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Effectiveness of Biodiversity Conservation Payments in Mexico



Biodiversity conservation policies based on the use of economic incentives are spreading around the world, especially in developing countries, but there is a lack of studies on their effectiveness. This paper has evaluated the forest cover protected by 13 rural communities in Chiapas, Mexico. The results show that, in general, there have been a greater protection on those parcels registered in the program, despite the lack of compliance in some of them, which casts doubt on the effectiveness of this system in the long term.

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Biodiversity conservation policies based on the use of economic incentives are spreading around the world, especially in developing countries. Despite their popularity, we are still lacking information about their effectiveness. We assess the additional forest cover protected by 13 rural communities located in the southern state of Chiapas, Mexico, which are involved in the country's national program of payments for forest biodiversity conservation.

Our analysis measure avoided deforestation in parcels within these communities. Our database mixes statistical information with georeferenced data from satellite images. We use a matched Difference-in-Difference estimator, which is a counterfactual approach that allows us to compare

the conservation outcomes in parcels covered by the program to similar parcels that did not receive it.

After performing robustness and sensitivity tests, we estimate that the additional conservation represents between 12 and 14.7 percent of forest area enrolled in the program in comparison to control areas. We highlight the fact that, controlling for socio-economic variables, the additionality of the program is considerably reduced. This can be explained by the importance of factors such as collective decision-making and institutional enforcement in the effectiveness of conservation programs.

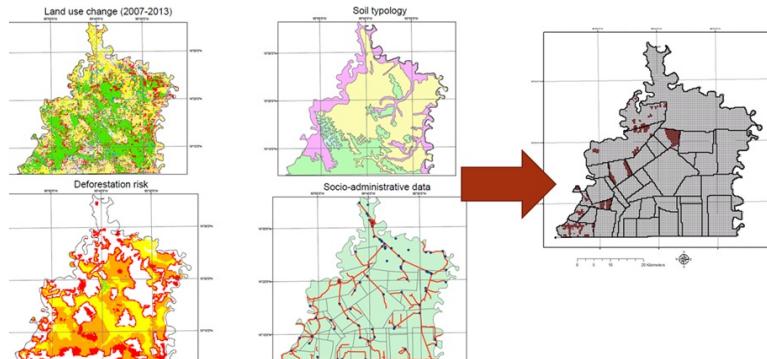


Figure 1. Construction of the georeferenced database.

Despite this high degree of additionality, we also observe lack of compliance in some plots participating in the program. The program is indeed able to target parcels with important risk of being deforested but this lack of compliance casts doubt on the ability of payments alone to guarantee long-term additionality in a context of high deforestation rates, even with an augmented program budget or extension of participation to communities not yet enrolled.

Sebastien Costedoat

Esteve Corbera

Laboratori d'Anàlisi de Sistemes Socio Ecològics en la Globalització (LASEG)

Institute of Environmental Science and Technology (ICTA)

sebastien.costedoat@uab.cat

esteve.corbera@uab.cat

References

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