

This series showcases success stories of PaCT (Partnership for Cleaner Textile) partner factories in the Bangladesh textile sector that have implemented cleaner production projects.

Untreated sewage contains high levels of nitrogen and phosphorous, and when released into rivers, it stimulates the growth of algae which negatively affects water quality and ecosystem balance through a process known as eutrophication. This leads to a reduction in the biological diversity of natural water bodies and harms the environment. It also poses a threat to human health. Sewage Treatment Plants (STP) can mitigate these risks and reduce environmental pollution. Apart from aiding in the proper disposal of waste, an STP can also facilitate the recovery of freshwater that can be utilized for domestic purposes, thereby reducing the reliance on surface water.

### Factory Status

Snowtex Outerwear Limited (SOL) is a garment manufacturing and panel print processing company equipped with modern technologies that ensure the production of high-quality garments. The company specializes in garments cut to pack, with facilities for printing, quilting and embroidery. In 2019, SOL recorded an average daily production of 28.7 tonnes, demonstrating a consistent level of output.

Groundwater is the primary source of raw water for the factory, with approximately 510 m<sup>3</sup>/day drawn from the ground. Most of this water is used for the kitchen, canteen and washrooms. A small amount of water is also used for the printing section, laboratory and gardening. Given the benefits of STPs and upon recommendation of PaCT experts, SOL decided to install an STP within the factory premises.

### Implementation

The installation of SOL's STP, which can process 800 kilo litres of sewage per day, commenced in March 2021 and was completed by December 2021. The engineering team designed the layout of the plant, and the equipment was procured from a third-party vendor. The overall cost of purchasing the equipment and constructing the STP was \$0.7 million.

### Results & Benefits

The installation of the STP reduced the amount of wastewater released, consequently improving the overall health of the environment. The facility now reuses the treated water from the STP for irrigation and toilet flushing purposes. Approximately 187,200 m<sup>3</sup> of STP treated water is available for reuse annually which also reduces groundwater consumption.

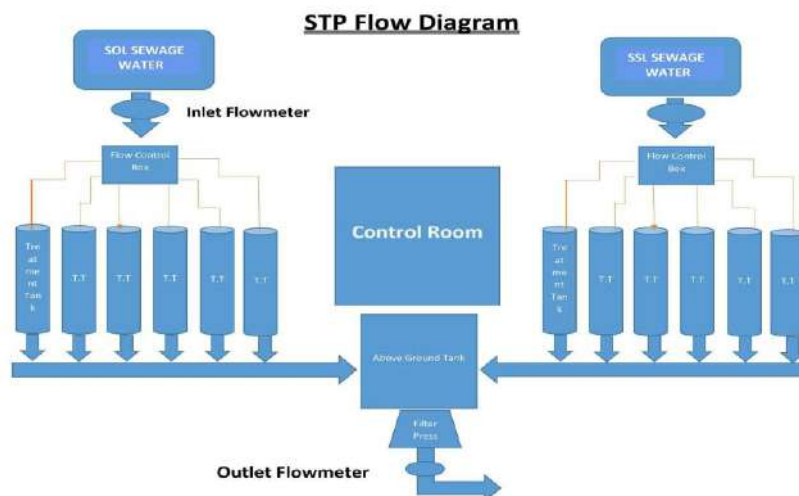


Figure: Flow diagram for the Sewage Treatment Plant



## Environmental Benefits



**187,200 m<sup>3</sup>/year  
treated water  
available**

- Lower level of pollution
- Reduced harm to wildlife
- Decreased water loss
- Reduction of odors
- Discharged water is free of nitrogen
- Reduction in health risks associated with environmental pollution



Photo: Sewage Treatment Plant

**IFC led Advisory Partnership for Cleaner Textile (PaCT)** is a holistic program that supports the entire textile value chain – spinning, weaving, wet processing and garment factories in adopting Cleaner Production (CP) practices and engages with brands, technology suppliers, industrial associations, financial institutions, government to bring about systemic and positive environmental change for the Bangladesh textile sector contributing to the sector's long-term competitiveness and environmental sustainability.

### WHAT PaCT DOES:

- Cleaner Production Assessment
- Water & Energy Management
- Energy Efficiency & Productivity Assessment
- Rooftop Solar PV Pre-feasibility Study
- Rooftop Solar Calculation
- Online Resource Monitoring

#### DEVELOPMENT PARTNERS



**EMBASSY  
OF DENMARK**



Kingdom of the Netherlands

#### IMPLEMENTING PARTNER



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#### BRAND PARTNERS



#### IMPLEMENTER



Creating Markets, Creating Opportunities