

# Making REDD work for the poor

## Inception Report

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**Focali** - Forest, Climate and Livelihood research network - is a Swedish knowledge-based network aiming to ensure Sida and other Swedish authorities access to scientific knowledge in order to effectively use forestry measures to reach climate and poverty objectives. Focali also aims to increase the flow of relevant information between academia, government authorities, and civil society.

Focali is a part of the **Forest Initiative** which is a strategic partnership between Sida, the Swedish Forest Agency and the Swedish Forestry Association. Sida provides funding for Focali. Focali currently consists of representatives from **University of Gothenburg**: Departments of Earth Sciences, Human and Economic Geography, Plant and Environmental Sciences, Economics, School of Global Studies; **Chalmers**: Division of Physical Resource Theory; **Linköping University**: Centre for Climate Science and Policy Research; **Swedish University of Agricultural Sciences**: Department of Forest Ecology and Management, Swedbio. The Focali secretariat is placed at the Environmental Economics Unit at the **School of Business, Economics and Law**, University of Gothenburg.

This report is part of a series of publications within three themes that Focali is undertaking. Responsibility for its contents rests entirely with the author(s).

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The **Forest Initiative** is a strategic partnership between **Sida, the Swedish Forest Agency** and **the Swedish Forestry Association**. The overall objective of the Initiative is poverty reduction through promotion of sustainable management and administration of forest resources within Swedish development cooperation. Sida is the main donor of the Forest Initiative, which is based on the belief that forests play an important role for poor people and can contribute to economic and social development as well as a better environment.

This document has been financed through the Forest Initiative and does not necessarily reflect the view of the three main partners of the Initiative. Responsibility for its contents rests entirely with the author(s).

## The Forest Initiative Partnership



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# Introduction and Overview

## *Introduction*

A plethora of recent studies have focused on the relationship between REDD and the poor and addressed questions such as: can REDD benefit the poor? Do the poor need protection from REDD? Is the engagement of the poor in fact fundamental to the success of REDD? Focali has a mandate to strengthen and renew the Swedish knowledge base with regard to forest, climate and livelihoods; Focali's Theme 2 has a particular objective of providing policy relevant research findings regarding how REDD might be made to work for the poor. As a preliminary step in pursuit of these objectives, and after consultation with Sida and the Swedish Forest Initiative it was decided that Theme 2 would during its inception phase:

1. Review key documents representing the current thinking on REDD and poverty
2. Review broader literature on key themes arising from our reviews of key documents
3. To the extent possible at this early stage, provide policy recommendations
4. Establish the foundation for comprehensive national level case studies of REDD and poverty<sup>1</sup>

## *1. Reviews of Key Documents*

Four documents were identified as encapsulating the state of the art with regard to REDD and poverty. The CIFOR publication **Moving Ahead with REDD** (Arild Angelsen, 2008) provides an overview of all issues in short easily accessible chapters by a range of experts. Poverty links are discussed in terms of "co-benefits". The Poverty Environment Partnership report **Making REDD work for the Poor** (L. Peskett, Huberman, Bowen-Jones, Edwards, & Brown, 2008) provides a detailed overview of issues and potential issues regarding REDD and poverty. Its comprehensiveness may make this too dense a text for a complete beginner in the field. The RRI/Forest Peoples Programme report **Seeing 'REDD'?** (Griffiths, 2008) provided a rights-based account which charts shortcomings in REDD processes thus far, and made a case for Free Prior Informed Consent (FPIC) as the foundation of REDD engagements with the poor. The Norwegian government commissioned **Reducing Emissions from Deforestation and Forest Degradation (REDD): An Options Assessment Report** by the Meridian Institute (Arild Angelsen, et al., 2009), an accessible policy-relevant report on REDD generally, which foregrounds mechanisms such as independent appeals boards for safeguarding the interests of the poor. Our reviews are available on request, but we recommend to consult the documents (which are well-indexed and summarised) directly via the focali web-site <http://www.focali.se/artiklar>.

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<sup>1</sup> As a first step towards a national case study of Cambodia we have also commissioned a case study of an initiative in Cambodia which has sought to 'Make REDD work for the Poor' in Cambodia by linking twelve existing community forestry projects covering 10% of the land area of Odtar Meanchey province to carbon markets. That case study, entitled "Communities and Carbon: establishing a community forestry-REDD project in Cambodia" is available separately from [www.focali.se](http://www.focali.se)

## ***2. Thematic Literature Reviews***

The following seven issues were identified during the review of the four recent documents above.

1. Tenure rights and REDD
2. Climate-beneficial, forest-based livelihoods
3. Participation in Forest Policy
4. Experiences from REDD Demonstration Activities and Payment for Environmental Services (PES)
5. Impacts of Deforestation on the Poor
6. Demography and Deforestation
7. Protected Areas and the Poor

Each short review was carried out during April-June 2009. Individual bibliographies are appended to each review for ease of reference. While these represent a first engagement with these literatures, there is possibility both to investigate these themes further, and to engage other segments of the literature, for example on the lessons learned from successive generations of tropical forestry action plans and national forestry programmes over recent decades.

## ***3. Discussion and Policy Implications***

Our reading of the literature stresses the extent to which the situations of poor people in relation to deforestation and forest degradation vary. In some cases these are processes which poor people greatly influence, in other cases they are relatively powerless bystanders. Nor is deforestation always a catastrophe for poor people: standing forests are one aspect of their livelihoods, but the infrastructure development that may accompany deforestation, the opportunities provided by subsequent land-use and the possibility of a local boom economy during the deforestation process all impact on their political and economic relation to deforestation and avoided deforestation. The role of tenure regimes is also more complex than is sometimes indicated by the REDD literature. While the lack of clear property rights presents a threat to the interests of the poor (who might lose their rights to forest if REDD provides incentives to other actors to displace them), it is not clear that poor, forest-based communities who are endowed with clear property rights are likely to maintain their tenure in the face of broader asymmetries of information and power.

Earlier experiences with Payment for Environmental Services (PES) and comparable initiatives and REDD demonstration activities provide the two obvious sources of evidence-based policy making for REDD and poverty. REDD demonstration activities are at too early a stage to have yielded results yet.

Earlier experiences with PES and with Protected Areas underline the extent to which the situations of the poor vary. Where externally sponsored policy initiatives have had success it has often been dependent on at least one of the following three favourable elements being in place: 1. Genuine political will at national level; 2. Poor communities having political leverage; 3. Poor communities being the main actor in relation to the forest resource. These successes, however, may not be easily translated to the resource-cursed landscapes where deforestation is most rampant and poor people are subject to competition with predatory business interests networked into political and military establishments.

The main gap in current knowledge and experience seems to be in how to roll out the REDD agenda on a large scale in such 'resource-cursed' landscapes. Demonstration activities at present appear to be starting too slowly, and to be at too small a scale to yield such lessons in a timely manner.

Our very tentative policy recommendations to Swedish actors at this early stage are therefore:

- Support the recommendations of the REDD Options Assessments Report (Arild Angelsen, et al., 2009) of supporting participation of indigenous peoples and local communities and strengthening their role in national implementation, for safeguarding the interests of the poor in global climate negotiations.
- Encourage and/or directly fund large-scale (national or regional level), rapid REDD pilots in resource-cursed contexts, and ensure poverty monitoring is prioritised within these.
- Support and encourage coordination of global research efforts in relation to REDD including the incorporation of high quality poverty monitoring (see below).

#### ***4. 2009-2010 National Case Studies***

In the coming years Theme 2 will establish research partnerships in SE Asia (Cambodia & Lao PDR), Africa (Burkina Faso & Mali) and South America (Bolivia). These will involve us developing synergies between our participation in global REDD research networks and Sida's support for poverty reduction in these countries/regions. Annual fieldwork will be conducted in all three regions.

The case studies will be implemented in a range of contexts – high value and low value forests, varying qualities of national forest governance, varying levels of political recognition and organization on the part of the poor – and will therefore provide a comprehensive evidence base. Through close coordination with CIFOR and other peer research groups we will ensure that this Swedish knowledge base is brought to bear in regional and global policy fora.

## **Themed Literature Reviews**

### **1. Tenure Rights and REDD (Jens Strömberg)**

*Property rights are given as a killer assumption for REDD to be both effective and pro-poor. The focus here is in property rights interventions and what has happened when international actors have tried to intervene in property rights institutions/practices in the forests of poor countries, as well as what has happened when national property rights reform has arrived in the forest.*

The literature on REDD that has emerged in the past two or three years repeatedly stresses that clear property rights are a necessary foundation for REDD to be both effective and pro-poor. Included in this is the importance of states recognising the informal tenure rights of forest dwelling peoples (Angelsen, et al., 2009; Cotula, 2009; Peskett, et al., 2008). This short review seeks to inform our understanding of whether REDD might be able to deliver the far-reaching reforms that are required to ensure its own success. Specifically, it seeks to identify lessons from the experiences of attempts to achieve forest tenure rights reform both in terms of national policy and legislation and implementation at local level. Given the nature of REDD, the role of international intervention is of particular interest, likewise the success or otherwise of reforms targeted at areas under immediate threat of deforestation.

