

A photograph of a man in a camouflage shirt standing in a forest, examining a tree trunk. The tree has a thick, textured bark with some reddish-brown patches. The man is looking down at the tree. The background shows other trees and green foliage.

What does it take to achieve pro-poor REDD+? Summary report

Workshop held 29 November 2012, Doha, Qatar
Compiled by Maryanne Grieg-Gran and Leianne Rolington

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1. Introduction

Considerable attention in international negotiations has been given to social and environmental safeguards for REDD+. But many concerns remain about how REDD+ will play out nationally and locally, with fears that it will lead to elite capture, corrupt practices and exclusion of weaker or vulnerable groups, such as women, the landless and migrants in the communities.

National approaches to REDD+ are currently being advocated as a way of reaching scale and of minimizing leakage. But they also raise challenges for equitable distribution of costs and benefits. Will they repeat the problems of revenue-sharing schemes for timber that have often failed to reach all those dependent on the forest resource?

Proactive bottom-up approaches that target the poor and design REDD+ to improve livelihoods have the potential to ensure that safeguards go beyond 'do no harm'. The REDD+ pilot projects that are being pursued in many developing countries are important in this respect, but they raise the issue of how they will be scaled up to form part of national REDD+ programmes. Do they constitute a cost-effective option for national REDD+ programmes and how far they will be pro-poor in practice?

In parallel with the eighteenth Conference of the Parties to the United Nations Framework Convention on Climate Change (COP 18), the International Institute for Environment and Development (IIED) hosted a workshop in Doha, Qatar, to discuss the challenges for pro-poor approaches to REDD+. The workshop examined evidence on the costs of pro-poor REDD+ and the practical experience of REDD+. It drew from recent research on the costs and implementation of pro-poor REDD+ approaches in Africa, Asia and Latin America as well as accounts from practitioners of their experience with designing and implementing pro-poor approaches to incentivising forest conservation and sustainable resource management.¹

This report provides a summary of the presentations made and the subsequent discussions between panellists and participants. Further details including the presentations can be found on the IIED website <http://bit.ly/YtuFFU> or go to www.iied.org/pubs and search "norad redd presentations". Speaker biographies can be found in an annex.

¹ The research was mainly drawn from the project 'Poverty and sustainable development impacts of REDD architecture: options for equity, growth and the environment,' managed by IIED and the Norwegian University of Life Sciences (UMB) and funded by the Norwegian Agency for Development Cooperation (Norad).

2. Keynote address - Pro-poor REDD+, international negotiations and national REDD+ programmes: the current state of play

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Mette started by explaining why a pro-poor approach to REDD+ is needed. Forests currently support the livelihoods of more than a billion people in the world. There are 870 million people going hungry in the world, with 70 per cent of those based in rural areas. The global population is estimated to increase to nine billion by 2050. In order to feed the world in such circumstances, agricultural production – the main driver of deforestation – would need to be increased by 60 to 70 per cent. It is clear that poverty, food security, livelihoods and REDD+ are closely linked.

The focus of the presentation then shifted to how poverty is addressed in international negotiations on REDD+. Until 2010, this had been confined to general references to the need to uphold rights in existing international agreements, predominantly regarding Indigenous Peoples (IPs) and local communities, but this does not cover the whole spectrum of the poor. The Cancun Agreements in 2010 made specific reference to the need for developing country parties to achieve poverty eradication so as to be able to deal with climate change. Importantly, they set out the need for safeguards to ensure that REDD+ activities are consistent with sustainable development needs and goals, are implemented in the context of reducing poverty and that they are consistent with relevant international agreements. However, this is still a little vague in relation to poverty. Specific mention is made of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) but there is no other mention of what is to be considered a ‘relevant agreement’. The final useful reference is to ‘full and effective participation of relevant stakeholders. This is an important entry point for pro-poor REDD+.

The current negotiations in Doha are focusing primarily on National Forest Monitoring Systems (NFMS) and monitoring, reporting and verification (MRV), with discussions on safeguards and reference levels and deforestation drivers likely to be postponed to 2013. But many references are being made to the importance of multiple benefits, and developing countries have suggested that results-based payments should cover social and environmental benefits. However, there is resistance to this from donors and industrialised countries.

Mette then introduced the UN REDD Programme highlighting its work relevant to pro-poor REDD+. The programme is a collaborative partnership of FAO, the United Nations Development Programme (UNDP) and the United Nations Environment Programme (UNEP) which aims to support developing countries in preparing for REDD+ implementation. There are currently 46 partner countries to UN REDD, covering more than half of the world's forests. Sixteen of these have a national programme and others have targeted support on request. The Programme has six work areas including aspects very pertinent to pro-poor REDD+ such as transparent, equitable and accountable management of REDD+ payments, stakeholder engagement and multiple benefits and safeguards as well REDD+ governance, MRV and green economy. A multi-stakeholder policy board guides the Programme.

