



FAIRTRADE



Climate Change and Fairtrade Sugarcane



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 sugarcane, 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.



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.



Sugarcane is highly sensitive to climate change mainly because of frequent flooding. With a high threat from climate change, sugarcane 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 sugar cane production worldwide

- Increased temperatures will lead to crop damage, specially where adaptable irrigation efforts are unsuccessful
- Drought periods are likely to last longer and higher frequency of tropical cyclones and floodings is likely to increasingly threaten sugarcane yields



Impact on Fairtrade sugarcane production

Certain Fairtrade sugarcane producing areas are expected to be severely impacted in face of climate change, mainly due to increased number of hotter and drier days, and increased occurrence of extreme rainfall events



More warm spells:

Under extreme climate change, Fairtrade sugarcane producers 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. While the impact on sugarcane production in various regions of the world will differ considerably, increased temperatures will negatively affect the growth of sugarcane, specifically in the following Fairtrade sugarcane growing regions, as shown in Fig. 1 below:



Caribbean and Central America: Belize, Costa Rica, Cuba, Jamaica, El Salvador

South America: Ecuador, Guyana

Central and East Africa: Eswatini, Malawi, Mozambique, South Africa, Zambia, Mauritius

South and East Asia: India, The Philippines

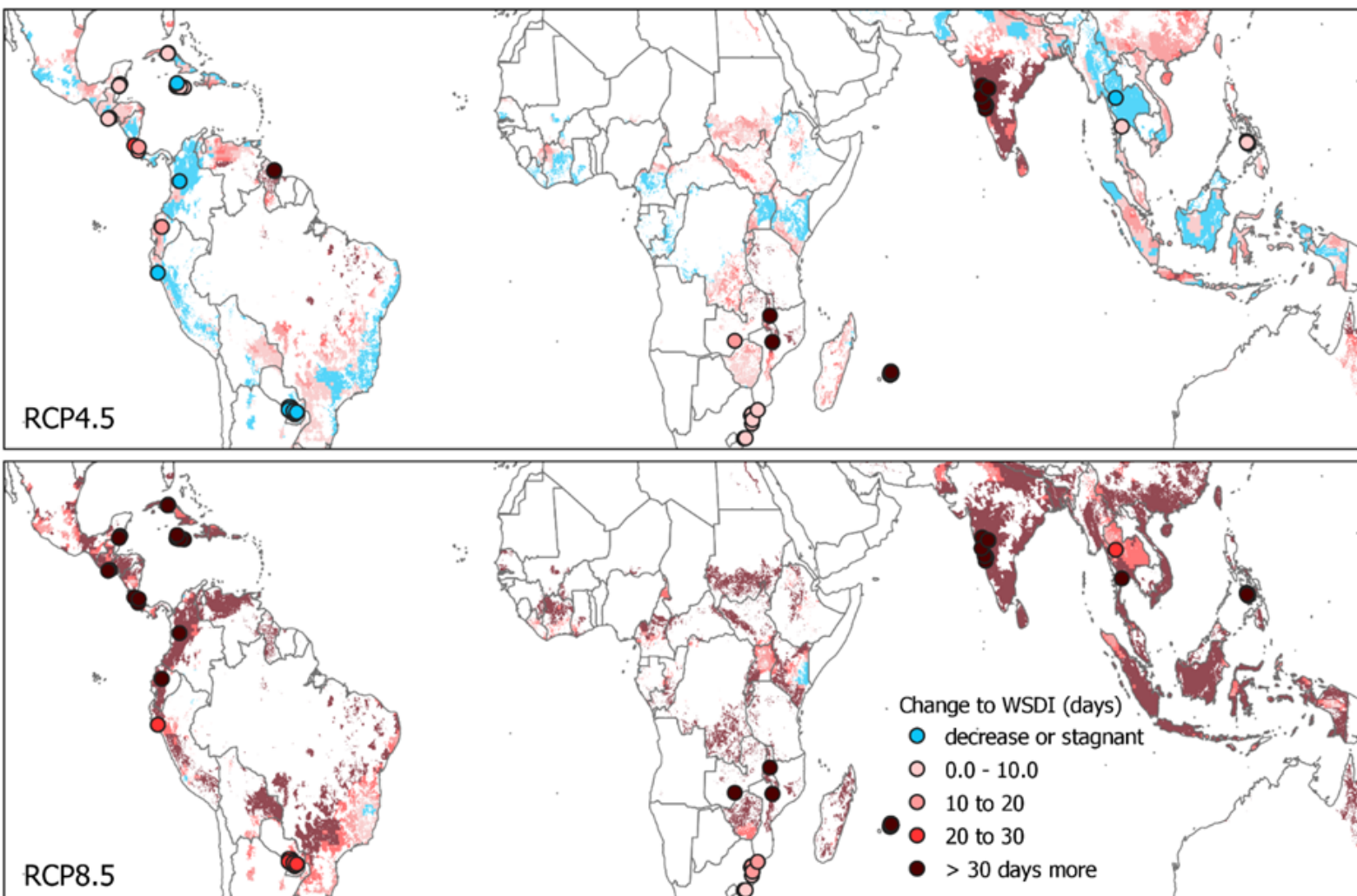


Fig 1: Changes to the warm spell duration index (WSDI, in days) in sugarcane producing regions (surfaces) and Fairtrade sugarcane producers (points).



