



# GTEX/MENATEX: Supporting textile and apparel manufacturers in going green

## Overview

The textile and apparel sector is an important energy and water-consuming industry with a considerable waste stream. It has therefore an important role to play in combatting climate change. Its ability to change quickly to fashion trends would need to be utilized to also change production process accordingly.

Climate change also negatively affects the natural fibre-to-clothing value chain as extreme weather events affect agricultural production and logistics.

The International Trade Centre's GTEX/MENATEX programme offers companies training and coaching on Resource Efficiency and Circular Production (RECP). The programme assists them in transitioning into greener production thereby increasing international competitiveness and complying with evolving regulatory requirements on due diligence as well as changing buyer requirements.

Since 2019, over 66 companies in the Middle East and Africa have benefited from the RECP component. Good progress has been made, but sustainability is a continuous Journey.

## Environmental improvements

yearly savings of 49 companies

**\$2,268,804.05** Cost savings

**1,148,186.08 kWh** Energy savings

**125,826.12 m<sup>3</sup>** Water reduction

**80,878 tonnes** of CO<sup>2</sup> reduction

## The measures included:

- Shift from electrical to **thermal energy**
- Installation of **solar heaters & panels**
- Changing lighting to **LED**
- **Water** treatment plant
- Overall **good practices**

- ▶ The following pages give examples of companies that translated support into measurable actions.\*



## Egypt

### Company: Esperanza

Established in 1997, Esperanza is one of the leading Egyptian manufacturers and exporters of knitted garments with a wide range of products. Esperanza is a vertically integrated company that produces fabrics, ready-made garments and also work with dyeing and printing processes.

With over 15 years of experience, Esperanza combines skills with state-of-the-art technology to ensure the quality of their products.

Esperanza has exported to over 30 countries worldwide, including the United Kingdom, France, Spain, and Germany.

### Measures proposed and results achieved

The company has completed the coaching and implemented a cost-benefit strategy for the concepts of “reduce, re-use, recycle”. Following the coaching, the company achieved resource savings on energy, waste, thermal energy, and water.

#### ► Electrical energy

- Good housekeeping measures generated an annual cost saving of \$3,800; 49 MWh/year of energy, and 25 tonnes/year in CO<sup>2</sup> emission saving.
- By shifting to natural gas vehicles, the company saved up to \$3,100 and approximately 10.6 tonnes/year of CO<sup>2</sup>.

#### ► Thermal Energy

- With the preventive maintenance of its boiler, Esperanza saved \$3,200 per year. In addition, by closely controlling the steam flow through their pipeline system and its use at machine level, the company is expected to annually save costs amounting to \$16,000; 862MWh/year of energy and 160 tonnes/year in CO<sup>2</sup> emission.

#### ► Water

- Esperanza aims to implement an information system of water use and new flow meters that are expected to generate annual savings of up to \$10,080 and a 3,117m<sup>3</sup> reduction in water consumption.
- The company installed an automated closure system on chemicals tanks, avoiding losses due to spillage and reduce hydraulic load of the wastewater treatment plant. It expects cost savings of \$23,000 and 1% to 5% of chemicals use reductions.
- By re-using the washing water in the dye house, Esperanza is expected to save costs of \$11,000 and a 16,000m<sup>3</sup> reduction in water consumption per year.

#### ► Waste management

- The company’s upgrading and relocation of the chemical storage area (reducing distance with production lines, improving classification and transport of chemicals) is expected to save up to \$5,120, in addition to resource-saving of 49MWh/year and a 1% to 2% reduction in using chemicals.

### Company: ITH

International Textile House of Egypt Company (ITH) is an Egyptian Sportswear manufacturer aiming for high-end fashionable products. The company was founded in 2002 as a small manufacturer in Mohandessin, Egypt.

ITH is specialized in casual sportswear and athleisure wear. The company aims to provide quality but affordable sportswear while continuously looking for opportunities to improve their production.



## Jordan

### Measures proposed and results achieved

#### ► Energy

- Replacing the lighting system with highly efficient LED-based luminaires reduces the electrical power consumption by 5% to 10% and results in financial savings of over \$1,108 a year. This measure may also reduce CO<sub>2</sub> emissions by two tonnes/year.
- Replacing electrical motors with highly efficient zero standstill consumption servo drives is a continuous measure. This replacement is expected to save 25% to 40% of the total electrical energy consumption, with savings of almost \$9,000 a year and a reduction of CO<sub>2</sub> emissions of 12.1 tonnes annually.

#### ► Water

- Building an information system for water consumption and replacing the water valves reduces water consumption by 10% to 30%, with savings of about 1,000 m<sup>3</sup>/year.

#### ► Waste

- Applying Good Housekeeping using lean tools reduces paper and cardboard consumption by 5% to 10% and reduces cycle and delivery time.
- Installing an information system for solid waste and using an inspection machine reduces textile waste by 1% to 5%. This measure helps the company to reduce the number of raw materials, improve performance, and reduce the number of defects.

### Company: AWG Clothing Company

AWG Company is a locally based small and medium-scale garment enterprise located in Amman. The company offers various services and products and specializes in uniforms and garments for different categories such as hotels and restaurants, medical and schools and colleges, among others.

AWG sells their products domestically and started exporting to Iraq and Saudi Arabia.

### Measures proposed and results achieved

After visiting the company, RECP experts identified energy consumption as focus area for reducing the factory's environmental footprint.

