Tanzania National EV Communication Strategy

The United Republic of Tanzania
Ministry of Transport

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Partners on the project:

Consultant:

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Abbreviations

AC	Alternating Current
BAU	Business-As-Usual
BEV	Battery Electric Vehicle
CAGR	Compound Annual Growth Rate
CAPEX	Capital Expenditure
CPO	Charging Point Operator
COSTECH	Commission for Science and Technology
CTCN	Climate Technology Centre and Network
DC	Direct Current
EBIT	Earnings Before Interest and Taxes
EV	Electric Vehicle
EVSE	Electric Vehicle Supply Equipment
E2E	End-to-End
EVCP	Electric Vehicle Charging Point
FCV	Fuel Cell Vehicle
IEA	International Energy Agency
IFI	International Financial Institutions
ICE	Internal Combustion Engine
kWh	Killo watt hour
MR	Motorization Rate
MSP	Mobility Service Provider
MtCO2e	Million tons of Carbon dioxide equivalent
NGO	Non-governmental Organization
OEM	Original Equipment Manufacturer
OPEX	Operational Expenditure
p.a.	Per annum
PHEV	Plug-in Hybrid Electric Vehicle
PPP	Public Private Partnership
SEERI	Siemens EV Ecosystem Readiness Framework
SPV	Special Purpose Vehicle
TANESCO	Tanzania Electric Supply Company Ltd
T&D	Transmission and Distribution
2W	Two Wheelers
3W	Three Wheelers
4W	Four Wheelers

1 Executive summary

1. Tanzania is positioning itself at the forefront of sustainable transportation through the development and scaling up of electric mobility (EV). In alignment with the Paris Agreement, which Tanzania ratified in 2018, the country is committed to reducing greenhouse gas emissions by 30-35% by 2030 relative to the Business-As-Usual scenario. The transport sector, identified as a priority for mitigation efforts, is central to achieving these targets.

2. E-mobility might reduce CO2 emissions by 75% per vehicle. Therefore, the government of Tanzania aims to create an environment which increases the number of EVs on the roads, but also establishes parts of the value chain of e-mobility in Tanzania. To support e-mobility by policies and regulations, the government created a National Electric Vehicle Policy Framework. In addition to the Policy Framework the government developed a National Electric Vehicle Implementation Framework, which should guide the participating entities on national and regional level in technical and economic development of e-mobility.

3. This document, the National Electric Vehicle Communication Strategy will complement the policy framework and the implementation framework by outlining communicational dependencies between entities, showing required interaction and suggesting communication channels. It is suggested for the initiative to be guided by the Vice President's Office (VPO). Participating ministries would be the Ministry of Transport (MoT), Ministry of Energy (MoE), Ministry of Finance (MoF), Ministry of Education, Science and Technology (MoEST), Ministry of Industry and Trade (MoIT) together with their subordinate entities.

4. Interaction with the private sector is required towards national EV and electric vehicles supply equipment (EVSE) manufacturers, international EV and EVSE manufacturers and national and international banks and investment organisations from the private sector. Further, to share best practice and align for cross-border roaming, communication should be established with African countries around Tanzania. Further support with expertise or funding could be received from international financing institutions. Therefore, organisations should be informed about latest developments, and existing channels should be leveraged to apply for funding.

5. Last, the centre of attention should be on the user, the end customers and drivers. As electric vehicles require a certain change of behaviour from the users and have different economic characterization, drivers need to be convinced from its advantages.

6. Al in all, enhancing policies, adopting innovative business models, strengthening sustainability regulations, and investing in technology and localization, Tanzania can pave the way for a sustainable future. Strategic collaboration between the public and private sectors, alongside international support, will be crucial in overcoming challenges and unlocking the full potential of e-mobility in the country.

2 Objectives

2.1 Overall Objective

7. A key driver behind Tanzania's initiative for e-mobility comes from the realization of the National Determined Contribution of Tanzania.[1] There, Tanzania targets to reduce 30 - 35% greenhouse gases relative to the Business-As-Usual (BAU) scenario by 2030, which leads to a reduction of 138 - 153 million tons of Carbon dioxide equivalent (MtCO2e)-gross emissions over all sectors, in which **the transport sector is declared as a priority mitigation sector**. Next to this objective are the supporting objectives from the society, the economy, and the administration of Tanzania, wherein e-mobility typically contributes.

