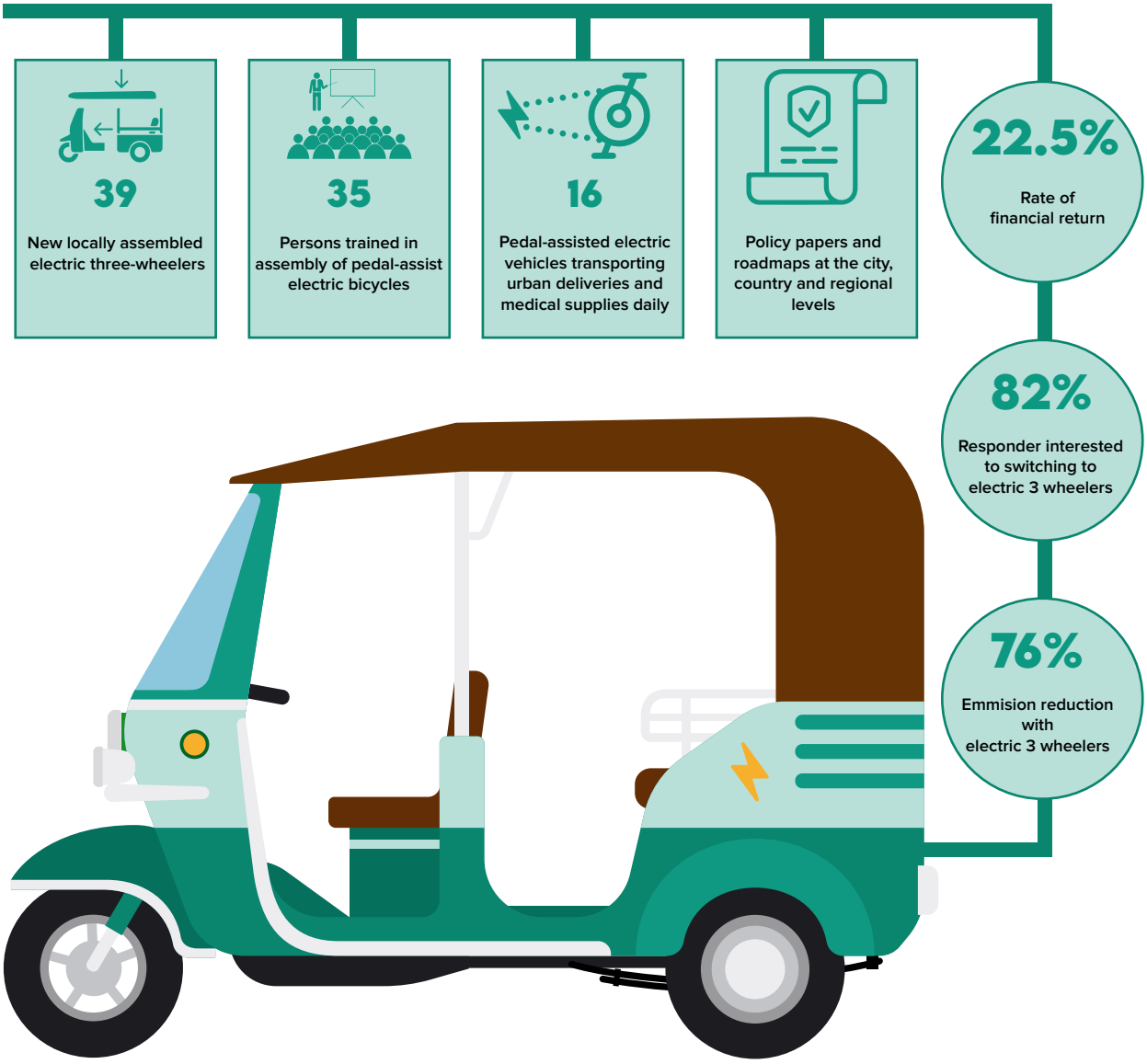
base year; 95% with e-bicycles replacing ICE motos in Dar es Salaam.