The texts principally consulted for the review are Hopley's (2007) review of pro-poor forestry and tenure reform, Colchester's (2008) report "Beyond Tenure" which reviewed lessons from the Forest Peoples Programme, and Cotula and Mayers' (2009) report developing a typology of tenure regimes in rainforest countries and drawing conclusions with a view to implementation of REDD. The few national or regional cases that could be consulted in the limited time available included Uganda (Jagger, 2008), Latin America (Larson et al, 2008) and Mexico (Brown, 2004).

The literature reviewed speaks of a widening perspective on tenure reform (in the majority of cases some form of devolution from state level to local level) that takes into consideration a wider range of rights than merely the right to property. If increased tenure rights for local communities are combined with large-enough financial means for REDD to be economically competitive against other activities leading to deforestation and degradation, there is a possibility for REDD to be successful both in terms of carbon storage and poverty alleviation. However, as the next section describes, previous international interventions have struggled to achieve change at the local level. Also, seeing pro-poor tenure reform as merely an increased "bundle of rights" might need reconsideration, as will be discussed briefly in the concluding section.

### **Lessons from international initiatives**

Within the international forest regime actors have been struggling with many problems in striving for a global forest convention that is both effective when it comes to avoiding deforestation and degradation and inclusive when it comes to human rights. According to Humphreys (2006) two crucial factors here have been (1) the dominance of transnational corporations in international processes, and (2) the fact that that the international regime has only been able to promote change but not to legislate and enforce it.

According to Hobley (2007) the Convention on Biological Diversity (CBD) provides a positive example of an international agreement enshrining respect for the property rights of local communities and indigenous peoples. The CBD has included in its program of Work on Protected Areas a specific section on “Governance, Equity, Participation and Benefit Sharing”. This includes a series of targets “*directing signatory governments towards recognition of indigenous and local rights, through inclusive and participatory arrangements for conservation*” (Hobley, 2007). Humphreys (2006) writes that the CBD is the principal international environmental instrument upholding indigenous peoples’ rights, although its emphasis is on encouraging states rather than obliging them.

The absence of enforceability in the international forest regime has meant that international interventions in local tenure regimes have, according to the literature, been very dependent on already existing favourable conditions on a national scale. Since REDD has to be global to be efficient as an instrument for carbon sinks, capture or enhancements, it can not be implemented only in those countries that have the most favourable policy setting. However, countries that have provided good examples of pro-poor forest tenure reforms might still serve as starting points and role models in the preparatory phases leading up to the implementation of REDD, as suggested e.g. in the REDD Options Assessment Report (Angelsen, 2009). The next section takes a brief look at different national initiatives that at least have the potential to be pro-poor and to reduce deforestation and forest degradation.

### **Lessons from national initiatives**

Some examples of potentially pro-poor forestry activities are provided by Kaimovitz<sup>2</sup> (Cited in Hobley, 2007):

- Over-arching forest sector reform programmes in Uganda, Ghana, Guyana and South Africa.
- Titling of indigenous territories in Latin America and Philippines.
- Collectively managed community forests in Latin America – from extractive reserves to social forestry, to ejidos in Brazil, Guatemala and Mexico<sup>3</sup>.
- Recognition of community rights in Gambia and Tanzania.
- Devolution of state and collectively owned forests to individual households in China and Vietnam.
- Joint Forest Management, collaborative management, communities with greater control over degraded resources to rehabilitate in India, Nepal and Cambodia.
- Decentralisation of some decision-making over forests in Indonesia – opening political spaces for local communities.
- Some ethnic minority control over forests through peace negotiations in Myanmar, Philippines, and Northeast India.
- Outgrower schemes – where large-scale plantations have become politically untenable in Indonesia and South Africa;
- Co-management in protected areas.

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<sup>2</sup> See also Kaimovitz’ article on the prospects for REDD in Mesoamerica (2008).

<sup>3</sup> For a study on the impacts of the ejidos reform in Mexico, see (Brown, 2004).

Another example of pro-poor tenure reform is taken from Bolivia (Hobley, 2007; Larson, 2008). The Popular Participation Law in 1994 and the Forest and Agrarian Laws in 1996 (the INRA law) transferred responsibilities to municipalities and reformed recognition of indigenous territories and their exclusive rights to use forest resources (Hobley, 2007). The indigenous territory in Guarayos demonstrates an increase in the rights over forest properties by indigenous families compared with the period before reform (Larson, 2008). There is a focus in the INRA law on communal property that is inalienable, indivisible, non-reversible, collective, non-mortgageable and tax-exempt. This is largely due to the activism of indigenous and peasant small-holders whose territorial needs had previously been overlooked (Larson, 2008).

As in any policy reform process, getting a policy incorporated into legislation is only part of the journey; policies must then be implemented. The literature suggests that the progress from legislative reform to implementation of new laws may be tortuous. For example, regarding the titling of indigenous territories in Latin America, in Venezuela not a single territory has been legally titled five years after the very progressive law on Demarcation and Guarantee of Indigenous Peoples Lands and Habitats set out the procedure for titling of indigenous customary territories (Colchester, 2008). The situation is similar in Cambodia, where the land law established the rights of upland native ethnic minority people to community title. This was specifically designed to enable them to protect their forests and their way of life in those forests. Eight years later not a single such title had been issued. A study of forest sector reform in Uganda (Jagger, 2008) concluded that there were little or no gains in income for rural households after the reform, and furthermore that those households who gained did so through activities such as illegal logging. Perhaps the one threat that is most apparent in the case of Bolivia, successful in so many ways, is that the state still has very limited capacity to enforce the rules. However, since most communities already enjoyed customary access rights that were generally accepted as legitimate, they are able to defend those rights (Larson, 2008).

In addition, there also seems to be a lesson to learn for REDD regarding reforms where small pieces of land have been titled to individuals, leading to “peasantization”, i.e. reducing the rights for indigenous people to smaller parts of land where they previously had access to extensive territories, thus making them more vulnerable to land invasion by settlers (Colchester, 2008). The risk of the land being sold and communities being broken down is significant. There are also risks with collective forms of tenure, e.g. “capture of representatives”, where an external actor gains the loyalty and cooperation of the community representatives through various means, and thus enabling exploitation of the resource in question.

### **Major theme lesson/conclusion**

What is evident from the reviewed literature is that previous reforms in tenure have been slow in terms of moving from national law to local implementation. The paper by Larson et al (2008) states that *“land reforms that have changed property rights regimes of forest resources from state ownership to rights to secure and permanent access and/or ownership of these resources by local communities have provided significant benefits in many cases. However, not without encountering substantial challenges on the road from rights to benefits.”* Another report by Colchester (2008) argues that if forest people are to benefit from forestry reforms, the wide set of rights that are often recognised in international customary law, in countries constitutions and in nationally ratified human

rights treaties must be taken into account even in narrow sectoral decision-making about forests.

Thus the literature points to increasing the “bundle of rights” for poor people in order to improve their access to forest resources. Ribot and Peluso (2003) describe the current definition of access, as being “the right to benefit from things”, as misleading. They define it as “the ability to derive benefits from things”, thus associating access more to a “bundle of powers” than “a bundle of rights”. A well-designed REDD would surely benefit from considering this different concept of access in order to be pro-poor.

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## **2. Climate-Beneficial Forest-Based Livelihoods (Eskil Matsson and Jörgen Petterson)**

*Peskett et al. (2008) stress the poverty reduction potential for including ‘intermediate’ livelihoods which ‘disturb’ or ‘degrade’ forests to some degree but which also preserve significant carbon stocks (for example within agro-forestry, shifting cultivation, mixed land-use landscapes). Aside from the technical monitoring issues implicit including these in REDD (covered in our complementary work on monitoring instruments), to what extent do such livelihoods exist? To what extent are they what poor people aspire to?*

## **The architecture of REDD systems and poverty implications**

The REDD Options Assessment Report (Arild Angelsen, et al., 2009) highlights that indigenous peoples and local communities should be encouraged by Parties of the United Nations Framework Convention on Climate Change (UNFCCC) to be included in the evolution of technical ground based measurement systems. This can include mapping of lands and establishing robust measurable, reportable and verifiable (MRV) systems which can have a positive result for their livelihoods. These measures can be cost-effective and strengthen community-based resource management systems. In order to establish national REDD monitoring systems with local participation and pro-poor benefits it is imperative to determine the scale of forest cover and forest loss that should be eligible in REDD. Therefore, distinct and consistent definitions must be provided to know what actually constitutes a forest and what is regarded as deforestation and forest degradation. Such definitions may decide how traditional forest use is dealt with under national REDD monitoring and verification systems and in many contexts will also be crucial to whether REDD will be successful in preventing deforestation.

### **Forest definitions**

Creating robust and credible forest definitions are important and will have profound impact on activities that can be funded under REDD. Policies established under REDD in relation to forest definition could also impact local communities and indigenous people's rights and welfare (Griffiths, 2008). General definitions are already provided internationally by FAO and UNFCCC on tree height, crown cover and area, and most developing countries have established their own definitions based on parameter values from the ranges below (UNFCCC definition), hence there is a variation between countries.

