

FOREST INDUSTRY REACHING OUT TO TEXTILE FIBERS

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As the world population keeps growing and living standards improve in many third world countries, there is an ever-increasing demand for textiles and textile fibres. The global textile market currently amounts to about 90 Mtons per annum, but is projected to exceed 140 Mtons by 2025, as depicted below.

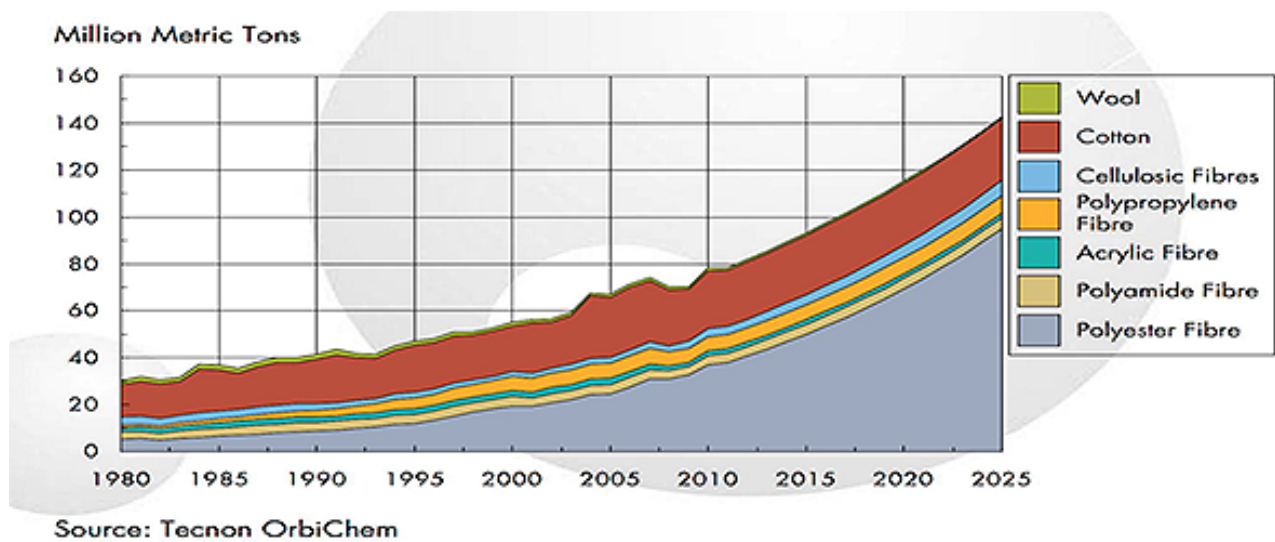


Figure 1. Global consumption growth in textile fibres

Textile fiber markets are dominated by synthetic fibers accounting for 70% of the total. As not renewable material even bigger problem is that synthetic textile fibers releases microparticles in waters. These microparticles are accumulated into food chains.

Cotton is not any better a very demanding crop in terms of water consumption and the need for pesticides. As cotton fields are typically located in areas with high population density, sparse water resources tend to get strained and extensive irrigation programmes needed.

Regenerated fibres based on cellulosic raw materials are serious alternatives to over-cultivating cotton.

Although there are several ways to produce regenerated cellulosic textile fibres, the viscose technology route remains dominant due to its cost effectiveness, with over 90% of a global 6 Mtons total. China is by far the largest producer with close to 4 Mtons.

Unfortunately viscose is not without its own environmental and health issues. The production process relies on carbon disulphide (CS₂), which can be defined as a nerve agent and recognised health hazard. Making

viscose production independent of CS₂ would pave the way very significant growth in cellulosic textile fibre production and usage.

What can be done?

There are several ways to move forward with green initiatives and sustainable solutions. These are a few thoughts about what ought to be done within the textile industry:

Firstly. Consumer awareness is an ever increasing trend. People are looking for sustainable solutions. Brand owners are aware of this and are searching for green, sustainable solutions for their products.

Secondly. In order to reinforce the influencing effect of the above, regulators have to play their part. By creating incentives or even directives, development in the desired direction can be advanced. Biofuels are a good example – the entire market was effectively created by regulators. A similar route could work for textiles. The EU could set new standards for textiles by requiring biogradability or/and bio-components inside textiles and garments sold in Europe.

Thirdly. Not surprisingly, considering the global need for sustainable natural textile fibres, many different technologies are under development. All reaching out to use cellulosic material for textiles.