#### ► Energy

- AWG has partially replaced old machines with highly efficient new ones. While the company is planning to replace more, this continuous measure significantly impacts electricity consumption as the old machines represented 60% of the company's electrical consumption.
- Replacing light bulbs with LED and upgrading machinery decreased the cost of electricity by \$2700/ year, which is a decrease of around 26% of the company's total electricity bill.



# Madagascar

## Company: L.O.I.

With 25 years of experience in quality textile manufacturing, L.O.I Confection is a medium-sized company from Madagascar. Based in Antananarivo, the company produces casual clothes for all genders and ages. They work with various materials, including 100% cotton, woven dyed, linen, and advanced embroidery and screen-printing techniques.

### Measures proposed and results achieved

#### ► Energy

- Changing the lights to LED was among the primary steps the company could implement to reduce energy consumption. Today all light lamps at L.O.I are LED.
- Other housekeeping measures include regularly maintaining the equipment and replacing them with new ones whenever needed. In addition to that, sewing machines are now equipped with energy-efficient motors.
- Shifting to solar panel energy is an ongoing measure that L.O.I is discussing with a service provider. Installing a solar energy supply with a power of 48 Kwc will cover 45% of the company's needs.

#### ► Water

- The company uses a mixed drilling and public supply system to manage production needs closely.
- The company re-uses water from the wastewater treatment plant for watering their green spaces. L.O.I's water treatment plant is based on the principle of micro-biological cultures and is approved by the Malagasy Ministry of the Environment.
- The company has invested in a rainwater recovery system to improve their water reuse strategy.
- In partnership with a local start-up specialized in reforestation, L.O.I installed a permaculture vegetable garden in part of their green space. These vegetables are used in preparing lunch meals in their canteen.

#### ► Waste

- The company implemented a new strict waste management policy. Each section has sorting areas with disposal bins separated according to the type of waste and discards methods, such as burial, incineration, and recovery.

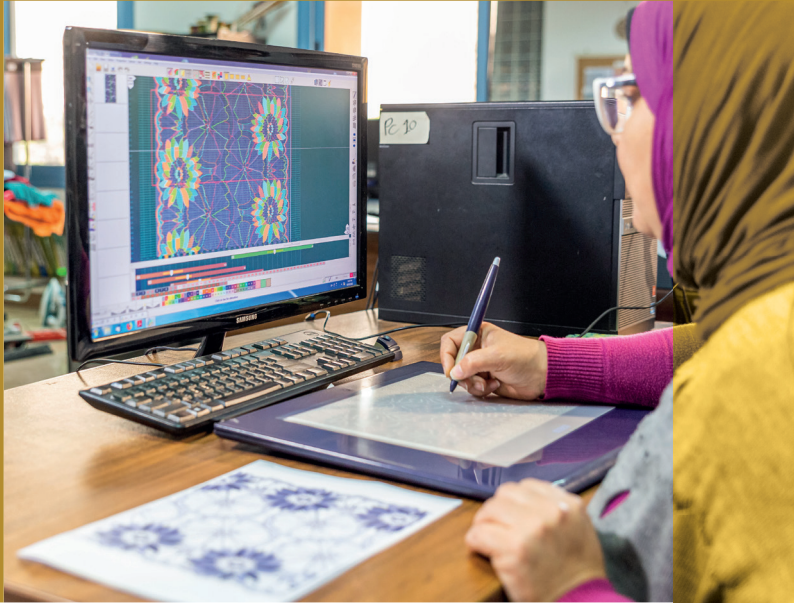
## Company: V Group

V Group is a textile company whose production line is based in Antananarivo, Madagascar, with headquarters in Mauritius. Their services include knitting techniques to produce casual clothing for men and women. While most of their products are exported to the European market, V Group also designs collections and showcases their production on digital B2B platforms.

### Measures proposed and results achieved

#### ► Water

- V Group successfully implemented measures related to installing a washing unit and wastewater treatment plant. The plant is designed to process 15m<sup>3</sup> per day. The company is expected to report quarterly on the daily volume of water treated to the National Water and Sanitation Authority. Based on the document, the institution will help them to ensure that the sludge is removed by a competent entity to preserve the environment.
- This resulted in the company obtaining environmental certificates from the Malagasy Ministry of Industry, the Sedex Members Ethical Trade Audit (SMETA), the Responsible Wool Standard (RWS) and the Global Organic Textile Standard (GOTS).



## About ITC's Fibres, textiles, and clothing unit

ITC's Fibre, Textiles, and Clothing (FTC) programmes work along the entire value chain from natural fibre production to clothing manufacturing and its marketing and branding. FTC implements the GTEX and MENATEX programme as well as the projects UKTP Madagascar, TIP Nepal and ACP Zambia.

The GTEX/MENATEX programme is funded by the State Secretariat for Economic Affairs (SECO) of the Swiss Confederation and the Swedish International Development Cooperation Agency (Sida), focusing on six priority countries (Egypt, Morocco, Jordan, Kyrgyzstan, Tajikistan and Tunisia).

The UKTP project in Madagascar is funded by the Foreign, Commonwealth & Development Office (FCDO) of the United Kingdom of Great Britain and Northern Ireland.

Under the EU-funded Nepal Trade and Investment Programme, the FTC unit implements the pashmina component.

In Zambia, ITC is part of a larger agreement signed with the European Union under the project 'Support to Business-Friendly and Inclusive National and Regional Policies, and Strengthening Productive Capabilities and Value Chains' in African, Caribbean and Pacific (ACP) countries.



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