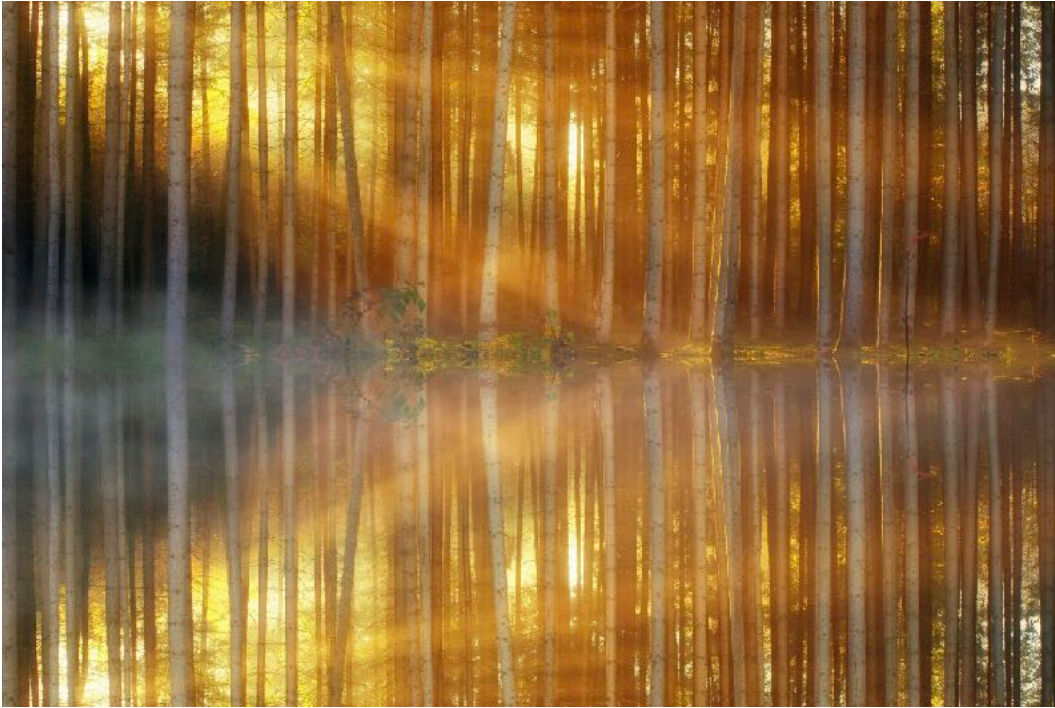


# ‘Net zero’

*Tightening the net: the implications of net zero climate targets for land and food equity*



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## **Tree planting spree may push food prices up by 80% by 2050, warns study**