- Yet, environmental benefits depend on the rapidity of the introduction of E-three wheelers and phasing out of ICE-three wheelers: in a conservative scenario, CO2 saving potential of 11.86% by 2030; in an optimistic scenario, CO2 saving potential of 29%

- Prevalence of overnight plug-in charging completed by opportunity top-up during the day for electric three-wheelers, with safety to ensure for charging at the user's home

- Gaps to fill with regards to spare parts, maintenance, and repairs for electric three-wheelers and e-bikes

The exhaustive Impact Assessment and findings will be made available by SOLUTION-Splus in June 2024.



04

# Electric Mobility in Tanzania: Priority Areas, Barriers and Solutions

*"Increase in EV adoption, local production, and job creation are foreseen impacts of the project"*

Electric mobility faces several barriers in Tanzania due to current legislative and infrastructural limitations. The National Transport Policy of 2003, while emphasizing non-motorized transport (NMT) improvements, lacks provisions for promoting low-carbon mobility options. The Road Traffic Act, which was last amended in 2021, governs vehicle regulations but lacks specific guidelines for EVs, hindering their integration into the traffic system. Similarly, the Roads Act of 2007, though governing road construction and maintenance, needs amendments to prioritize EV infrastructure such as charging stations. Moreover, the Motor Vehicles Tax on Registration and Transfer Act imposes high taxes on EVs, notably electric three-wheelers, discouraging their affordability and uptake. The Road and Fuel Toll Act, focusing on toll collection for road maintenance, does not currently provide exemptions or reduced rates for EVs, further hindering efforts to develop a cleaner transport infrastructure. These policies and regulations need to be reviewed to address these barriers.

As part of the SOLUTIONSPlus project towards improving and finalizing the Electric Mobility Policy Advice Paper for Tanzania, a co-creation workshop was held during the first Africa E-mobility Forum 2023 in Dar es Salaam to discuss and formulate solutions to the gaps and barriers for the introduction of electric mobility in Tanzania. The discussions were guided by priority areas identified through research interviews with stakeholders conducted by the Africa E-mobility Alliance (AfEMA). A design thinking approach was applied to guide the stakeholders in identifying the barrier (challenge) to each priority area and co-formulate solutions to the challenges decelerating the adoption of electric mobility in Tanzania. In May and June 2024, there was a review process done for the workshop and a capacity-building activity.

The impacts envisioned following the implementation of the SOLUTIONSplus project include an increase in EV adoption, local production, and job creation. The outcomes of these impacts will benefit the EV market in Tanzania through better products and pricing and improve the socio-economic aspects of all stakeholders across the electric mobility value chain, including women. The results of the discussions have been synthesized into the policy proposals shared in the next section.

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# Policy Recommendations

| Policy Objectives | Critical Issues | Policy Statement | Policy Measures | Goals(terms)<br>(Short-1-2years, Mid 2-7 years, long 7 -15 years) |
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| 1. To develop an integrated and comprehensive policy, legal, and regulatory framework to promote the adoption of E-mobility | • Limited coordination among stakeholders<br>• Inadequate legal and regulatory framework<br>• Insufficient data on EVs.<br>• Lack of clear policy leadership<br>• Lack of standardized EV codes and standards<br>• Unclear EV disposal methods | A suggestion to the Government and the Ministry of Works and Transport is to:<br>1. Establish an Electric Mobility Institutional Framework to facilitate widespread EV adoption and set transition targets. | • Form the Electric Mobility steering committee through the government.<br>• Conduct a national Electric Vehicle demand assessment.<br>• Set target timelines when all new vehicles registered will be required to be zero-emission vehicles (ZEVs) with different timelines for different categories of vehicles<br>• Prioritize EVs in government fleets with local content<br>• Develop a regulatory framework for EV asset financing.<br>• Establish mass transit EV frameworks<br>• Create a central database for EV regulations and standards for Tanzania<br>• Regularly update all the stakeholders on the progress of the e- mobility transition. | Short Term: Form steering committee, assess EV demand, prioritize EVs in fleets<br>Mid Term: Set ZEV adoption timelines, enhance EV data systems<br>Long Term: Achieve widespread ZEV adoption, monitor progress |

