



# Pre-Consumer Recycled Cotton: Possibility for Egypt

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For Egypt, the cotton value chain forms an important pillar of the local economy. It is characterized by the fact that the entire value chain, from cotton cultivation over ginning, spinning, weaving all the way to the manufacturing of final garments and home textiles is present. Post-industrial cotton textile by-products from the manufacturing stages represent a large growth potential for the industry in Egypt, with around 23 kilo tonnes of scraps emerging from the that could be cycled back into fibre.

## RECYCLING OF SCARTO COTTON

- ▶ These kind of fibers were successfully used as alternative of virgin cotton fiber to produce blended yarn using several technologies such as Open-End spinning, ring spinning. Recycled cotton fiber was likewise utilized to spin blended yarn and to substitute virgin cotton.
- ▶ IN Ring Spinning yarns, The blend ratio almost 30% cotton Scarto and 10% comber noils and 60% virgin cotton.
- ▶ The obtained yarn count mostly 24/2 and less than 24/1
- ▶ In Open End Spinning, the waste percentage reach to 70% to produce 12, 16, 20 and 24 Ne



Cotton can be recycled from pre-consumer (post-industrial) and post-consumer cotton waste. Pre-consumer waste comes from any excess material produced during the ginning process and production of yarn, fabrics and textile products,

e.g. Scarto "cotton ginning waste", carding waste, combing, roving and spinning waste, and selvage from weaving and fabric from factory cutting rooms.

## WASTE IN PROCESSING "SPINNING MILL"

- ▶ Carding waste
- ▶ Combing noils
- ▶ Suction waste "Drawing & spinning machines"

## RECYCLING OF WASTE IN PROCESSING

Medical Zig-zag cotton in poly-bags  
Medical Cotton rolls.  
Cotton balls  
Cotton pads  
Dressing  
Bends Gauze



## we care of Double green!

Environment

Money



## RECYCLING OBJECTIVES

- ❖ Add value
- ❖ Minimize risks in the supply chain
- ❖ minimize costs for raw materials
- ❖ Create green growth (and jobs)
- ❖ 100% transparency

## ▶ Recycling of textiles

- ▶ The most recyclable material is textile. In EGYPT, the famous rugs, which the elderly wisely made from small pieces of fabrics or old pieces of clothes, are a great example of the recycling of textiles



## KEY POINTS ABOUT SUSTAINABLE FASHION

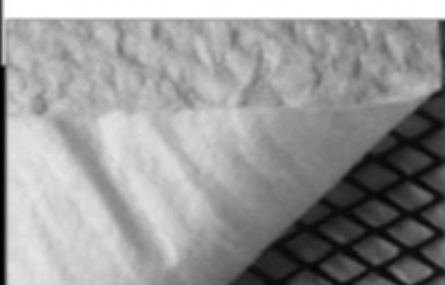
### NEW MARKETS & NEW IDEAS

Diversity - Creativity

Use of bio-sourced materials



Lightening of textile structures



Recyclability & UPCycling



Nowadays UNIDO has developed a pilot project in a joint effort with Egyptian and Italian industry partners to test quality and market opportunities for recycled cotton yarns produced from post-industrial denim scraps from the Egyptian apparel industry.

The pilot relates to operational trials of textile-to-textile recycling by transforming these scraps, which are otherwise considered waste, into spun yarns for weaving and knitting new garments.

Establishing post-industrial cotton recycling as a viable and scalable possibility of reducing cotton-textile waste, as well as to potentially reduce short staple cotton imports in Egypt .

## WASTE IN COTTON GINNING

- ▶ Cotton production 2018: 67700 tons
- ▶ Total waste: 1134 tons
- ▶ Cotton production 2019: 110000 tons
- ▶ Total waste: 1600 tons



## recycled denim scraps

