

## Cotton Production and Environmental Sustainability in India

### Background

Cotton has significant importance to human lives both from social and economic perspectives. This is true for all countries, but especially cotton producing countries including India. India has an estimated 5.8 million cotton farmers and about 40-50 million people are directly or indirectly engaged in cotton farming and related activities, such as processing and trade. Besides that, cotton is a major source of foreign exchange earnings of India.

To protect the lives and livelihood of millions of people engaged in cotton production and its supply chain, it is of critical importance that the production and consumption of cotton are environmentally sustainable.

It is observed that the current technological innovations in cotton production are having a significant impact on its environmental sustainability. Increasing use of chemical inputs

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such as fertilisers and pesticides is causing deterioration in soil quality, leading to exhaustion of ground water resources, and also causing health hazards.

### Rationale & Objectives

Given this background, CUTS International implemented a project entitled “Environmental Sustainability Impact Assessment of Cotton Value Chain” (in short, ESIACOV Project). Its duration was 22 months – March 2010-December 2012.

The purpose of project was to assess and understand issues relating to sustainability of cotton production and consumption in India.

In addition, it intended to shed light on changing consumption patterns in different countries, especially in Europe, and their impact on cotton production and consumption in India.

*To assess and understand issues relating to sustainability of cotton production and consumption in India*

In regard to cotton production and consumption in India, the Objectives were to:

- understand cotton production practices, sustainable production alternatives and related issues
- analyse how domestic regulatory policies have contributed to environmental sustainability
- raise awareness among stakeholders on issues relating to environmental sustainability issues
- provide recommendations to policymakers for enhancing environmentally sustainable practices

### Activities & Output

In order to develop a holistic understanding on environmental sustainability issues in cotton production and consumption India (including its supply chain), secondary data and available literature were analysed.

Three major cotton producing states, viz. Andhra Pradesh, Maharashtra and

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Rajasthan, from different agro-climatic zones were selected for collecting primary data. A total of 183 farmers were surveyed. Besides them, 63 ginner, 50 spinners, 58 weavers, 34 manufacturers and 60 retailers were surveyed. Findings are presented in a study entitled "Cotton Production and Environmental Sustainability in India" ([www.cuts-citee.org/pdf/Reasearh-Report-Cotton\\_Production\\_and\\_Environmental\\_Sustainability\\_in\\_India.pdf](http://www.cuts-citee.org/pdf/Reasearh-Report-Cotton_Production_and_Environmental_Sustainability_in_India.pdf)).

## Major Findings

Our study reveals that several efforts being undertaken by the Government of India and State Governments towards ensuring better sustainability in the cotton supply chain is resulting in increased awareness among the farmers and other relevant stakeholders. The drive towards sustainability is now duly supported by non-state actors, including international organisations working on sustainability-related issues.

*Despite significant progress made at different levels of cotton production and consumption, various issues relating to cotton production and consumption in India are still to be addressed.*

These developments suggest India's progressive march towards a more sustainable production and consumption practices.

The progress made at the ground level, especially

during the production stage, reveals several interesting facts about the inclination of Indian farmers towards sustainable production. Their awareness on issues relating to sustainability has significantly increased over the last few years.

Data from our field survey showed that while about 94 per cent farmers were adapting to

improved variety of seeds, awareness about overall environmental sustainability were quite high (82 per cent).

About 95 per cent of them were aware of climate change and its adverse impact on cotton production. 86 per cent were aware of adverse impact of increased use of chemical fertilisers and pesticides leading contamination of soil and surface water. 74 per cent of them are taking precautionary measures to address sustainability issues.

However, and despite the fact that a large number of farmers were aware of sustainability issues, many of them are not able to take effective measures. This is mainly because of financial and technological reasons.

The study also highlights the fact that, despite significant progress made at different levels of cotton production and consumption, various issues relating to cotton production and consumption in India are still to be addressed.

Some of the most important ones include lack of farmers' capacity to adapt sustainable practices, low yield and productivity, lack of irrigation facilities, contamination of soil and surface water due to excessive use of fertiliser and pesticides, inadequate dissemination of environmental friendly technology.

However, changing preferences in European countries do not appear to have major impact of India's cotton production and consumption trends.

We recommend that there is a need for adopting a holistic approach towards promoting an environmentally sustainable cotton regime in India. This should be done by developing a right set of regulations in the cotton supply chain in India and strengthening the relevant institutions to effectively implement those regulations.

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