

Title: Green production and consumption of textiles and apparel: Importance, fabrication, challenges and future prospects

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Abstract: Textile and garments production involves a wide range of steps, beginning with the spinning of fibers into yarn, then manufacturing to fabric and finally, adding value-enhancing treatments like washing, dyeing and finishing to the outfits. Frequently, these manufacturing processes contravene the overarching tenets of environmental viability. Compounded by escalating demand for apparel products, manufacturers exhibit diminished enthusiasm for the implementation of ecologically conscientious and sustainable production methodologies. Therefore, the fast swings in fashion trends and the shortening of vogue cycles are major accelerators for the disruption of ecological balance. In more recent times, a profusion of pioneering initiatives and advancements have been instigated to sustainable remedies within the production and consumption paradigms of the contemporary clothing sector. Moreover, sustainable techniques within the apparel sector encompass not just environmentally friendly supply chain control, but also the facilitation of a cost-effective and socially agreeable production setup. Future considerations and developments in sustainability in spinning, fabric production, wet processing, and garment manufacturing are explored in this review article. It delves into environmental issues and the ways in which modern clothing brands promote sustainable technologies and materials.

Keywords: Production, Sustainable, Recycling, Textiles, Assessment of life cycle, Consumption

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