



# Climate Change and Fairtrade cocoa in Ghana



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 in different regions, including Ghana. 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.



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.



Ghana is identified as one of the 'hotspots' of climate change within the Fairtrade system, mainly because it will be heavily influenced by the negative effects of climate change and will pose a threat to Fairtrade cocoa risking the livelihoods of many producers. Ghana's inapt potential for adaptation makes it challenging to cope with these changes and requires our attention. Fairtrade calls for action to all supply chain actors, including brands to support producers in setting up projects to equip them to adapt better to the climate change risk.

## The facts on Fairtrade crop production in Ghana

- Farmers in Ghana have been affected by climate change events in the past 10 years, specifically by extreme temperatures and water scarcity
- Some farmers have had to change production to other crops as a result of climate change impacts
- Farmers perceive land degradation, high temperatures and pest and diseases as medium to high risk factors that they will likely have to deal with in the future
- Reduced precipitation and longer dry periods have already led to a shift in cocoa production away from semi-dry areas towards wetter areas of the country, which are at the same time home to the last remaining intact tropical forests

## Impact on Fairtrade crop production in Ghana

Certain Fairtrade cocoa producing areas in Ghana are expected to be severely impacted in face of climate change, mainly due to increased numbers of hotter and drier days, and sensitivity to rapidly changing extreme seasons.



### More warm spells:

Under extreme climate change, cocoa producers in Ghana will be exposed to an average of more than 30 additional days with extremely high temperatures than one of the highest maximum daily temperatures recorded between 1980-2010.

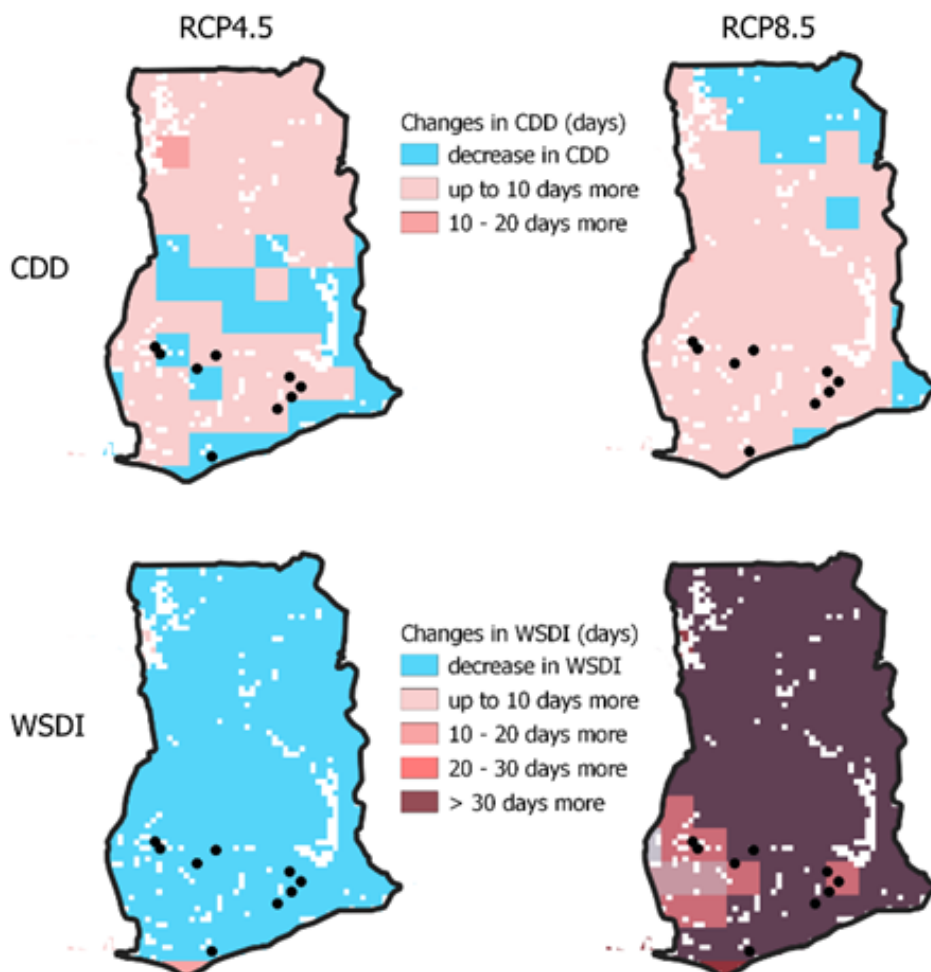


### More consecutive dry days:

Cocoa producers in Ghana are projected to experience up to 10 additional consecutive dry days under extreme climate change.

