With an initial investment of $100,000, the company was able to reduce wastage of water, energy, steam, dye and chemical worth $500,000 within a year. So, it is a matter of mindset. It is not a big deal.

Mohammed Abdul Jabbar
Managing Director, DBL Group
Bangladesh PaCT: Partnership for Cleaner Textile

Bangladesh PaCT: Partnership for Cleaner Textile is a holistic program that supports textile wet processing factories in adopting cleaner production, and that engages with brands, government, communities, financial institutions, and other stakeholders to bring about systemic, positive environmental change for the Bangladesh textile wet processing sector, its workers, and surrounding communities, and to contribute to the sector’s long-term competitiveness.

A business-friendly program, PaCT helps factories identify and implement Cleaner Production measures in water, energy and chemical use in the dyehouse, within the factories’ utilities and effluent treatment plants (ETPs), and through housekeeping. These measures are typically low-cost, easy to implement, factory-specific, quick-return, and highly profitable.

PaCT: A Holistic Program

PaCT is a holistic program, looking beyond factory assessments to engage with brands, and with key stakeholders such as government, financial institutions, and communities, on the sector’s overall transition towards more resource-efficient production.

- In partnership with BGMEA, PaCT has launched the Bangladesh’s first ever Textile Technology Business Center (TTBC). Housed at BGMEA, TTBC provides factories with reliable and comprehensive technical information and facilitate B2B linkages.
- PaCT is helping the Bangladesh Central Bank to develop a $500 million green fund to support factory investment in CP.
- With input from partner brands, PaCT has prepared a Decision Support Guidance (DSG) manual, to guide brands on the environmental impacts of their product design and sourcing decisions and help them work with their suppliers on cleaner options.

“To KappAhl we are committed to a sustainable future. We joined PaCT to ensure we make progress with our goal of reducing water, energy and chemical consumption, and to have a positive impact for the people in Bangladesh. The recent PaCT guidance on more sustainable choices we can make as a brand in our design and sourcing decisions has been an important step for us. We look forward to incorporating this in our daily work with our suppliers!”

Eva Kindgren de Boer
CSR & Quality Manager KappAhl

- To strengthen the enabling environment for update of CP measures, PaCT is creating a platform for community and national dialogue on sustainable water use in the textile sector, for example, identifying opportunities for policies and regulations that encourage greener, more competitive production methods.
- For the first time in Bangladesh, PaCT is working in Konabari manufacturing cluster, north of Dhaka, to mobilize community, textile factories and local government to develop a joint vision and road map for a Cleaner Cluster.
Cleaner Production: Small Investments, Big Payback

Cleaner Production (CP) is an integrated strategy to maximize profits by making more efficient use of inputs (such as energy, water, or chemicals), while maintaining or increasing production and minimizing waste and pollution at source.

The Cleaner Production Journey

A factory’s Cleaner Production journey starts with awareness on CP, progresses to basic CP that captures the “low-hanging fruit” of low-cost/no-cost measures, and then advances to best practices through in-depth CP. PaCT accompanies factories through each step of this journey.

- Through PaCT’s Cleaner Production workshops and best practice demonstrations, factories can build their understanding of Cleaner Production.
- When they are ready to undertake Basic Cleaner Production assessment, factories can join PaCT, through one of the PaCT partner brands or through BGMEA. The basic assessments focus on no-cost/low-cost measures like installation of meters, efficient lighting options as well as improved operations and maintenance. They also help factories operate effluent treatment plants efficiently and in line with local regulations.
- Basic CP assessment also covers the basics of Occupational Health & Safety, and of Water, Sanitation and Hygiene.
- Factories wishing to reach global best practice levels can request an In-depth Cleaner Production assessment that includes recommendations on investments in process changes that lead to world-class efficiency. These process changes may include changes in liquor ratio, operation condition (temperature, pressure), etc. Process changes can have important additional benefits, such as reduced processing times and savings in money, so a factory can increase production without adding new capacity.

As a sign of its engagement, the factory’s senior management designates an in-house CP Team with regular reporting requirements. This important step anchors CP within senior management, empowers the production team, and sets the stage for continuous improvement.

Factories’ Journey Through PaCT

1. Awareness
   PaCT project is introduced to potential textile factories. Its goal, benefits, costs, investments and timelines are discussed.

2. Registration
   Interested factories register for PaCT, agree on terms and timelines, and sign engagement letter.

3. Basic CP
   A basic CP assessment is carried out by PaCT technical experts. They recommend ways to minimize use of resources like water, energy, chemicals etc. and support factories implement the measures.

