



Better Cotton's Climate Approach

December 2021

In just over 10 years Better Cotton has become the world's largest cotton sustainability programme. Our mission is to help cotton communities survive and thrive, while protecting and restoring the environment. However, the environment is in danger, climate change is at a tipping point, and the majority of cotton farmers and farm workers are in some of the world's poorest, worst affected countries. The global pandemic has compounded the difficulties.

Better Cotton is meeting the climate crisis head on. Along with our extensive network of partners and members, we are working to make cotton farming more climate-resilient and sustainable, while aiming to protect the livelihoods of farming communities. Already, almost a quarter of the world's cotton is produced under the Better Cotton Standard across 23 countries, supporting almost 3 million farmers.

Recognising the ever-increasing challenges, Better Cotton is developing a Climate Approach to support farmers to further mitigate their impact on climate change and adapt to its consequences. We know we must enhance and accelerate our efforts, and bring in new innovations, in order to achieve our mission.

Climate Change and Better Cotton's 2030 Strategy

Better Cotton's 2030 Strategy lays the foundation for a strong response to climate threats within the cotton value chain, and mobilises action for change with farmers, field partners and members. Our Climate Approach sets out our specific ambitions in this area and our initial actions to achieve them.

Climate Change in the Principles & Criteria

Climate change is a cross-cutting theme in the [Better Cotton Principles & Criteria](#). The farm practices promoted by the Principles and Criteria have helped Better Cotton lay strong foundations to mitigate climate change and support adaptation at farm level.

Principle 1: Better Cotton Farmers minimise the harmful impact of **crop protection** practices. We support farmers to develop a better understanding of Integrated Pest Management. This approach promotes alternative pest control techniques in order to reduce the reliance on conventional, synthetic pesticides. Better Cotton also helps farmers phase out the use of Highly Hazardous Pesticides, which pose great risks to both the environment and the health of farming communities and workers.

Our Climate Approach

Principle 2: Better Cotton Farmers practice **water stewardship**.

We support farmers to use water in a way that is environmentally sustainable, economically beneficial, and socially equitable. This water stewardship approach can improve crop yields, strengthen resilience to climate change, minimise negative impacts on water quality and enable fair water access for all users in a catchment area. We also support farmers to adopt cotton varieties that are best adapted to the region's current and forecasted climatic conditions and soil characteristics.

Principle 3: Better Cotton Farmers care for the **health of the soil**.

We support farmers to better understand and protect the soil. Healthy soil leads to bigger and higher quality yields, reduces the need for expensive fertiliser, pesticide and labour costs, and can more easily withstand unpredictable weather patterns caused by climate change. We support farmers to optimise fertiliser application, or use natural alternatives, as in many countries synthetic nitrogen fertiliser is a primary driver of emissions. Healthy soil also helps to mitigate climate change, as it is better able to sequester carbon and serve as a carbon sink.

Principle 4: Better Cotton Farmers enhance **biodiversity** and **use land responsibly**.

We support farmers in conserving and enhancing biodiversity on their land and in adopting practices that minimise the negative impact on habitats in and around their farm, whilst simultaneously promoting sustainable land-use practices and protecting High Conservation Value (HCV) areas.

Better Cotton has **a responsibility and opportunity** to help shift the cotton sector to become part of the **climate solution**, while supporting those most affected by climate change. Our Climate Approach is informed by a growing body of research on the intersection between cotton farming and climate change, the work of the Intergovernmental Panel on Climate Change (IPCC) and is aligned with the Paris Agreement. It is composed of three pillars:

1. **Reducing cotton production's contribution to climate change**

Accelerate the transition of Better Cotton farmers toward climate-smart and regenerative agricultural practices that reduce emissions and sequester carbon

2. **Adapting to life in a changing climate**

Equipping farmers, farm workers and farming communities to be more resilient to climate change impacts

3. **Enabling a just transition**

Ensuring that the shift towards climate-smart, regenerative farming and resilient communities is socially and economically inclusive

Each of the pillars offer productivity and yield improvement opportunities and many of the practices that we promote support both mitigation and adaptation all of which is fundamental to the production of sustainable cotton. More information on each of the pillars can be found in the section below.

1. Reducing Cotton Production's Contribution to Climate Change

Cotton is grown by millions of farmers around the world. The agriculture sector contributes approximately **12% of the world's Greenhouse Gas (GHG) emissions**. Agriculture therefore has a role to play in reducing emissions, as well as the potential to store large quantities of atmospheric carbon in the soil. Better Cotton has been conducting work to better understand emissions drivers in cotton production and using these findings to prioritise action.

Better Cotton is taking a targeted approach to reducing emissions at a global and country level. To support this, in October 2021, we released our first report quantifying global greenhouse gas emissions (GHGs) of Better Cotton, and comparable production. This was an important step in setting our 2030 emissions reduction target.

The Better Cotton GHG study, conducted by Anthesis Group, reviewed data from over 200,000 farm assessments over three seasons (2015-16 to 2017-18). The study found significantly lower emissions from Better Cotton-licensed farmers' cotton production. On average, Better Cotton production had a 19% lower emissions intensity per tonne of lint than comparison production across China, India, Pakistan, Tajikistan, and Turkey. Main emissions drivers were synthetic nitrogen fertiliser production and application, and the power for irrigation. Low yields in some geographies also contribute to relatively high emissions intensities.

Translating Data into Action

Anthesis' study provided us with valuable insights, along with the latest climate science, to address the challenge. Now that we have established a baseline for Better Cotton GHG emissions, we can embed mitigation practices more deeply into our programmes and Principles and Criteria and further refine our capacity building, monitoring and reporting methods.