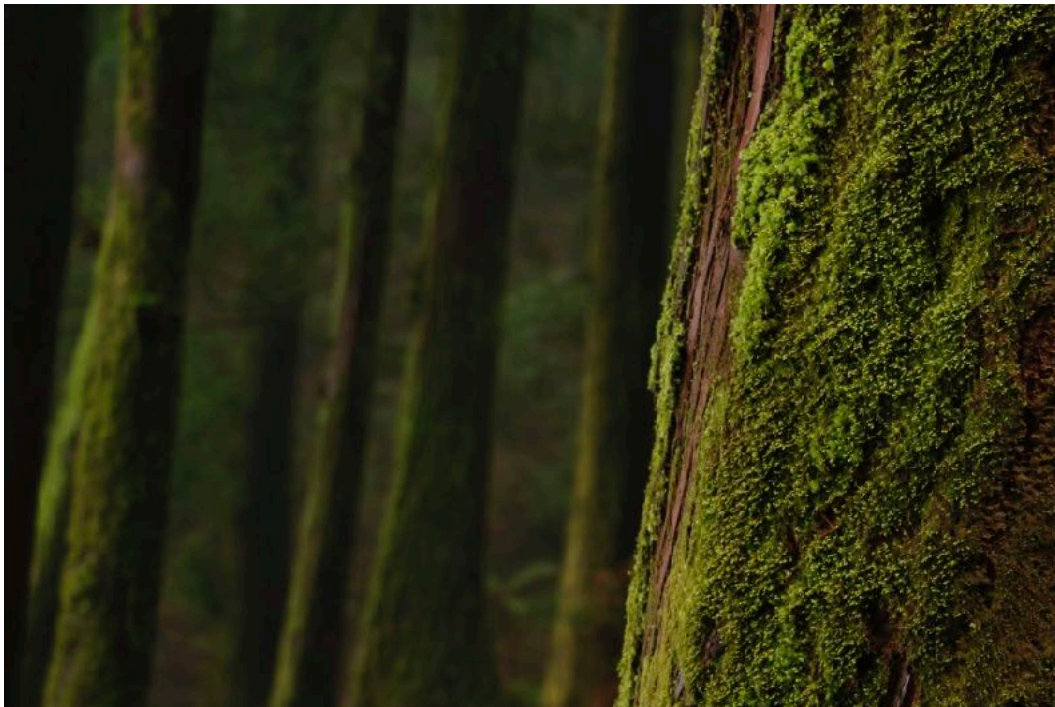
*Using vast swathes of land in low-income regions to capture carbon emissions can drive up food prices drastically, non-profit group Oxfam has warned.*

As countries and corporations race to meet net-zero carbon emissions, afforestation and reforestation can cause food insecurity, a report has said. Using vast swathes of land in low-income regions to capture carbon emissions can drive up food prices drastically, warned non-profit group Oxfam.



According to some estimates, the rising use of land for carbon removal could potentially lead to an increase of nearly 80 percent in food prices by 2050. This could result in millions of individuals being pushed into poverty and face food scarcity. Large-scale afforestation can also often cause land degradation along with water scarcity due to the planting of monoculture plantations. The Oxfam report highlights that afforestation and reforestation were among the worst measures in terms of deteriorating food security. While countries are

finding ways to bring net carbon emissions to zero, governments are yet to outline their methods and strategies. A large component of meeting the 1.5°C maximum increase in global average temperature goal set out by the Paris Climate Agreement will be carbon capture and removal. According to the Intergovernmental Panel on Climate Change (IPCC), countries must remove anywhere from 5 to 40 gigatonnes of CO<sub>2</sub> emissions equivalent per year from



the atmosphere to meet the 1.5°C goal. However, to sequester such a large amount of carbon, a significant amount of land is needed. “The IPCC estimates land-based carbon removal methods, including afforestation, reforestation, and BECCS, could yield a maximum of about 30 gigatonnes of CO<sub>2</sub> emissions per year, but even that could require up to 1.62 billion hectares (ha),” stated the Oxfam report. Globally, a total of 1.57 billion ha of land is used across for food cultivation. Using land-based carbon removal methods would put existing food cultivation models at significant risk, especially in regions with low income.

“Large-scale carbon farming or carbon removal would result in land conversion towards monoculture plantation forests or bioenergy crops and would have adverse effects on food production and food prices, worsening food security for many communities who are already struggling to feed themselves,” the report said. At the same time, agroforestry, growing trees within farmland, was found to improve food production while also storing carbon. Pasture management and forest management were also viable methods of removing carbon emissions without impacting food security.



Meanwhile, bioenergy with carbon capture and storage (BECCS) — a method where biomass is grown and then used as fuel for electrical generation — was seen to be the most harmful to food security. The analysis points out countries and corporations should not only try to reach net-zero emissions through carbon offsets but a drastic reduction in the production of carbon emissions is also necessary for the Paris Climate goals to be met. “Land is a finite resource that is a vital lifeline for growing food. It is central to the lives and livelihoods of millions of small farmers and local communities around the world,” stated Oxfam.

References:

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