



FAIRTRADE
INTERNATIONAL

Climate Change and Fairtrade Cotton



A recent published [scientific study commissioned by Fairtrade with EU funding](#) shows how climate change is expected to impact the agricultural production of different crops, including cotton, in different regions. While impacts are not distributed evenly, when production is threatened, its effect has implications for the entire value chain, from producers to traders and even consumers.



VRIJE
UNIVERSITEIT
AMSTERDAM



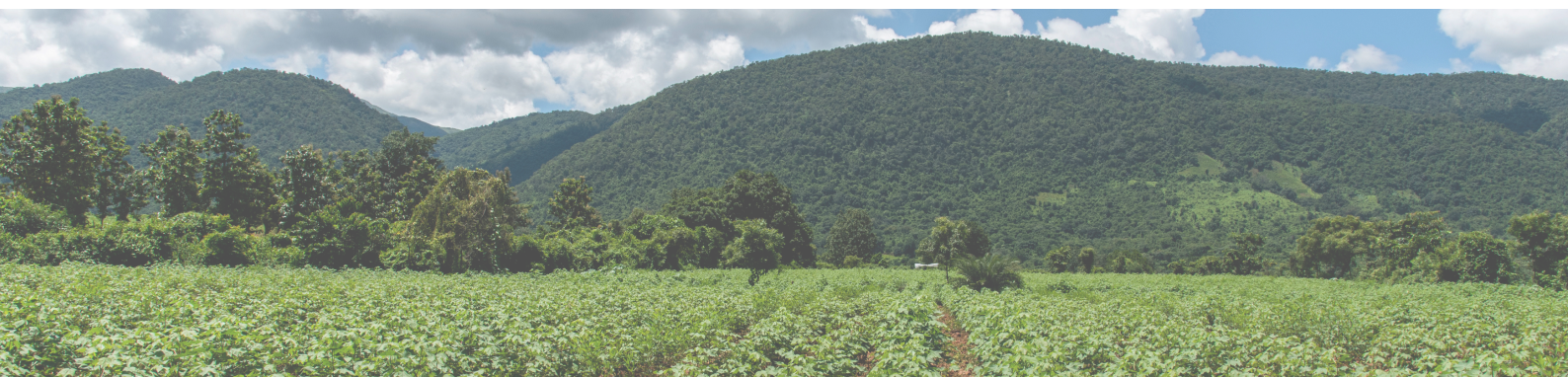
Bern University of Applied
Sciences BFH
School of Agricultural, Forest and
Food Sciences HAFL

The researchers, from Vrije University Amsterdam and Bern University of Applied Sciences, used three indicators of climate change impact: warm spell duration index (heatwave, heat stress risk), consecutive dry days (drought risk) and heavy precipitation days (water damage, erosion, pest risk). They also looked at tropical cyclones and depleted water basins. The researchers used a moderate (low-emissions) and an extreme (high-emissions) scenario to calculate a lower and upper range of potential climate impacts for each crop.

Cotton, mostly grown in (semi) arid climates, is highly sensitive to climate change. With a high threat from climate change due to high temperatures and consequent plant water demand, cotton production will be exposed to many climatic stressors. Fairtrade calls for action to all supply chain actors, including brands to support producers in setting up projects to equip them to adapt to the climate change risk.

The facts on Fairtrade cotton production worldwide

- Increased water deficient conditions will decrease the rate at which cotton bolls grow
- Many producers of cotton are already situated in or near depleted water basins, which will likely be even more so in the future
- Cotton cultivation itself is contributing significantly to agricultural water consumption and depletion of water resources



Impact on Fairtrade cotton production

Certain Fairtrade cotton producing areas are expected to be severely impacted in face of climate change, mainly due to increased number of hotter and drier days.



