



Urban Pathways

Dar es Salaam

Since 2019, Urban Pathways has been working with the City of Dar es Salaam which has a population of 4,3 million inhabitants. Due to rapid urban growth and growing individual motorisation, the transport system in Dar Es Salaam suffers from chronic congestion. This has led Dar es Salaam City Council to introduce a Bus Rapid Transit (BRT) scheme in 2016 (named DART).

Apart from the BRT, public transport predominantly depends on a large fleet of privately-owned minibuses (so-called dala-dala), which are often not roadworthy and contribute to congestion and air pollution. Also, in areas not served by buses, motorised two- and three-wheeler taxis (Boda boda and Bajaji respectively) are the only publicly available mode of transportation that offer a de-facto public transport service filling a gap in the transport system. Despite these obvious benefits for people's mobility, the two- and three-wheelers have contributed to increased pollution in the city with the transport sector contributing 57% of the total CO₂ emissions from fuel combustion.

In this light, Urban Pathways has focused on e-mobility pilots so far, but is aiming to incorporate waste pilots in the future as well. In February 2019, a city representative participated in the e-mobility planning workshop, where the pilot project below was developed and is currently being implemented. Further cooperation possibilities related to the Integration of e-mobility in the waste collection fleet and EcoZone or Organic Waste Treatment pilot would be explored.

Pilot and Demonstration Action

Integrating e-mobility for last-mile connectivity

The demonstration project in Dar Es Salaam will focus on e-mobility for last-mile connectivity. The demonstration aims at integrating 60 electric feeder/e-3-wheeler and distribution services with Dar es Salaam's BRT (DART) to support first/last mile connectivity. The e-3-wheelers (newly built 50 imported/provided by DART and 10 newly built with Valeo components), will be an integral part of public transport.

The deployment of e-3 wheelers will happen at 5 DART stations considering urban locations: a) in the city centre, where fossil-fuelled 3-wheelers are currently banned for environmental reasons and where accessibility to/from the BRT stations can be limited due to longer distances; b) in peri-urban areas where combustion-fuelled 3-wheelers are currently very common as feeder-modes. Also, a feasibility study on the electrification with respect to vehicle specifications (range, speed), charging infrastructure (type and location) will be carried out.

As part of this, state-of-the-art data collection methods using geo-localization devices will be applied for a detailed derivation of the systems specifications. Subsequently, an implementation plan for the introduction of e-3-wheelers will be developed. This will follow a systemic approach and include the development of business models (vehicle ownership, rental schemes, and maintenance), the charging infrastructure and localisation.

The proposed demonstration project concept was submitted on 25 April 2019 as a part of EC H2020 proposal for funding. It is being implemented by SOLUTIONSplus project (project duration 01/2020 – 12/2023).

Budget: 1,500,000 EUR

Estimated direct GHG emissions reduction: 180 tCO₂/year

Outlook: Planned and/or Possible Future Action

Integration of e-mobility in the waste collection fleet

For Dar es Salaam, the Urban Pathways team, would like to discuss the options of integrating a pilot e-vehicle in the waste collection fleet.

Estimated budget: 20,000 EUR

EcoZone pilot: integrating mobility and waste issues

An EcoZone and Organic Waste Treatment pilot are currently being explored in close cooperation with the local partners.

Estimated budget: 5,000 - 10,000 EUR

Estimated direct GHG emissions reduction: 12 tCO₂/year



Future Outlook

Implemented by:



In cooperation with:



Supported by:



based on a decision of the German Bundestag