



Project_Scoping
2019

NAIROBI PROJECT SCOPING

**Easing movement and logistics of
small-scale businesses in Mombasa
through adoption of
Electrical Handcarts (E-Handcarts)**



**Wuppertal
Institut**

UN HABITAT
FOR A BETTER URBAN FUTURE



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PROBLEM STATEMENT

The population growth is in a rise in Mombasa and also informal settlement is high in urban fringes. Those areas are underserved by infrastructure and other amenities. The small scale traders, peri-urban farmers or street hawkers living in urban fringes of Mombasa have difficulty due to inadequate urban services and the situation is more difficult due to poor economic condition. Using minibuses for goods transportation to urban market from fringes is costly for small business. Therefore, manual handcarts are widely used for cargo services by small businesses in Mombasa. However, they are labour intensive, provide poor productivity and the infrastructure does not support its ease in movement. This has created a delay in services, traffic congestion and caused health impact. Indirectly, the traffic congestion or traffic snarl up due to manual handcarts has led to more carbon emission. Mombasa has currently over 10,000 handcarts plying on the road daily competing for the same space together with other vehicles. Start-ups, such as Auto-Truck E.A Ltd have recognized the need for an alternative, and start providing low-cost and efficient solutions, such as electric handcarts that uses clean mobility technology to run and operate.



COUNTRY OVERVIEW

MOMBASA

OVERVIEW

Mombasa, the port city of Kenya, is experiencing rapid urbanization growth, reaching an estimate of 1 million inhabitants. Against the background of the national annual urbanization rate of 4.36%, the city will continue to grow expansively over the next years. Mombasa is among the economic hubs of Kenya. Mombasa has a relatively well-developed infrastructure, including a modern airport and commercial centers, which has led to the very rapid expansion of the city. However, urban fringes are neglected in terms of infrastructure development and transportation facilities.



SCOPING STUDY SUMMARY



ELECTRIC HANDCARTS

Project Concept



This project is aimed at introducing electric handcarts to slowly replace the manual handcarts in order to increase the efficiency in cargo services by small business which requires less labour and provide better services. The Government of Kenya has identified the importance of the use of handcarts by the informal sectors for the movement of goods by small scale businesses, mainly women and citizens with the poor economic state. Therefore, the government is keen to support them on their economic development considering health benefits and ease in movement too. National Youth Service being a Government of Kenya agency has partnered with Auto-Truck E.A Ltd to support, develop and mass produce electric handcarts as a local solution to the menace created by the conventional manual handcarts. The project intends to pilot 10 electric handcarts to provide services to small business entrepreneurs together with the identification of a micro-finance business model. The 10 recipients/ recipient groups of the electric handcarts will be identified considering user needs assessment criterion and also to the eventual impact assessment will be carried out during the project period.

Project Impact potential

1. E-Handcart will stimulate green economic development of citizens, specially for people with poor economic background with a suitable business model
2. Raise awareness on the need for alternative transport means



PROJECT IMPACT POTENTIAL

Project Financing

- The innovative pilot project concept on ‘Easing movement and logistics of small-scale businesses in Mombasa through the adoption of Electrical Handcarts (E-Handcarts)’ was submitted on December 2018 to the 2019 TUMI Global Urban Mobility Challenge for the award of financial support/grant by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. The technical support on project proposal development and activities is provided by “Urban Pathways” project – funded by the International Climate Initiative and implemented by UN-Habitat, Wuppertal Institute, and UN Environment.

Project Management

- National Youth Service in partnership with Auto-Truck EA Ltd who are the holders of the innovation patent will be responsible for the management and execution of the project from the initial project preparation to its conclusion and final reporting to TUMI. The project will be managed from National Youth Service facilities where production of the electric handcarts will be manufactured from. UN-Habitat will provide technical advice on project execution and links to urban development projects in Mombasa and facilitate partnerships with local government.

The total budget planned for the project is 265,000 Euros out of which TUMI support of 195,000 Euros is sought. The contribution from the own contribution by project executing agency and national/state fund would be in total 70,000 Euros.

Project beneficiary and sustainability context

This project targets small business entrepreneurs living in urban fringes of Mombasa to ease transportation of goods to the urban centre in an efficient way (such as groceries/kiosks owners, milk vendors, soft drink vendors etc). It will be considered cost-effective as well that reduced the need to take vehicles (e.g. commercial pick-ups and lorries) to transport goods.

As the product is locally produced, it will support local manufacturing business. The promotion of local manufacturing products is also one of the main pillars of the development in the 'big 4 agenda' of the government of Kenya. The production of light duty electric mobility vehicles locally (E-Handcart by Auto-Truck EA Ltd) will also be supported by the Kenyan government.

National Youth Service is providing the support to pilot the innovative E Handcart in pilot concept development. After the project ends, the government will through its youth support funds such as Youth Enterprise Development Fund (YEDF) and Uwezo Fund support the Auto-Truck EA Ltd to enable to manufacture further products and assist in marketing through its broad network.





Project planning

This project intends to pilot 10 E-Handcarts to the users who use manual handcarts in Mombasa. The implementer of the project - National Youth Service (NYS) will conduct user needs assessment to identify the groups/individual to pilot E-handcarts. The project duration is 1.5 years.

During this pilot phase, the project partners will develop a microfinance model (in collaboration with a local bank) as well as business model case for the handcarts that will inform revenue pricing and collection. To ensure heightened awareness on the project, the project partners will engage various local stakeholders including the wider business community, academia, local county government to discuss the project and potential replication in other major towns and cities. The project will monitor the impact of the electric handcarts on the livelihoods of the groups issued with the E-handcarts to determine the level of improvement achieved which will justify the business case. Feedback from the pilot phase will inform improvements in final user designs which will make the product more user-friendly before large scale deployment. The final product will help the government to stimulate and promote the adoption of local innovation for local solutions and in the process helping to grow the country's manufacturing potential which has been emphasized in the government's "Big 4 Agenda". Within the project period of 1.5 years, the following activities will be carried out:

- 1. Problem identification: The project will carry out a comprehensive demand survey to understand the needs for and specifications of handcarts in Mombasa.**
- 2. Solutions Design and Development: Based on the information obtained from the demand survey, the project will develop the microfinance model, business model and final design of E-Handcarts**
- 3. Implementation: The final product will be deployed to the beneficiaries on a pilot basis for usage in their daily operation and business.**
- 4. Monitoring and Evaluation: After the project, an assessment will be done to see the impact of E- handcart and the changes in the livelihood of the users.**

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