*"Forest" is a minimum area of land of 0.05-1.0 hectares with tree crown cover (or equivalent stocking level) of more than 10-30% with trees with the potential to reach a minimum height of 2-5 metres at maturity in situ. A forest may consist either of closed forest formations where trees of various storeys and undergrowth cover a high proportion of the ground or open forest. Young natural stands and all plantations which have yet to reach a crown density of 10-30% or tree height of 2-5 meters are included under forest, as are areas normally forming part of the forest area which are temporarily unstocked as a result of human intervention such as harvesting or natural causes but which are expected to revert to forest; (UNFCCC 2002).*

Using FAO or UNFCCC definition of forest (similar definitions), plantations and degraded lands and clear-cut areas that are expected to regenerate are counted as forests. This means that large scale destruction of tropical forests and its replacement with monoculture plantations could be eligible under REDD despite the considerable carbon and biodiversity debt this change incurs.

Certain non-forest categories, such as agroforestry, that offer large benefits for poor people, e.g. increased food security, may not be included in REDD systems due to current forest definitions (Pro-Natura 2008, Peskett et al., 2008). Agroforestry systems or similar land-uses may also have equal or greater carbon content per hectare than other types of forests. Carbon benefits in other types of ecosystems, such as dry forests, peatlands, grasslands or mangroves, could also be factored out if stringent definitions of forests are used. Such apprehensions could be more common in project-based REDD schemes than in a national approach, since governments could probably distribute

benefits to such land-use types as long as they could account emissions reductions against the national reference scenario (Peskett et al., 2008). Another concern relates to how forest definitions may influence the general extent of investment in REDD. This could have economic, as well as equity implications. Countries such as Indonesia and Malaysia with large methane emissions from peatlands may not benefit from REDD if these areas are not classified as forest.

### **The importance of the second D – implications for the poor**

Another similar issue is whether only deforestation or also forest degradation is to be included in national REDD regimes. In the REDD context, deforestation has been defined as a “measurable sustained decrease in crown cover” below a 10–30% threshold (UNFCCC, 2006). Degradation on the other hand is defined as a loss of biomass density without a change in the area of forest cover (i.e. decrease in crown cover that does not fall below the 10–30% threshold). In 2007 at the Conference of the Parties (COP) 13 in Bali, parties highlighted that deforestation and forest degradation are both major sources of emissions (Griffiths, 2008). It was decided that continuing discussions and methodological work under the UNFCCC should address both sources together, despite serious difficulties defining forest degradation. The scientific community (e.g. Skutsch 2008, GOFCC-GOLD, 2008) also emphasize that emissions from degradation are a challenge to measure and monitor using remote sensing, requiring in high costs and expertise that are not commonly available.

The inclusion of degradation under the UNFCCC could widen the scope to reward carbon conserving actions of the poor. A possible negative impact is that activities viewed as carbon degrading (e.g. shifting cultivation) could be treated oppressively. Parties could consider a consensus definition on forest degradation that in addition to crown cover and carbon stock takes biophysical and social conditions into account under which forests develop. Including such ecosystem services factors are vital since many poor people depend on these services for daily subsistence. Conversely, having very constricted definitions could be economically profitable at the expense of pro-poor interventions (Angelsen, 2008).

Furthermore, recognition of forest degradation activities has the advantage of expanding the coverage of REDD and increasing international equity (Peskett et al., 2008). It should be pointed out that there will be large national and regional variations in the actual and comparative benefits because of large differences in carbon stocks in forests. On the other hand, even including degradation results in benefits for countries with high degradation rates, there are no guarantees that benefits are transferred to the poor at sub-national level. If practices such as selective harvesting or shifting cultivation (which degrade forests initially but are generally followed by regeneration and subsequently enhanced carbon sequestering) are wrongly included in definitions of degradation, they could result in suppression of activities that have been shown in many cases to be pro-poor (Brown & Peskett 2008, forthcoming). If political elites move themselves into a position that maximizes their benefits, this condition is expected to be exacerbated where there is an unequal power relationship between people with responsibility for delivering emissions reductions in REDD and those on the receiving end of those policies and measures.

Below, valuable examples and experiences from literature are provided regarding agroforestry and shifting cultivation. It is vital to highlight and consider such

experiences in the REDD planning process and to harness a multi-stakeholder dialogue that could bring such experiences into the REDD framework.

## **Agroforestry**

The World Agroforestry Centre (ICRAF) provides the following definition of agroforestry (ICRAF 2003) “Agroforestry is a collective name for land-use systems and technologies, where woody perennials (trees, shrubs, palms, bamboos, etc.) are deliberately used on the same land management unit as agricultural crops and/or animals, either in some form of spatial arrangement or temporal sequence. In agroforestry systems there are both ecological and economical interactions between the different components”.

Agroforestry parkland areas in semi-arid West Africa, where trees are scattered in cultivated or recently fallowed fields, provide farmers with traditional medicines and a variety of gums, oils, proteins, fruits and drinks (Boffa, 2000). These diverse products can have a significant nutritional importance in rural areas. Agroforestry parklands are important for local economies and some products, e.g. shea nut and gum arabic, provide export earnings for several nations in the Sahel (Boffa, 1999, 2000).

The shading from shea nut trees in parklands can be dense and reduces millet yield substantially, often around 50-80% (Verchot, et al., 2007). However, since the economic yields from marketable tree products are high enough to compensate for loss of crop yields, farmers tend to favour trees since trees have the extra benefit of providing a buffer against crop failure.

The number of people involved in marketing tree products from parklands on a regular basis is usually low, but in some areas these activities employ large numbers seasonally. However, incomes for seasonal workers are low; Boffa (1999) estimated incomes for seasonal workers to be US\$10-35 annually and for those regularly involved to cover 20% of their weekly expenses.

Where agroforestry is primarily engaged in delivering goods for export markets, external market fluctuation may cause rapid changes in forest landscapes. According to Blackman et al. (2006), the livelihoods for farmers of El Salvador were recently transformed, due to decreased world market price for coffee beans. El Salvador is one of the most densely populated and deforested countries in Latin America; only 10% of its natural forest is left and a large share of the remaining tree cover is associated with shade coffee (Blackman, et al., 2006). Coffee growing is widespread and farmed in a mixed landscape with coffee plants sown alongside trees. However, when coffee prices fell dramatically during the 1990s, so did tree cover in order to make way for more profitable land uses, including conventional farming, ranching and logging. In such situations, REDD investments would be able to support carbon sequestering agroforestry which due to market fluctuations are made temporary unprofitable, and thus secure the livelihoods of coffee growers.

Agroforestry practices are widespread, and there are numerous examples where agroforestry diversify farmers or pastoralists livelihoods and provides a buffer income in times when the crops fail. However, the literature studied for this review does not provide much information whether agroforestry practices are livelihoods that the poor aspire to. Available cost-benefit analyses conclude that integrating trees in crop fields is profitable, even if only direct use values are included (Boffa, 1999). Still, cost-benefit analyses have focused narrowly on shea nut trees and *Parkia biglobos*, the seeds of

which are widely used to make the condiment Sumbala. The profitability, and economic rationality, of other agroforestry practices remain uncertain.

Agroforestry practices may sequester equal or greater carbon content per hectare than other types of forests. Including agroforestry in forest definitions would make it eligible for REDD investments. Agroforestry often involve the poor and if agroforestry is included in REDD, agroforestry could be made more profitable and some pro-poor benefits could thus be generated.

### **Shifting cultivation**

Forests have served as a path out of poverty by attracting immigrants who convert forests to agricultural land. This development has generally led to higher incomes for immigrants. Schneider (1995) reviewed studies of Brazil's colonization projects and concluded that settlers appear to be better off compared to people outside the Amazon with similar education and skills. However, there are other not so successful stories; "On farms at the forest frontier in Bolivia, some farmers faced a 'fallow crisis' in which shortened forest fallow periods, land degradation, decreasing agricultural yields in swidden systems, increased forest land clearing, weed invasions and over-intensification are associated with decreasing household income. Some farmers would escape the crisis by converting land into pasture lands, or by mechanizing agricultural production, thereby obtaining substantially higher incomes" (W.D. Sunderlin, S. Dewi, & A Puntodewo, 2007). Where there are a combination of high population pressure, declining soil fertility and few options for migration, deforestation is likely to lead to lower incomes (W.D. Sunderlin, et al., 2007). However, as Sunderlin et al. (2007) concluded, there is an overall positive relationship between conversion of forests and increased per capita income.

Shifting cultivation degrades forests initially but can potentially results in enhanced carbon content. If these practices are wrongly included in definitions of degradation, activities benefitting the poor may be repressed by their governments. According to Satoshi et al. (2006), this was the case when Laos recently enhanced their protection of forest areas by implementing the Land and Forest Allocation Programme (LFAP) for forest conservation, poverty eradication and clarification of property rights. Shifting cultivation was identified as one of the drivers of deforestation, which is not entirely true (Robichaud, Sinclair, Odarkor-Lanquaye, & Klinkenberg, 2009), and the government's response was to allocate certain plots for intensified agriculture; other plots were regulated to be left fallow for forest to regenerate (Satoshi, et al., 2006).