Specific activities relevant to pro-poor REDD+ include:

- Guidelines on free prior and informed consent (FPIC) to outline a normative, policy and operational framework to seek FPIC. These have been tried out in Vietnam.
- Social and environmental safeguards with a pilot in the Democratic Republic of the Congo (DRC) to develop social and environmental standards with wide stakeholder engagement, raising the levels of confidence in REDD+ both within the country and from donors.
- Participatory governance assessments for REDD+ with pilots initiated in Nigeria and Indonesia.

Further work of relevance has included identifying and addressing drivers; safeguard information systems; legal preparedness; forest tenure; gender; benefit sharing; and corruption prevention. Mette concluded by calling for a more proactive approach to joining up food security, REDD+, livelihoods and poverty, as countries move from the readiness phase into the next phase.

Discussion

What constitutes a pro-poor approach

One participant argued that it was necessary to challenge the dominant mindset in international negotiations in which pro-poor REDD+ would involve participation in benefits from a value chain originating in carbon. Some more lateral thinking was needed. For example, a joint mitigation and adaptation approach, as tabled by Bolivia; or by defining forest monitoring systems in a way that values the attributes of forests that are pro-poor. In response to this, Mette acknowledged that, in terms of the Bolivian proposal, it is only possible to deal with some aspects, as there is not yet a mechanism for adaptation

payments. But synergies are important and REDD+ does not and should not focus on carbon alone. As for the monitoring, reliable estimates of carbon stocks and changes in forest are needed as the end goal is reducing emissions. However this also requires understanding of the impact of REDD+ actions on other social and environmental systems and ensuring that impacts are positive.

Another point raised was that there are many missing policy links for making REDD+ pro-poor. Examples are needed of how REDD+ can be linked with other national policies to promote a pro-poor outcome. Mette responded that in terms of policies, risks remain that some policies or laws may have a negative impact on other sectors or initiatives. It requires those involved to be aware of such possible risks and to raise concerns when they arise.

Drivers of deforestation and the role of small-scale agriculture

It was also questioned whether small-scale agriculture for poor people was really an important driver of deforestation, as opposed to agriculture for rich people's food and fuel. Mette's response was that both small-scale and large-scale agriculture were drivers of deforestation but it was not possible to generalise. For example, in Latin America the issue tends to be large-scale commercial agriculture; in Africa, it is largely for food and small scale; in Asia, it is a mixture of the two.

Further comments on the drivers were brought forward by another participant, regarding the problem of reliance on outdated data. In response, Mette agreed that much of the data is old, for example data from 2000 is being used for the study of drivers that covered all the tropics. In addition to this though there are individual country studies that have been undertaken, and data gathered from satellite images going back to the 1980s, which will enable to show changes in drivers of deforestation over time. The use of remote sensing needs to be combined with discussion with stakeholders at national and sub-national levels to establish the causes for changes.

3. Panel 1: The costs of pro-poor REDD+

Chaired by Dr. Isilda Nhantumbo, Senior Researcher, IIED

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The questions addressed included: 'Can REDD+ approaches with pro-poor potential be cost-effective? What is the evidence on opportunity costs, transaction costs and the costs of the so-called 'plus' activities?' Panellists presented evidence on the costs of REDD+ models and processes from Uganda, Tanzania, Vietnam and Ghana.

The cost estimates for emission reductions – The Western Region of Uganda

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Dr. Justine Namaalwa of Makerere University of Uganda, presented the results of research on cost estimates for emissions reductions, based on two types of REDD+ pilot projects in the Western Region of Uganda. The cost estimates factored in the opportunity costs, and the deforestation trends and the carbon stock estimates.

Within the area being studied, there are two large Central Forest Reserves (CFRs), 81 small Forest Reserves (FRs), three Wildlife Reserves (WRs), communal forests, private forests and agricultural land. The two potential REDD+ projects being piloted are a Payments for Ecosystem Services (PES) scheme for private forest owners; and a community-based REDD+ pilot scheme for Ongo Community Forest, being implemented by EcoTrust. Both pilot projects aim to make payments for avoided deforestation and forest restoration. There are differences between them, however, in terms of the payment methods. While the PES scheme pays individual farmers, the community-based scheme makes payments to the community surrounding the forest.

The process of undertaking opportunity cost estimates involved reviewing district-level reports and field-based rapid appraisals, including discussions with key informants and focus group discussions. Agriculture was identified as the key driver of deforestation in the region and therefore the estimation of opportunity costs focused on returns to the crops grown in the area, predominantly tobacco, sugar cane and maize. A key step in the estimation was to identify four typical land-use trajectories or crop rotations over time. High value crops are grown only for two or three years after forest clearing, then as yields start to decline the farmers switch to lower value crops and after a few more years leave the land fallow. The returns to these four crop rotations over a 20 year period were estimated at a discount

rate of 25 per cent reflecting the average bank lending rate for the area. Sensitivity analysis was conducted with two alternative discount rates, 18 per cent and 12 per cent. A key challenge was to determine by how much yields would decline in each year of the rotation. This information was available for tobacco and sugarcane, but for the other crops it was necessary to make an assumption that yields would decline by 10 per cent per year.

