



SUSTAINABLE TRADE AND RESPONSIBLE BUSINESS

EVALUATION OF BETTER COTTON INITIATIVE IMPACTS IN ANDHRA PRADESH, INDIA

**INSIGHTS AND RECOMMENDATIONS FOR STANDARDS
ORGANISATIONS, RESEARCHERS AND POLICY MAKERS**



R. Kumar, V. Nelson, A. Martin, L. Narayanan, B. Suresh Reddy, D. Badal, A. Latheef and S. Young (2020).

KEY LESSONS

- The impact study of a Better Cotton Initiative (BCI) project in Andhra Pradesh found that smallholder knowledge and understanding of Better Cotton practices as well as adoption of some areas of practice, have improved among farmers participating in the project, but inconsistent adoption remains a concern.
- Some limited economic outcomes have been achieved, such as relatively lower increases in costs of production and slightly better yields, but cost savings are limited so far. Environmentally, pesticide use has been reduced, but optimal use of fertilizer has not improved, because farmers are still tied to input dealers who encourage continued usage. Alternative sourcing of inputs and finance through Producer Organisations has not materialised.
- Interventions on decent work were initiated recently and therefore improvements were limited. Attention to gender issues, such as women's participation in learning groups, has been weak.
- The approach to extension had limitations: The inconsistency of adoption and weak environmental and economic performance outcomes align with academic research on farm decision-making. 'Adoption' thinking fails to recognize the reality of farmer decision-making processes, which are constrained and enabled by diverse factors, including a lack of economic incentives, but also the extension approaches involved and other socio-cultural factors shaping farmer responses. New measures are needed to assess farmer learning, practice changes and benefits.
- Scaling is not likely to occur in the short term, due to a lack of market demand for Better Cotton: few market signals were visible upstream to ginners, spinners and farmers, and few value chain stakeholders could articulate the potential benefits and costs due to a lack of sensitization.
- To achieve 'Better Cotton' in Andhra Pradesh requires a more systematic approach with a range of actions such as meaningful incentives to motivate farmers to producer 'Better Cotton', providing them with a range of services, ensuring gender equity, strengthening the business case for 'Better Cotton' and advocating for supportive national policies and legislation. More engagement in sectors and areas is important to achieve transformations, plus attention to climate resilience and also to consumption and circular economy responses.

Introduction

Achieving sustainable cotton production is critically important for millions of smallholders around the world who rely on cotton incomes for their livelihoods. But there are challenges relating to the over-use of fertilizers and chemical pesticides, including dangerous ones, which has negative environmental and human health impacts. Working conditions for informal workers on smallholder farms often fall short of decent work measures.

The Better Cotton Initiative (BCI), a transnational voluntary sustainability standard, seeks to mainstream sustainable production. This briefing provides insights and findings from an independent, impact study on a specific BCI project implemented in Andhra Pradesh. The study was, commissioned by ISEAL, the membership body for credible standards, as one of three impact assessments in their "Demonstrating and Improving Poverty Impact (DIPI) project", which sought to understand the contribution that certification systems can make to poverty alleviation and pro-poor development. The study sought to assess the early social, environmental, economic and value chain impacts of BCI licensing focusing on a specific project in Adoni Mandal, Andhra Pradesh, India.

Better Cotton Initiative

The Better Cotton Initiative (BCI) is a voluntary sustainability standard organization, which offers a holistic approach to sustainable cotton production, covering all three pillars of sustainability: environmental, social and economic. BCI aims to transform cotton production globally by mainstreaming 'Better Cotton' production and trade. The 'Better Cotton Principles & Criteria' provide a framework for cotton farmers and partners to make sustainability improvements. BCI states that Better Cotton exists to make global cotton production better for the people who produce it, for the environment it grows in, and better for the sector's future.

The study methodology was highly rigorous (theory based; randomized control trial, mixed methods) and quality assured by the specialist impact evaluation organization, 3ie. The study tests the BCI theory of change, providing insights of relevance to BCI, project stakeholders as well as the community of practice working on standards and sustainable commodities in India and globally.

The findings have been validated and disseminated in participatory stakeholder workshops in India. Strategic recommendations were shared with the BCI council. See the [full report](#) which includes the methodology and detailed findings and recommendations.

