The degradation of REDD

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Abstract

The article does not criticise REDD for neglecting rights of indigenous people, or lack of concern for co-benefits like biodiversity. Rather, the critique is directed at the gradual shift away from conditionality, from output-based to input-based payments, and from deforestation to afforestation. The original idea of a marketplace for reduced GHG emissions where poor people could act as producers and sellers rather than recipients of development aid has disintegrated. REDD seems to have been degraded to a system of national bi-lateral negotiations between bureaucrats and (corrupt) politicians at the higher level, and traditional development assistance plantation projects at the local level. Lamenting this development is probably a sign of economic naivety. Setting up an institution like an international market for services as difficult to monitor as reduced emissions, has shown to be immensely more complicated than anticipated.

Keywords: emission, conditionality, externality, institutions

Introduction

When the concept of payment for environmental services (PES) was introduced more than 10 years ago (Landell-Mills & Porras 2002, Gómez-Baggethun et al. 2010), my first reaction was enthusiastically optimistic. Finally, someone had come up with a way in which rich people could pay poor ones for highly valued services instead of distributing donations and development assistance. The poor would have a chance to produce and sell instead of acting like beggars (Nustad 2003).

REDD was conceived as a special case of PES. Reduced emissions from deforestation and forest degradation was the environmental service, and it could be delivered by many poor countries in the South. A global system of national emission reduction targets, emission quotas for industries in the North, and a market mechanism for quotas (both private and public) would make it possible for people in the South to sell emission reductions.

In my first interactions with the Norwegian Ministry of Foreign Affairs right after the Bali Conference in 2007, bureaucrats were very clear on limiting REDD payments to reduced deforestation and degradation, and that reforestation or afforestation would not be considered. I liked it, because I had seen so many unsuccessful plantation projects in East-Africa (Skutsch 1985).

Already at that time, the ministry put much emphasis on the co-benefits of REDD, e.g. protection of biodiversity and poverty reduction (Brown, Seymour & Peskett 2008). Later, REDD initiatives have been criticised (Griffiths 2008, Lemaitre 2011, Marino & Ribot 2012) for weakening the rights of indigenous people. I shall not deal with such concerns here.

Internalising an externality

Payments for environmental services (PES) are incentives offered to farmers or landowners in exchange for managing their land to provide some sort of ecological service. A PES scheme is a voluntary, conditional agreement between a "seller" and a "buyer" over a well-defined environmental service (Wunder 2007). These programmes, or schemes, promote the conservation of natural resources in the marketplace.

I think this definition captures the essence of PES as it was originally understood. To me the phrase *conditional payment* is pivotal. Additional services such as carbon sequestration or storage should be paid for when delivered just as we pay for coffee when we leave the store or load it on to the truck at farm gate. One may discuss practical ways of measuring carbon sequestration, e.g. number of hectares planted, number of tonnes biomass accumulated, or net change of carbon stock during a certain period, but payment should be conditional on some quantified service delivery. The way REDD+ projects are implemented in East-Africa these days (Peskett et al. 2011, Merger et al. 2012, Mahanty et al. 2013, Dokken et al. 2014) seems to involve little conditionality.

My impression is that most REDD+ projects in East-Africa are designed as interventions in rural communities with tree planting as a major activity. Improving people's livelihoods is an important objective. I am tempted to put forward two critical questions already here: 1) Why is the focus on rural communities, while urban people consume most charcoal and timber, and 2) why are most projects engaged in tree planting, while the major problem is GHG emissions from deforestation and forest degradation.

I do not know the details of payment arrangements in the implemented REDD+ projects – they may vary considerably. However, within an economic paradigm one would understand deforestation and forest degradation as activities undertaken by direct agents because the activities are profitable to

the said agents (Parks et al. 1998). Because climate change does not affect those agents much, and their activities result in emissions that are marginal in the global picture, we may think of GHG emissions as negative externalities of deforestation and forest degradation (Araya & Hofstad 2014). REDD+ payments are meant to internalize these costs (Angelsen 2007).