8. **Objectives for society** can mainly be categorized into health, prosperity, and equality. e-mobility can reduce emissions which directly affect health, e.g., SO_X and NO_X. A further impact on the society is affordability. **If EVs or electric transport led to a reduction of costs for mobility and transport, an increasing share of the population will be able to use mobility and improve their access on education, jobs, medical treatment, goods and authorities**, which should further result in the increase of prosperity and equality within society.

9. The **economic impact** is expressed mainly in a reduction of costs for transport and mobility. Further, it is targeted, that some parts of the e-mobility value chain can be stimulated, e.g., the mining of regional available raw materials like graphite, copper and nickel and other parts of the value chain can be localised in the future, e.g., battery manufacturing and vehicle assembly. Both expectations on the value chain would also directly contribute to objectives of the society by increasing income and prosperity. **Further economic impact could be achieved by decreasing dependencies of fuel imports by charging EVs with electricity from local renewable energies.**

10. Last, the administration aspects follow certain objectives with the implementation of e-mobility. As there are constraints in public spendings, investments and incentives for e-mobility and the required infrastructure must be affordable. **New regulations, which come with the implementation needs to be compatible with existing strategies and regulation.**

11. **The communication strategy** plays a crucial role in the successful implementation of a national e-mobility framework, having the primary targets of:

    1. Raising Awareness: Educating the public about the benefits of e-mobility, such as reduced emissions and cost savings, is essential. This helps in building public support and encouraging adoption.
    2. Stakeholder Engagement: Effective communication ensures that all stakeholders, including government agencies, private sector players, and the public, are informed and involved. This fosters collaboration and addresses concerns or misconceptions.

[1] Nationally Determined Contribution

3. Behavioral Change: A well-crafted communication strategy can influence public behavior, encouraging people to switch from traditional vehicles to electric ones. This includes highlighting incentives, such as subsidies or tax benefits.
4. Policy Support: Clear communication of policies and regulations helps in smooth implementation. It ensures that all parties understand the legal framework and compliance requirements.
5. Infrastructure Development: Informing the public about the development of charging infrastructure and other support systems is vital. This reassures potential users about the feasibility and convenience of using electric vehicles.
6. Monitoring and Feedback: Continuous communication allows for monitoring progress and gathering feedback. This helps in making necessary adjustments to the strategy and addressing any emerging issues.

2.2 EV Ramp Up

12. Based on calculations, an internal combustion engine (ICE) two-wheeler (2W) might emit 1,4 tons CO_2 per year in average[2], while an electric 2W would emit 0,32 tons of CO_2. The example is based on assumptions for yearly fuel consumption and a forecast for the power mix in Tanzania in 2030. Therefore, the higher the share of electric vehicles among all vehicles in Tanzania, the lower the overall emissions of the transport sector.

13. While there have been some EV sales in Tanzania before 2024, the volumes have been relatively small. In dependency of the extent of introduced policies to foster the uptake of e-mobility, the share of EVs in Tanzania could develop in different paths. As shown in Figure 2-1, the annual growth of the EV share in Tanzania has been modelled across four scenarios to assess the potential impact on emission reductions. These scenarios reflect different future trajectories for the CO2 emissions of various vehicle groups, based on the projected share of EVs within the total vehicle stock. The model considers four different CAGR for EV uptake: 0%, 2%, 4%, and 6%.

14. In the moderate scenario, where the CAGR is 4%, it is projected that there will be approximately 1.5 million EVs by 2030. In comparison, the conservative scenario, with a CAGR of 2%, is expected to result in around 750,000 EVs by 2030. Conversely, the aggressive scenario, featuring a CAGR of 6%, could lead to approximately 2.3 million EVs by 2030. These scenarios help to visualize the impact of different growth rates on emission reductions and provide a range of potential outcomes for Tanzania's transition to electric mobility.