Findings

- Smallholder knowledge and adoption of Better Cotton practices has shown a statistically significant improvement, but adoption has been inconsistent. A few farmers reported adoption of some of the practices, such as ending the use of *monocrotopus*¹ and reducing the use of fertilizers, as well as cost savings. Many farmers continue to use excess inputs following the advice of input dealers.
- The findings are highly gendered: Prevailing gender norms exclude women from farm-related decision-making, and women have received limited access to training and information in the project, creating the risk that inequalities are simply reproduced.
- Social outcomes: Interventions on decent work were limited in scope compared to production-related interventions and began later. Hence, it is unsurprising that there was limited change in this regard. There was some improvement in knowledge of decent work principles, such as health and safety concerns relating to hired labour, and child labour issues. Improvement in terms of decent work was lower than on other BCI dimensions. Not much has changed in working conditions for hired labour on smallholder farms. Work remains informal, only drinking water is provided to workers and there is no additional health and safety training or benefits.
- Economic outcomes: The costs of production have increased for both groups, i.e. both treatment and control groups, but less so for treatment farmers. Cotton yields have marginally increased for all groups, with slightly higher yields among treatment farmers. Neither difference in costs nor yields is statistically significant. Gross revenue and gross margins have increased for both treatment and control groups. Service provision to farmers has not improved so far.
- Environmental outcomes: A significantly reduced proportion of treatment farmers are using chemical cocktails, i.e. a mixture of harmful agro-chemicals /pesticides. A marked reduction is also observed in the doses of all pesticides used (except Imidacloprid and Fipronil) by treatment farmers.
- Value chain outcomes: There is a lack of active Better Cotton market incentives to encourage spinners and ginners to adopt the Better Cotton Initiative approach.

- Impacts: Significant poverty impact has not been realized to date, but it is still relatively early in implementation. This finding is based on an analysis of the collected data in comparison with the Poverty Probability Index and Multi-dimensional Poverty Index.



Farmer spraying without personal protective equipments.

1. A prohibited agrochemical

Key Insights

Sufficient intensity and comprehensive implementation of the theory of change: To achieve success, all aspects of the theory of change need to be implemented, with sufficient intensity and implementing partner capacity. Overall, there is no evidence that desired impacts have been achieved so far, but the lack of impact evidence should be contextualized in terms of the partial implementation of the theory of change and a recognition of the time taken to change farming practices and build farmer organisations in contexts of high levels of poverty and illiteracy.

The Theory of Change anticipates all four impact pathways (economic, social, environmental, value chain) working together to achieve desired outcomes and impacts. Some outcomes related to implemented interventions are beginning to be seen, such as changes in awareness resulting from training on Integrated Pest Management. However, in other areas of the theory of change it is too soon to expect change to have occurred, and/or aspects of the theory of change have not been implemented.

Delays in addressing aspects of producer organisation to facilitate delivery of services, such as improved access to cheaper inputs and finance through collective procurement, undermine farmers' capacity to change their practices. Acting on gender inequalities at the outset is needed to achieve goals – addressing them later risks women not participating in learning groups and limits their capacity to change and benefit. Limited work on value chain sensitization means that market signals do not incentivize spinners, ginners and ultimately farmers to participate. The omission of these critical aspects to date has undermined achievements in the inter-connected areas which have been implemented, such as training and adoption of promoted practices.

Effective farmer extension approaches are required, but these also require adequate resources: The standard has successfully delivered extension to large numbers of farmers in Adoni Mandal. However, the effectiveness of the extension approach is questionable: women were not invited to participate, few experiential learning approaches have been used.

Limited incentives for farmers lead to inconsistent uptake: Farmers perceive limited tangible incentives. Although treatment farmers have slightly reduced costs compared to control group farmers, this is only to a limited degree. Higher yields would be an incentive for farmers, but while adoption levels have increased, adoption is inconsistent, and the gains have not yet translated into concrete yield increases. However, practice changes by farmers are rarely a straightforward, 'yes/no' decision and may involve more nuanced innovations,

partial adoptions, etc. It is therefore important for BCI and implementing partners to unpack the notion of 'adoption'. The BCI approach did not include strong experiential learning as facilitated in farmer field schools and farmer networks, yet the latter may be more effective in achieving change in contexts where there are strong countervailing forces.



After the rains in a cotton field.

Insufficient demand from buyers: The BCI system is seeking to build market demand for Better Cotton by engaging brands and retailers, but a voluntary standard has limited leverage in the marketplace. Currently, there are no market signals reaching spinners and ginners. Demand is weak and the sector in Andhra Pradesh is fragmented and so market pull from brands to textile mills/spinning mills /ginners is likely to be slow for some time to come. At the time of the final evaluation (2018), no brand level uptake of 'Better Cotton' was observed in Adoni Mandal. Ginner and spinner awareness of 'Better Cotton' is low. None of the spinners have so far demanded that the ginners separate the Better Cotton from conventional cotton.

