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Abstract:

In today's world, large scale hydroelectric power plants have an impact in the energy demography; although, the huge potential of pico, micro and mini-hydropower plants are still very much untapped. In this work, a techno-economic viability, of mini hydro power potential from drainage water, has been investigated in four areas of Dhaka city. Considering the head of water fall and the flow rate in the drainage system, technical, economic and environmental parameters are studied. 100 kW to 500 kW power can be generated from the proposed system with economic benefit of around BDT 3. 9M to 28M per year, and emissions reduction of around 500 to 3000 ton- CO₂ /year.