[2] Assumptions: Fuel consumption: 3l/100km, spec. CO2 emissions: 2,34kg/l, yearly travel: 20.000km

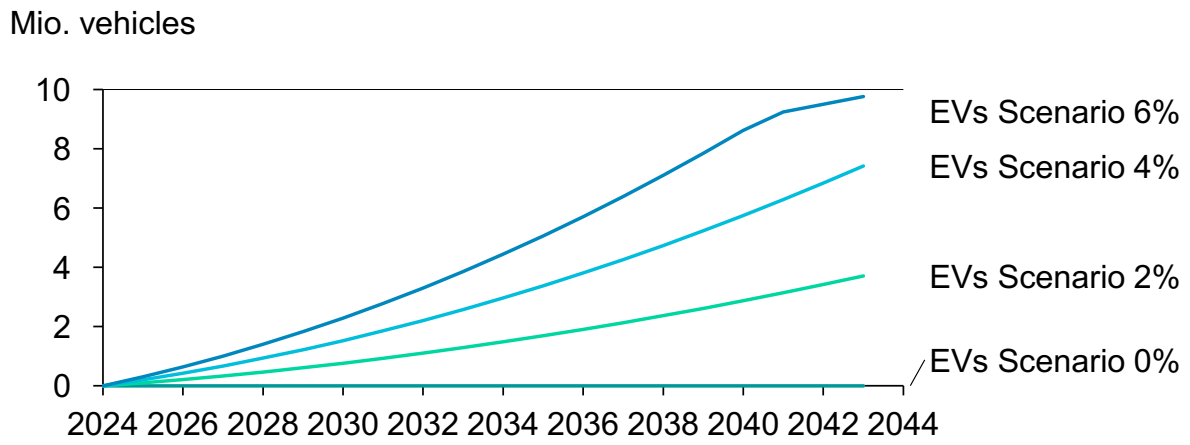


Figure 2-1: Number of EVs in four different scenarios (Siemens analysis)

2.3 National EV Policy Framework

15. The introduction and adoption of e-mobility in a Tanzania implies the introduction of new technologies, an eco-system including roles and responsibilities, standards and regulations which will require extensive support to be sufficiently competitive with existing technologies. The governmental support offered usually comes in the form of administrational, technical and economical standards and promotional mechanisms set as policies. To ensure that policies work most efficient, Tanzania decided to create a comprehensive **National E-mobility Policy Framework**. This framework will be based on four strategic pillars:

16. **Pillar-1:** Localize EV technology and deepen local manufacturing
17. **Pillar-2:** Scale-up Passenger EVs and E-buses
18. **Pillar-3:** Synergize with RES and reduce GHGs
19. **Pillar-4:** Enable the Charging Infrastructure

20. Each pillar includes a set of respective policies. The selected policies are based on international best practice. A designated group of experts from public sector, academia and private sector reviewed and selected international proven measures and adapted them to local context. Finally, the **National Electric Vehicles Policy Framework** has been exposed to four weeks of National Stakeholder Consultation phase and finally a one-day National Stakeholder Consultation workshop.

21. To further distribute Tanzania's initiative on e-mobility, this **Communication Strategy** gives guiding, how to communicate to stakeholders in and outside of Tanzania. The document lists all relevant stakeholders, outlines their respective messages and the appropriate communication channel.

3 Communication Strategy Overview

Tanzania's communication strategy was designed to have tailored messages and the appropriate channels, and tools for different stakeholder groups. The communicational tasks for each stakeholder group evolves from their responsibility for the implementation of respective policies stated in the consecutive National EV Policy Framework. The following is a breakdown for each stakeholder group:

Government and Policymakers

Key Messages	EV adoption aligns with national climate goals and international commitments like the Paris Agreement. It provides economic benefits such as reduced fuel imports and improved energy security through local renewable energy integration. Additionally, it creates job opportunities in manufacturing, maintenance, and charging infrastructure sectors.
Communication channels	Policy briefs, white papers, high-level workshops, seminars, government websites, and internal communication platforms.
Tools	Data dashboards showing projected economic and environmental benefits, case studies from countries with successful EV transitions, and infographics summarizing cost-benefit analyses.

Private Sector (Businesses, Automakers, and Investors)

Key Messages	There are significant investment opportunities in EV manufacturing, charging infrastructure, and renewable energy integration. Tanzania offers growing market potential supported by favorable policies. Investors can expect strong returns, supported by tax benefits for early adopters.
Communication channels	Industry conferences, trade fairs, business forums, roundtable discussions, direct emails, and newsletters targeting key industry leaders.
Tools	Business case templates for EV investments, detailed guides on government incentives and grants, and digital campaigns on LinkedIn and other professional platforms.

