Electric vehicle range n djamena

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Spiro, a subsidiary of the Equitane Group, aims to lead Africa’s transition to sustainable transportation. Its efforts have earned it a spot on TIME’s 100 Most Influential Companies of 2024. Currently, Spiro operates 21,000 electric motorbikes across seven African countries, making it a key player in the continent"s e-mobility space.

Africa, with its 54 countries and a population of 1.4 billion, presents a unique and diverse market for e-mobility. Despite having a population size comparable to India, the continent’s 2W ownership is significantly lower. Annual two-wheeler sales in Africa are around 2 million units, compared to 20 million in India, with a total stock of just 20 million compared to India"s 250-300 million. This disparity reflects both a challenge and an immense opportunity for growth in the mobility sector.

The adoption of EVs varies across Africa, with East Africa showing higher uptake due to better purchasing power and GDP levels. Countries like Kenya, Uganda, Rwanda, and Ethiopia are leading the charge. West Africa, including Nigeria, faces challenges such as unreliable electricity supply. South Africa and the Democratic Republic of the Congo (DRC) experience similar issues, highlighting the importance of infrastructure development to support e-mobility.

2Ws, particularly motorcycles, are the backbone of Africa"s transport system. Motorcycles are mainstream in Africa for their ability to handle rough terrains and heavy loads. This preference is driven by the continent"s unique transport needs, such as bike taxis and cargo transport. 3Ws are also dominant, especially for passenger and goods transport in West and East Africa.

The shift to electric 2Ws offers substantial economic and environmental advantages. Operators, such as bike taxi owners, can save 15-30% on running costs compared to petrol vehicles. These savings stem from lower energy costs and reduced maintenance.

Additionally, EVs help reduce emissions, addressing health concerns related to air pollution from petrol bikes. This transition supports Africa’s broader sustainability goals and reduces its dependence on imported fuel.

Spiro has developed an extensive battery-swapping network to overcome the challenges of limited electricity infrastructure. This model allows riders to quickly replace depleted batteries, offering convenience comparable to refuelling at gas stations. Burman emphasized that battery swapping is not the sole solution; it must be complemented by fast charging infrastructure to alleviate range anxiety and provide flexibility for users.

African governments are playing a crucial role in promoting e-mobility. Some have introduced bold mandates, such as Rwanda banning the registration of gas-powered motorbikes by 2025 and Ethiopia banning the import

of all gas-powered passenger vehicles. These policies signal a commitment to clean transportation and encourage the private sector to invest in the necessary infrastructure. While African governments may not have substantial subsidies like India"s FAME program, they are fostering an environment conducive to e-mobility growth.

Renewable energy, particularly solar, will be pivotal in addressing Africa"s energy challenges. While renewable energy will play a crucial role, Burman acknowledges that the base load will still rely on hydrocarbons like natural gas and coal for stability.

Burman envisions a phased growth of e-mobility in Africa, starting with two-wheelers and expanding to three- and four-wheelers. Public transport electrification, such as buses, is still in its infancy but has significant potential. Companies like Basigo in Kenya are already making strides in this space. As the infrastructure and energy supply improve, the e-mobility ecosystem will continue to expand, driven by both public and private sector efforts.

There is vast potential and unique challenges to Africa"s transition to electric mobility, which requires strategic investments, strong government support, and a focus on local talent and infrastructure. There are significant opportunities for Indian and global companies to engage in Africa"s growing e-mobility market. Collaboration will be essential, with partnerships between OEMs, energy providers, and local businesses. For businesses looking to enter the African market, long-term partnerships and a commitment to localization will be key to success.

Spiro is investing heavily in local talent and infrastructure. The company has established an Africa Center of Excellence and Innovation in Nigeria and launched manufacturing facilities in Kenya and Nigeria. The company also trains and upskills local professionals.