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| | | A suggestion to the Government through the Tanzania Bureau of Standards, Ministry of Energy, and the Ministry of Works and Transport is to:<br>2. Establish and review legal and regulatory frameworks to promote EV adoption. | • Introduce vehicle emissions standards with periodic inspections to ensure compliance to enable phasing out the high number of old second-hand imported vehicles in Tanzania that pollute the environment.<br>• Introduce high emission standards together with fines for OEMs trying to sell their vehicles in Tanzania.<br>• Certify EV industry professionals and technicians to enhance competency in servicing and maintaining EVs.<br>• Harmonize EV codes and standards to ensure consistency in manufacturing and safety practices.<br>• Establish clear safety regulations and standards for the manufacture/assembly, importation, and operation of EVs.<br>• Develop end-of-life disposal methods to manage EV waste responsibly.<br>• Mandate data sharing on EV usage to improve regulatory oversight.<br>• Implement residual battery life requirements for imported used electric vehicles.<br>• Ensure registration policies for all-electric vehicle modes to ensure all companies are facing the same streamlined system | Short Term: Introduce emissions standards, certify professionals, establish safety regulations<br>Mid Term: Harmonize EV standards, develop disposal methods<br>Long Term: Implement Extended Producer Responsibility for EVs |

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| 2. Local Manufacturing & Assembly of EVs | • Limited local manufacturing capacity<br>• Low investments in e-mobility<br>• Technical skills gap in the local workforce | A suggestion to the Government, Financial institutions, and the Ministry of Works and Transport is to<br>3. Promote local manufacturing and assembly of EVs. | • Encourage Completely Knocked Down (CKD) and Semi Knocked Down (SKD) manufacturing approaches by putting exemptions and streamlined regulations in place<br>• Implement ZEV sales targets/investment requirements for automakers and assemblers to qualify for government incentives.<br>• Establish a clear local content requirement on EVs phased over time.<br>• Build the capacity of relevant technicians and share knowledge with the local workforce on e-mobility.<br>• Put in place measures to support the manufacture of EV parts.<br>• Support local battery manufacturing, recycling, and repurposing.<br>• Facilitate partnerships with international EV manufacturers<br>• Establish partnerships with development banks to support through loans and grants the local manufacture and assembly of EVs<br>• Establish assembly plants for EVs to reduce dependence on expensive EV imports. | Short Term: Implement incentives, build technical capacity, and encourage CKD/SKD.<br>Mid Term: Set ZEV sales targets, establish local content requirements<br>Long Term: Achieve high local content in EV manufacturing |

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| 3. E-mobility Infrastructural Capacity | • Inadequate EV charging infrastructure<br>• High capital and electricity costs<br>• Unreliable electricity grid | A suggestion to the Ministry of Energy and the Ministry of Works and Transport is to<br>4. Develop and enhance E-mobility infrastructural capacity. | • Develop guidelines to plan and install EV charging points, with specific attention towards safety and prevention of fire hazards.<br>• Establish targets for deploying government-funded EV charging infrastructure to ensure widespread coverage.<br>• Encourage interoperability of EV charging systems and interoperability of public charging stations.<br>• Develop building codes and regulations that accommodate EV charging infrastructure, for new buildings.<br>• Develop a coordination framework between major players in the electricity sector (Generation, Transmission and Distribution) to improve electrification and reliability.<br>• Undertakes periodic reviews to determine optimal charging locations to inform investments in EV charging infrastructure.<br>• Promote the use of renewable energy sources for EV charging for example solar charging.<br>• Establish a collaboration between development banks and Ministry of Finance to enable the upgrading of transmission and distribution systems through loans and grants. | Short Term: Develop charging guidelines, ensure reliability, integrate with building code<br>Mid Term: Increase deployment targets, integrate with building codes<br>Long Term: Achieve widespread and reliable charging infrastructure |