### **Migration and regeneration**

There is also a considerable migration away from forests when other opportunities arise. Urbanization led to decreased rural populations in South America between 1984 and 1994. According to Bilsborrow and Carr (2001), the Brazilian rural population decreased by 16% between 1966 and 1994, when farmers abandoned their forested land and sought employment in timber and mining sectors or moved to cities.

Aide and Grau (2004) discussed how urban job opportunities attracted poor rural migrants; left behind was their marginal agriculture and grazing land. The abandoned land was often not reoccupied by others, but rather left to recover and trees could eventually regenerate.

## Conclusion

There are numerous studies indicating that forest land can attract poor immigrants seeking to convert the forests to agricultural land. However, there is also a considerable migration in the opposite direction, indicating that forest dwellers are to some extent mobile if better opportunities arise. Livelihoods in forested or previously forested areas, such as shifting cultivation, can provide opportunities for some poor people to increase their income, but in many cases forest dwellers abandon their land to seek employment elsewhere. Migration to areas being deforested or under threat of becoming deforested adds further complications to REDD policies. This will be further discussed in the section *Demography and Deforestation*.

In a future REDD regime the whole land-use sector should progressively be included in order to avoid perverse incentives for removal of forests and related carbon stocks. If REDD is restricted to consider only trees and emissions from the actual forest domain, there is a risk that large volumes of emission are omitted from outside the forest area (as currently stipulated in current definitions). Trees managed by farmers and related forms of agroforestry and community forest management should therefore be considered to be included in carbon accounting schemes from a climate-based, livelihood-based and equity-based perspective in a REDD framework. Parties to UNFCCC might consider establishing an updated comprehensive set of definitions for the negotiations on REDD that promote more land-use practices. Consistent terminology focusing on carbon stocks will be crucial for implementation and future MRV and for indigenous people and local communities' involvement. The way forest are defined will be crucial to whether REDD will be successful or not. If there is no differentiation between natural forests and plantation forests, there is a large risk that companies and governments replace forests with short term profitable oil palm, soy or valuable timber species, allowing companies to prevent poor people from using the land to produce the food or income in addition to negative effects this could have for livelihoods, biodiversity and the climate.

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### **3. Participation in forest policy (Lisa Westholm)**

*What evidence is there that poor people have ever made a significant difference to their own economic circumstances by participating in forest policy?*

Participation is widely considered to be an important part of REDD. Yet there is no unanimous view on participation; the justification and reasoning behind it and how it should be incorporated in REDD on different levels. There are a number of important distinctions to be made in the discussion on participation. The first distinction is of an ideological nature and refers to the difference between taking a rights-based approach on participation, seeing it as a goal in itself or taking a more instrumental approach, seeing it as a means to achieve certain goals. Most indigenous peoples' representatives use democracy and rights as the basis for their argumentation for participation (Griffiths, 2008). The UN-REDD initiative takes on a rights-based approach grounded in existing UN policies and guidelines (UN-REDD Programme, 2009b). The World Bank Forest Carbon Partnership Facility (FCPF) on the other hand, sees participation as a means to achieve their goals (WB FCPF, 2009). The outcome of participation is of course not unimportant to indigenous peoples or other advocates of a rights-based approach, but it is not the main foundation for their argumentation. A discussion on participation must keep this distinction in mind.

Another distinction is that between consultations and consent. Many REDD initiatives and proposals include formulations on stakeholder consultations, whereas indigenous peoples representatives demand that consultations be replaced with consent. They argue that consultations risk becoming just lip service, without any practical implications. Consent, on the other hand, requires the active inclusion of stakeholders in the REDD process. Bolivia proposes that the right to free, prior and informed consent (FPIC) of indigenous peoples and local communities should be respected in both design and implementation of REDD (Bolivia, 2009).

Further, it is necessary to recognise that REDD contains more than one opportunity for participation or exclusion. Participation in implementation and design of REDD activities is one thing and requires one set of institutions and mechanisms. Participation in policy formulation is another thing that requires another set of institutions.

The history of the role of indigenous peoples and their rights within the UN system is as old as the UN itself. In 1989 the ILO Convention no. 169 (*Concerning indigenous peoples and tribal peoples in independent countries*) was adopted and opened for ratification (ILO, 1989). It is a legally binding document to the countries that have ratified it and it entered into force in 1991. It has been ratified by 20 countries to date (<http://www.ilo.org/indigenous/Conventions/no169/lang--en/index.htm>). The indigenous peoples' struggle within the UN reached a sort of breaking point with the establishment of a Permanent Forum for Indigenous Issues (UNPFII) in 2001 and the adoption of the United Nations Declaration of Indigenous Peoples Rights (UNDRIP) in 2007. A declaration adopted by the general Assembly of the UN is not legally binding but it reflects the common view of the UN members and it should be taken into account by all members.

The Declaration (United Nations, 2007) states that indigenous peoples shall be consulted by states in order to obtain their free, prior and informed consent before the adoption and implementation of legislative and administrative measures that may affect

them (Article 19). Further the Declaration grants them the right to own, use, develop and control the lands, territories and resources they possess (Article 26). The right to “*determine and develop priorities and strategies for the development or use of their lands or territories and other resources*” (Article 32) is also recognised. Further, states shall obtain the free, prior and informed consent of indigenous peoples before approving projects that affect their land, territories or resources.

The UN-REDD Operational Guidance on the engagement of indigenous peoples responds to these and other Articles of the UNDRIP (UN-REDD Programme, 2009b). It emphasizes that free, prior and informed consent must be adhered to. This implies no coercion or manipulation, full information and the right to withhold consent. The participation of women as well as youth is essential.

The PEP report calls for information as a crucial factor in involving the poor in REDD (L. Peskett, et al., 2008). The report emphasises that without knowledge of REDD the poor will not be able to take part in negotiations or get access to benefits from REDD. This observation has also been made by the UN-REDD, which includes information as a major part of its International Support Function (UN-REDD Programme, 2009b). The Asia Indigenous Peoples Pact (AIPP) proposes the a model for indigenous peoples’ participation in the development of national REDD-strategies based on information sharing that promotes indigenous peoples’ understanding and awareness of the REDD-process as well as government understanding of indigenous peoples’ customary laws and practices (Sombolinggi’, 2009). It aims at using best practices of community based forest management for developing community based REDD-models.

Most literature on REDD suggests that participation is a prerequisite for any successful REDD scheme, but the question is what participation can deliver in actual benefits for the poor. In order to deliver real change participation needs to be adapted to the local context. This means that successful experiences from one place cannot necessarily be generalised or transferred to another context. It has been beyond the scope of this review to explore the wide range of contexts and factors that affect the conditions for participation. However, a few examples can be provided of the potential effects of participation, as well as the factors that affect participation.

A Tyndall Centre review of a number of projects for marketing ecosystem services in Central America provides examples of how the lack of participation in project design can undermine the legitimacy of a project (Corbera, Kosoy, & Martínez Tuna, 2006). In Las Escobas PES initiative in Guatemala the lack of stakeholder involvement spurred local conflict between communities with competing interests regarding land use and access to resources. A similar situation was reported for the RBCMA project in Belize, where local communities are not involved in the conservation activities and historical conflicts regarding property rights were not properly resolved when the project was started. Also in community-based projects a lack of participation and involvement of local communities caused problems in implementation.

A study of participatory forest management in Pakistan highlights a number of issues relevant in the context of decentralised resource management (Shahbaz & Ali, 2009). The first is the *donor-driven process* and introduction of participatory mechanisms, which raises questions about the ownership of the reform processes. The second treats the divergence in expectations between different actors. In the Pakistani example, governmental actors focused on timber supply and the ecological functions of the forest, local people were more interested in developmental needs. This could likely constitute

an obstacle in the dialogue and collaboration of policy makers and other stakeholders also in a REDD context. Another issue identified in the Pakistani study is the risk that no actual change or devolution of power is achieved, because of deeply cemented power relations or historically rooted mistrust between actors, preventing them from changing their behaviour.

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#### **4. Experiences from REDD demonstration activities (Lisa Westholm)**

*To what extent have demonstration activities been inventoried and monitored? What conclusions can be drawn about the pro-poor potential of REDD from such activities?*

A number of initiatives have been established with the explicit intention of generating lessons for REDD implementation. These are known as 'demonstration activities'. Monitoring the poverty effects of these initiatives will be one departure point for generating evidence-based recommendations for pro-poor REDD. Little progress has been made with implementation of these demonstration activities. There is, however, a range of Payment for Environmental Services (PES) experiences which has also been analysed for its poverty effects and which can inform REDD preparations.

##### **Demonstration activities**

The national level demonstration activities initiated have not yet been fully implemented. Therefore it is hard to judge what impact they will have on the poor. For now we have to settle with reviewing the way they plan to work with poverty issues.

