



#### Accelerating Electric Mobility and Cleaner Transport Adetayo Bamiduro





# Where is Africa's Population Heading?





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## 2 & 3 Wheelers are Accelerating GHG emissions in Africa



urc 🛐 💭 💥 Siah.berkelev.edu/MiniProjects/MotorcyclePollution.html, IEA (2017 to 2030) EV Growth, Bloomberg New Energy Finance (2030 to 2040) EV Growth

#### MAX's Vehicle Subscription business model to the rescue!

Electric Vehicles (EV)





EVs initially launched in 2020<sup>1</sup>



#### E2W and E3W samples





#### MAX M3 Long Range



#### **Product Details**

- · Speed: 85km/h
- · Range: 120km 160km
- Fast Charging Time: 3.50 hours
- Voltage Platform: 72v
- Battery Rating: 5.47kwh
- Motor Rating: 3.8kw



#### M3 Battery Long Range





#### **Product Details**

- Voltage Platform: 72v
- Battery Rating: 5.74kwh
- Weight: 36kg
- Battery Composition: NCM (Farasis cells)



## **Battery Swap Station (BSS)**



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#### Range: 800km

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- · Charging: 6 M3 Batteries
- Fast Charging Time: 2.50 hours
- Dimension : 108.5\*78\*184cm
- Energy Consumption: 4.5kwh

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### Design considerations for EVs and EV infrastructure in Africa



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### EVs offer a strong value proposition to commercial taxis





Duration 30 Days

IMEI	STATUS	DISTANCE (KM)	TRIP COUNT	AVG SPEED	ACTIVE TIME	ODOMETER (GPS RECORDINGS)	DATA
EV 1	ONLINE	606.34	179	77 Km/Hr	363Hrs 43Mins	705 Km	View Here >>>
EV 2		838.06	281	82 Km/Hr	389Hrs 56Mins	812 Km	View Here >>>

IMEI	STATUS	DISTANCE (KM)	TRIP COUNT	AVG SPEED	ACTIVE TIME	ODOMETER (GPS RECORDINGS)	DATA
ICE 1	ONLINE	645.80	202	67 Km/Hr	330Hrs 16Mins	685 Km	View Here >>>
ICE 2	ONLINE	724.30	246	78 Km/Hr	342Hrs 34Mins	854 Km	View Here >>>



## Recommendations & solutions to EV deployment challenges in Africa

Challenges across the EV value chain	Criteria	MAX solution			
EVs not adapted to current road infrastructure and African users	Adequacy	MAX has designed and developed the M3 e-motorcycle by adapting the EV to the terrain and the needs of African drivers			
Lack of charging infrastructure	Infrastructure	MAX is deploying charging stations with the capacity to charge simultaneously 20-40 batteries			
High upfront cost of EV	(5) Affordability	Subscription model allowing drivers not to bear significant upfront cost and ultimately benefit from cheaper solution on a lifecycle basis			
Lack of technical know-how for maintenance	Maintenance capability	MAX is partnering with garages with the ability to navigate e-motorcycles maintenance			
Lack of access to reliable and clean electricity for charging	Electricity supply	MAX is partnering with renewable energy providers to ensure charging stations are powered by green energy in countries with a low share of renewable energies in the power mix			

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# **Connect with us**



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