Civil Society Organizations (CSOs) and Non-Governmental Organizations (NGOs)

Key Messages	EV adoption contributes to reduced air pollution and improved public health. It supports a sustainable future and complements other environmental advocacy efforts. Organizations can participate in public awareness campaigns.

Communication channels	Stakeholder meetings, workshops, social media platforms like Twitter and Facebook, and reports and newsletters from environmental organizations.
Tools	Training materials on EV benefits and challenges, co-branded advocacy toolkits, and social media toolkits for grassroots campaigns.

General Public

Key Messages	EVs offer cost savings over time due to lower fuel and maintenance costs. They contribute to cleaner air and reduced noise pollution, leading to healthier communities. EVs are modern, safe, and becoming increasingly affordable.
Communication channels	TV, radio, print media, social media platforms (Facebook, Instagram, TikTok), and community engagement events and exhibitions.
Tools	Interactive apps showing EV cost savings, videos and testimonials from early EV adopters, and educational brochures and posters in local languages.

Academia and Research Institutions

Key Messages	EV technology represents a new frontier for research and innovation in Tanzania. There are opportunities for partnerships with industry and government, along with capacity-building initiatives for students and researchers in clean mobility.
Communication channels	Academic journals, conferences, collaborative workshops, innovation challenges, university intranets, and newsletters.
Tools	Research grants and funding guides, access to government and industry data for research purposes, and collaborative platforms for joint projects.

Transport and Logistics Companies

Key Messages	Fleet electrification reduces operational costs and provides access to government incentives for electrifying transport operations. Companies play a crucial role in advancing Tanzania's sustainable transport goals.
Communication channels	Industry-specific forums, networking events, targeted email campaigns, and specialized transport and logistics publications.

Tools	Fleet electrification guides, case studies on EV logistics success stories, and demonstrations of EV fleet performance.

Energy Sector (Utilities and Renewable Energy Companies)

Key Messages	Renewable energy has a critical role in powering the EV ecosystem, creating opportunities in charging infrastructure deployment and smart grid integration.
Communication channels	Collaborative forums between energy companies and government, newsletters, industry reports, and public-private partnership platforms.
Tools	Data on energy demand from EVs, guidelines for setting up charging stations, and platforms for matchmaking between energy providers and EV businesses.

4 Public sector

22. The individual entities (Figure 4-1) of the public sector need to work collaboratively together to drive e-mobility to master the wide variety of challenges. Communication will mainly rely on existing channels. The moderator of the initiative will be Vice President's Office (VPO).