Generally, these areas will experience a combination of both more heatwaves and more consecutive dry days highlighting the severe impact of climate change on Fairtrade cocoa producers in Ghana in the future.

Fig. 1 highlights areas that will experience warm days, consecutive dry days and heavy storms.



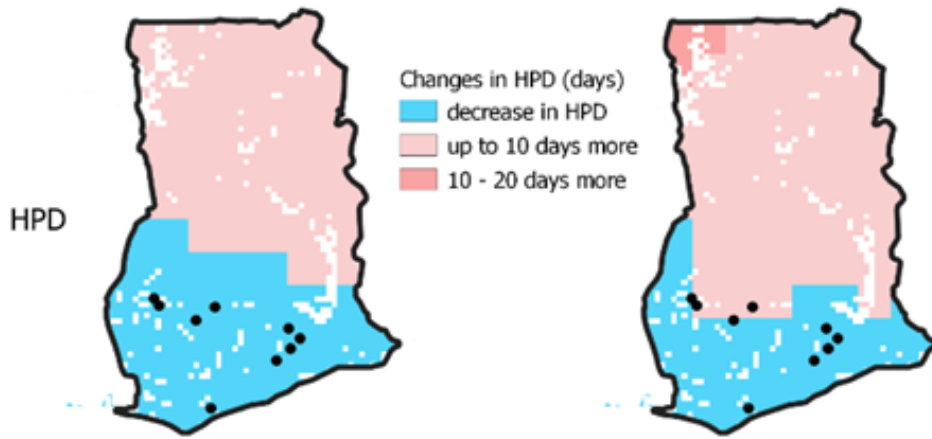


Fig 1: Changes to the warm spell duration index (WSDI, in days) in tea producing regions (surfaces) and Fairtrade tea producers (points).

## How farmers are adapting to these changes

While farmers have resorted to using several techniques to protect their yields, such as mulching, harvesting rainwater, protecting water bodies and planting trees, these efforts are not enough and do not resolve the challenges they are facing. Cocoa farmers also rely on buffer zones to protect cocoa trees from severe storms. Again, their efforts to adapt are merely workarounds to tackle these climatic stressors.

Fig. 2 reflects the responses of cocoa farmers reporting the mitigation techniques they use to protect their cocoa yields from severe effects of climate change.