If rural people clear forests for agriculture, or cut trees for charcoal production, these activities must be profitable as seen by those people. If a PES scheme is required to induce tree planting, this is an indication that tree planting is not as profitable without the scheme as the best alternative – often cropping and/or grazing. If it were not for the payment, planting trees would reduce people's livelihood since it reduces the land available for cropping or grazing. On the other hand, those who pay for REDD+ schemes do not want to pay more than what is required to ensure delivery of the services in demand. This applies both to governments in the North and to NGOs in the South. One argument for REDD+ has been that it is a cheap way of reducing GHG emissions (Stern 2006, Eliasch 2008). Seen in the market context, it is not likely that tree planting as part of REDD+ projects will improve rural livelihoods considerably. Financing institutions and project organizers are not likely to pay CO_2 prices that will make tree planting immensely profitable.

Paying for what, to whom, in which way?

When Angelsen et al. (2009) prepared a report on REDD to the Norwegian government in 2009, they realised that implementing a functioning PES system based on conditionality in the major deforesting regions of the South would not be possible. They came up with the idea of a three-phase approach to REDD. Phase 1 would include initial support allowing countries to develop strategy, strengthening institutions, and start demonstration activities. Phase 2 would be financed by funds, and payments would be output-based, but performance would not necessarily be monitored only based on emissions against reference levels. Phase 3 would be financed by rewarding performance based on quantified forest emissions and removals against agreed reference levels. The authors envisaged Phase 1 to start in 2010, Phase 2 the year after in some countries, and Phase 3 from 2016 onwards. They assumed that there would be a COP commitment to Phase 2 in Copenhagen December 2009. We now know that this did not happen, and that the Amazon Fund (2015) is the only funding mechanism that works according to the ideas of Phase 3. Most REDD+ activities must still be characterised as part of Phase 1.

Establishing a payment mechanism is a major challenge for the REDD strategies of states with less sophisticated monitoring capacity than Brazil. It requires detailed information about changes in the carbon stock of forests, appropriate incentives given to decision makers to undertake activities that

reduce deforestation and degradation, and that the flow of information and incentives are embedded within a set of effective institutions to ensure good governance.

Table 1. Strengths and weaknesses of output- and input-based benefit distribution systems under national REDD+

Criteria			Output based benefit distribution		Input based benefit distribution	
			Strengths	Weaknesses	Strengths	Weaknesses
Technical issues	Baselines		Simple, parcel-based measurement	Individual baseline needed	Baseline not required	
	Economic efficiency		Only pay for added carbon	Costly construction of baselines		All participants receive payment→ Small amount per participant
Political issues	Merit-based equity		Payment based on performance			Would not deliver merit based equity
	Right-based equity	Forest owners	Forest ownership is often collective and confused in many deforesting countries			
		Others		No payments to actors outside forests	Payments can be made to actors outside forests	
	Poverty-based equity			May not benefit poor if their rights are not recognised	Easier to favor poor people and communities	
Data requirements	Accuracy			Requires high accuracy and verification	Lower requirements	
	Transaction cost			High	Low	

Source: Skutsch et al. (2014)

Skutsch et al. (2014) discussed strengths and weaknesses of payment systems based on output (reduced emissions) or input (activities aimed at emission reductions). Their findings are summarised in Table 1. The table hints why most pilot projects, at least in Phase 1, are input-based rather than output-based. There may be some conditionality since there is normally some control of actual planted area, or number of seedlings planted. Projects would commonly have an estimate of potential carbon sequestration based on plantation targets, but there will hardly be any measurement of actual carbon stock at given time intervals.

Forestry projects in Africa did not become popular, or much demanded, within the CDM mechanism (Desanker 2005, Jindal et al. 2008). One reason for this may be that financial transactions in African countries are seldom transparent and often prone to corruption. Another reason is that long-

term storage of carbon in trees is not very safe. Planted trees may easily be browsed, burned, or cut. Leakage is also a problem with small-scale REDD+ projects since deforestation or forest degradation may accelerate in other locations because of the project. If this happens, the overall effect on GHG emissions is zero.

Considering tree planting as an investment by rural households, a peasant investor would be concerned about immediate expenses and future revenues. In a well-established market for forest products like eucalyptus poles or softwood logs, the investor is fairly certain that there will be demand for the output after 10-20 years when trees are mature. In the recent market for carbon sequestration, future payments are much more uncertain. Rural households do not know whether there will be a demand for carbon storage 20 years from now, much less of the price they may expect. Nobody knows for sure who owns the carbon 20 years from now. The state might even decide to expropriate the forest or the stock of carbon. There is a considerable political risk attached to forest investments in many African states. In this situation, rural households demand immediate payments for the future environmental service of carbon sequestration and storage. Otherwise, there would be no planting. The uncertainty is passed on to the buyer – the financing organization.

