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WATER FOOTPRINT OF TEXTILE INDUSTRY: A CASE STUDY OF CHINA

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Abstract

The textile industry is one of the most water intensive and polluting industries. China is the world’s largest producer of textile products. For the sustainable development of China’s textile industry, the environmental impacts caused by its water consumption and wastewater discharge must be identified. In this paper, we analysed the water footprint of China’s textile industry based on the water footprint framework proposed in the ISO 14046. The results showed that both water scarcity footprint and water eutrophication footprint increased from 1996 to 2015, despite the fluctuation periods. Water ecotoxicity footprint decreased during the selected researched years. Among the three sub-sectors of China’s textile industry, the water footprints of the manufacture of textiles sector were larger than those of manufacture of textile wearing apparel, foot-ware, and caps sector and manufacture of chemical fibres sector. The water footprint intensity of China’s textile industry has decreased through the efforts of government administrative control measures and producers’ actions on freshwater saving and wastewater treatment.

Keywords: textile industry, water ecotoxicity, water eutrophication, water footprint, water scarcity

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