

Expanding MRV for assessment of policy effectiveness and as a basis for benefit distribution.

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Summary

1. Introduction

A great deal has been written about measurement, reporting and verifying (MRV) in connection with REDD+ and the technical requirements associated with this in terms of developing robust and reliable systems for assessing reductions in emissions and increases in carbon stock. There has also been some concern for monitoring *co-benefits* of REDD+, for example ecological co-benefits (Stickler et al., 2009) and social co-benefits (Richards and Panfil, 2011), particularly since the issue of safeguards (biodiversity, indigenous rights, governance) has been brought into the UNFCCC texts (e.g. UNFCCC, 2009). There are, however, two other functions of monitoring associated with REDD+ which have received hardly any attention up to now: firstly, the need for a country to be able to monitor the success of its own policies under REDD+, an issue raised recently by Wertz-Kanounnikoff and McNeill (2012), and secondly, the potential need to base rewards systems on performance.

2. Monitoring the effectiveness of different internal policies and programmes

Monitoring the success (or failure) of public policies will be essential for governments that are struggling to promote REDD+ policies and needing feedback in order to decide where and how to invest. They need guidance, based on experience, on what works and what does not work, and what works most cost-effectively (where 'works' could be defined in terms of carbon impacts, but also more holistically in terms of other social and environmental criteria). This requires more than simply the sum of the data acquired by monitoring of change in carbon stocks, level of co-benefits and state of safeguards, although these data are obviously relevant. It should be noted that monitoring will be needed in relation to all five elements of REDD+ (reduced deforestation, reduced degradation, forest enhancement, sustainable management of forests and conservation). However, at least as far as carbon achievements are concerned, these different elements may be grouped: reduced deforestation and forest conservation may be monitored in terms of area change, while reduced degradation, forest enhancement and sustainable management of forests may be measured in terms of change in forest density.

The difficulty of policy evaluation is compounded by the fact that different policies and programmes (P&Ps) may be being played out simultaneously. Firstly, there is the group of P&Ps which may or may not have direct costs, but which have no particular spatial focus, for example, changes in forest law and better enforcement of existing law, training of forestry officers, guards and extension officers, attempts at harmonization of policies between ministries, changes in agricultural and trade subsidies and taxes, awareness raising and related campaigning for forest conservation, improved land use planning and zoning etc. Secondly there are the P&Ps that are

spatially specific and targeted to identifiable parcels of forest, landowners or communities. These include various community forest management programmes, PES schemes, and individual subsidies to promote a particular type of land use, but may also include the creation of new protected areas, national parks etc. Although it may seem easier to relate performance at this level to the P&Ps applied, through some statistical testing, the fact is that there is likely to be huge variation in success between different parcels of forest under the same programme, depending on the locally prevailing conditions. Of course, to some extent these programmes may have been matched *ex-ante* to local conditions based on an analysis of drivers at the time that baselines were being constructed, but this does not eliminate the need for evaluation *ex-post* to determine whether they were in fact effective.

A system of *nested MRV* would seem to offer the best hope to untangle some of the complexity and provide at least some useful information to national decision makers. In a nested system, data may be gathered at a variety of geographical scales and integrated into a national database. In particular, the generation of data at the level at which the policies are in practice adopted or rejected could be vital to understanding what is happening. If individual parcels of forest land are registered as 'REDD forests' in the sense that they are eligible for some technical or financial assistance, grants or subsidies, the owners (individual or collective) could be required to carry out standard monitoring activities following a procedural guide or protocol, in particular as regards impacts on carbon stock, through participatory forest survey. The much higher sampling density, in both space and time, would reduce statistical uncertainty in these areas (Figure 1). This data could, in principle, be uploaded directly by forest owners or their technical assistants to a National Forest Monitoring System (NFMS), provided that some kind of filter for quality control is included (for example, to check that stocking rates and growth rates are within reasonable limits). Spot checking could also be instituted, since clearly the results of any local MRV efforts as regards carbon will be subject to top-down approval and integration into national carbon accounts. Although more difficult to standardize, some assessment of impacts on biodiversity and social wellbeing might also be incorporated in community surveys of this kind.

3. MRV in connection with distribution of rewards

REDD+ is intended to be a performance based instrument: countries will be rewarded on the basis of their achievements in reduction of emissions relative to an agreed national Reference Emission Level or Reference Level, or a sub-national REL/RL in the short term. The idea has arisen in some quarters that each individual forest owner within a national REDD+ programme should be rewarded according to his performance within this, and there has been considerable discussion recently regarding 'rights to carbon' in this respect (Mahanty et al 2012; Graham and Thorpe, 2009; Karsenty et al, 2012; Skutsch et al (in review)). A moment's thought will make it clear that such a system is impossible – first of all, there could be many claimants besides the owners of the forest property, for example those who have facilitated in the REDD+ process, and those whose actions lead to less deforestation and degradation even if they have no forest themselves (for example, livestock owners who decide for more intensive system of fodder production, and charcoal producers who invest in improved kilns). Secondly, it is in practice not possible to assess

to what extent any one landowner has not deforested, but would have done in the absence of REDD, given that almost all deforestation is unplanned (for detailed explanation on this point, see Balderas Torres and Skutsch, 2012).

On the other hand, there is pressure from organizations supporting indigenous and local community rights and carbon dealers, as well as from those who support the ideological principle that performance rewards will result in increased performance, that owners should be rewarded proportionally to their output. As we have suggested earlier (Balderas Torres and Skutsch, 2012), a compromise solution may be to consider performance in reducing deforestation and degradation to be different from performance in enhancing carbon stocks on the property. Reduced D&D can only be measured at a broad geographical scale, and may better be attributed therefore to a higher level administrative unit, albeit that the financial rewards could be later distributed among participating forest owners on a flat-rate basis. In the case of stock enhancement however the increases can be physically measured on each individual site and thus attributed directly to the forest owners. This is in the context of the fact that instruments such as PES, community based forest management etc are often more effective in promoting forest enhancement than in halting deforestation, and the scope for this is large. In Mexico for example, 70-80% of all forest is to a greater or less extent degraded, meaning that there is plenty of 'room to grow' through stimulation of natural regeneration. The only baseline that would be required for this is a qualitative independent judgment that stocks were not increasing on their own accord before the project began, and hence that the forest enhancement is additional.

An alternative approach would be to dissociate rewards from performance entirely, but to pay land owners and communities simply for monitoring. This would completely remove the incentive to exaggerate achievements and improve the accuracy of the data, as well as avoiding completely the dangers of the angels and sinners dilemma which is inherent in any scheme which offers to pay those who have deforested in the past but not those who have always protected their forest. However it might also remove an important stimulus as regards implementing improved management. This would be less likely if the monitoring is considered part and parcel of a set of forest management activities under a PES-type arrangement. The extra cost to the PES programme in paying for the monitoring activities would have to be balanced against the value of the greater certainty of the data, which itself would be increase the reliability of national estimates of carbon achievements, and thus to the number of credits which the country could claim internationally.

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Figure 1: National inventory data, as represented in the NFMS, can be densified with data from community monitoring

Nesting of community level data within the NFMS densifies it