More warm spells:

Under extreme climate change, Fairtrade cotton producers will be exposed to more than 30 additional days with considerably high temperatures than one of the highest maximum daily temperatures recorded between 1980-2010. As is shown in Fig. 1, this will be most prominent in:



- Central Asia: Kyrgyzstan, Tajikistan
- North Africa: Egypt
- West Africa: Burkina Faso, Mali, Senegal
- South Asia: Pakistan, East India

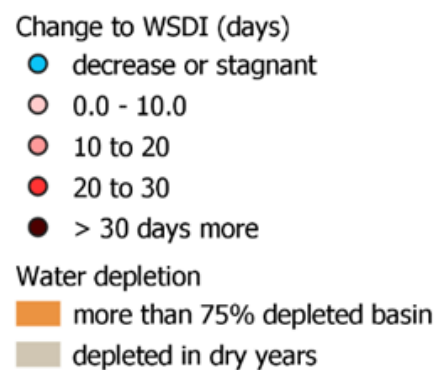
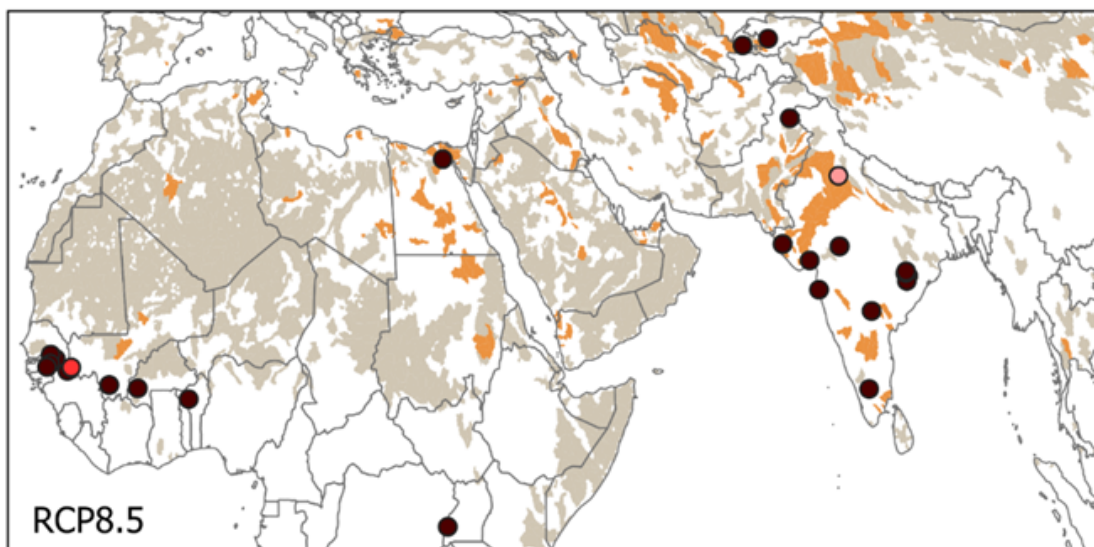
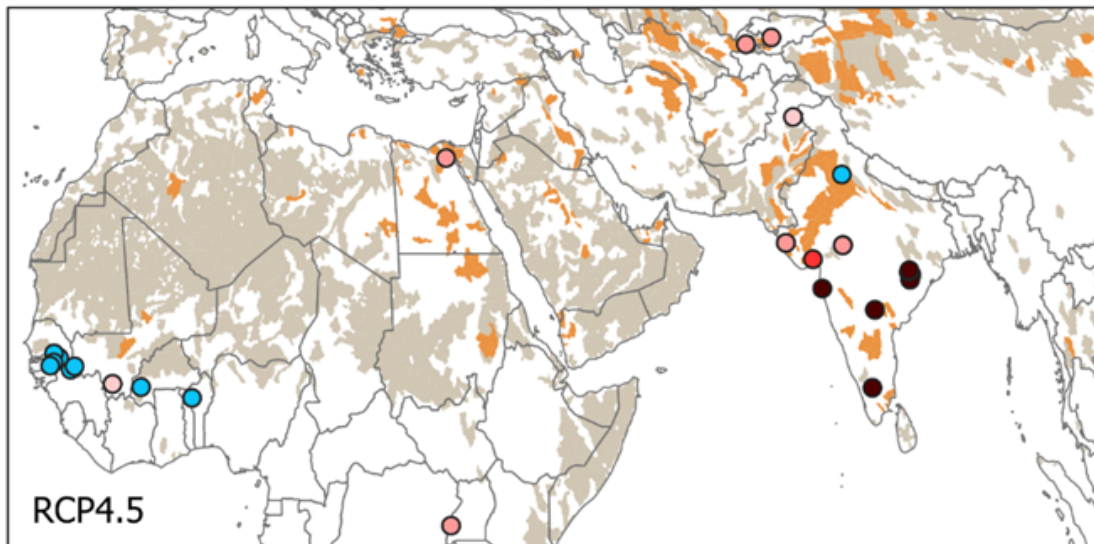


