## Investigating the Need to Align with and Adapt Sustainability of Cotton

Authors : Girija Jha

Abstract: This paper investigates the need of cotton to integrate sustainability. The methodology used in the paper is to do secondary research to find out the various environmental implications of cotton as textile material across its life cycle and try to look at ways and possibilities of minimizing its ecological footprint. Cotton is called 'The Fabric of Our Lives'. History is replete with examples where this fabric used to be more than a fabric of lives. It used to be a miracle fabric, a symbol India's pride and social Movement of Swaraj, Gandhijee's clarion call to self reliance. Cotton is grown in more than 90 countries across the globe on 2.5 percent of the world's arable land in countries like China, India, United States, etc. accounting for almost three fourth of global production. But cotton as a raw material has come under the scanner of sustainability experts because of myriad reasons a few have been discussed here. It may take more than 20,000 liters of water to produce 1kg of cotton. Cotton harvest is primarily done from irrigated land which leads to Salinization and depletion of local water reservoirs, e.g., Drying up of Aral Sea. Cotton is cultivated on 2.4% of total world's crop land but accounts for 24% usage of insecticide and shares the blame of 11% usage of pesticides leading to health hazards and having an alarmingly dangerous impact on the ecosystem. One of the possible solutions to these problems as proposed was GM, Genetically Modified cotton crop. However, use of GM cotton is still debatable and has many ethical issues. The practice of mass production and increasing consumerism and especially fast fashion has been major culprits to disrupt this delicate balance. Disposable fashion or fast fashion is on the rise and cotton being one of the major choices adds on to the problem. Denims - made of cotton and have a strong fashion statement and the washes being an integral part of their creation they share a lot of blame. These are just a few problems listed. Today Sustainability is the need of the hour and it is inevitable to incorporate have major changes in the way we cultivate and process cotton to make it a sustainable choice. The answer lies in adopting minimalism and boycotting fast fashion, in using Khadi, in saying no to washed denims and using selvedge denims or using better methods of finishing the washed out fabric so that the environment does not bleed blue. Truly, the answer lies in integrating state of art technology with age old sustainable practices so that the synergy of the two may help us come out of the vicious circle.

Keywords: cotton, sustainability, denim, Khadi

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