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Indigenous land restitution empowers communities, but environmental gains require extra support

Charting a better future will require redressing the problems of the past. That’s one reason that many countries have begun to return dispossessed land to Indigenous peoples.

The goal of Indigenous land restitution is to empower disadvantaged communities and entrust land management back to the region’s traditional stewards. In many cases, these programs also carry expectations of broad environmental benefits. However, there's been relatively little research testing this assumption.

Researchers in the United States and Chile examined the impacts of a large land restitution program in Chile that returned more than 510,000 acres to the Mapuche, the country’s largest Indigenous group. The team found that traditional land uses like pasturage increased. Meanwhile, the land saw a drop in non-native forest plantations, an enterprise that the Mapuche have frequently protested against.

“These changes demonstrate how land restitution empowers Indigenous communities to actively influence land use,” said UC Santa Barbara’s Robert

Heilmayr, a senior author on the study published in Nature Sustainability. “However, common narratives that Indigenous land reforms will always yield environmental benefits are overly simplistic.” The team did not find any evidence that land restitution significantly improved biodiversity, carbon sequestration or erosion control.

The findings highlight that these programs can help redress historical dispossession and support Indigenous self-determination, but realizing many environmental benefits will require complementary policies. For instance, payments for environmental services could further empower these communities to undertake the costly work of restoring ecosystems in heavily modified landscapes.

The counterfactuals of a large case study

The Mapuche were among the few large Indigenous peoples of South America that remained independent of the Spanish Empire. In fact, they retained their sovereignty until armed conflict with the Chilean and Argentinian armies between 1860 and 1881. After their defeat, Mapuche lands were annexed by the two countries, and Chile forcibly relocated people to nearly 3,000 reservations.

After more than a century of protests, conflict and other historical developments, Chile adopted the “Indigenous Law” in 1993, which focused on historical rights and socioeconomic development for the country’s indigenous groups. This included a program to acquire lands and return them to these communities’ collective ownership.

Image

Photo Credit
Dany Jaimovich
An aerial view of the Chilean coast, including restituted lands.

Chile’s restitution efforts offered a robust case study for Heilmayr and his co-authors. They looked at a program that returned 510,000 acres to the Mapuche between 1994 and 2023. Understanding the effects required teasing out what would have happened to this land had it not been returned, a counterfactual that is impossible to observe in the real world.

So the team did the next best thing, using the timeframe of restitution to put together several cohorts of land parcels and then comparing parcels that had already been restituted to those that had not yet been returned. They used satellite imagery and administrative data to compare land, productivity and other environmental outcomes to measure the impact of restitution to Mapuche communities in 1,577 parcels.

The authors also drew upon results from a previous paper to estimate the carbon sequestration and biodiversity of lands before and after restitution.

Changes are driven by community preferences

The researchers found that restituted lands saw a 4.5% rise in the extent of pastures and an 18% drop in the cover of non-native forest plantations. However, the extent of native forests remained largely unchanged, as did the expected carbon storage, biodiversity and erosion control on the returned lands. “This was a surprising result,” said co-author Felipe Jordán, a former postdoc at UCSB, now an assistant professor at Pontificia Universidad Católica de Chile. “Given the cultural importance of the region’s native forests to the Mapuche, we had expected the extent of natural forest cover to increase following land restitution.”

The team realized that the changes reflect the specific cultural values and preferences of the Mapuche. “Livestock raising has been central to the Mapuche economy for centuries,” explained lead author Dany Jaimovich, an economics professor at the University of Talca, Chile. Indeed, their rapid adoption of horses, firearms and cattle ranching all helped them remain independent from the Spanish Empire, he explained.

The findings reveal how land restitution can empower communities to transition land toward their own desired uses, which will differ between Indigenous groups. “The goal of these restitution programs should be empowering these communities and addressing historical dispossession,” Heilmayr said.

But the study also highlighted that Indigenous ownership alone does not guarantee environmental gains. “Our findings add nuance to the common view that Indigenous land tenure automatically improves environmental outcomes,” Jaimovich said.

“If you also want environmental benefits, you might need to couple restitution with direct financial support to empower these communities to invest in costly restoration efforts,” Heilmayr added.

The landscape of land stewardship

This paper fills in an important gap in the literature. Previous studies had focused on securing land rights to Indigenous communities in areas that were under continuous Indigenous use. Indeed, many countries are beginning to formally recognize areas of

uninterrupted Indigenous by conferring official land titles. Meanwhile, restitution involves returning historical lands that Indigenous communities lost control over. And that nuance matters.

Restituted lands don’t have the same continuity of care. They’ve been heavily transformed by generations of other people. In fact, the lands might be located far from where an Indigenous community currently lives. “As a result, the land use and environmental impacts of restitution might be quite different than what’s reflected in the literature on land titling to Indigenous communities,” Heilmayr said.

Heilmayr, Jaimovich and their collaborators have started to dive deeper into the particulars of land restitution and titling programs. Chile's Indigenous Law limits the sale, leasing and mortgaging of Indigenous properties to preserve Indigenous ownership. The team is investigating how these restrictions affect economic development, environmental impact and Indigenous control. This line of inquiry is already showing promise for guiding land restitution and titling programs as countries work to meet international conventions, such as the United Nations Declaration on the Rights of Indigenous Peoples.

Tags
Diversity, Equity and Inclusion

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