Fig 1: Changes to the warm spell duration index (WSDI, in days) in cotton producing regions (surfaces) and Fairtrade cotton producers (points).



More consecutive dry days:

Producers in the Middle East (Egypt), Central Asia and East India will particularly be impacted by future increases in days without rainfall, as there might not be sufficient water resources to irrigate cotton fields. Other areas with significant increase in consecutive dry days include:



- Central Asia: Kyrgyzstan, Tajikistan
- North Africa: Egypt
- West Africa: Mali, Senegal
- South Asia: Pakistan, East India

Fig. 2 presents these areas where Fairtrade cotton producers will experience increased number of consecutive dry days.

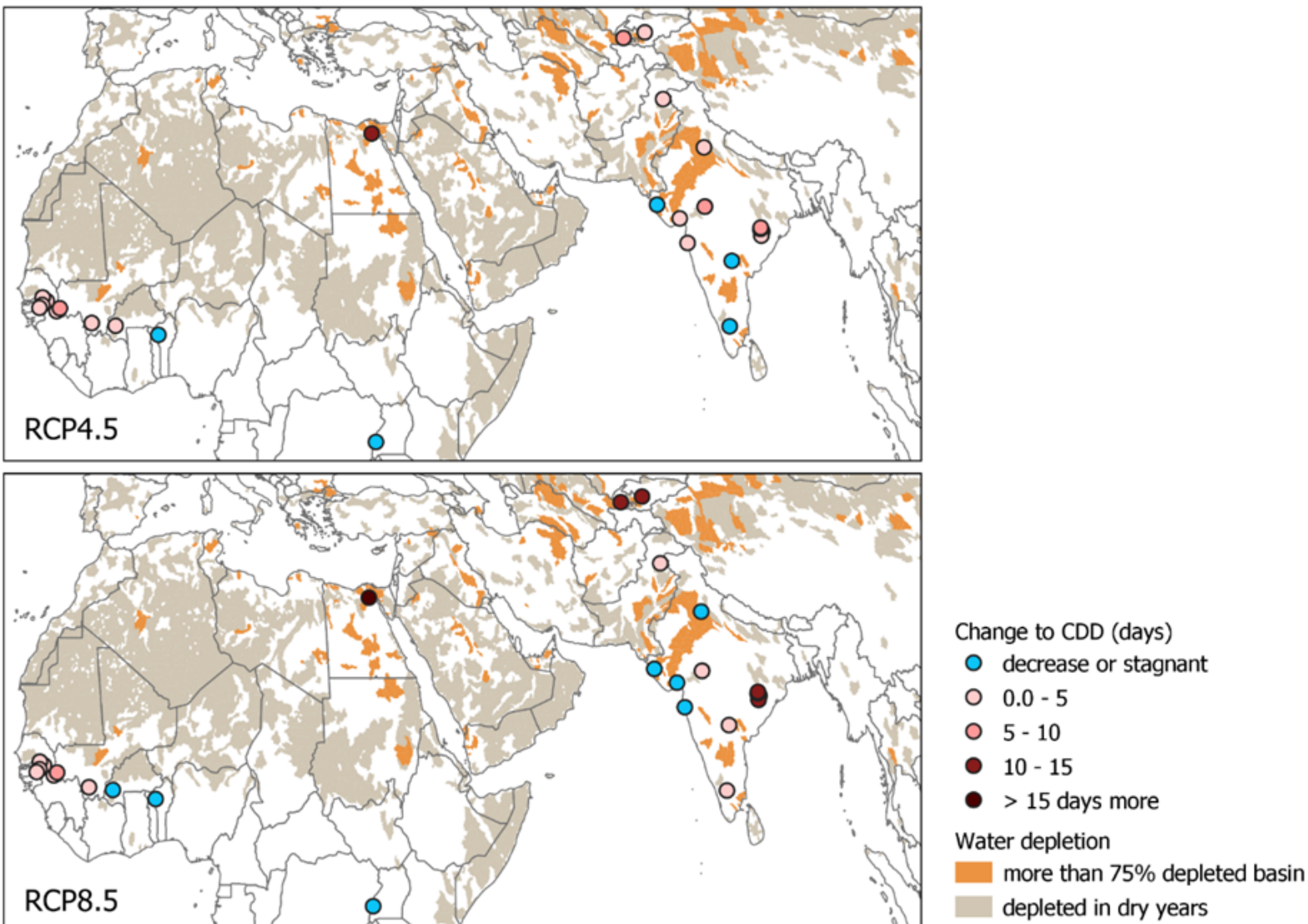