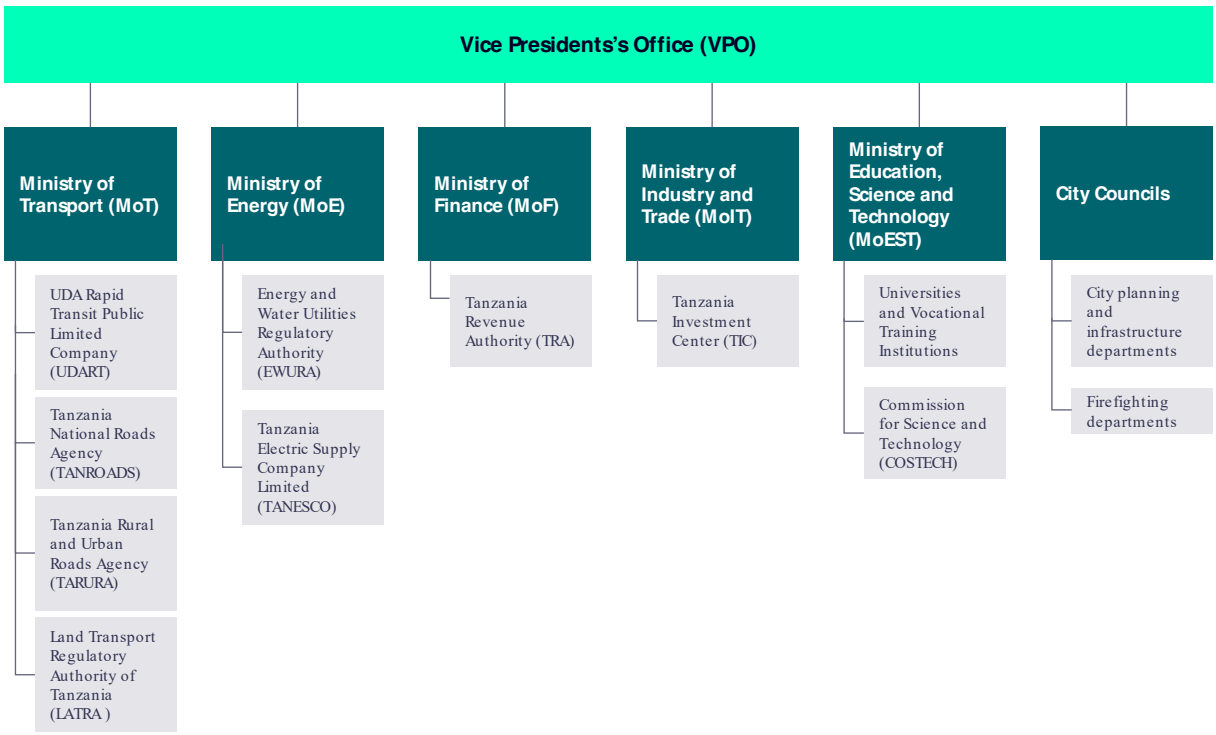


Figure 4-1: Communication streams on e-mobility among stakeholders of the public sector

4.1 Vice Presidents Office

23. The Vice President's Office (VPO) works collaboratively with the Ministry of Transport (MoT), Ministry of Energy (MoE), Ministry of Finance (MoF), Ministry of Education, Science and Technology (MoEST) and Ministry of Industry and Trade (MoIT) through dedicated working groups that hold regular meetings to develop the electric vehicle (EV) ramp-up curve and set EV adoption targets. The VPO integrates these targets and the corresponding emission reduction goals into national environmental strategies, such as the Environmental Masterplan and the Environmental Management Act. Once these targets are agreed upon, the VPO communicates them to the relevant ministries through presentations, ensuring that all key stakeholders are informed. Additionally, the VPO disseminates these targets and the necessary actions to city councils through written communications and presentations, utilizing existing communication events and platforms to maximize reach. The broader public sector should be kept informed through the VPO's media

channels and website, ensuring comprehensive awareness and alignment across all levels of government.

4.2 Ministry of Transport

24. The MoT collaborates with UDART to develop strategies for enhancing the capacity to plan routes for public e-buses, ensuring that the transition to electric mobility is smooth and efficient. In collaboration with UDART, the MoT evaluates and outlines a roadmap for implementing e-buses, providing a clear and actionable plan for their integration into the public transportation system. The MoT must instruct TANROADS and TARURA to identify and characterize optimal locations for hosting charging infrastructure, which is essential for implementing e-mobility solutions. Furthermore, the MoT assigns LATRA the responsibility of establishing technical standards for electric vehicles (EVs) and electric vehicle supply equipment (EVSE), setting the foundation for a consistent and safe e-mobility framework. Collaboration and co-creation should be conducted in working groups, official assignments should be corresponded in writing.

4.3 Ministry of Energy

25. The MoE collaborates with EWURA to evaluate optimal market models for Charge Point Operators (CPOs) and Mobility Service Providers (MSPs) within the evolving Tanzanian e-mobility market. Additionally, the MoE works with TANESCO to build the necessary capacity to operate both AC and DC charging stations, ensuring a robust infrastructure for electric vehicles. As part of its broader energy management strategies, the MoE incorporates e-mobility considerations into plans to roll out smart meters, which are essential for effective load management. The MoE also evaluates future electricity and peak load demands resulting from e-mobility in partnership with EWURA, ensuring that electric vehicles are fully integrated into the country's capacity planning. Furthermore, the MoE, in collaboration with EWURA and TANESCO, develops upgrades for Tanzania's grid codes to facilitate the seamless connection of charging stations to the grid and the implementation of appropriate protection devices, thereby supporting a stable and secure energy supply for the e-mobility sector.