The magnitude of rural stressors requires an appropriately intensive and coordinated response: The Adoni mandal context is highly challenging, but not unique in rural India. Cotton pests and diseases, poor rainfall, a lack of access to services are common issues, as is a widespread over-reliance on commission agents and input dealers amongst indebted smallholder households. In a context of climate change, dryland farmers need resilience strengthening and crop diversification.

Other types of interventions are needed to achieve more transformative change, as desired by the BCI standard in specific territories and in the cotton sector. Designs must address wider issues relating to collaborative rural governance, addressing climate resilience, actions on consumption etc.

Recommendations

It is recommended that BCI:

1. **Strengthen its approach to sector transformation at the national cotton sector level, ensuring this emphasis flows into the design of specific projects or areas.** Different strategies are needed to tackle root causes and achieve systemic changes, Analysing the root causes of challenges and developing systemic responses are critically important. It is important to review and seek to influence the policy context. Engaging state government actors in multi-stakeholder learning is one way to do this. Advocacy measures may also be needed. To realise meaningful benefits for farmers, it is necessary to incentivise more consistent and widespread changes in farming practices, and to provide adequate incentives for value chain actors to participate. Building public pressure on brands to participate may require governmental as well as consumer intervention
2. **Promote 'territorial' or 'area transformation' approaches within projects involving collaborative governance and social learning.** This study shows how challenging and interconnected the issues are for cotton farmers. During the study period, several case study farming households had to sell their land and find work in cities due to hardship. Climate change is adding to the range of pressures on indebted poor cotton farming households. BCI alone cannot solve these issues and a more collaborative rural governance approach is needed, although this requires higher levels of investment. BCI should pilot the adoption of an area-based approach, including:

- a) Social learning which involves interaction amongst diverse stakeholders, bringing their different perspectives and mobilizing commitment to act. Such an approach would build on a key strength of BCI, in comparison to other sustainability standards, which is its relative flexibility, allowing local interpretation to respond to local conditions.
 - b) Mobilization of different stakeholders (public, private, civic) to resolve context-specific challenges. A multi-stakeholder process is needed to enable collaborative governance of cotton. However, a specific commodity focus should not obscure wider dynamics in terms of rural livelihoods.
 - c) Real time monitoring, providing a rapid feedback loop for adaptive management in order to be transformative at the area level
 - d) Ensuring that the local private sector is engaged both as direct participants in the value chain and as service providers, as well as provincial government, NGOs and the media. Implementing partners need significant capabilities, including multi-stakeholder facilitations skills, to implement such measures simultaneously.
3. **Review and improve approaches to agricultural extension shifting from a technology transfer approach to a farmer-learning oriented one.** Our study shows that farmers do not simply adopt or reject technologies – the process is far more nuanced than this, not least as different farmers have differing resources to respond to the new technologies



Focus group with women.

to which they are exposed. This requires improvements in the approach to agricultural extension, shifting from a technology transfer to a more farmer-centred, learning-oriented approach, engaging farmers so that they can learn and experiment, rather than simply adopt blanket prescriptions is important. Other supportive measures are necessary, including improvements in farmers' access to services and bargaining power, to address their problems of being trapped in debt relations with commission agents and heavily reliant on private input dealers for advice and inputs.

- 4. Recognize the climatic challenges faced by farmers and strengthen farmer climate resilience.** Development of climate projections should be a key input to an area-based approach in which stakeholders review climate projections and future scenarios for their geographic area, to understand the implications and options for sustainable cotton farming. Farmers need enhanced access to weather and seasonal forecast information – this should be integrated into the BCI theory of change (under service provision for farmers) and may require partnerships with meteorological agencies. Exploring livelihood diversification strategies as part of a farming systems approach is also important, beyond the focus solely on cotton for all farmers.

- 5. Improve project design and implementation.** The BCI project theory of change should flow from an area-based approach involving stakeholder participation and social learning. Project designs should set out how all key components of the agreed theory of change will be delivered and by whom, accompanied by realistic assessments of stakeholder capacity and the time taken and necessary intensity of resources required to achieve change in poor rural areas that are largely reliant on rainfed agriculture. Adaptive management is suggested, tied to strong monitoring-for-learning systems. Metrics should move away from simplistic indicators of technology 'adoption'. Adequate support and oversight should be provided for implementing partners to ensure they have sufficient capabilities (including farmer-learning approaches to extension, gender sensitive development skills) and resources.
- 6. Develop a more gender-responsive approach:** Rather than sequencing interventions such that productivity is given full primacy, and gender and social issues are delayed, it is important that the latter are given sufficient attention, to avoid risks of reinforcing existing inequalities.



