

Local Involvement in Measuring and Governing Carbon Stocks in China, Vietnam, Indonesia and Laos

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Abstract

An important element of MRV is to ensure accurate measurements of carbon stocks. Measuring trees on the ground may be needed for ground truthing of remote sensing results. It can also provide more accurate carbon stock monitoring than remote sensing alone. Local involvement in measuring trees for monitoring of carbon stocks may be advantageous in several ways. Involving local communities in monitoring of biomass in REDD+ schemes may cut costs of ground truthing and data gathering on changing rates of forest degradation. Moreover, local involvement can encourage local ownership of REDD+ projects. Empowering communities to monitor forest biomass carbon stocks may also contribute to local livelihoods and forest biodiversity conservation.

But how well does community-based monitoring compare with monitoring by professional foresters? Work Package 4 under the EU I-REDD+ project is examining monitoring of forest biomass executed by local communities and professional foresters and is evaluating the accuracy and cost-effectiveness of monitoring with local participation.

Local community members in four I-REDD+ study sites in China, Vietnam, Indonesia and Laos have been trained in establishing vegetation plots, measuring trees and using simple field protocols. Community members participated in the establishment of 289 vegetation plots. During 2011 and 2012, the level of forest carbon was measured by both local communities and professional foresters in all these plots. The estimated levels of carbon were essentially the same whether community members or professional foresters did the work. Thus, there should be no scientific obstacles to involving communities. This will also reduce transaction costs over time compared to having professional foresters undertake all the measurements. The initial costs of training community members may be high, but more can be saved over time on salaries, transportation, accommodation and other costs for professional foresters.

The involvement of communities in monitoring is directly linked to how benefits from REDD+ are distributed. Where control rights are shared between government and local communities, Benefit Distribution Mechanisms will be more just than when natural forests are under top-down state governance. Communities who can see the connection between correct measurement of carbon and the benefits received are most likely to manage their forested areas appropriately for carbon conservation. Forests managed for carbon conservation are also likely to preserve forest biodiversity.

The I-REDD+ project will continue its work in China, Indonesia, Lao PDR and Vietnam from 2011 to 2014.

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