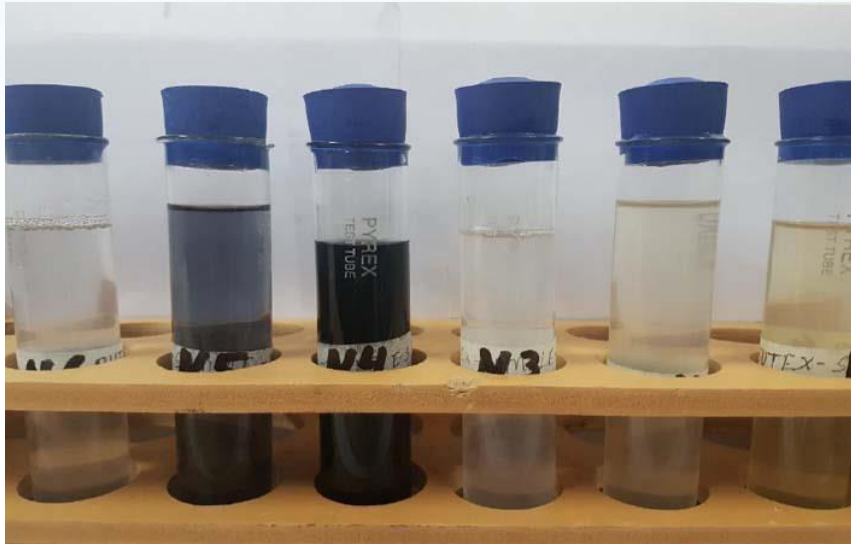


## Nano-Dye System makes exhaust dyeing of cotton sustainable



Winner of 2014 launch nordic global textile challenge for sustainable disruptive innovation to transform the system of textiles, fabric and fibre, the Nano-Dye Process is advancing exhaust dyeing to the next millennium by drastically reducing massive pollution, water usage and energy usage/climate change generated by cotton textile dye plants globally.

Nano-Dye's disruptive, patent pending, sustainable cationic textile dyeing technology, The Nano-Dye Process, is setting a new benchmark for exhaust dyers in the cotton and cotton blend textile arena with the start-up of its first two continuous, mass production systems in Bangladesh with one in March 2019 and the second this May 2019, said the company in a media statement.

Through collaboration with leading textile equipment manufacturers, cotton dye plant directors and textile chemists, Nano-Dye overcame all obstacles which prevented this specific cationic theory from successful application to cotton exhaust dyeing for more than 20 years due to even dyeing and a side reaction that led to a bad smell. The patent pending Nano-Dye turn-key system is designed with the strategic intent to use the textile dye plant's current exhaust dye equipment and dyestuff library.

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Nano-Dye's break-through dyeing technology now allows cotton exhaust dye jets to use no salt and exhaust up to 99 per cent of dyestuff (eliminating solid waste), use 75 per cent less water and 90 per cent less energy while yielding greater lot to lot shade reproducibility and consistent quality fabric in all colours. Additionally, the reduction of the pollution in the effluent makes zero discharge water treatment plants economical to run and sets their position for future placement making textile dyeing a clean industry.

The Nano-Dye system requires just one 'drop-in' pre-treatment step to the greige goods straight from knitting and a modification of the exhaust dye jet cycle, increasing output and lowering overall dyeing costs. The resulting fabric has a colour that is cleaner in tone, has a softer hand, normal smell and increases colourfastness.

The dyeing Industry, due to its concentration in emerging economies, needs better practices and disruptive solutions to prevent further damage to our quantum environment. After years of research and development, the future of sustainable exhaust dyeing has arrived with the Nano-Dye System. Headquartered in Boca Raton, Florida, USA, Nano-Dye LLC is a privately held company that develops eco-friendly technology for the textile dyeing industry. (PC)

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