



# can paying 4 global ecosystem services reduce poverty?

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## Does Community Forest Management effectively slow deforestation and what is its impact on human well-being?

Community Forest Management (CFM) is a widespread conservation approach in the tropics.

Its advocates claim it can reduce deforestation while also avoiding negative impacts of forest protection on local well-being.

The evidence for CFM's impacts is mixed and difficult to interpret and most studies report case studies rather than larger-scale analysis.

Using state-of-the-art methods we evaluate the impact of 20 years of CFM in Madagascar.

We found no effect on deforestation at the national scale but, if conservation CFM alone are considered (excluding CFM allowing commercial forestry), there is a detectable reduction in deforestation.

We found no significant impact of CFM on household expenditure (but the impact varies by socio-economic characteristics).



**Conclusions and recommendations:** CFM does not guarantee forest conservation but some approaches have been effective at slowing deforestation.

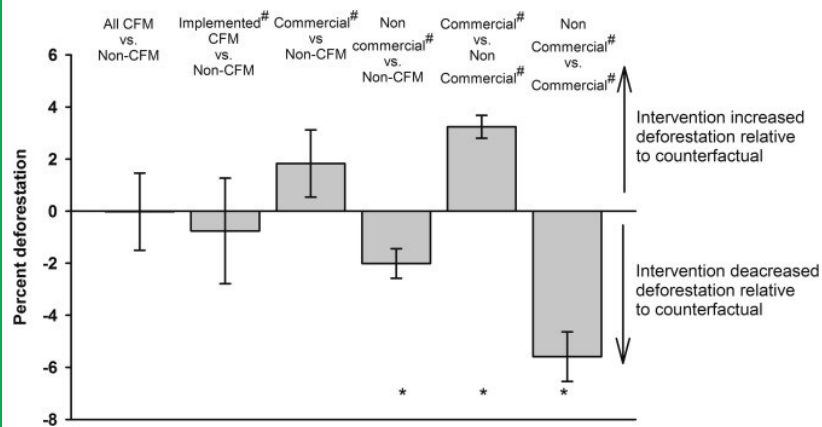
While we can rule out substantial negative well-being impacts at the national scale, those with lower education may have lost out.

To help improve CFM design, scholars and practitioners should anticipate heterogeneity in CFM impacts and work to better characterize them, theoretically and empirically.



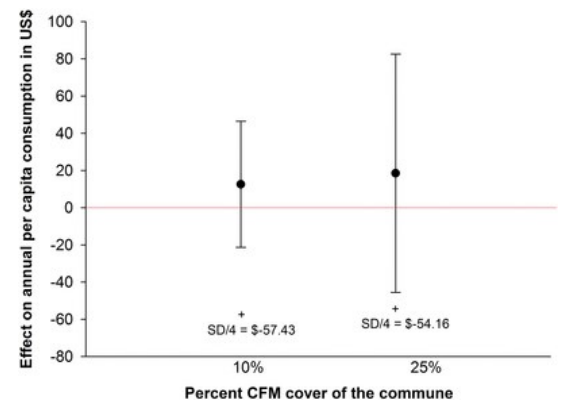
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**Study details:** Despite the huge interest in CFM as a conservation approach in the tropics, there are few robust large-scale studies looking at the impacts of outcomes of interests such as deforestation and human well-being. Madagascar was also one of the first nations in the southern hemisphere to put in place a legal CFM framework. We brought together a detailed dataset of the distribution of CFM initiatives across Madagascar and used nationally available datasets on deforestation and household consumption to investigate its impact. We used statistical matching to account for the non random distribution of CFM and the newly developed placebo test to account for missing baseline information (on household consumption before CFM was introduced).



Differences in percent deforestation between intervention and counterfactual (NB #CFM where we have information to suggest implementation). This shows that CFM which did not allow commercial exploitation seem to have been more effective at reducing deforestation than those which allowed communities to carry out sustainable logging. This is a surprising result.

Impacts of CFM on per capita consumption expenditure (our limited measure of human well-being based on nationally available data). This shows no statistically significant impact at the national scale (estimates overlap zero). However further analysis shows that the impacts vary with proximity to the forest and education of the household head.



**Rasolofoson, R.A., P.J. Ferraro, G. Ruta, M.S Rasamoelina, P.L Randriankolona, H.O. Larsen and J.P.G Jones** (in press). Impacts of Community Forest Management on human economic well-being across Madagascar. *Conservation Letters*. [doi: 10.1111/conl.12272](https://doi.org/10.1111/conl.12272)

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