The UN-REDD is a collaborative effort between FAO, UNDP and UNEP to implement pilot REDD projects and prepare countries for REDD. The Programme stresses that REDD activities have the potential to create co-benefits for the many people dependent on forests for their livelihood (FAO, UNDP, & UNEP, 2008). However, it is also recognised that there may be a trade-off between the climate benefits and social, economic and other environmental benefits that REDD might bring. Institutional capacity-building for governance and participatory processes are means that will be used for mitigating this risk and promoting a sustainable REDD implementation. As part of the first phase of the initiative an International Support Function has been launched. One of the objectives of the UN-REDD International Support Function is to increase the engagement of stakeholders in the REDD agenda (UN-REDD Programme, 2009a). The support function should ensure that negotiators and observers from developing countries (especially indigenous representatives and representatives from NGOs representing local communities) have information about the latest developments and can effectively participate in the negotiations. Another objective is to develop a framework for making REDD work for the poor and tools to encourage the capture of ecosystem service co-benefits. An important part of this will be to gain knowledge of the possible benefits and trade-offs associated with REDD. The function aims at drawing from the expertise of the three responsible institutions. Its actions are to be guided by the five principles; human-rights based approach, gender equality, environmental sustainability, results-based management and capacity development. The function will also facilitate knowledge sharing between countries in terms of exchange of technical information, expertise and experiences.

The World Bank Forest Carbon Partnership Facility (WB FCPF) is a pilot initiative that will operate through two mechanisms; the Readiness Mechanism and the Carbon Finance Mechanism, which are funded by two separate trust funds. A high degree of consultation with concerned parties such as indigenous peoples' organisations and civil society is meant to be an important feature of the Readiness Mechanism. However, the primary focus of the mechanism is REDD and it does not intend to comprehend all forest-related issues or provide a solution to a wider rural-development agenda (WB, 2009). Payments made through the Carbon Finance Mechanism are intended to provide

incentives for stakeholders within recipient countries, such as indigenous peoples, forest dwellers and private sector, to achieve long-term sustainability in REDD projects. National governments will be central in all agreements negotiated, but local stakeholders are expected to take part in activities as well as receive a share of revenues. Multi-stakeholder consultations and participation are considered critical for the effective implementation of REDD (WBFCPF, 2009). It is seen as a vital part of developing robust reference scenarios, preparing REDD strategies and monitoring emissions. In other words, consultations and participation are not seen as goals in themselves, but rather as means to achieve other goals. While they are expected to improve the outcome of REDD for local communities, they are most of all expected to make REDD viable in the long-term through making decision-making more inclusive, transparent and accountable.

### **Lessons from PES experiences**

Studies of PES schemes can provide valuable input to discussions on REDD and its impacts on the poor. Their design has similarities with the proposed REDD initiatives, although REDD would act partly on a different scale and require baseline, additionality and leakage monitoring on a different scale and most likely on another level of detail.

Wunder (2008) makes two important distinctions between categories of PES that are likely to have different impacts on poor people. The first distinction is between public-sector and private-sector schemes. The second is between payments for conservation and payments for restoration i.e. payments for *not* doing something or payments for *doing* something. Wunder (2008) also identifies four types of links between PES and poverty; *participation filters*, *effects on sellers*, *effects on buyers* and *derived effects on non-participant poor*. For the sake of REDD and the poor the effects on buyers are less interesting, since buyers are likely to be located in rich countries, and the expected environmental services from REDD are of a global nature.

Wunder defines three forms of participation filter; eligibility, desire and ability (Wunder, 2008). *Eligibility* can be seen as the first hurdle for the poor. Landless people, who often belong to the poorest of the poor, are normally excluded by definition. The requirement of formal land tenure may be the most anti-poor restriction. In addition, those that do own land often have land that is not judged to be of strategic environmental value; either because it is not threatened or because opportunities for recuperation are limited. These restrictions may be less prominent in carbon sequestration schemes, which are less bound to a specific type of site as compared to e.g. watershed protection. However, the additionality requirements risk discriminating against local communities and poor people that do not engage in deforestation (Grieg-Gran, 2008). It is crucial that REDD schemes are formulated so that areas with low current deforestation rates also benefit from payments, so as not to create perverse incentives and reward high deforestation rates. Public schemes are often less restrictive than private ones in terms of spatial targeting, and they more often target poor people (Wunder, 2008). Also, it is possible to design schemes without requiring formal legal tenure as long as tenure is locally recognised and there is a capacity to exclude intruders.

The second filter for participation identified by Wunder is *desire*, i.e. the poor that are eligible for participation must also have the motivation (2008). Consequently, their expected gain must cover their expected opportunity costs of participation. In addition to opportunity costs, a broader 'livelihood impact assessment' will affect the

participation decision. For example, in places where land tenure is insecure, the risk of intrusion may reduce the will to participate especially as land holders may need to support their claims by working the land, not conserving it. Transaction costs in terms of paper work and complicated procedures may also affect the desire to participate. A Tyndall Centre review of PES schemes found that an important factor for the desire to participate was land endowments (Corbera, et al., 2006). Richer families with greater land endowments are favoured in conservation projects, since they have the possibility to set aside land for alternative activities. Poor families with limited land access lack possibilities to participate because it puts their subsistence at risk. Experiences from Costa Rica show that making agroforestry eligible for PES makes participation for poor people more feasible (Grieg-Gran, 2008).

The *ability* to participate, in terms of access to capital and credit for investment, as well as technical capacity and skills is a third filter for poor people's participation. In this sense, the participation of the poor in PES schemes depends on whether they are *deemed competitive* enough compared to other providers of ecosystem services. On the one hand, poor are likely to have lower opportunity costs. On the other hand, there may be more risks involved when working with poor people. Insecure land tenure is one example. Further, transaction costs may be higher when working with smallholders, compared to working with larger landowners. In Costa Rica, attempts have been made to organise carbon sequestration PES sellers on a regional level in order to avoid this problem (Wunder, 2008). However, this has the effect of transferring transaction costs from the buyer to the seller.

Wunder's study of PES schemes shows that poor people that participate in environmental service schemes are generally better off, or at least not worse off, from participating (2008). Assuming that participation is voluntary and the decision to participate is rational and informed there is no reason to believe that providers of environmental services are worse off from participating. In general, PES offers a new source of income that is often more stable than other income sources. How large the gain is, and what share of income it represents can differ widely. The negotiating position of buyers of ecosystem services is often better than that of sellers. However, there is also evidence of cases where sellers are in a position of power, because of the unique assets they hold possession over, which allows them to put pressure on service buyers. According to Wunder, even where power asymmetries are not in favour of the service sellers PES many times represents a significant share of household incomes. Evidence from Costa Rica show that PES payments account for between 10 and 44% of household income and similar figures can be observed in Ecuador and Bolivia (Sven Wunder, 2008). When opportunity costs are taken into account the net gain is still positive for most PES schemes reviewed by Wunder.

Apart from income gains, there may also be non-income gains from participating in PES schemes. Wunder emphasises three types of non-income gains: land-tenure consolidation, increases in human and social capital and higher visibility vis-à-vis external investors (2008). In terms of human and social capacity, PES schemes may contribute to capacity building in various fields as well as improved organisation and organisational capacity of local communities. The higher visibility for communities that participate in PES schemes has facilitated the attraction of other donors and investments in e.g. health clinics or road improvement. However, this may imply that other poor lose out on investments if the higher visibility does not attract new, additional investments.

Wunder finds that land-tenure consolidation can be a positive outcome of PES schemes. Landell-Mills and Porras (2002) see a risk that PES schemes push up local land prices, thereby crowding out smallholders from their land. Another, related fear is that PES incentives allied to insecure land-tenure may cause land-grabbing, either state sanctioned or unofficial (Grieg-Gran, 2008). Neither Wunder (2008) nor Grieg-Gran (2008) observe any evidence for this in Latin American PES activities. Rather, the opposite effect can be observed; that PES participation increases tenure security in relation to neighbours. This can work either explicitly, through including land-tenure clarification in the scheme, or implicitly, as PES participation strengthens the perception and acceptance of land tenure on a local level. The lack of evidence for land-grabbing from PES schemes may stem from the fact that such schemes have mainly taken place in Latin America where land tenure is less insecure than in Asia and Africa (Grieg-Gran, 2008). Also, Wunder (2008) concludes that PES gains are generally not large enough to attract external investors and therefore land prices are not pushed up. Depending on the scale of the schemes, the situation may be different for REDD. With REDD, the potential payments are larger. If payments are large enough to compete with other profitable land uses such as soybean or palm oil production the risk of land-grabbing increases. Also, since the schemes are intended to be based on the national scale, there is a risk that governments increase their control over forest lands in order to ensure carbon benefits (Grieg-Gran, 2008). Grieg-Gran concludes that it is important that participation is voluntary and that payments are received by landowners in order to avoid a reduction of rights when land use is conditioned. Also, she regards strengthening of land rights as an important part of REDD schemes if payments are large.

Poor people that participate in PES schemes are usually better off from it, even though the impact is insignificant compared to what would be required to alleviate poverty on a large scale (Sven Wunder, 2008). According to Wunder, poverty considerations should rather be focused on poor non-participants, especially landless people that risk being negatively affected. Reduced deforestation schemes may affect poor people by reducing employment in the forestry sector and driving up food prices as pressure on land increases.

