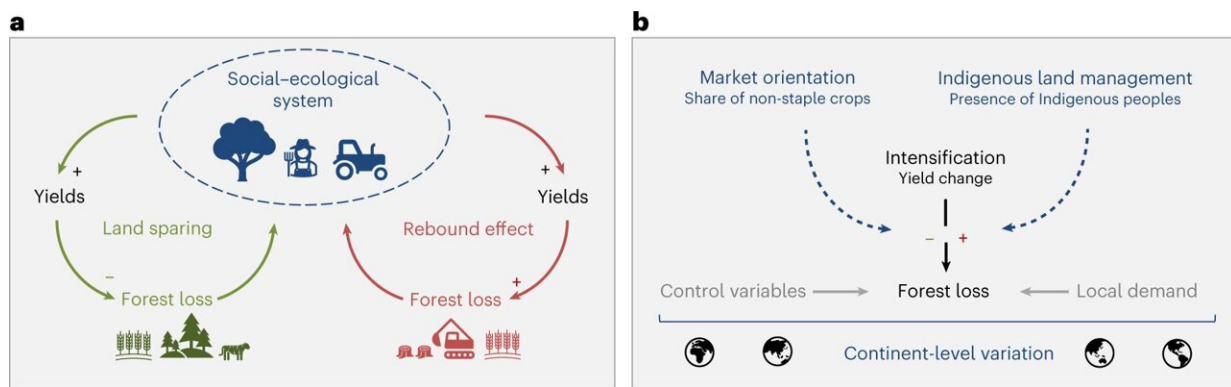


Does increasing farm productivity relieve pressure on remaining natural areas? Study suggests only among native people

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Framework for assessing how agricultural intensification relates to forest loss.
Credit: *Nature Sustainability* (2023). DOI: 10.1038/s41893-023-01073-0

Increasing farming intensity increases pressure to clear remnant native vegetation, a new study has shown. It is the opposite of what was expected.

The [international collaboration](#) between researchers in Germany, Belgium, Spain and Charles Darwin University (CDU) in Australia found that deforestation was highest in export-focused countries.

CDU Conservation and Sustainable Livelihoods Professor Stephen

Garnett, who participated in the research, said it had been hoped farmers would be satisfied with less land if they could earn more per hectare.

"The finding is alarming," said Professor Garnett, "Policymakers have been hoping intensification can help protect remaining biodiversity."

The researchers used maps of [forest](#) loss between 2000 and 2020 and agricultural production statistics to analyze the relationship between deforestation and intensification.

The team based their study on tropical dry forests around the world.

Lead author, Marie Pratzer from Humboldt University in Berlin, said [tropical dry forests](#) are crucial for global biodiversity, carbon storage, and the livelihoods of hundreds of millions of people.

"This is a significant finding," Marie Pratzer said.

"It shows that policies that aim to increase agricultural intensity will not magically protect forests."

The researchers did find an exception to the trends they observed.

On the lands of Indigenous peoples, increasing returns from existing farmland did reduce the amount of new land cleared, as had been hoped.

"We found out that farmers trying to meet their own needs cleared less land," said Professor Garnett, "Only farmers exporting their produce wanted ever more land."

Professor Garnett says the findings are relevant to Australia given pressures to clear land for agriculture in northern Australia.

"Economic pressures to maximize short-term gains from land are very high," said Professor Garnett

"Only well-enforced land-use zoning, and a potentially a stronger Indigenous voice in land use decisions, will ensure the existing values of natural lands are not lost," he said.

A paper on the research was published this week in *Nature Sustainability*.

More information: Marie Pratzner et al, Agricultural intensification, Indigenous stewardship and land sparing in tropical dry forests, *Nature Sustainability* (2023). [DOI: 10.1038/s41893-023-01073-0](https://doi.org/10.1038/s41893-023-01073-0)

Provided by Charles Darwin University

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