

Climate Change and Fairtrade Tea



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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 tea, 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.



Tea, being a perennial plant that can be harvested in different seasons within a single year, is highly susceptible to climate change mainly because of changing patterns of precipitation, geolocation of tea growing areas (including elevation, soil and shade), and increased temperatures. With a high threat from climate change, tea 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 better to the climate change risk.

The facts on Fairtrade tea production worldwide

- Drastic changes in seasonal variability will have a significant effect on tea growth and its quality, specifically due to increased precipitation between dry and wet periods which is when high quality tea is primarily produced
- High temperatures on a monthly basis have proven to lead to lower yields
- Increases in number of harvests in a single year have been observed due to warmer temperatures, however this has been reported to affect the quality of tea

Impact on Fairtrade tea production

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



More warm spells:

Under extreme climate change, almost all Fairtrade tea 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. Only sub-Himalayan, Southeast Asia and parts of East African regions will face relatively less severe temperatures. As is shown in Fig.1, the following regions will experience these effects:



Central and East Africa: Malawi, Rwanda, Tanzania

South and East Asia: Sub-Himalayan and Southern India, Nepal, Eastern and Southern China, Indonesia

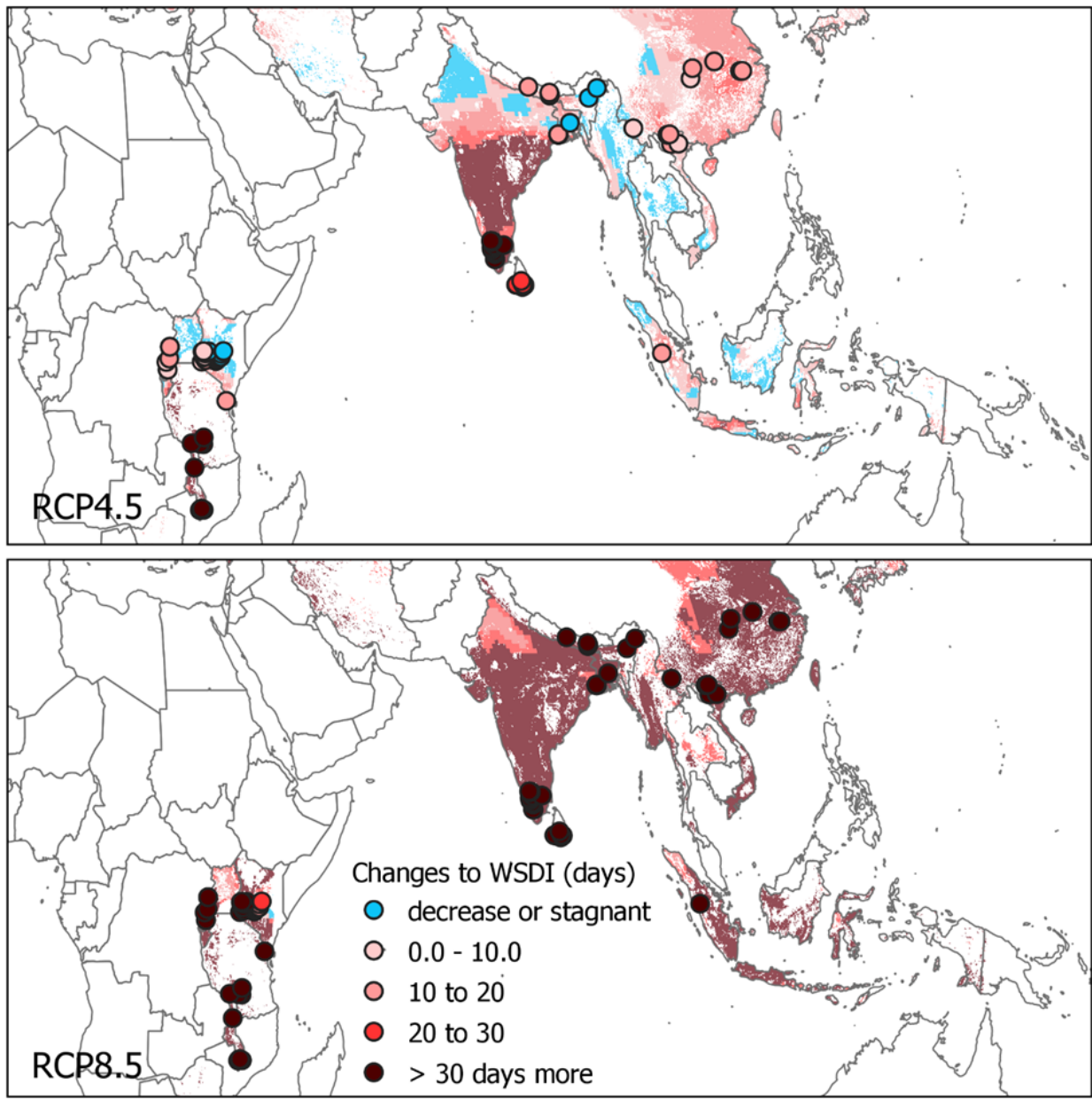


Fig 1: Changes to the warm spell duration index (WSDI, in days) in tea producing regions (surfaces) and Fairtrade tea producers (points).



