#BeatPollution

UN environment programme

TRANSFORMING THE TEXTILE INDUSTRY

Accelerating Action On Resource Use

The problem

The textile sector is estimated to account for **up to 8%** of the world's greenhouse gas emissions, and is consuming our land and water. The equivalent of **86 million Olympic-sized swimming pools** of natural water resources are being used every year.

This rise in natural resource use is largely caused by an increase in fibre production. Synthetics have **contributed most** to this growth, with polyester having replaced cotton as the most widely used fibre in the world since the mid-1990s. Such synthetics are produced from fossil fuels and are therefore non-renewable and a contributor to climate emissions and other resource depletion. In parallel, projections have the fashion industry using **35% more land for natural fibre production**, or the equivalent of 115 million hectares, by 2030. This level of natural resources consumption is unsustainable.

Did you know?

The Textile Industry in South Africa contributes:

2.5% to total manufacturing output

Supports **212,000+** formal jobs across the value chain

What is InTex?

InTex

The InTex programme, part of the **UNEP Textile Initiative**, works with governments and SMEs in countries where textiles are a key economic driver, encouraging a shift from a linear take, make and dispose process to a more sustainable, circular model. The programme does this by supporting national-level policy changes that enable a shift towards circularity. It also helps companies understand the impact of the resources they are using, spurring them to optimize production processes, reduce environmental harms and change the way they do business. This gives businesses a competitive edge.

The textile industry in South Africa is recognized as strategically important. Yet, this is an industry with a big environmental footprint, from its use of land and water to the emissions it generates, as well as impacts on human health. But positive change is happening, and there is a lot of opportunity for real impact.

By the numbers

To date in Kenya, South Africa and Tunisia

32 SMEs

applied UNEP's eco-innovation methodology

10 LCAs

conducted following the Product Environmental Footprint (PEF) method

230 company representatives

trained in LCA and circularity concepts

5,100 tonnes GHG

emissions savings estimated in Tunisia and South Africa

10% hazardous chemicals

reduction estimated in Tunisia

25% waste

reduction on average

USD 4 million

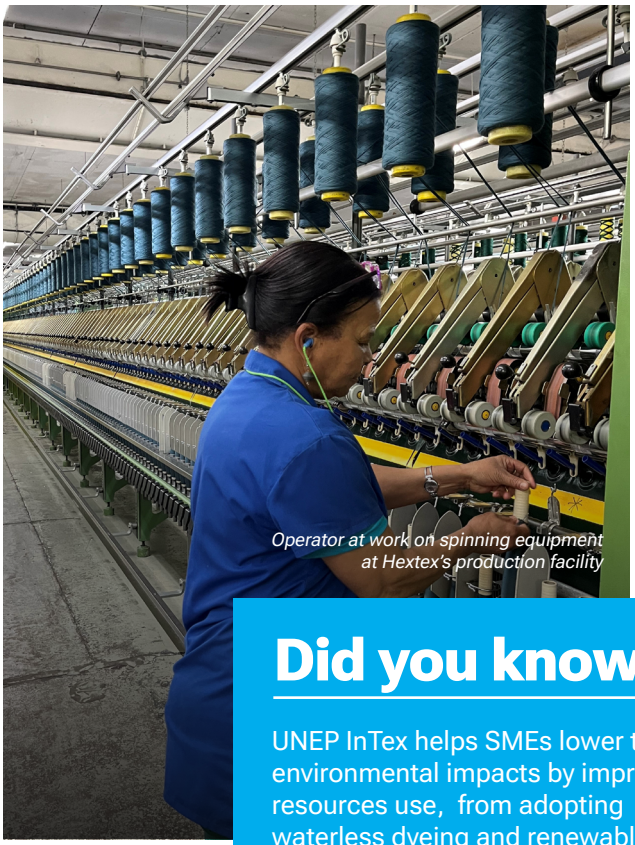
estimated savings

The environmental and financial impacts are annual estimates, assuming full implementation of the measures identified through InTex.

What SMEs can do

A **circular economy approach to textiles** aims at keeping textile products, materials and resources in use for as long as possible while minimizing waste and environmental impacts. Businesses can act, for example, by reducing water consumption through adopting waterless dyeing techniques, shifting to renewable energy sources, practicing sound chemical management or purchasing recycled fibres. Or, a company could shift the way it transports materials and products from air to less resource-intensive sea or land methods.

When a textile business accelerates the incorporation of sustainability principles that address resource use, **benefits include financial savings** from reduced water and electricity bills as well as **increased export potential**. When the improvements are replicated along the value chain by suppliers and customers as well, the benefits can be further amplified.



Operator at work on spinning equipment at Hextex's production facility

Did you know?

UNEP InTex helps SMEs lower their environmental impacts by improving resources use, from adopting waterless dyeing and renewable energy to shifting transport methods and sourcing recycled fibres.

Case study

At Hextex, a modern autocorner machine automatically winds yarn onto cones, ready for weaving and knitting

"We believe our staff are an asset in our sustainability journey, and we have trained them to help us increase the efficiency of our machine operation, dyeing processes and environmental management systems."

***Tina Eboka**, Owner and CEO of Hextex*

" Life Cycle Assessment and Product Environmental Footprint results can help SMEs reduce their environmental footprint, in a systematic way, and while doing so they can achieve good returns on investments by taking an eco-innovation approach."

***Zubeida Zwavel**, CARES Director, UNEP InTex Implementing Partner in South Africa*

New analysis helps South Africa textile company reduce its resource use

The South Africa-based **Hextex** produces fabrics from wool, mohair and cotton as well as blends. Through its **Product Environmental Footprint (PEF)** study with InTex, the company identified several hotspots principally caused by the intensity of resources needed for the production of wool. Other hotspots were due to the water and energy intensity of the manufacturing process through the use of coal, and also included the quantity and type of chemicals used in the dyeing house.

In response, and with InTex assistance, Hextex determined to **reduce by 80% the environmental impact of its raw material acquisition phase**.

They wish to switch to a more sustainable and responsible wool sourcing model by the end of 2026, starting by sourcing locally from South Africa to curb GHG emissions and boost the local economy. After having mapped all possible suppliers, Hextex is prioritizing those with sustainable wool certifications and is exploring partnerships with regenerative agriculture initiatives. To improve water and natural resources use, the company intends to **shift to waterless dyeing technologies and to replace hazardous chemicals with safer, certified alternatives, by 2026.** The low-impact dyes they started using have already improved colour stability while reducing chemicals run-offs.

The installation of **solar panels and boilers upgrade** will also help Hextex **cut 30% of their electricity consumption by 2026**. With a complex and highly competitive market backdrop, these changes are helping Hextex position itself better and expand to new markets, brokering deals nationally, regionally and internationally.

How SMEs benefits

The SMEs that work with the InTex programme receive **trainings and technical support** to calculate their Product Environmental Footprint (PEF) and innovate their business strategy. Through this process, they expand their understanding of how to better manage resources together with others in the value chain, and reduce environmental impacts through targeted strategies that would usually also reflect positively on the balance sheets.

InTex assists companies in **shifting their mindset, helping to forge new strategic partnerships and enabling systemic change** through concrete solutions for participating SMEs and, by extension, the sector overall. SMEs also benefit from exposure to international networks and expertise, learning from the latest developments in circularity and sustainability. The programme results show the real-world potential of low-cost sustainability measures in textiles — proving that environmental action and business profitability can go hand in hand.

UNEP's InTex programme, funded by the European Union and the Government of Denmark, works with governments and textile SMEs to reduce the environmental impact of textile products and the way companies do business, using life-cycle approaches.