

Mobility for Africa • Promoting access to sustainable electric mobility in rural areas to empower women

In Africa, <u>approximately 450 million people</u> (more than 70% of its rural population) lack access to mobility options due to a lack of infrastructure and transport systems. In Zimbabwe, the lack of transport infrastructure has a significant impact on the agricultural sector, which provides livelihoods for about 70% of the population and 15-20% of the country's GDP. It provides employment, contributes to economic growth, poverty reduction, and food and nutrition security. An estimated 18,000 new farmers are working in contract and outgrower schemes in Zimbabwe. These small-scale farmers travel long distances on foot or by motorcycle to reach their farms. To address this, local startup <u>Mobility for Africa</u> has been developing an integrated, safe, and replicable electric micro-mobility system for rural populations in Wedza, Domboshawa, and Chipinge since 2019 to sustainably improve their mobility and working conditions and help reduce pollution.

Improving the quality of life of rural populations thanks to the "Hambas"

In a context of transformation of mobility and emergence of new modes of transport in Africa, Mobility for Africa, has been providing since 2019 a shared electric mobility service based on "Hambas", geolocatable tricycles powered by a standardized solar energy battery swap system. Unlike a battery recharging system that can take a few hours, the swap system allows to change the discharged battery for a charged one in a few minutes.

Mobility for Africa rents the tricycles to groups of women (of a maximum of five) for \$15 per month. These women can then <u>transport and sell</u> their agricultural products to more distant markets. In addition to meeting <u>SDGs</u> 1, 5, 7, 10, and 17, this integrated service opens up growth opportunities for beneficiaries in the rural communities of Chipinge, Domboshawa, and Wedza by significantly increasing <u>their income</u>.

According to <u>60 Decibels</u>, an independent impact measurement company, the transport and logistics service, these Hambas allow 92% of beneficiaries to improve safety during their travels. They also make it easier to transport people to health facilities, including pregnant women. 87% said that they experienced a <u>net reduction</u> in travel time and 99% saw an increase in their self-confidence.

Electric tricycles for "cleaner" mobility

Adopting a mode of community micromobility such as the electric tricycle is one way to achieve "cleaner", safer and more accessible mobility, independent of fossil fuels, responsible for 33% of the country's greenhouse gas emissions. The solution implemented by Mobility for Africa integrates the training of beneficiaries and employees to drive and operate the technological device around the tricycle and batteries.

A Research and Development (R&D) programme has also been deployed within the community to ensure continuous monitoring and testing of the tricycle's adaptability and safety, as well as the battery management system, GPS system, fleet management and new data collection.

A nationwide initiative

In 2020, in partnership with <u>PManifold</u>, an energy, e-mobility and environmental research and consulting firm, Mobility for Africa supported the Zimbabwean government in developing its framework law and roadmap for electric mobility adoption. The process was initiated by the Ministry of Environment, Tourism and the Ministry of Energy and Power with funding from the Climate Technology Center and Network (CTCN) and the United Nations Environment Programme (UNEP) <u>Digital</u> <u>Transformation</u> Section. In Zimbabwe, as in many countries in the region, vehicle classification is outdated and managed by a multitude of entities, which hinders the transition to electric mobility. The bill and targets are due to be passed in 2022 and can accelerate the action and investment needed to make this transition a reality.