Interview with cotton farmers on their field.

Theory of Change: Summary of Evidence

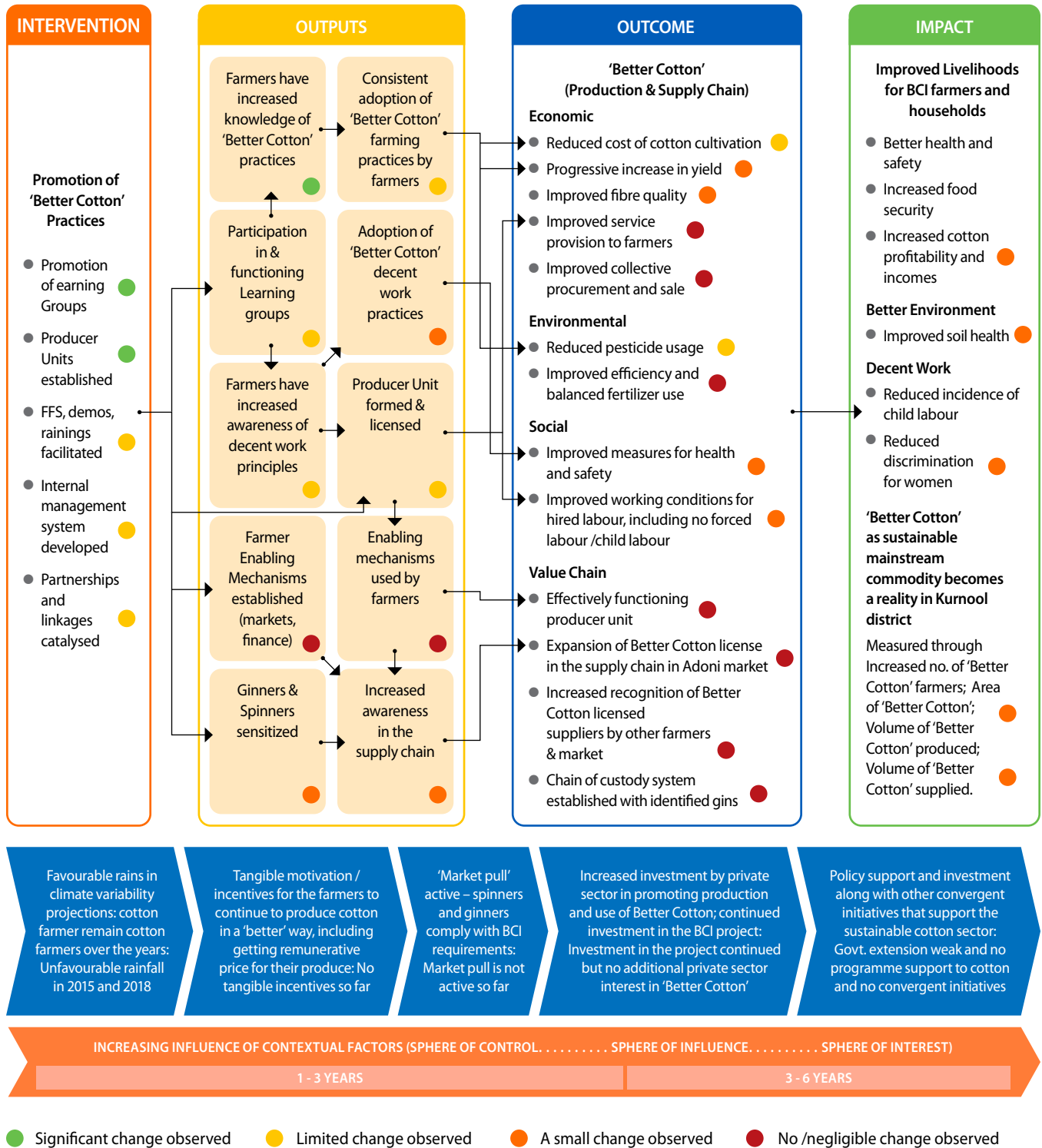


Figure 1. Theory of Change of the BCI project.



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