Integrating Method of Waste Water Treatment and Desalination: Opportunities for Innovation

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This work reveals the chemical and electrolysis method for the waste water treatment in industrial and urban areas subsequently fresh water generation by considering time, cost and evaluating the characteristics of contaminant. We considered leather, textile, and dye industries in Dhaka Urban. Waste water treatment cost and energy are the biggest issues in developing countries because of the high water consumption in some industries like textiles and dyeing Industries. The salt (NaCl, Na_2SO_4 etc.) is an essential compound for coloring of yarn/cloth (25–75 kg/m^3) in dye solutions. As a result, fresh watercourses turned saline downstream from dye Industries. Hypoxic to anoxic low dissolve oxygen (DO) (< 0.85 mg/L critical level) with high content of chromium (Cr) (Nahar et al. 2014) in Buriganga and Shitalakshya were detected in Dhaka leather industries areas.The final goal of the research is to determine the waste water treatment method to achieve the highest beneficial use of cost effective and environmental concerns.

Keywords: Dhaka Urban, Dyeing Industries, Electrolysis Method, Desalination