4.4 Ministry of Finance

26. The MoF collaborates with the Tanzania Revenue Authority (TRA) to evaluate and establish the necessary processes for effectively administering EVs within registration and tax systems. In line with the National Electric Vehicle Policy Framework, the MoF and TRA explore options to implement incentives to foster the adoption of e-mobility. Additionally, the MoF works closely with the MoT and the MoE to develop strategies for financing the investments needed to support the e-mobility ramp-up, focusing on funding the deployment of charging infrastructure and upgrades to the electricity grid.

4.5 Ministry of Industry and Trade

27. MoT and the Ministry of Industry and Trade (MoIT) need to align on a strategy towards international EV and EVSE manufacturers. In case international manufacturers shall be incentivized to establish manufacturing lines in Tanzania, Tanzania Investment Center (TIC) needs to be informed bilateral. TIC is responsible to place opportunities for investment in its channels towards international investors.

4.6 Ministry of Education, Science and Technology

28. The Ministry of Education, Science, and Technology (MoEST), in collaboration with COSTECH, develops a comprehensive concept to integrate e-mobility into the curricula of universities and vocational training institutions. Universities will concentrate on the techno-economic aspects of e-mobility, including the development of EVs, electric vehicle supply equipment (EVSE), and grid planning. Meanwhile, vocational training institutions will focus on the practical subjects necessary for the retail, maintenance, implementation, and operation of EVs and EVSE. This integrated approach ensures that both academic and technical education sectors are equipped to support the growth and sustainability of the e-mobility ecosystem in Tanzania.

4.7 City councils

29. City councils incorporate the adoption of e-mobility into their strategic and master plans, ensuring that the transition to electric vehicles is aligned with their long-term urban development goals. In collaboration with their city planning and infrastructure departments, city councils develop strategies to scale up charging infrastructure and integrate EVs into public transportation systems. Additionally, city councils work with firefighting departments to enhance firefighting capabilities to meet the specific safety requirements associated with EVs, ensuring the necessary preparedness for potential emergencies.

5 Private sector

30. Stakeholders from the private sector are mainly national and international EV and EVSE manufacturers and national and international banks. Figure 5-1 provides an overview on the different touchpoints between the entities of public and private sector.

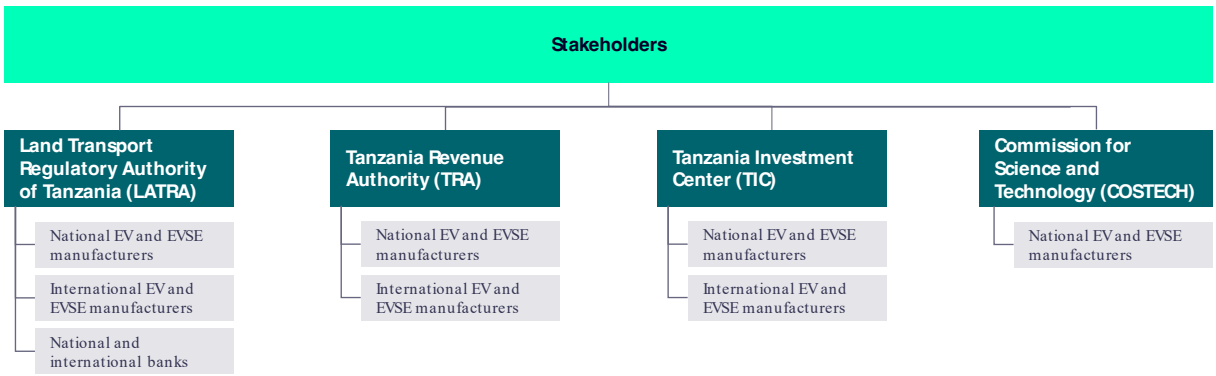


Figure 5-1: Communication streams on e-mobility towards private sector

5.1 National EV and EVSE manufacturers

31. MoT together with LATRA shall inform national EV and EVSE manufacturers about technical standards and regulations governing e-mobility to ensure their products meet the required specifications. Additionally, local manufacturers need to be informed about various incentives and supported loan options by the MoF and TRA, helping to facilitate their growth and participation in the e-mobility market. Further information for manufacturers is required on available training and educational programs focused on e-mobility, which can enhance their capabilities and knowledge in this rapidly evolving field. Responsible entities are MoEST together with COSTECH.