Fig 2: Changes to consecutive dry days (CDD, in days) in cotton producing regions (surfaces) and Fairtrade cotton producers (points).

Most of these areas will experience a combination of both more heatwaves and more consecutive dry days highlighting the severe impact of climate change on key Fairtrade cotton producers.

Fairtrade's contribution to addressing climate change

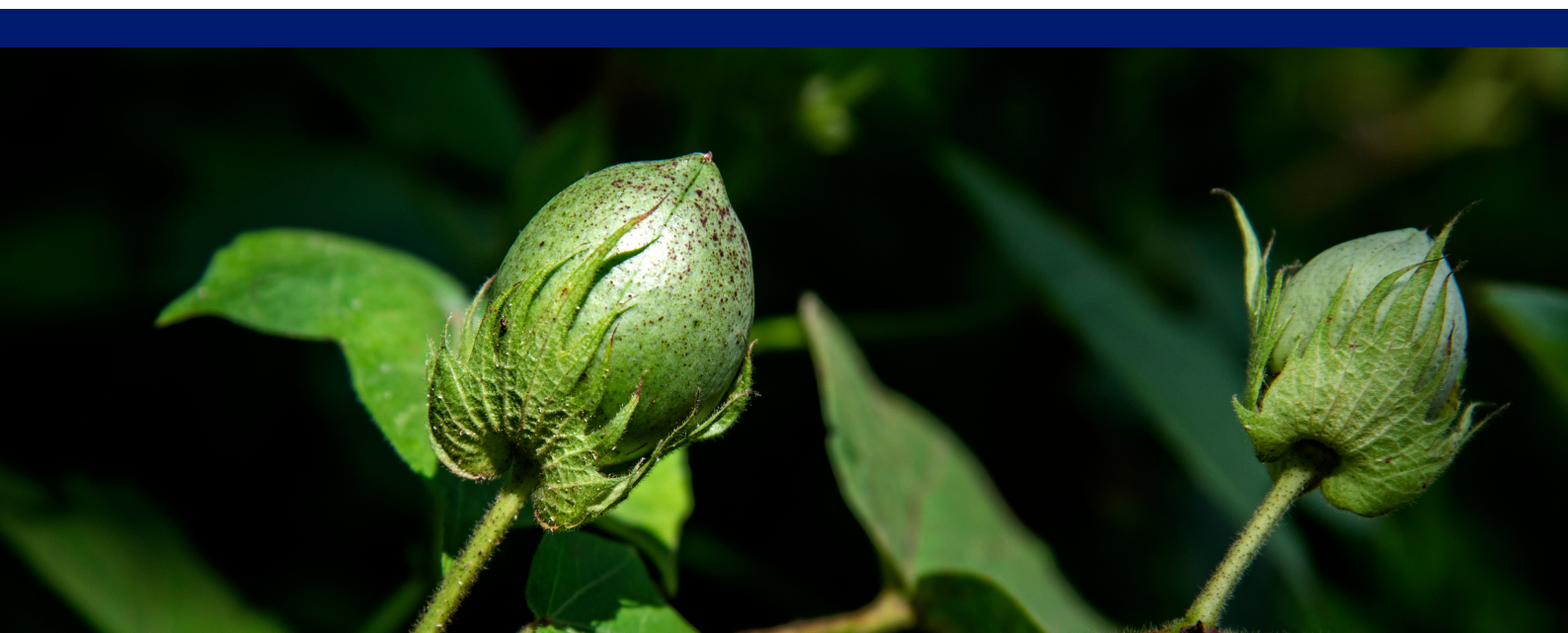
Fairtrade adopts a project-based approach in supporting producers and farmers in adapting, mitigating and becoming more resilient against the challenges of climate change. The focus of such projects is varied across the system depending on the urgency in need of support and level of vulnerability of farmers within a region to climate change. To read more on Fairtrade's efforts related to climate change, please view the [Learning by Experience report](#).