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| 4. Development of EV-based Public Transport | • Insufficient financing for public transport EVs. | A suggestion to the Government and the Ministry of Works and Transport is to<br>5. Promote the development and integration of EV-based public transport. | • Develop a phased framework for EV transition in public transport<br>• Provide financing and insurance mechanisms to promote EV-based Public Transport.<br>• Expand incentives for public transport EVs.<br>• Provide dedicated parking spots special for electric buses at bus terminal stops.<br>• Support pilot projects for Electric Vehicles for public transport.<br>• Develop a framework for granting subsidies to public service transport players who acquire high-capacity EVs for passenger transportation. | Short Term: Develop a transition framework, and create financing mechanisms.<br>Mid Term: Expand framework, increase incentives.<br>Long Term: Complete transition of public transport to EVs. |
| 5. Enhancing Local Technical Capacity | • Limited local technical skills.<br>• Technological advancements in e-mobility. | A suggestion to the Government. Universities, TVETs, and the Ministry of Education is to:<br>6. Enhance local technical capacity across the E-mobility value chain. | • Integrate e-mobility education into TVET and University programs by incorporating specialized training programs and developing a comprehensive curriculum.<br>• Promote Research and Development in Electric Vehicle technology<br>• Ensure training and manuals for EV operators<br>• Establish EV technology innovation hubs across Tanzania. | Short Term: Integrate e-mobility modules, and mandate training<br>Mid Term: Promote R&D, facilitate knowledge sharing<br>Long Term: Fully integrate e-mobility education, lead in EV technology |

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| 6. Fiscal and Non-fiscal Measures for EV Adoption | • High upfront cost of EVs<br>• Inadequate incentives for EV adoption | A suggestion to the Tanzanian Revenue Authority and the Ministry of Finance is to<br>7. Improve fiscal and non-fiscal measures to accelerate EV adoption. | • Ensure that existing incentives, such as the industrial license removing the import duty, are known and applied without challenges for companies.<br>• Provide tax incentives including Import Duty, Excise Duty, and VAT exemptions for EVs, batteries, and spare parts over a specified period.<br>• Ensure that existing incentives, such as the industrial license removing the import duty, are known and applied without challenges for companies.<br>• Ensure that incentives apply to all types of EVs, including pedal-assist electric bicycles.<br>• Ensure expedited and access green channels for EV parts importation.<br>• Develop a special operating framework (SOF) that will provide special fiscal and non-fiscal incentives to attract the establishment of EV manufacturing plants in Tanzania and for the exportation of locally built EVs across the continent.<br>• Introductions and advocacy for the Tanzanian e-mobility ecosystem to help encourage venture capital firms to invest in equity.<br>• Ensure/encourage the facilitation of grant money for piloting small vehicle fleets. | Short Term: Offer tax exemptions, promote EV infrastructure<br>Mid Term: Maintain incentives, expand EV financing options<br>Long Term: Phase out incentives, after widespread EV adoption |

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| | | | • Assess the feasibility of introducing de-risking mechanisms for new-to-credit borrowers (e.g. drivers of electric three-wheelers), through exchanges with countries with higher maturity on such EVs, e.g. India.<br>• Provide incentives for businesses and property owners to develop and install EV public charging infrastructure.<br>• Reduction of transfer duty/stamp duty for EV infrastructure developments.<br>• Review day and night electricity tariffs for EV charging stations.<br>• Integrate charging infrastructure with transport and energy planning.<br>• Waive vehicle registration fees for EVs.<br>• Develop and implement a special discounted electricity tariff for EV charging at home, at public charging stations, at bus terminals, and bus depots.<br>• Provide unique license plates to allow EVs to get preferential services such as access to restricted zones like low emission zones (LEZs), and subsidized parking fees among others. | |

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| | | | • Provide tax incentives including the waiver of import duty, VAT and excise duty on completely built-up EVs for a defined period to decrease the price of new EVs then gradually increase it with increase in uptake.<br>• Provide tax incentives, including the waiver of import duty, VAT and excise duty for locally manufactured and assembled EVs.<br>• Streamline the process for accessing incentives for the various key electric mobility players.<br>• Raise import tariff for Internal Combustion Engine Vehicles based on vehicle emission standards.<br>• Introduce Low Emission Zones to restrict ICE entry into certain areas to reduce congestion and pollution.<br>• Provide preferential parking for EVs in public parking areas and congested streets.<br>• Provide toll exemptions to EVs on toll roads. | |

