

# SUSTAINABLE WATER MANAGEMENT IN DEVELOPING COUNTRIES: A CASE STUDY OF BANGLADESH

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## Abstract:

The aim of the present study is to develop technologies for UN Sustainable Development Goals-6 (SDG-6) is one of 17 Sustainable Development Goals established by the United Nations General Assembly in 2015: Clean Water and Sanitation for all. Water, sanitation, hygiene and waste management for reducing the COVID-19 virus (WHO, 2019). Water scarcity, poor water quality and inadequate sanitation negatively impact food security, livelihood choices and educational opportunities for poor families across the world. Due to low-lying elevations and dense population, Bangladesh is considered one of most vulnerable countries in the world to the impact of climate change. Providing reliable and affordable wastewater treatment in rural areas is a challenge in Bangladesh. The challenges posed by climate change and growing economic development require that the quantity and quality of water resources in Bangladesh be managed by sustainable development policies. This paper presents a global strategy for the sustainable management of water resources. It stresses the importance of water in human lives and in other species as well and addresses the problem of water scarcity, especially in developing countries. The main aims of project: to reduce the misuse of ground- & surface-water resources in homes by increasing Public Awareness; to Develop Environmentally Sound Technologies (ESTs) for Grey-water & wastewater treatments and supplying pure water in urban, agriculture and domestic water uses; and also to develop low cost arsenic mitigation technologies for groundwater to supply arsenic polluted area, developing technology to preserve rainwater for harvesting and also to develop low cost technologies to remove salinity from seawater in coastal area for supplying drinking water to poor people. To that end, we need significant investment in our education and research, training for saving our future generations and Analytical Chemistry is Central to that endeavor.

**Keywords:** *Sustainable-water-management; grey-water-treatment; saline-water-treatment; low-cost-arsenic-removal- technologies; rain-water-harvesting, public-awareness; education; research & training.*