5.2 International EV and EVSE manufacturers

32. MoT and LATRA should provide information about the technical standards and regulations specific to e-mobility in Tanzania, to international EV and EVSE manufacturers to ensure compliance with local requirements. Further, Tanzania Investment Centre (TIC) should announce potential opportunities to establish production facilities within the country, highlighting local manufacturing and market expansion potential. Additionally, MoF and TRA need to inform manufacturers of import customs procedures, clarifying the importation process for their products.

5.3 National and international banks

33. TIC should inform national and international banks about the numerous opportunities available to finance local manufacturers of EVs and EVSE. MoIT and TIC should collect relevant information

among ministries and prepare those for international banks in appropriate channels. Further investment opportunities arise from potential development and expansion of charging infrastructure. Additionally, potential investors should be supplied with information on opportunities to finance e-buses for public transportation, contributing to the broader efforts to integrate sustainable mobility solutions into the urban transport system.

6 International organizations

6.1 African and East African associations

34. MoT and MoE should establish connections with organizations such as the East African Community, the African e-Mobility Association, and the East African Center of Excellence for Renewable Energies. Engaging with these associations will facilitate discussions on cooperation potential in areas such as technical standards, market regulation, and cross-border roaming of e-mobility services. Utilizing organized events, meetings, and working groups to foster these exchanges will enhance regional collaboration and support the development of a cohesive e-mobility framework across countries.

6.2 International financial institutions (IFIs)

35. COSTECH should inform international financial institutions with information about e-mobility initiatives to be integrated into their websites and publications, enhancing visibility and awareness. Additionally, these institutions should be approached with applications for funding opportunities to support e-mobility projects, including pilot programs for electric vehicles and the development of charging infrastructure, to advance and expand e-mobility solutions effectively.

7 End customers and drivers

7.1 Private vehicle owners

36. MoT should provide comprehensive information about electric vehicles for private vehicle owners, including technical capabilities, economic characteristics, and environmental advantages of EVs. Additionally, information about potential incentives for purchasing EVs should be highlighted. To effectively reach this audience, various media channels should be leveraged: display posters in public spaces, publish information on public websites, and run television campaigns. Leverage digital platforms such as Google Ads and social media campaigns on channels like Instagram or TikTok and engage influencers with substantial followings to promote electric cars.

7.2 Commercial vehicle owners

37. MoT should provide comprehensive information about electric vehicles, including their technical capabilities, economic characteristics, and environmental advantages. Additionally, information about potential incentives for purchasing EVs should be highlighted. To effectively reach this audience, utilize various media channels: Use information channels for enterprises, like the Tanzania Chamber of Commerce, Industry and Agriculture (TCCIA), but also use mailings and one pager. In the focus of potential campaigns should be fleet operators for the transportation of goods and people, like distribution, bus services or taxis.

8 Summary

38. The introduction and adoption of e-mobility in a Tanzania implies the introduction of new technologies, an eco-system including roles and responsibilities, standards and regulations which will require extensive support to be sufficiently competitive with existing technologies. The variety of topics requires a wide field of stakeholders and competencies (Figure 8-1).

