



# e-Rickshaws as Public Transport & Emergency Health Services

TUMI Challenge Bangladesh  
Singra Municipality

- ✓ Establishment of the first public transport route in Singra, Bangladesh
- ✓ E-vehicles for public health services
- ✓ Increased public transport mode share
- ✓ Corona medical and nutrition security distribution
- ✓ To be replicated in other smaller cities in the region facing similar challenges



Singra  
Population:  
45,000 Urban  
+ 9,000 Rural

# Executive Summary

Singra is a remote town that had no public transportation systems within the city as well as very little contact to international partners.

Privately owned rikshaws have been circulating in Singra for some years, but due to their unprofessional electrification they are seen as a safety hazard. With our project we introduced ten e-rickshaws as a means of public transport as well as two emergency medical service vehicles.

With that, together with the construction of an e-rickshaw garage and extended safety training for drivers, Singra and TUMI were able to develop a new operating model where drivers are paid fair wages and are trained on how to safely operate the vehicles to improve the safety and access for the citizens of Singra.



E-MOBILITY



SEPTEMBER 2018 -  
DECEMBER 2019

## The Process

- Design, tender and construction of a storage garage done by Singra's engineers
- Vehicle requirement design and tendering - locally and from abroad, including technical assessment
- Mapping and route setting for e-rickshaw operation
- Fair & transparent selection of drivers with an accompanying a safety training program
- Joint design of operation model of public transport and emergency vehicle system
- Throughout the whole process, the TUMI Team together with GIZ EnDev colleagues in Bangladesh advised and supported the project to achieve maximum impact, facilitated by ICLEI.
- ICLEI and GIZ Bangladesh were actively supporting during construction, vehicle selection, local manufacturing, and advised on the electrical/charging infrastructure.

## COVID-19 Response

- Emergency mobile COVID-19 testing facilities
- Food security – using e-rickshaws for home food deliveries
- Mobile information campaign (speakers on e-rickshaws): informing all citizens about dangers and prevention to stop the spread of Coronavirus

## Outcomes/Impacts

- First public transport route in Singra was established, for citizens who live in areas previously underserved by the private rickshaw operators
- Provision of emergency medical transport services in all areas of the city was established
- Ten drivers have been employed through the city on a permanent basis (salary/incentive model)
- Driver safety training for ten drivers through BRAC (a local NGO)
- Strengthening local production of electric vehicles through purchase local company (4 of 10 vehicles)
- Construction of a garage to safely park and maintain e-rickshaws and charging infrastructure
- Singra Municipality received the Urban Resilience Award for its works on e-mobility by ICCCAD in October 2019





## Major Challenges & Key Lessons Learned

The pilot phase has provided evidence that some minor adaptations will have to be made for the project to ensure viable, long-term success. Examples of this would include the purchase of higher quality batteries (lithium-ion) as well as additional driver training.

It should also be considered to increase the number of vehicles to optimize the system and increase the viability of the project as a whole.

Singra Municipality had no previous experience in working with GIZ or in the field of sustainable transport/mobility or electric vehicles. Basic knowledge and technical knowledge had to be built up to allow the project to be a success.

## Potential for Scaling & Replicability

Based on the available data after COVID, 6% of all trips taken in Singra were using the TUMI e-rickshaws. This shows that such an approach has the potential to be scaled within the city to ensure safe, fair and transparent mobility options for all citizens. Following the spread of the COVID-19 pandemic, adaptations had to be made, and the project showed remarkable flexibility and resilience.

With the newly gathered experience, the Singra Municipality now has an understanding and knowledge in interacting with international partners, preparing the ground to intensify cooperation and to initiate new partnerships and sharing this knowledge with others.



### Contact

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TUMI is the leading global implementation initiative on sustainable urban mobility formed through the union of 11 prestigious partners.

More here: [transformative-mobility.org](https://transformative-mobility.org)