Experiences from market-based conservation activities presented in a report by the Global Forest Coalition (2008) show that local communities feel disempowered as decisions are taken by other actors. They report a weakening of community governance structures and an increased focus on individual economic benefits. As a result of this, women are often marginalized, as their interests are overlooked in monetary agreements met by men.

### **Conclusions:**

- The lessons learned from PES projects or other cannot be generalised
- As long as participation is voluntary and there are no great asymmetries in information there is no reason to believe that the participants will become worse off by participating in REDD. The ultimate question is then to what extent participation in REDD will be compulsory for the individual land holder.
- Making the consolidation of land tenure rights a part of REDD schemes can be a way of facilitating participation of the poor and improving outcome for them. The

question is to what extent this is feasible beyond the areas where it has already been achieved.

- Schemes that want to include poor small land-holders should be designed to facilitate the organisation of environmental service providers in order to minimise transaction costs.
- Including agroforestry in permitted activities can make participation more feasible for poor people.

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## **5. Impacts of deforestation on the poor (Jürgen Petterson)**

*In what sort of cases is deforestation beneficial to the poor? How can an initiative which denies them these benefits be made pro-poor?*

The basic principle behind REDD is that the incentives which financial transfers will provide will make it more lucrative to leave forests standing than to cut them down. Characterisations of deforestation often portray national and international business, often with links to both political and military power, as the actors driving deforestation, whilst local, poor people are portrayed as essentially opponents of deforestation who may be mobilised to defend forests. It is not at all certain that these characterisations are accurate. Should the poor always be counted on as potential defenders of the forest, or do they actually gain economically from deforestation and forest degradation? If so, should they also be entitled to compensation from REDD schemes for the opportunity costs of avoided deforestation and degradation? The purpose of this review is to discover what the literature suggests about the relationships between poor people and processes of deforestation and degradation.

The focus of this review is forest-dwelling people. For a discussion of issues relating to the migration of poor people into forests associated with deforestation see Review 6 below.

There is a substantial literature on the link between poverty and forests, including case studies providing site specific details and reviews providing an overview of issues, debates and research. The review of this literature by Angelsen and Wunder (2003) has been a key text for this review. Another overview of the issues was provided by Sunderlin et al.'s (2007) multi-country analysis of the link between forests and poverty. Regarding the crucial role of infrastructure, De Luca's (2007) review of the link between roads, development and deforestation is a key reference.

### **Impacts of the Conversion to Agriculture**

Deforestation is considered to be driven by the land uses that replace it (Grainger, 2001). If the alternative land use provides a better livelihood for poor people than the livelihood which existed in the forested landscape, then deforestation can be held to have been pro-poor. In such situations, avoided deforestation would create a theoretical obligation to compensate the poor in order for REDD to be pro-poor, or at least 'do no harm' to the poor.

According to Sunderlin et al. (2007), forests in poor countries are highly correlated with poverty and are often home to the poorest of the poor. This would suggest that a transition to an agricultural landscape may have potential to lift people out of poverty. Sunderlin et al. (2007), however, argue that although this has been of immense importance historically (2007), there are also cases where this has not happened because of, for example, rapid soil depletion and weed invasions (2007). Sunderlin et al. (2007) also argue that the prospects for deforestation to reduce poverty in the future will be limited, largely because of the limited available supply of agricultural land from remaining forests.

While it might be realistic in certain contexts to expect preventing deforestation to carry an opportunity cost for poor people, it is difficult to calculate what this opportunity cost would be, as it involves predicting the outcomes of competition between smallholder and plantation agriculture, the sustainability of farming practices on virgin soils, and the functioning labour markets in the new agricultural landscape.

### **Impacts of the Deforestation Process**

The actual process of deforestation may also potentially be lucrative for poor people, if it provides incomes either from logging or land clearance. Timber is the most commercially valuable product in most forests. However, harvesting trees often requires capital, skills, land tenure and technology levels beyond the reach of the poor. Therefore, benefits to local people from logging operations are mostly restricted to employment opportunities. Related to this, logging is often the catalyst for the building of road infrastructure which often has strong pro-poor effects.

According to Poschen and Lougren (2001), timber production tends to generate less employment opportunities than agriculture per unit area, except in the most extensive forms of agriculture. "Average labour requirements per hectare are three to ten times lower for forestry than for most types of agriculture" (Poschen & Lougren, 2001). However, where forests are not replanted but are cleared for agriculture, logging jobs are provided in a phase of structural land-use change, a development which in most cases result in a positive net increase in employment opportunities.

According to Angelsen and Wunder (2003) there are no 'hard data' on the numbers employed in the forestry sector, and it is therefore not possible to estimate the employment opportunities created by the deforestation process. Poschen (A. Angelsen & Wunder, 2003; Poschen, 1997) estimated the generated jobs (in full time equivalents) in the forestry sector of developing countries to be 1.9 million jobs in roundwood harvesting, 0.8 million in reforestation/silviculture and 13.3 million in fuelwood. Although these numbers are highly speculative, they imply that the overwhelming majority of the jobs in the deforestation process are limited to fuelwood production.

According to Angelsen & Wunder (2003), fuelwood producers tend to combine forces with agriculturalists, helping them clear land for agriculture and taking care of the wood residues. These activities often involve the poorest of the poor, and the income generated from clearing land can be significant for low-income groups. Again, as Grainger (2001) argued, deforestation is driven by the land uses that follow.

### **Infrastructure**

Infrastructure construction is often a consequence of deforestation, since logging companies need roads to transport their timber. Apart from providing employment opportunities in building the roads, road networks provide a number of other benefits to the poor, such as lowering transportation costs and increasing access to previously non-profitable resources (A. Angelsen & Wunder, 2003).

Roads are a key element in reducing the poverty of poor forest-dwelling people; Sunderlin et al. (2007) see remoteness as the main explanation of why forest people are poor. According to De Luca (2007), roads are often identified by rural poor villagers as their highest development priority. Isolated populations' benefits from roads are numerous, including easier access to health centres and schools, increased mobility for

people and their goods and reduced transportation costs (Colfer, Sheil, & Kishi, 2006; De Luca, 2007).

However, it also enables people to migrate in the other direction. New roads in previously unexploited forests lead to entrance of non-residents, increasing competition over resources (Colfer, et al., 2006). With an extensive road network in place, farmers follow on the heels of loggers and penetrate deep into the forest (Laurance, 1999), allowing farmers to break even in more remote locations (De Luca, 2007).

The challenge for REDD would be how to provide infrastructure that enables pro-poor development without catalysing deforestation. De Luca (2007) concluded in his review that by improving existing roads, similar positive development effects can be attained as an extended road network would yield. Thereby, the population already connected to the market would be offered better economic opportunities, an incentive to move closer to the market would be given to isolated populations, and migration to the forest frontier would be reduced. This approach, portrayed as the silver bullet combining the dual goals of halted deforestation and reduced poverty, has distributional implications, improving the roads for not-so-isolated rural populations at the expense of truly isolated forest dwellers. De Luca (2007) stresses the importance of strengthened property rights and tenure security to limit roads damaging effect on forests.

## **Policy Solutions**

Sunderlin et al.'s (2007) report concludes with recommendations which they argue can contribute to reducing poverty in forests. As an example of 'making conservation work for the poor', they represent a suite of policies that could be relevant in 'making REDD work for the poor' such that standing forests might be worth more to the poor than the opportunity costs associated with conversion to agriculture. Sunderlin et al.'s (2007) recommendations are:

- Continuing tenure transfer of forests to rural communities
- Promote market access for the poor and nullify anti-poor legal structures
- Support community forestry models designed to alleviate poverty
- Establish pro-poor payments for forest environmental services

According to Sunderlin et al. (2007), community forestry has to this date often not succeeded in alleviating poverty. However, as Sunderlin et al. (2007) continue, it could become more successful if it is interlaced with the other recommendations mentioned above, especially improved tenure rights and a levelled playing field. Its potential is indicated by the success of the *ejidos* in Mexico, where indigenous communities were awarded title to large forests, creating hundreds of community forest enterprises which delivered economic equity and environmental protection (W.D. Sunderlin, et al., 2007). Supported by REDD investments, such policy recommendations could encourage an integrated approach that tackles poverty issues and benefits forests conservation as well.

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## **6. Demography and Deforestation (Jens Strömberg)**

*To what extent does deforestation/conservation occur in a context where poor people remain in one place? What are the implications of people either moving into or out of areas under threat of deforestation/conservation for ensuring that REDD is pro-poor?*

### **Migration and REDD**

Poor people may not reside permanently in one place, but instead often move in and out of forest areas. This raises questions about whether REDD has the ability to benefit poor people moving in complicated migration patterns, and also whether it should be able to handle these issues. The purpose of this review was to search for precedents where the poverty implications of mobile populations had been addressed by earlier programmes, whether in terms of assessing and compensating for the opportunity costs of forced/prevented migration, or through policies which changed the structure of incentives by providing better alternatives.

The main text consulted has been Sunderlin and Devi's (2007) multi-country analysis of spatial association and proposed policy solutions called "Poverty and Forests". Additional resources include Amacher's (1998) article on environmental motivations for migration and Kaimovitz's (2008) article on the prospects for REDD in Mesoamerica.

