



In Bangladesh, about 2.25 million people live in the slum areas across the country and half of them are the slum dwellers in Dhaka. Most of them are the rickshaw-pullers and many of them have income less than 400 BDT. And never forget that Bangladesh used to be in grip of a heatwave during summer as the mercury shot up more than 40 degrees Celsius. And thousands of the poor children comes from those poor slum dwellers die in diarrheal disease due to lack of safe water during extreme heat. PedalPure is a pedal powered water filter, an innovation of joint endeavor of GREY and WaterAid Bangladesh, is being fitted to rickshaws in Dhaka city which has turned livelihood into a solution. This pedal-powered innovation does not require electricity to pump, powered by the energy of the rickshaw pedaling and as such are very appropriate for befitting in present design of rickshaws with an addition of 5L storage tank at the back with a small hydraulic pressure pump and another 5L supply tank at the front. Pedaling activates the pump through kinetic energy, which begins passing water through a fibre membrane system. This process is known as ultra filtration (UF) which removes particles larger than 0.01 microns, including most bacteria. The performance of UF membranes are certified by laboratory tests to filter away bacteria, suspended solid, colour etc. as per Bangladesh Drinking Water Quality Standard. PedalPure is almost maintenance free and 1L of safe drinking water will cost less than 10 paisa. This widespread means of transport allows many families of rickshaw-pullers who have barely access to safe drinking water, and allowing them to have access to safe drinking water easily is a real breakthrough.

And this is the change Bangladesh is waiting for.

The story can be found [here](#)



Time saver: Rickshaw-pullers pedal rickshaws for the whole day and their only option to drink water is the street side vendors which is unhygienic and unsafe. PedalPure will save time to serve immediate demand of drinking water while they are pedaling the rickshaws.

Cost saver: Rickshaw-pullers need to buy unsafe drinking water at the cost 1-2 BDT per 250ml glass. PedalPure has created a simple and economic system to purify water for rickshaw-pullers and their families which is cost saving. Even rickshaw-pullers can sale safe water and therefore it opens the door of business opportunity of millions of poor as well.

Visit friendly: Rickshaw-pullers, at an average, ply more than 25 miles a day. Each mile of pedaling will provide 1L of safe drinking water by PedalPure. The inclusion of two 5L tanks are placed keeping the fulcrum of the rickshaw at steady balanced condition so that pedaling will not require much effort. PedalPure is visit friendly without much effort by rickshaw-pullers during pedaling.

