

Future demand and climate change could make coffee a driver of deforestation

14 April 2016



Wife and husband farmers Hasbullah Lubis, 44, (woman) and Rofiqoh Nasution, 35, harvest arabica coffee fruit from their coffee trees on recently deforested land in Pagar Gunung village near Batang Gadis National Park in Mandailing Natal, North Sumatra.

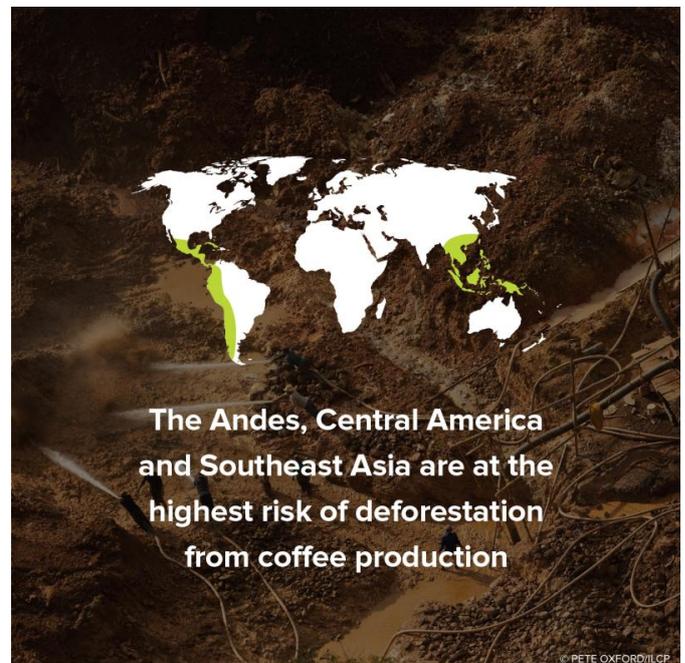
said Peter Seligmann, founder and CEO of Conservation International. "The [good news](#) is that we know from our experience working with Starbucks and others that we can put the right practices in place to grow coffee in a way that protects forests and farmers – but we need to keep pushing these techniques to global scale."

The report found growing demand will require the coffee industry to increase its production by as much as three times by 2050. To meet projected demand, the industry will need to produce between four million and 14 million additional tons of coffee per year. Unless growers can significantly increase coffee productivity, the industry would need to double the area under production. This would increase current area of land under coffee production, currently about the size of Iceland, to an area that would be four times the size of Costa Rica.

A report released today by Conservation International found that the future demand for coffee and the impacts of climate change have the potential to make coffee production a future driver of deforestation, which could threaten the last remaining intact tropical forests and the services they provide: carbon storage, provision of fresh water, and biodiversity that aids in food provision.

The report, "Coffee in the Twenty First Century: Will Climate Change and Increased Demand Lead to New Deforestation," examines dimensions of future supply and demand for [coffee](#) in the context of how climate change might impact geography of coffee production. It concludes, climate change could trigger a new round of deforestation if coffee producers are unable to increase productivity on existing [coffee farms](#).

"Unless we act now, the trend of coffee production towards full sustainability may well be reversed,"



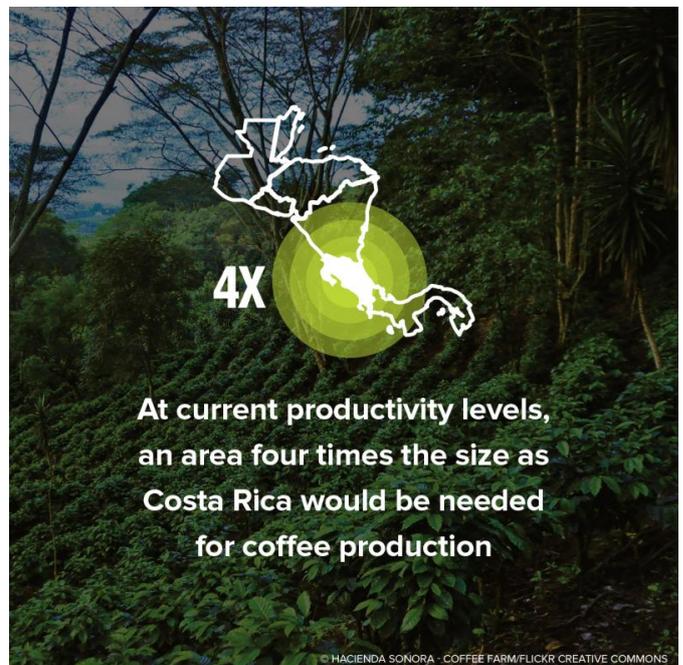
becoming more suitable for [coffee production](#) due to [climate change](#)."