### **Movement into areas under deforestation**

Often areas under deforestation have growing populations indicating that deforestation is, at least temporarily, associated with the economic benefits of a frontier economy. For example, Sunderlin et al. (2007) writes that conversion of forest land into agricultural land has served as a main way out of poverty. The transition enables dramatic increases in natural resource use and income. A new study investigating livelihoods at the forest frontier in Brazil has confirmed the temporary nature of improved incomes for households migrating into forest transition areas (Rodrigues, et al., 2009).

It has been debated whether it is primarily the poor who migrate to forest margins. Sunderlin et al. (2007) argue that migration to forests require savings because migrating and cultivating new land necessitates a waiting period before the first harvest. Supporting this, Wunder (cited in W.D. Sunderlin, et al., 2007; 2000) provides an example from the Ecuadorian forest frontier, where colonizers are poor but not the poorest of the poor or landless. On the other hand, in an open access scenario poor people may be able to claim land before a land market starts to function, and even without agricultural land, poor migrants may still benefit as hired labour clearing land for landowners of larger farms (Arild Angelsen, Wunder, & Center for International Forestry Research., 2003). Amacher (1998) writes that the availability of undeveloped land like forests and land with insecure rights to the existing tenure is particularly important when people decide to migrate from cities to rural areas. This implies that REDD could have an opportunity cost for people who are not forest dwellers to be compensated for.

Benefits of migrating into forest areas under deforestation are variable and unpredictable, making the assessment of opportunity cost problematic. There is a

considerable variation in the quality of forests, e.g. excessive remoteness, lack of roads and markets and absence of fertile soil (William D. Sunderlin, et al., 2007). At the same time as forests serve as a magnet for migrants, it is in many cases also a last resort. Even where the post-forest landscape offers a viable livelihood: other interests may successfully challenge their tenure; or in other ways ensure that settler livelihoods are marginal and insecure: Lohmann (1993) provided an account of such dynamics in Thailand. It would seem that however pro-poor a REDD programme is in orientation, compensating for the opportunity costs of poor people denied the possibility of migrating into the agricultural frontier would never be feasible.

On the other hand, the closing off of the agricultural frontier does create a potential political constituency against REDD which would be a threat to both global carbon-conservation interests and national political interests. In this sense, identifying areas which would be potential losers from the closure of the agricultural frontier (or from a political point of view, areas with populations that might mobilise around the belief that they are losers), and investing substantially in their development with some of the funding from REDD may be a key strategy for making REDD both politically sustainable and pro-poor. An example of a government policy which (albeit unintended) delivered this outcome was the privatization of collective landholdings in Mexico. This probably facilitated migration out of rural areas and while not designed to reduce deforestation or forest degradation, according to the author it probably had that effect.

### **Forced displacements**

Forced displacements have been identified as a major anti-poor consequence of some protected areas and PES schemes (see Literature Reviews 7 and 3 for more details). This has, of course, been a feature of forestry management since colonial times, as has been documented, for example, by Bryant (1997) for the case of Burma. If REDD is to be pro-poor (or at least do no harm), then it should either adopt strategies which do not displace forest populations, or it should compensate households for their losses if they are displaced as a result of a REDD initiative.

In this case, the identification of the group of poor people entitled to compensation is far more realistic. The challenge (as for much of the planning for pro-poor REDD), is to both respect national sovereignty (given that it is nations who will sign a global agreement, and nations who will be rewarded for maintaining national carbon stocks), and to provide a safety net for people who are badly treated by their national governments.

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## **7. Protected areas and the poor (Jörgen Petterson)**

*Protected areas are to some degree correlated with effective prevention of deforestation. What have their impacts on the poor been? What lessons/critical understandings can be drawn for making REDD work for the poor?*

### **Protected Areas and the social impact on the poor**

The social impacts of protected areas on the poor are well covered and the literature has been reviewed recently by several authors. Two reports feature prominently in this review; Coad et al. (2008) focused on the costs and benefits of protected areas for local livelihoods, and the implications for future protected areas and REDD policy. West et al. (2006) discussed protected areas from an anthropological standpoint, based on a review of 250 articles relating to displacements from protected areas, and provided an analysis of the social, material and symbolic effects of protected areas.

Protected areas have grown significantly in the last decades and today cover over 16.8 million km<sup>2</sup>, roughly 11% of the world's land area, although 'only' 6.4 million km<sup>2</sup> impose considerable restrictions on human use and occupancy (West, et al., 2006). Restrictions on livelihoods vary depending on the status of the protected area, ranging from strict biodiversity protection with no-take enforcement to sustainable management of forest resources. In recent decades, the importance of community involvement has been growing and community forests reserves have grown substantially (Coad, et al., 2008).

Protected areas have diverse impacts on the poor and both negative and positive effects can be distinguished. Some of the negative impacts identified by Coad et al. (2008) are displacement of local communities, restricted access to resources and changes in land tenure. Benefits for local communities include securing ecosystem services such as products obtained from the forest and new employment opportunities (Coad, et al., 2008; West, et al., 2006). Coad et al. (2008) conclude that the magnitude of costs and benefits depends upon the protected area's status, governance and history of use.

### **Displacement**

Displacements of populations from protected areas have had severe effects on the livelihoods of the poor and it is therefore important to clarify to what extent displacements take place. A literature review by Brockington & Igoe (2006) found data too unreliable to be able to approximate the total number of people who had been displaced by protected areas. According to Coad et al. (2008) estimates of the number displaced have varied from 900 000 to 14.4 million people, although according to Brockington et al. (2006) generalizations are unreliable because they tend to be made from only a handful of cases.

When West et al. (2006) reviewed the literature on displacement of populations, they concluded that the geographic distribution of studies addressing social impacts of protected areas was unevenly distributed over different regions. Some regions, e.g. the Indian subcontinent and southern Africa are better represented. Furthermore, they suggest that the uneven distribution relates to differences between countries. Africa's abundance of studies may reflect the continent's predominantly rural population, weak states and colonial imposition, making planning for displacement difficult. West et al.

(2006) argue that the lack of studies in Latin America, reflects the indigenous communities recognition of protected areas as a means of protecting their traditional land. Daniels (2002) describes indigenous groups of southern Brazil and northeast Panama as the driving forces in establishing forest reserves to protect their sacred land. Coad (2008) provides numerous similar examples, mainly in Latin America, but also in Alaska.

Displacement is more likely where the protected area is categorized in more strictly protected categories of protected areas (Coad, et al., 2008). Also, countries are more likely to displace people if the country has a history of strict government control. There may be other crucial political motives behind displacing people from protected areas, such as the systematic evictions in South Africa during the Apartheid regime (Coad, et al., 2008; West, et al., 2006).

### **Restrictions on access to land and forest resources**

In cases where communities are allowed to remain within or adjacent to protected areas, restrictions on land use rights may still have severe implications for their livelihoods. Many forest communities rely on non-timber forest products (NTFPs) for both consumption and commercial use. These provide a safety net and help mitigate poverty, i.e. keeping the poor from increased deprivation, although NTFP's potential to reduce poverty, i.e. successfully improving livelihoods is debated (Angelsen & Wunder, 2003). Restricting access to forest resources for already marginalized groups is problematic, and might for example lead to insufficient diets in forest-communities. In a case study of Ranomafana National Park by Ferraro (2002), less access for the inhabitants to wild protein sources, partly due to restrictions on crayfish collection, caused danger to groups on already minimal protein intake levels. Furthermore, the reduced access to NTFPs decreased household incomes and limited their possibilities to purchase supplemental staples, such as oils and fats.

Scarcity of firewood has been identified as a major concern, especially in countries such as Malawi, where 90% of the energy supply is provided from fuelwood (Coad, et al., 2008). This also has a substantial impact on household income for the poorest of the poor, who are often involved in fuelwood production (Angelsen & Wunder, 2003). Firewood collectors are often women, with no other sources of income, as is the case in Mt. Elgon forest reserve in Kenya studied by Ongugo et al. (2002). Although collecting and producing fuelwood was not yet totally banned at the time of the study, collectors were thwarted by fees, restrictions, e.g. mode of transport, size of harvest, and were not allowed to sell their collected firewood on the market.

Forests near villages are often used for shifting cultivation. Restrictions on land use may force farmers to intensify cultivation, leaving plots insufficient time to recover, resulting in a down-ward spiral of land degradation (Coad, et al., 2008). The same dynamic holds for ranchers when livestock are left with reduced grazing land (Bedunah, 2004).

### **Employment**

Protected areas have potential to create new employment opportunities for the poor. Where protected areas are created, ecotourism tends to increase, which on the one hand can raise considerable revenue for communities, but which may be accompanied by social costs.