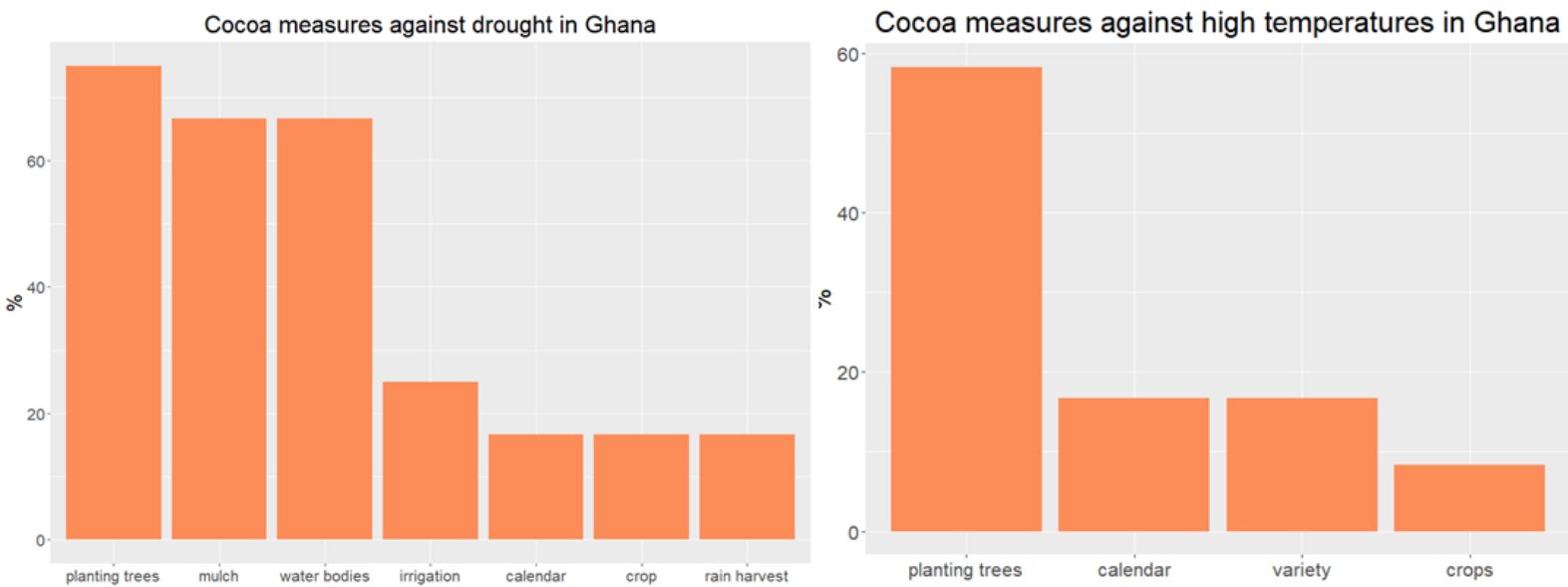


Fig 2: Measures taken by cocoa farmers in Ghana to mitigate the effect of droughts and high temperatures.



## 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. In West-Africa, Sankofa, a multi-stakeholder partnered project initiated in Ghana, aimed to encourage more diverse cocoa production systems and building commercial alliances. The project tested dynamic agroforestry (DAF) and diversified cropping techniques, and combined income diversification and carbon insetting through a commercially driven, market systems approach. Producer organizations were also encouraged to register to the Gold Standard, a certification of carbon emissions reductions and sustainable practices, which contributed to collection of Fairtrade Carbon Credits and long-term monitoring of the carbon stocks. 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 and Fairtrade Minimum Price when selling their products as Fairtrade certified, proceeds of which can be used to address priorities which farmers decide to invest in, including climate change measures. At the moment for conventional cocoa the Fairtrade Minimum Price is set at 2400 USD/MT FOB for with a Premium of 240 USD/MT. Beyond projects, Fairtrade tries to promote organic production through Fairtrade Minimum Prices for organic set 300 USD/MT above the conventional price.

Finally, in light of the recent EU draft directive on deforestation-free cocoa supply chains, Fairtrade acknowledges European Commission's proposal to create a market for deforestation-free products, but believes that the fight against deforestation must include enabling smallholder farmers by engaging them in the process of constructive climate action rather than banning imports of cocoa from smallholder families. Fairtrade encourages efforts needed to build capacities and systems that enable smallholders' cooperatives to play their role in retaining market access to the EU, and intends to build on this by increasing adaptation and mitigation projects further by promoting good agricultural practices (GAPs) including agroforestry and organic farming through participatory, farmer-centered approaches.



## What more can be done?



Our goal is to raise awareness and to protect the supply chain from drastic effects of climate change, which will be critical for our producers and at the same time reduce the risk that commercial partners will be faced with potential supply shortages in the future.

Against the major threat of climate change to the future of cocoa production, Fairtrade recognizes that more needs to be undertaken and at a larger scale with producers to promote sustainable practices such as agro-forestry 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 in addressing deforestation through remote sensing or collaborating with 'Grow Ahead' to [promote agroforestry for cocoa producers](#) in Ghana. 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.

This calls for action, and this is why we invite commercial partners to join us in supporting Fairtrade projects that help mitigate climate change risks with our farmers, supported by our producer networks in producer countries. For more information on how to work with Fairtrade and support farmers in building a more sustainable and fairer future, contact [partnerships@fairtrade.net](mailto:partnerships@fairtrade.net) or contact your regular Fairtrade contact.

