INCREASING COMMUNITY RIGHTS TO FORESTS: A SOLUTION TO FOREST DEGRADATION?

Community Forest Management and Improved Forest Condition—Is There a Link?

Policymakers and international donors have long believed that putting control of forest resources in the hands of communities could incentivize sustainable forest practices, reverse forest degradation, and improve forest condition. Over the past two decades, a growing body of research has pointed to these linkages, and in an effort to incentivize communities to conserve and regenerate forest resources, payment-for-performance schemes, such as Reducing Emissions from Deforestation and Forest Degradation (REDD+), have been designed at the international and national levels. These programs are built on the premise that sustainable forest management will occur if local communities obtain greater rights to land and forest resources. New research, however, shows that the evidence of this relationship remains circumstantial and highlights the need for dedicated research to better understand these linkages.

An extensive USAID-funded literature review[1] produced by Michigan State University tested the assumption that devolving rights to communities to manage forests improves forest condition, and found that there is not enough conclusive evidence to prove a direct causal link between community forest rights and improved forest condition.

1 Yin., R., Zulu, L., Qi, J. (2014). Empirical Linkages Between Devolved Tenure Systems and Forest Conditions: Literature Review and Synthesis. Washington, DC: USAID Tenure and Global Climate Change Program.

Forests play a critical role in regulating the earth's climate. Forests store carbon that is generated by human activities—such as the burning of fossil fuels—in trees and soil. Every year, 125,000 square kilometers of forest are cleared for agriculture, development, and the production of timber products (Hansen, M. et al. (2013). Science, 34: 850-853). When forests are cleared or disturbed, carbon dioxide is released into the atmosphere while the capacity for forests to take more carbon dioxide out of the atmosphere is reduced. Today deforestation activities are responsible for a significant portion of our global greenhouse gas emissions.

International actors continue to look for innovative ways to mitigate the climate-related impacts of forest degradation. Over the past thirty years, governments, NGOS, and multilateral organizations have increasingly focused attention on devolving forest management rights to communities under the assumption that local communities will manage forests more sustainably than government authorities. Despite the growing body of research on this topic, the evidence produced thus far is inconclusive. While devolution of rights to local communities appears to result in improved forest condition in some contexts, additional research is needed to understand causality and the circumstances under which increased community forest rights results in improved forest condition.

Why is the Existing Evidence Insufficient?

A large volume of research on the topic of devolution and forest condition has been conducted by international agencies, donors, and academic institutions, much of which has been presented in peer reviewed journal articles, books, and project reports.

In reviewing these studies, the literature review found that common standards for evaluating causality were absent, making it impossible to draw definitive conclusions about the relationship between devolved tenure and forest condition. Addressing this question requires strong physical science methods that are applied over large areas to frame the ecological challenge of defining and measuring "forest condition." At the same time, empirical social science methods are required to understand resource governance and specifically-how rights are devolved to local communities. However, few individual studies have been able to combine the most rigorous methodologies from both the physical and social sciences into a single study design. In the many governance-related studies, methods used to measure forest condition were not robust, and often relied on subjective feedback from respondents on forest condition. Few studies used common ecological metrics to measure forest health, and those that did often came from a physical science foundation, and used less rigorous methods for measuring forest devolution. Meanwhile, many studies that pooled multi-country research and datasets oversimplified complicated variables that impact forest condition, such as user group identity, leadership, monitoring, and enforcement. Finally, the vast geographical distribution of case studies, as well as the inconsistent use of language and terminology, made it difficult to identify patterns across study data.

Devolution of Rights and Forest Condition: What We Know

The wealth of literature around this topic illustrates the motivation of academics, research institutions, and government agencies to demonstrate linkages between rights devolution and forest condition. However, the findings urge caution in universally accepting the assumption that community control of forest resources improves forest condition.

Many factors impact forest condition, and these must be critically assessed before concluding that rights devolution decreases forest degradation. Institutional and ecological factors, such as leadership, local participation in rule making, rule enforcement, resource monitoring, economic incentives, and the value of forest resources drive or deter forest degradation. The findings show that rarely, if ever, is the full bundle of rights to manage and use forests completely transferred to local communities, and local-level management and ownership takes many forms. Individual management of private property, co-management of jointly shared land and forest resources, and local municipal management are all forms of devolution that may improve or degrade forest condition.

