



## POLICY PRIORITY

## BANGLADESH

# How can Bangladesh transition away from lead-acid batteries in the thriving electric three-wheeler sector?

There are around 4 million electric three-wheelers in Bangladesh playing a large role in transportation, especially in semi-urban areas. Almost all of these vehicles are powered by lead-acid batteries (LABs). LABs do not emit carbon, but their recycling process can cause damage to the surrounding environment, leading to serious health risks for the population.

One potential solution to this is to transition away from LABs and use lithium batteries. The environmental risk presented by lithium batteries is much lower than that from LABs. Lithium batteries are also light weight, leading to increased efficiency. However, the requirement of larger upfront investment from vehicle owners has depressed demand for these batteries. Thus, we want to pose the question: What kind of regulatory framework or financial product can encourage the use of lithium batteries in Bangladesh's electric three-wheeler sector?

### Policy challenge

Electric three-wheelers in Bangladesh were invented locally, but concerns exist about their design, which poses risks to passengers and other vehicles on the road. However, these vehicles are speedier than paddle-rickshaws and tend to cost less than gas powered auto-rickshaws, contributing to their popularity among commuters. The number of these vehicles is frequently estimated to be as high as 4 million.

These vehicles are operating in a legal grey area – the high court banned the use of LABs, but vehicle owners collect 'tokens' from local government agencies to operate in the streets. Importantly, some agencies within the central government also support these vehicles due to absence of carbon emissions, employment generation and convenience for commuters. While the government ponders whether to legalise these vehicles, illegal recycling of LABs has become ubiquitous. Given government's failure to effectively regulate the industry and its pre-occupation with road safety, a market-based solution for adaptation of lithium batteries is needed.

### Data

- [Lead-acid battery inventory](#): This report provides an estimate of lead-acid battery use in Bangladesh disaggregated by sectors.
- [Pure Earth Call for Action](#): This report presents important data about the global health burden and economic cost of lead exposure in Bangladesh.

### Stakeholders

Department of Environment (DoE); Ministry of Environment, Forest and Climate Change (MoEFCC); Bangladesh Road Transport Authority (BRTA); Ministry of Power, Energy and Mineral Resources (MoPEMR); Sustainable Manufacturing and Environmental Pollution Programme (SMEP).

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