So, what are we paying for? Do we really pay for environmental services, and which services? If it was REDD+ we wanted to pay for, I'm afraid we do not get what we pay for, at least it is highly uncertain whether the planted woodlots will increase the stock of carbon stored in African vegetation permanently. The trees may have other benefits, improving biodiversity (if the right type of trees are planted), reducing erosion, or supplying wood. We have paid for such projects before. We did not call it REDD+. If payments are well above the opportunity cost of land used for woodlots, livelihoods of some – or many – rural households may improve because of the projects. Many voters in Europe and elsewhere are in favour of policies to support poor people in the South (Tvedt 2007). They may be happy to finance rural development and environmental conservation in Africa. Therefore, a transfer of income implemented as tree planting projects may well be a policy that can be sustained for many years to come (Berthélemy 2006). I am in doubt, however, whether it is correct to label those projects as PES. "If you remove the results-based payments, you remove the linchpin of what makes REDD different from traditional forestry projects", Frances Seymour said in an interview with Development Today (2013b).

Norwegian politicians, from Erik Solheim (SV) in 2008 to Vidar Helgesen (H) in 2015, have persistently argued that since Norwegian financing of the Amazon Fund is strictly conditional, it has also been a causal factor of reduced deforestation in the Brazilian Amazon. Norwegian insistence on conditionality has been a driver behind the success of reduced

deforestation in Brazil – they say. I have argued that reduced deforestation in the Amazon started already around 2005 during Marina Silva's period as minister of environment in Brazil. Furthermore, transfer of Norwegian funds was very limited until 2012 because the Brazilian Development Bank (BNDES) did not find good projects of forest protection ready for implementation. My thinking is that deforestation in the Amazon would have been reduced irrespective of Norwegian financing. Norwegian contributions are not a cause of reduced deforestation in the Amazon, but a remuneration for something that happened due to internal political developments in Brazil. Seymour & Birdsall (2014) argued that the promise of Norwegian contributions had a significant impact on that process. I doubt it.

Who pays?

Rich countries in the North like Denmark (Mather, Needle & Coull 1998) and the rest of Europe (Kaplan, Krumhardt & Zimmermann 2009) were deforested centuries ago. Anthropogenic emissions of GHG have increased tremendously since the industrial revolution. Annual CO_2 emissions per capita in Norway are now (2014) 43 times as high as they are in Tanzania (Olivier 2015). Under such circumstances, poor countries in the South find it obvious that rich countries in the North must pay for reduced deforestation in the South (Redclift & Sage 1998). Some analysts in the North argue that it is cheaper to reduce GHG emissions from deforestation in the South than reducing such emissions from industry and transport in the North (Gullison et al. 2007). The Norwegian International Climate and Forest Initiative (NICFI) is an indication that the government accepted this line of argument and has been willing to pay for REDD. This policy was not altered although the Norwegian government changed from a red-green majority to a blue-blue minority coalition in 2013.

Seymour (2013a) referred to the "narrative of disappointment" surrounding REDD. There has been a gap between the commitments and hopes for huge financing for REDD and the lack of money. Many political leaders have been left waiting for funds to materialize. Early this year we read that finance of REDD in Tanzania is about to dry up after a period of quite spacious budgets for pilot REDD projects (Kaijage & Kafumu 2016).

Conclusion

Establishing an institution like an international market for services as difficult to monitor as reduced emissions, has shown to be immensely more complicated than I anticipated. To some extent, I think I had a realistic view of the difficulties involved in monitoring deforestation, and degradation

particularly (Romijn et al. 2012). When deforestation is slow, changes in forest area are often smaller than the confidence interval of forest area estimates (e.g. Hansen et al. 2009). Landsat and Spot imagery is commonly unable to detect changes in biomass density – a requirement for estimating forest degradation, so better technologies needs to be developed (Brown 2002).

Officials of NICFI would probably say that I have been overly pessimistic about the likelihood of reducing agricultural expansion into tropical forests (Hofstad 2008). However, some colleagues (Cavanagh & Benjaminsen 2014, Muradian et al. 2013) would insist that I was terribly naïve in assuming that a market for reduced emissions could be established both internationally and within poor countries in a few years' time. In addition, it should have been clear to me, and others, that fragile states in East-Africa (Hydén 1980, Brockington 2007) would have serious difficulties implementing REDD policies and controlling what happens in remote forest areas (Karsenty & Ongolo 2012)[1].

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