Research to date has also failed to adequately explore the potential risks of devolving forest tenure to local communities. For example, in some cases strong market incentives led communities to engage in overharvesting. In other instances, powerful local elites are able to monopolize the benefits of community forest management while the poor are made worse off. These constraints and challenges should be explored before and throughout the process of devolution.

Overall, the challenges in achieving sustainable forest management under community forest management programs remain formidable, and to date, failures of these programs continue to exceed successes. There are many very strong reasons for governments and donors to devolve ownership and forest management rights to local communities. Yet, there are clearly additional governance and capacity constraints that must be addressed for this policy reform to result in improved forest condition.

Where Do We Go From Here?

Major research gaps continue to prevent stakeholders from developing a comprehensive understanding of the relationship between community forest rights and forest condition. Social and physical science methods for evaluating causality are available and affordable, but widespread application of these within the forestry sector is yet to be seen. Long-term empirical research is needed to strengthen the evidence base and enable policymakers, donors, and project implementers to make sound investments in community forestry programs. The success of many community-based REDD+ programs depend on this.

Future research and analyses on the complex and dynamic linkages between forest resource tenure and forest condition can be strengthened by supporting more rigorous comparative analyses that draw on research designs associated with what USAID and other development institutions call impact evaluations. National and international research and policy making institutions need to:

1. **Establish baselines for different forest types** to assess the true effects of devolved tenure on forest condition. These baselines are needed to understand not only how forest condition changes with devolved tenure, but what happens to forest quality when devolution of tenure is absent. Counterfactual research designs that test specific hypotheses with empirical evidence are required to generate sound forest policy lessons. This requires comparing forest conditions not just before and after rights devolution, but also over time across similar forests under different resource goverance systems.
2. **Develop a two-pronged approach to data collection**, including short-term data collection and analysis, and long-term monitoring and evaluation of historical changes in forest condition and socio-economic variables like tenure. Both long-term monitoring and shorter term assessments are urgently needed at a time of considerable interest by policy makers and academics alike.
3. **Ensure engagement of both social and physical scientists** to build a nuanced understanding of devolution of rights to local communities, as well as to define and measure indicators of forest health. Different stakeholders have different visions of forest health, ranging from carbon sequestration, to species biodiversity, to harvestable timber volume, and the methods for assessing each of these indicators differ.
4. **Compare like with like by selecting balanced and representative sampling sites** to enable improved cross country and cross-cultural comparisons on the linkages between devolved tenure and forest condition. Again, rigorous comparative analyses require regular data collection over time across similar forests under different resource governance systems, since this is the only way to establish causation, rather than correlation.
5. **Capture the relevant biophysical, socioeconomic, and institutional variables** in any new data generating effort. Longitudinal databases should be supported for a period of at least 20 years. Clearly defined indicators of forest condition (including measures of deforestation, degradation or quality, and reforestation or other gains) and forest resource governance should be measured across sites on a regular gasis (at least every 5-10 years). Although high resolution satellite imagery can increasingly be used to reconstruct longitudinal datasets on forest condition, detailed historical data on forest resource governance is rarely available at the right scale or time frame to compare with historical satellite imagery. As such, the limitations of historical analyses must be acknowledged, and major policy decisions should be based on forward-looking analysis.
6. **Use rigorous modeling and analysis techniques** to quantify the impact of devolved tenure and forest condition. To date, the quantitative modeling and regression analysis techniques used in impact evaluations have rarely been applied to quantify the impact of devolved rights on forest condition. Interpretation of quantitative data on forest rights and condition through rigorous regression analyses and associated modeling can produce solid evidence on the multiple factors influencing forest condition. This evidence can then be used more confidently to strengthen national and international forest policy and project design.

To read the full report and detailed findings, see http://goo.gl/Htes0C. For further information, contact Mercedes Stickler, USAID Land Tenure and Property Rights Division (mstickler@usaid.gov) or visit www.usaidlandtenure.net