Policies for reduced deforestation and their impact on agricultural production

Resource
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Themes

External link

http://www.pnas.org/content/early/2010/07/14/0912014107

Summary

Policies to effectively reduce deforestation are discussed within a land rent (von Thünen) framework. The first set of policies attempts to reduce the rent of extensive agriculture, either by neglecting extension, marketing, and infrastructure, generating alternative income opportunities, stimulating intensive agricultural production or by reforming land tenure. The second set aims to increase either extractive or protective forest rent and—more importantly—create institutions (community forest management) or markets (payment for environmental services) that enable land users to capture a larger share of the protective forest rent. The third set aims to limit forest conversion directly by establishing protected areas. Many of these policy options present local win–lose scenarios between forest conservation and agricultural production. Local yield increases tend to stimulate agricultural encroachment, contrary to the logic of the global food equation that suggests yield increases take pressure off forests. At national and global scales, however, policy makers are presented with a more pleasant scenario. Agricultural production in developing countries has increased by 3.3–3.4% annually over the last 2 decades, whereas gross deforestation has increased agricultural area by only 0.3%, suggesting a minor role of forest conversion in overall agricultural production. A spatial delinking of remaining forests and intensive production areas should also help reconcile conservation and production goals in the future.

Authors

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