2. Adapting to Life in a Changing Climate

Cotton is one of the world's most important natural textile fibres and is the most widely grown fibre crop in the world. Over the past year Forum for the Future's Cotton 2040 working group has produced a [climate risk assessment for global cotton production](#) which found that by 2040 all global cotton-growing regions will be exposed to increased risk from at least one climate hazard: reduced growing season length, heat stress, changes in total rainfall during the growing season, extreme rainfall events, long-term drought, short-term drought, fluvial flooding, coastal flooding, strong winds, storms, wildfire and landslides. This evaluation supported experience from Better Cotton's regional teams and partners who are increasingly witnessing these challenges first-hand.

Building the resilience of farmers and farm workers is essential if they are to absorb and adapt to the stress posed by climate change. There is a clear nexus between Pillar 1 and Pillar 2, primarily regarding agricultural practices that are good for carbon sequestration and good for soil health, such as cover cropping, complex crop rotation and agroforestry, to name a few.

Translating Data into Action

Understanding the increased risk of production challenges puts us in the best position to proactively support farmers and farm workers. We are already working with partners who can help farmers to adapt. Increasingly we are also seeking out partnerships that can provide further assistance to farmers by identifying and promoting appropriate regenerative and climate smart agriculture practices, encouraging water storage, developing weather, pest and disease forecasting, creating and implementing weather indexed insurance, and breeding cotton seed varieties which are more drought, flood, pest, weed and disease resistant.

3. Enabling a Just Transition

Around 100 million farmers grow cotton worldwide and climate change is already affecting many of them. Among these, smallholders are undoubtedly the most vulnerable: We know that the impact of climate change disproportionately affects those who are already disadvantaged – whether due to poverty, social exclusion, discrimination, or a combination of factors. However, these marginalised groups can also be the key agents of change. Smallholder farmers already grow a more diverse range of crops than large farms, which puts them in a good position to reverse the declines in nature and biodiversity. As the [UN reports](#), women and girls, in particular, are ‘often early adopters of new agricultural techniques’ and can be drivers of climate solutions.

During 2021 we have been talking directly to farmers and farm workers in India and Pakistan to better understand the challenges that they face and identify how we can best address and not exacerbate inequalities. Almost 90% of farmers interviewed have noticed changing weather patterns in the last 5 years and more than 35% say they aim to farm less or not at all by 2030.

Translating Data into Action

Our role at Better Cotton is to provide ongoing support to ensure farmers and farm workers are able to navigate the climate change transition in a socially and economically inclusive way. An important component of this pillar will be to support access to finance and information that will empower farmers and workers to make the choice they feel is best for themselves and their families. Continuing our focus on decent work, including workers’ rights, fair pay, and protection from heat stress, will also be essential.

Our Climate Approach

Better Cotton is taking action in the following ways:

- 🌱 Spur action through setting **clear targets**, in line with climate science, that we can monitor and report on and use for learning and continuous improvement.
- 🌱 Build **country-level action plans** which recognise the urgency required in implementing both mitigation and adaptation actions. The action plans will reflect the intensity of climate change impacts and will target capacity-building to reduce emissions, enhance adaptive capacity, strengthen resilience and reduce vulnerability to climate change.
- 🌱 Revise our **Principles & Criteria** to re-focus our indicators through a climate change lens, putting a stronger emphasis on regenerative agricultural practices for adaptation and mitigation. The updated Standard is due to be released in 2023. Visit our webpage for more information.
- 🌱 Explore **incentives and governance systems**, such as carbon markets and Payment for Ecosystem Services schemes, that will empower farming system actors, increase the adoption rates of effective mitigation practices, and build convincing cases for enabling GHG mitigation, especially in the context of smallholders.
- 🌱 Understand the **expressed needs of farmers and farm workers**, particularly women, young people, and other more vulnerable groups, and ensure their meaningful participation in programme design.
- 🌱 Source funding through new and developing **climate finance** resources, such as carbon markets, philanthropic funders, institutional donors, banks, equity investors, impact investors and other stakeholders, which provide opportunities to invest in farming communities.
- 🌱 Continue to explore **nature-based solutions and landscape approaches** that will help Better Cotton to protect, conserve and restore nature and ecosystems beyond the standard system.
- 🌱 Leverage **partnerships** and work in cotton producing countries to engage new audiences, particularly global/national policy makers to advocate for change in, and support for, all areas of the approach, including a just transition with a focus on decent work.
- 🌱 Invest in **research and development** in key and innovative areas for technology transfer such as worker protection from heat, seed and varietal development, water storage, insurance products, and weather, pest and disease forecasting.
- 🌱 Drive **innovation** through Better Cotton's Growth and Innovation Fund which funds in-country partners to test, trial, and scale locally- relevant adaptation practices, including farm practices and diversified livelihoods.

Measuring Progress – 2030 Targets

Better Cotton has identified five target areas to act as the public-facing drivers of change: climate change mitigation, soil health, pesticide use, smallholder livelihoods and women’s empowerment. These have been selected through an extensive process involving detailed desk research on global sustainability targets and a global hotspot analysis looking at key areas of concern for each of the Better Cotton direct and benchmarked countries.

Each target area will be accompanied by an associated indicator to monitor and measure progress made on-the-ground. An indicator has been developed for the climate change mitigation target while the rest are currently in development – all the indicators will be shared by the end of 2022. The ability to measure and report on progress will be essential to demonstrate our commitment to impact and deliver our mission.

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Better Cotton/Khaila Jamil, Punjab, Pakistan 2019

