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Electric Scooter Sharing and Urban Mobility in Nairobi: A Pilot Study on Emissions Reduction Over Six Months

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Abstract

Electric scooter sharing has emerged as a novel urban mobility solution in Nairobi, Kenya, offering a low-cost alternative to traditional transportation modes such as bicycles and motorbikes. A mixed-methods approach combining surveys, interviews, and sensor data collection was employed to gather detailed insights into user behaviour, environmental impacts, and service performance. Electric scooters significantly reduced carbon dioxide emissions by approximately 15% compared to motorbike usage in the study area. The pilot study underscores the potential of electric scooter sharing as a viable strategy for enhancing urban mobility sustainably in Nairobi's congested informal sectors. Further research and policy support are required to ensure equitable access, safety standards, and environmental regulations are in place to maximise benefits while mitigating risks. Electric scooters, Urban mobility, Emissions reduction, Nairobi, African Studies

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