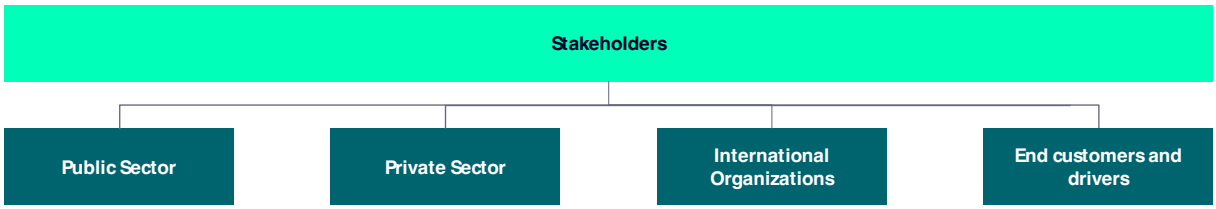
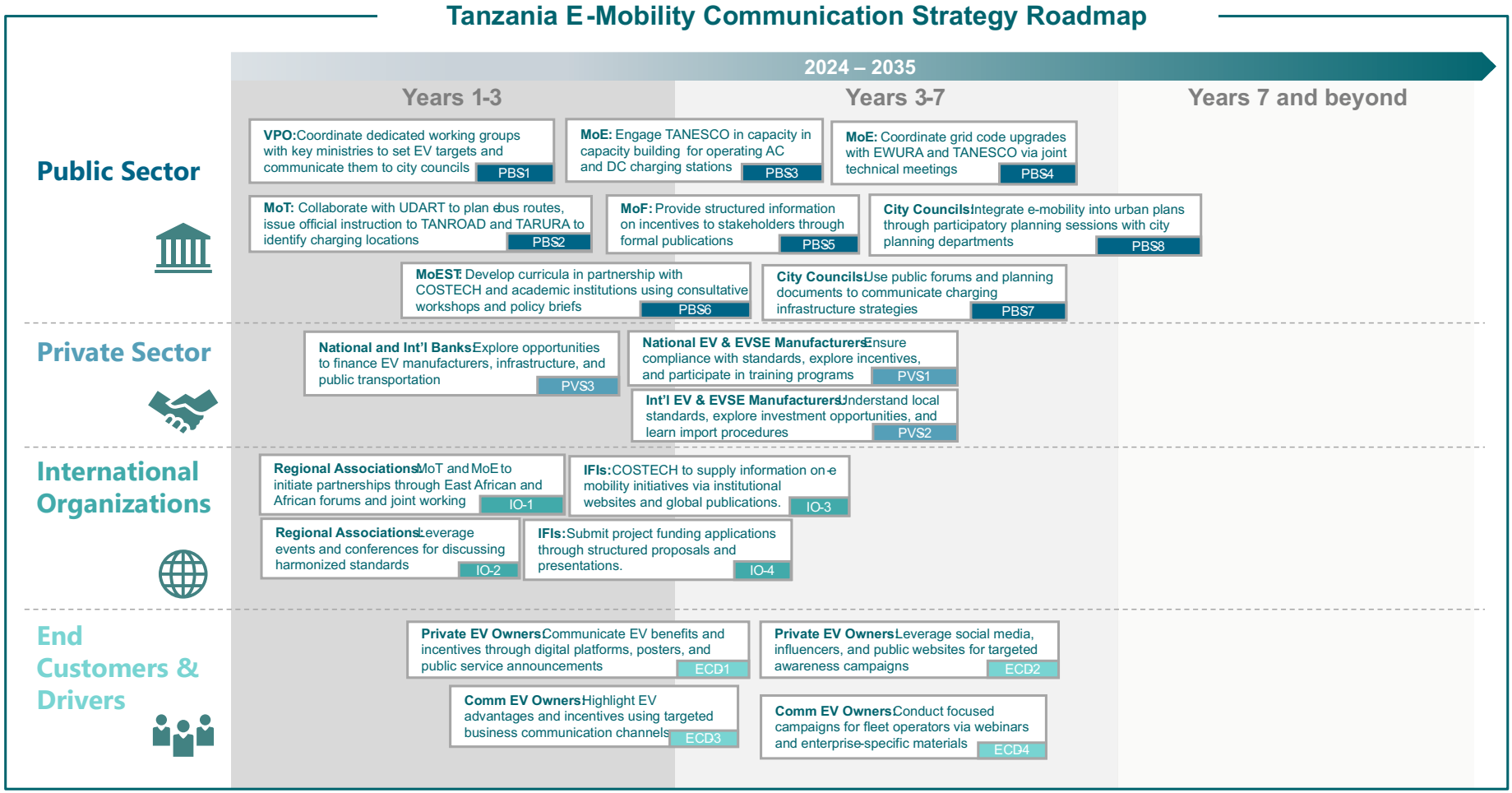


Figure 8-1: Required fields of stakeholders for e-mobility in Tanzania

39. The amount and nature of support that other countries provide vary significantly and usually correlates to the overall motivations that drive the deployment of e-mobility in such countries, i.e., the drivers and motivation. Tanzania intends to drive e-mobility and the prevention of CO2 emissions with full engagement and therefore targets the integration of public sector, private sector, international organisations and end customers. The respective communication channels will be adapted to the respective group of stakeholders.



40.

Figure 2 Tanzania's e-mobility communication strategy in the next ten years