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| 7. Socioeconomic Measures for Inclusive E-mobility | • Limited inclusion of women, youth, and PLWDs in e-mobility.<br>• Insufficient financing options for e-mobility investments. | A suggestion to the Government and the Ministry of Works and Transport is to<br>8. Scale up socioeconomic measures to promote inclusive e-mobility. | • Develop programs for women, youth, and PLWDs in e-mobility<br>• Establish low-interest loans for EV investments<br>• Develop targeted programs that incentivize women, youth and PLWDs to engage in economic activities enabled by E-mobility.<br>• Develop programs to employ women, youth and PLWDs in different E-mobility activities.<br>• Develop targeted programs for the creation of public awareness of e-mobility's benefits, cost savings, and environmental advantages.<br>• Provide fiscal and non-fiscal incentives to players in the E-mobility value chain to employ women, youth, and PLWDs.<br>• Establish data security and privacy standards for EVs to protect consumer data, ensure confidentiality, and prevent unauthorized access or misuse of personal information.<br>• Establish low-interest loan programs to provide financial assistance to businesses and organizations investing in EVs.<br>• The Government to collaborate with financial institutions to develop affordable E-mobility financing products that support women, youth, and PLWDs. | Short Term: Launch awareness campaigns, develop inclusive programs<br>Mid Term: Expand programs, promote investment in e-mobility<br>Long Term: Achieve high inclusivity, ensure financial support for all segments |

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| | | | • Track and report on the involvement of women, youth, and PLWDs in e-mobility | |
| 8. Sustainable Road Fund Alternatives | • Over-reliance on petrol and diesel fuel tax for the Road Fund<br>• Inadequate funding for road maintenance | A suggestion to the Tanzania Revenue Authority and the Ministry of Works and Transport is to<br>1. Develop sustainable financing alternatives to reduce reliance on the Road Fund. | • Assess the impact of e-mobility on Road Fund sustainability<br>• Develop alternative financing structures<br>• Apply "polluter pays" at the initial transition and "user pays" principles after the complete transition<br>• Implement a phased approach in the financing transition<br>• Explore public-private partnerships for funding road development and maintenance | Short Term: Assess impact, create alternative structures<br>Mid-Term: Develop financing models, apply principles<br>Long Term: Implement sustainable financing for road maintenance |

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# Conclusion

Based on the extensive details provided by the SOLUTIONS plus project and the broader context of electric mobility in Tanzania, several conclusions can be drawn. The SOLUTIONSplus project in Dar es Salaam has demonstrated significant progress in promoting electric mobility. Key achievements include the introduction of electric three-wheelers and pedal-assist electric bicycles for urban deliveries. The project has also demonstrated local assembly and retrofitting of electric vehicles, enhancing technological capacity and creating new economic opportunities.

The workshop and co-creation efforts have highlighted critical barriers to electric mobility adoption in Tanzania, such as inadequate coordination, limited legal frameworks, and insufficient data management systems. The Proposed policy advice measures include establishing an Electric Mobility Institutional Framework, introducing vehicle emissions standards, and promoting local manufacturing and assembly of EVs. These policies aim to provide clear guidance, regulatory certainty, and incentives for stakeholders across the electric mobility value chain. The challenges related to EV infrastructure, including high capital costs and unreliable electricity supply, have been identified. Proposed solutions emphasize the need for comprehensive guidelines for EV charging infrastructure, ensuring interoperability, and enhancing electricity grid reliability. The project acknowledges barriers such as the high upfront costs of EVs, limited funding schemes, and the need for financial inclusion across diverse demographics, including women, youth, and persons living with disabilities (PLWDs). The transition to electric mobility is projected to have environmental benefits, including significant reductions in greenhouse gas emissions and air pollution. Moreover, the sector holds potential for economic growth through job creation, local manufacturing, and enhanced energy efficiency. However, realizing these benefits depends on overcoming current barriers and implementing a comprehensive policy framework. Collaboration between government, private sector, academia, and civil society will be essential for achieving long-term sustainability and fostering innovation in the electric mobility ecosystem. In conclusion, while Tanzania's electric mobility sector shows promise, efforts are needed to address existing challenges and capitalize on emerging opportunities. The comprehensive policy proposals and initiatives outlined by SOLUTIONSplus and stakeholders provide a solid foundation for accelerating the adoption of electric vehicles, enhancing infrastructure, promoting local manufacturing, and achieving sustainable socioeconomic development in the country.