More consecutive dry days:

South East Africa, as well as Eastern India, are projected to experience more than 10 to 15 consecutive dry days. As can be seen in Fig.2, the following Fairtrade tea producing areas will experience increases in consecutive dry days:



Central and East Africa: Malawi, Tanzania

South and East Asia: Sub-Himalayan India, Nepal, Eastern and Southern China, Indonesia

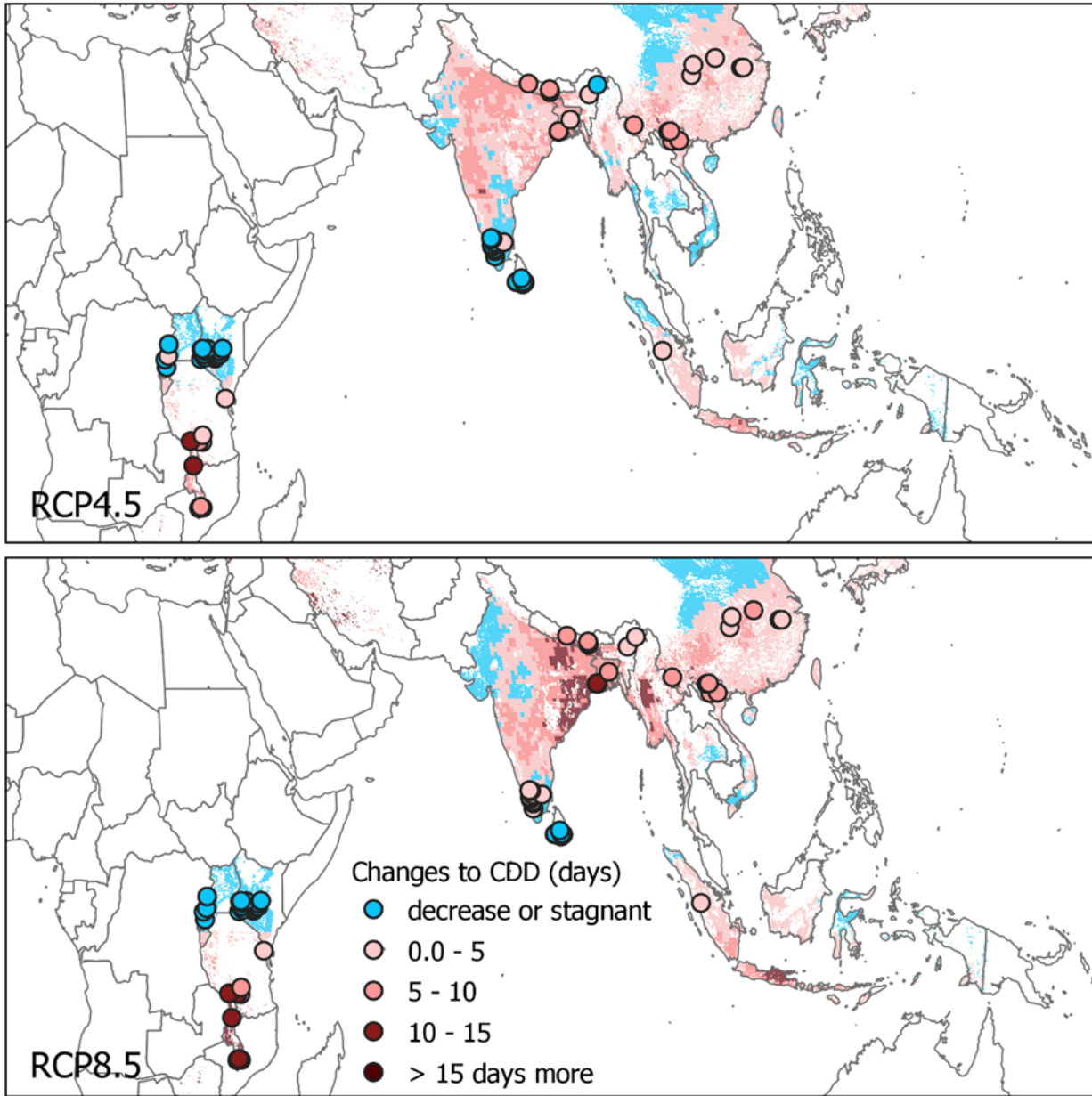


Fig 2: Changes to consecutive dry days (CDD, in days) in tea producing regions (surfaces) and Fairtrade tea producers (points).

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 tea producers.



Heavy precipitation days:

South and East Asia will be subject to considerable increases in extreme rainfall events and beyond that the following areas will also be affected 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 and becoming more resilient to climate change and is generating donor funding for additional projects. The focus of such projects is determined locally, involving the producer networks and farmers to assure projects correspond to local needs. 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 measures.

Finally, in light of the recent EU draft directive on deforestation-free crop 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 crops from smallholder families. Fairtrade encourages efforts needed to build capacities and systems that enable smallholders' cooperatives to play their role in retaining the 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?



Against the major threat of climate change to the future of tea 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, 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 tea 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 tea 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.