Revenues from ecotourism tend to be unevenly distributed, causing conflict and creating socioeconomic differences both within communities (Rugendyke & Son, 2005) and between communities, as has been found in Jordan (Schneider & Burnett, 2000) and Nepal (Mehta & Kellert, 1998). Income from ecotourism can be substantial; according to Vivanco (cited by West, et al., 2006; Vivanco, 2001) 70% of the regional income near Monte Verde in Costa Rica is derived from ecotourism. The increase of tourists can be counter-productive to conservation goals, putting pressure on local resources (Panusittikorn & Prato, 2001) and negatively affecting provisioning ecosystem services on which the local people rely (Dixon, 1993; cited in West, et al., 2006).

Protected areas can also host employment opportunities other than ecotourism. Extractive reserves in Juruá, in the Brazilian Amazon, are a type of protected area that permits agroextractivists to keep living in the area and use local resources in a sustainable way, based on previous agreements between residents and the federal government. This arrangement secures local access to forest products while at the same time restricting logging (Whitesell, 1996). However, in many cases protected areas fail to meet local employment needs, and instead create employment for expatriates and in-country elites. A study of the Ranomafana National Park in Madagascar (Peters, 1998) found that a lot of the money invested in the project by USAID stayed in the USA as expatriate salaries, overheads, equipment and travel costs.

When protected areas are created, logging companies usually get their permits withdrawn. Consequently, employment opportunities decline, as was the case when China banned logging of natural forest along the Yangtze River and 1.1 million jobs were lost locally, leading to the subsequent loss of many social services such as education and health care (Coad, et al., 2008).

### **Changes in land tenure and community structures**

According to reviews, top-down approaches by governments that fail to recognize traditional tenure arrangements and remove power from local community institutions, can lead to conflict within and between communities and ethnic groups, and may result in hostility towards conservation in general (Coad, et al., 2008; West, et al., 2006). Furthermore, Coad et al. (2008) argue that if a switch from community to state control is not followed by effective enforcement, the outcome may be a limbo state where neither new nor old regulation are acknowledged, with negative livelihood consequences for local inhabitants undermining conservation goals (Coad, et al., 2008). Coad et al. (2008) conclude that strictly protected areas need to involve local people in management and compensate them for their losses, otherwise conservation objectives might be jeopardized. Furthermore, community management can play an important role, but requires social investment and capacity building to become successful (Coad, et al., 2008).

### **Ecosystem services**

Positive consequences of protected areas for the poor include continued or improved livelihood benefits from ecosystem services. Benefits from ecosystem services include supporting and regulating services, e.g. maintaining soils and runoff control;

provisioning services, i.e. products obtained from forests; and cultural services, e.g. cultural heritage and traditions connected to the forest. These benefits are difficult to quantify and estimates are often debated. However, in a review of existing cost benefit analyses which included private benefits such as marketed goods as well as non-marketed ecosystem services delivering local social or global benefits, Balmford et al. (2002) found that in every case examined, overall community benefits were larger with forests intact than after land conversion. In spite of this, private economic interests in producing for market often prevail over community benefits from ecosystem services.

## **Overall balance**

Dudley et al. (2008) conclude in their study of protected areas and poverty that protected areas can provide some important benefits to the poor. While these are seldom direct economic benefits, there are often indirect benefits from ecosystem services. Often, protected areas can improve or maintain the safety net role of forests for the poorest of the poor, by securing access to NTFPs. However, they rarely reduce poverty in terms of dollars earned per day.

When Coad et al. (2008) reviewed the literature they found no overall assessments of the net cost or net benefits of protected areas on poverty, but a few economic cost-benefit analysis of specific cases.

One of these case studies highlighted by Coad et al. (2008) examined the effects of Massola National Park in Madagascar (Kremen, et al., 2000), and concluded that on a local and global scale, the park had a net benefit, mainly because of the community forest programme, the use and protection from forestry of non-timber forest products, and protected carbon value in the forest. However, on a national scale there was a net cost because of reduced revenues from large-scale logging. Unfortunately, as Kremen et al. (2000) concluded, the national level is also where decisions about conservation are generally made. Situations such as this would fit particularly well with a REDD mechanism that provides incentives at the national level.

As has been discussed above, and also covered by Dudley et al. (2008), benefits and costs are unevenly distributed and while the benefits generated by protected areas are important, their distribution is also key. Other studies highlighted by Coad et al. (2008) where local communities have been less engaged in management of the protected areas, in Madagascar, Kenya and Malaysia, costs have been concentrated on local to regional scale, whereas benefits mostly accrued to regional to global scale (Balmford, et al., 2002; Coad, et al., 2008). In such a situation REDD schemes would tend to reinforce a situation which does not benefit the poor.

## **Implications for REDD**

Coad et al. (2008) identify many of the same problems regarding livelihoods with protected areas that have been identified in the existing carbon markets, including lack of established tenure, and inequitable distribution and access to resources. This is particularly true for the rural landless, who are often the poorest of the poor.

There is currently a lack of studies addressing the net benefits or net costs of protected areas for the poor. Coad et al. (2008) conclude that whether local communities get their

share of the benefits from protected areas or not is dependent on the political and economic climate. In this sense the main lesson from the protected areas literature is that each situation is different. This suggests that making REDD pro-poor will not be a single task for central (global) designers and negotiators, but will be a series of campaigns and interventions 'downstream' at national and sub-national levels.

As Coad et al. (2008) also conclude, the literature covering parks and people make it clear that denial of forest resources have negative impacts on the poor. Coad et al. (2008) and Dudley et al. (2008) both stress the importance of existing benefit sharing mechanisms and community involvement in management of protected areas to assure substantial benefits to poor people's livelihoods.

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## **Theme 2 Intended Activities 2009-2011**

### ***Background***

Focali theme 2 research will continue to be conducted as part of a suite of research themes within the Focali network. Theme 1 seeks to generate knowledge about technical and financial arrangements for REDD, and thus engages with the whole question of making REDD work. Theme 2, focused on poverty impacts, is thus examining whether and how REDD might be made to work for the poor. Theme 3 adopts a Sustainable Forest Management approach as it seeks to identify specific technical and commercial solutions for forest management. Implicit in all of these studies is the idea that REDD includes not only any funds and market mechanisms which are generated through global negotiations, but also alternatives which may be established in order to achieve equitable global coverage.

During the past months we have begun to establish relations with other research organizations and research institutions involved in REDD research generally, and in the poverty impacts of REDD in particular<sup>4</sup>. CIFOR intends to 'coordinate a global comparative research on REDD' and to create a 'REDD learning community' we support them in this ambition and will liaise closely with them in both the development of our research programme and the dissemination of results.

### ***1. National Case Studies***

Reflecting Sida bilateral engagements, our own comparative advantages, and specific requests from Swedish regional actors we expect to conduct national case studies in Burkina Faso/Mali, Cambodia/PRD Lao and Bolivia. This suite of studies will maintain our engagement with all three continents, and will include a range of countries with better and less good governance, more or less genuine commitment to avoiding deforestation, and more or less commercially valuable forest and land resources. It will, in other words, provide the basis for a comprehensive engagement in regional and global policy debates.

The precise scope of each country study will depend on what other research is ongoing and who we partner with. Nevertheless it will include both a national overview, tracking the country's progress towards participation in REDD, at the same time as some form of place-based case study which focuses on a place where deforestation/forest degradation are a threat that might be avoided through REDD. In all studies there will be a strong emphasis on stakeholder analysis – identifying what interests various actors (including poor forest-dwelling men and women) have in either preserving forest or in deforestation.

In Cambodia we have already commissioned one case study of a project aiming at obtaining REDD funding for an existing community forestry programme. In 2010 we will look more closely at the relationship between such local scale initiatives and the development of national scale policies and programmes. In this way we will be able to analyse the way in which the so-called “nesting” of local initiatives within national

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<sup>4</sup> Including Frances Seymour, Arild Angelsen and Sven Wunder at CIFOR, Leo Peskett at ODI, Lorenzo Cotula at IIED, Jesse Ribot at IUCN.

initiatives is operationalised in the sort of weak governance setting that typifies many deforestation scenarios.

## ***2. Critical engagement with poverty monitoring of Demonstration Activities***

There remains much more to be learned from existing scholarship, not least from successive generations of tropical forestry action plans and national forest programmes. However, the key new information which is likely to set agendas regarding REDD and the poor will be the findings from the monitoring of the so-called “Demonstration Activities”. Theme 2 will continue to have close relationships with peer researchers involved in both the monitoring of poverty effects of the demonstration activities and also the coordination of such monitoring. This will include advocating for research methods which adequately account for the context of REDD (especially through simple livelihoods analysis, stakeholder analysis and political economy approaches) and accurately represent the embeddedness of poor people’s livelihoods in these broader contexts.

We envisage achieving this through active participation in international networks, effectively a continuation of some of the relationships which we have already established and which we hope will consolidate as a more formal and broad-based regulation and coordination of international REDD research efforts.

## ***3. Developing Partnerships with Key Swedish Actors***

Copenhagen is likely to be the beginning of much negotiation rather than the end of negotiations. Much will remain to be decided. It is as yet unclear which organizations and which countries internationally will have which roles, or exactly where Sweden will find its niche.

We will continue to develop functional working relations between our thematic research network and relevant Swedish actors involved in development assistance, forest and climate research and climate negotiation. We will also continue to make contributions when requested to public debates and official enquiries.

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