4. Deep Dive
   In-depth detailed assessment to identify capital intensive opportunities for large savings in water, energy, chemicals within the wet processing unit, utilities and ETPs.

5. Knowledge
   While engaging in Basic and In-depth CP assessments, factories receive technical and business case information on CP measures, B2B linkages with vendors at TTBC. In addition, factories regularly meet at user group meetings to share experience and lessons learned.
PaCT Success Story: Fakir Apparels Ltd.
Fakir Apparels Limited (FAL) is one of the pioneers in the textile wet processing sector in Bangladesh. The factory’s dyeing and finishing machines have been in use for a long time. Its daily average production is 13.5 tons. Fakir was part of the first batch of 19 factories that participated in PaCT program.

Challenge
FAL management designated a CP team that worked with PaCT CP experts to complete an in-depth CP assessment. The assessment revealed that total water consumption within FAL’s dyeing processes was very high. Together, the FAL CP team and PaCT experts identified ways to improve resource efficiency, lower costs, and raise profits.

Equipment Upgrades – A Smart Choice for FAL
FAL implemented most of the measures recommended by PaCT experts and invested approximately US $265,000 for factory improvement, including installation of new wet-processing machinery. This resulted in FAL’s reduction in water consumption and a total annual savings of approximately US $282,000. The payback period for initial investments was under 6 months.

Key Efficiency Measures
FAL is in the process of installing a computerized- greenfield dye house with
- Central dye house controller
- Waste heat recovery boiler
- New dyeing machines
- Thermal oil heater
- Hot water module
- Auto dispensing system
- Stenters

FAL’s water consumption per kg finished fabric

<table>
<thead>
<tr>
<th>FAL before CP</th>
<th>International Standard</th>
<th>Industry best Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>208</td>
<td>111</td>
<td>70</td>
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FAL’s investment in equipment upgrades versus savings from CP

- $265,228 Investment
- $281,676 Savings in year 1; CP in progress
- $428,827 Expected annual savings after CP completion
- $710,503

FAL’s Results
- Payback period of only 6 months
- Savings of about US $282,000
- Reduced water consumption resulting from upgraded machinery

“The CP measures are easy to implement, besides, the return is very quick. We plan to implement more of these measures in the future.”

General Manager
Textile, Fakir Apparels Ltd.
PaCT Supports Factories with Information, Training, and Access to Finance

PaCT provides structured and thorough support to factories on their CP journey.

- PaCT carefully selects and trains CP service providers, who work closely with the factory’s CP team to identify and select CP opportunities tailored to the factory’s needs.
- Participating factories can build in-house capacity through User Groups, a very popular means for technical staff from different factories to share experience and lessons learned.
- In partnership with BGMEA, PaCT has launched the Textile Technology Business Center (TTBC), which provides factory managers with technical and business case information on CP measures, and B2B facilitation with vendors. BGMEA has been a PaCT partner since the start of the program.
- PaCT is working with financial institutions, including Bangladesh Bank, to develop dedicated credit lines that meet the needs of factories that wish to invest in CP.

A Win-win for Factories

By joining PaCT program, factories will be able to

- Save resources and money. Through the adoption of CP measures, factories can make substantial savings on resources including water, energy and chemicals, and can reduce effluent.
- Increase capacity. CP technologies can shorten processing time and increase factory capacity within existing infrastructure.
- Empower management. Most WDF factories are unaware of the inefficiencies in their operation and of financial benefits of CP. Many factories do not even meter their resource consumption. PaCT helps factories track consumption and wastage, leading to better management, more effective operations and maintenance, and continuous improvement.
- Strengthen the relationship with buyers. Buyers want to reduce the environmental impact of textile production. PaCT factories can use their participation in the program as evidence of their commitment and action on Cleaner Production. Factories who supply to a PaCT partner brand can strengthen their relationship with these buyers by joining the program.
- Become socially responsible. Lack of local capacity and attention to occupational health and safety creates unnecessary risks for workers. Poor Water, Sanitation, and Hygiene (WASH) can lead to worker absence caused by water-borne illness. PaCT helps factories improve OHS and WASH practices.
- Be part of something big. In addition to its direct support to factories, PaCT is also bringing about transformational change in the sector, through initiatives with brands, financial institutions, government, and communities.

"The Textile Technology Business Center (TTBC), an institution that provides localized, tailor-made solutions, is vital if we are to ensure long term sustainability of the Bangladesh textile sector. For the textile sector in Bangladesh, time has come to move from being the engine of growth to becoming the leader in sustainable development."

Md. Shahidullah Azim
Former Vice President
BGMEA

More information available at www.textilepact.org/ttbc
it’s now time to act...
join PaCT

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