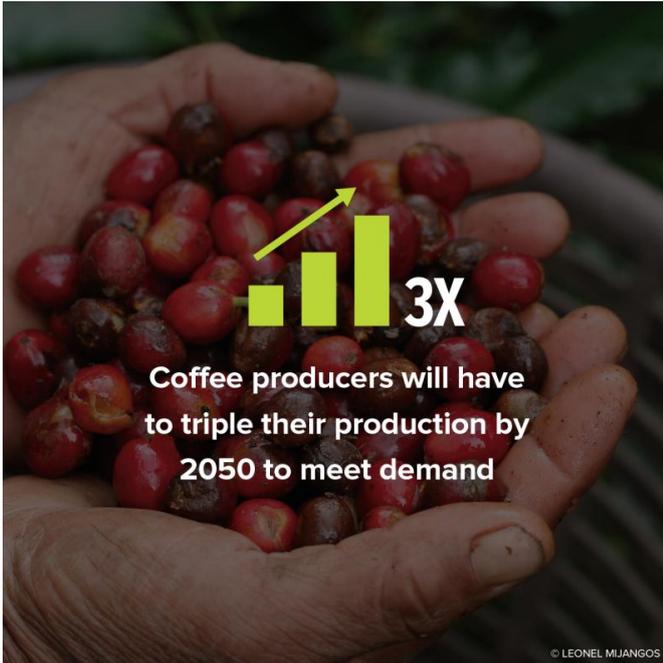
Impacts of climate change, the report states, are predicted to reduce the area of land currently suitable for coffee production by half. Currently, less than 2% of the land suitable for coffee farming is actually used to produce coffee, which would seem to indicate that there is more than enough land available to meet future demand. The shift of prime production geographies, caused by climate change, however, could push producers to migrate production to areas currently covered by forest, some of which are remote, intact and protected forests.

"We projected global coffee consumption into the future to better understand the potential volumes of coffee demand, then we modeled the climate requisites of coffee cultivation, in order show how coffee cultivation might shift to different landscapes and put new pressure on tropical forests. Ideally, plant breeders will develop new varieties that are adapted to the harsher conditions of the future, while, simultaneously, improving productivity. That is a tall order, but not impossible. If it doesn't happen, then coffee production will shift to landscapes with conditions similar to today's coffee growing areas." said Tim Killeen, a lead author of the report.

Tropical forests currently cover 60% of the landscapes with climate amenable for coffee production, and that figure is expected to remain similar in the future, even as coffee producing geographies shift in elevation and latitude, and become smaller in overall area. The study highlighted that as much as 20% of the land suitable for coffee production in 2050 would fall within the boundaries of protected areas. Particular areas of deforestation concern are the Andes, Central America and Southeast Asia.

"The challenge over the next 35 years will be meeting the increased demand for coffee and conserving tropical forests while the area for suitable coffee growth migrates to higher altitudes and the overall area shrinks," said Bambi Semroc, senior strategic advisor at CI. "The report serves to guide investments to ensure the continued protection of critical forest habitats that are





More information: Read the full report here:
conservation.org/coffeereport

Provided by Conservation International
APA citation: Future demand and climate change could make coffee a driver of deforestation (2016, April 14) retrieved 13 April 2021 from <https://phys.org/news/2016-04-future-demand-climate-coffee-driver.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.