More consecutive dry days:

As can be seen in Fig.2, the following Fairtrade sugarcane producing areas will experience increases in consecutive dry days:



- Caribbean and Central America: Belize, Cuba, Jamaica, EL Salvador
- South America: Guyana, Paraguay
- Central and East Africa: Eswatini, Malawi, Mozambique, South Africa, Zambia
- South and East Asia: India, Central Thailand

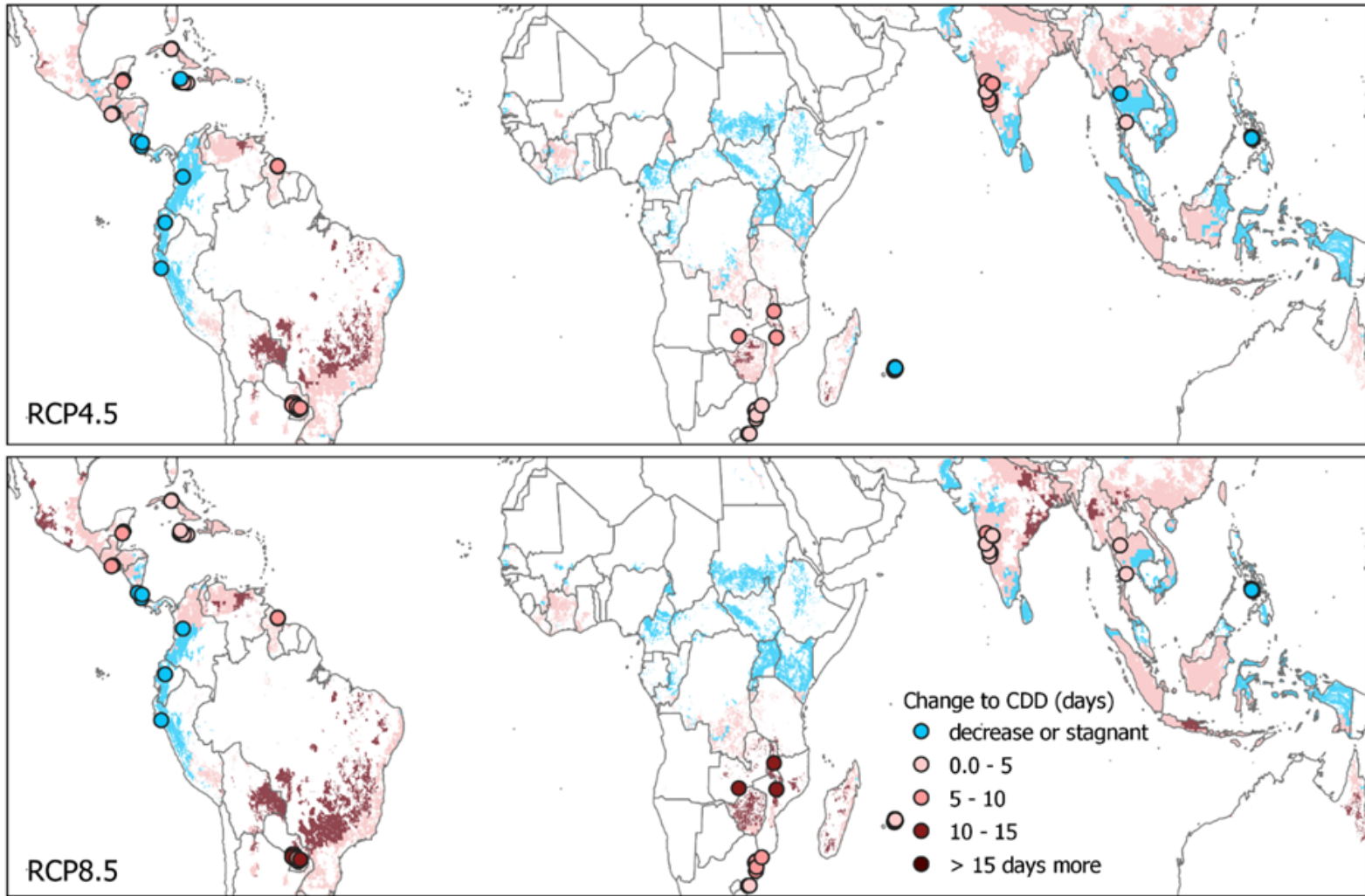


Fig 2: Changes to consecutive dry days (CDD, in days) in sugarcane producing regions (surfaces) and Fairtrade sugarcane producers (points).

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 sugarcane producers.



Heavy precipitation days:

South and East Asia will be subject to considerable increases in extreme rainfall events, but the following areas will also be affected in some way by increased rainfall events:



- Caribbean and Central America: Belize, Cuba, Jamaica, EL Salvador
- South America: Colombia, Ecuador
- Central and East Africa: Eswatini, Malawi, Mozambique, South Africa, Zambia
- South and East Asia: India, Thailand, The Philippines

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. For conventional cane sugar this Premium is set at 60 USD per MT and to promote organic production, for organic the Fairtrade Premium is higher at 80 USD per MT.

Against the major threat of climate change to the future of sugarcane production, Fairtrade recognizes that more needs to be undertaken and at a larger scale with producers to promote sustainable practices such as phasing out the pre-harvest burning of sugarcane fields 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, through 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 sugarcane 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, including criteria on land preparation which we hope to strengthen further), 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 sugarcane 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 sugarcane 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.