Moreover, Fairtrade producers receive a Fairtrade Premium when selling their certified products, proceeds of which can be used to address priorities which farmers decide to invest in, including climate change adaptation measures. Next to Fairtrade minimum prices for conventional seed cotton (which vary by variety and country of origin), Fairtrade sets also prices for organic seed cotton, which are significantly higher to reflect higher financial costs of sustainable production at the producer level. For both conventional and organic seed cotton an additional Premium of 5 Eurocents per Kg is applicable. Minimum prices and Premiums for all origins can be found here: <https://www.fairtrade.net/standard/minimum-price-info>.

Against the major threat of climate change to the future of cotton production, Fairtrade recognizes that more needs to be undertaken and at a larger scale with producers to promote sustainable practices such as agro-ecology and where suitable promoting organic production. This includes reviewing the Standards (especially when it comes to environmental criteria), but also more training on locally adapted good agricultural practices, more advocacy and building new partnerships, where partnerships can be most efficient, for example in addressing deforestation through remote sensing.

Finally, Fairtrade is active to advocate for climate justice that is inclusive to smallholder producers at different levels. Examples of this are our presence at COP 26 and [position paper](#) released running up to the Glasgow conference as well as our advocacy work related to the [European Commission's proposal to create a market for deforestation-free products](#).

In summary, though Standards, projects and advocacy Fairtrade intends to build on the existing work by increasing adaptation and mitigation projects and by promoting good agricultural practices (GAPs) (including, but not limited to agroforestry, increasing resilience through crop diversification and organic farming) through participatory, farmer-centered approaches.



What more can be done?



Against the major threat of climate change to the future of cotton production, Fairtrade recognizes that more needs to be undertaken and at a larger scale with producers to promote sustainable practices such as crop diversification and where suitable promoting organic production. This includes reviewing the Standards (especially when it comes to environmental criteria), but also further research and more training on locally adapted good agricultural practices, more advocacy and building new partnerships, where partnerships can be most efficient, for example, to address deforestation through remote sensing in the future.

While Fairtrade and the producers are aware of the immense challenge and need to step up existing efforts to address the massive challenges posed by the global problem of climate change, it would not be fair nor realistic to let the burden of costs fall on producers alone. Fairtrade therefore invites commercial partners to join us in supporting Fairtrade projects aiming at adapting to and mitigating climate change impacts to cotton production, building on Fairtrade's extensive network of producer network staff in producer countries. Both financial contributions to existing projects as well as collaborative project development – hand in hand with Fairtrade and the producers – are concrete options that can support producers to reduce negative climate change impacts, which is in the interest of all value chain actors. This could be combined with establishing projects under the Fairtrade Climate Standard which would generate Fairtrade Carbon credits suitable for offsetting carbon emissions along e.g. Fairtrade cotton supply chains.

For more information on how to work with Fairtrade and support farmers in building a more sustainable and fairer future, contact partnerships@fairtrade.net or contact your regular Fairtrade contact.