Farmgate prices were used to estimate revenues, and both hired and family labour were included in the estimated cost of production. Three of the crop rotation options (tobacco and maize, rice and maize, tobacco and sugarcane) had high NPVs, well over US\$1,000 per ha for all discount rates examined. The fourth option consisting of maize and other annual food crops in the initial years had lower NPV (803 to 1,034) but was consistent with estimates from other studies of maize in Uganda and Tanzania. The average across all four options was US\$1,222 per ha.

Deforestation trends in both protected areas and outside protected areas were then examined based on changes in land cover classes between 1990 and 2010. Based on these figures, estimates were made on how biomass and hence carbon stocks are changing as forests and woodland are converted to farmland. Finally, the potential carbon revenues at different carbon prices (3, 5 and 8 US\$ per t CO₂e) from avoiding the loss of a hectare (ha) of fully stocked forest, low stocked forest and woodlands were estimated and compared with the opportunity costs, that is, the returns to the four typical crop rotations.

The conclusion drawn was that avoiding deforestation of fully stocked forest would require a carbon price of at least US\$5 per tonne CO₂e. REDD+ options focused on avoiding conversion of low stocked forest and woodland would not be competitive with agriculture at this carbon price.

Costs and benefits of REDD+ mitigation in smallholder agriculture in selected REDD+ pilot villages of Tanzania: Are they pro-poor?

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Dr. Khamaldin Mutabazi, of the Sokoine University of Agriculture, presented the results of a cost-benefit analysis of mitigation in smallholder agriculture in selected REDD+ pilot villages. Agriculture – particularly smallholder farming practising shifting cultivation – accounts for three quarters of all tropical deforestation and approximately 31 per cent of global GHG

emissions². Under these circumstances, increasing agricultural productivity could provide the win-win situation of delivering both mitigation and adaptation.

The REDD+ dilemma is that for reducing emissions, forests need to be conserved but for livelihoods and food security, agricultural expansion is required. An historic focus on keeping forests intact and conserved needs to be broadened for REDD+ to incorporate livelihood concerns. The livelihood implications of REDD+ interventions need to be understood, for example, and whether the mitigation approaches in agriculture are pro-poor, and what livelihood changes are implied by REDD+ policy and design.

Research was conducted in Kilosa, in one of the nine REDD+ pilots in Tanzania, which covers ten villages, incorporating about 21,000 people and over 33,500 ha of village forest. The study focused on two villages, with a population of 2,570 and 13,500 ha of village forest. Data on land use and demographics were collected at the farm and household level combined with data at the community and project level on aspects such as prices and carbon stocks. The value of tradable forest products was estimated at about US\$165 per household. It was also found that there has been low adoption of improved stoves aggravated fuelwood consumption – particularly among the poor. A comparison was made between the returns to conventional farming practices and those of conservation agricultural practices, in particular terracing and minimum tillage. It was shown that maize yields under conservation agriculture were considerably higher at 9 tonnes per ha for terracing and 6 tonnes per ha for minimum tillage than for conventional agriculture in which the average yield was 1.7 tonnes per ha.

Estimates of the net present value (NPV) of returns to different land uses were then presented showing that while conventional agriculture at US\$1,237 per ha gave considerably higher returns than natural forest at US\$95 per ha, the potential returns from adopting conservation agriculture practices were so high (at US\$4,890 per ha under minimum tillage; and US\$13,088 per ha for terracing) that they could constitute an attractive alternative to expanding further into natural forest.

The results have implications for the design of REDD+, which must be in tandem with plans for achieving pro-poor and sustainable growth. These include ensuring that the welfare of poor land users actively improves as they comply with REDD+ and that any radical

² Intergovernmental Panel on Climate Change (IPCC) 2007. IPCC Fourth Assessment Report (AR4), IPCC, Geneva, Switzerland.

interventions, such as resettlement of farmers from forestland, are gradual and smooth. The current trend of rural livelihood diversification out of agriculture must be supported to ease pressure on land. While access to profitable markets must be improved to optimise returns from farm investments, the initial costs of transforming into conservation agriculture may be unmanageable for the poor and therefore require capital subsidies through REDD+ funds.

Exploring the costs of pro-poor REDD+ in Vietnam

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In Vietnam, the opportunity costs and the implementation costs of pro-poor benefit distribution systems were estimated. Adrian Enright of SNV, Vietnam, presented the conclusions of these estimated costs. To establish the opportunity costs, the key drivers of land use change were first examined. It was found that agricultural encroachment on forest land was a key driver of deforestation. The next step was to conduct 280 household surveys of socioeconomic conditions and livelihood practices. Information on crop yields, prices and costs of production was used to calculate the NPV of the returns to different types of land use. The results were then combined with data on carbon stocks specific to pilot sites to generate unit costs per tonne of CO₂e emission reduction.

The results of this opportunity cost analysis demonstrated that REDD+ compensation of US\$5 per tonne of CO₂e could compete with low value crops such as rice and cashews produced by smallholder farmers. For higher value crops such as coffee, more would be required, some US\$10-12 per tonne of CO₂e. Where rubber plantations predominate REDD+ would not be a viable option as the opportunity costs would be over US\$100 per tonne of CO₂e. Taken purely in the context of rubber plantations, REDD+ would not be a viable option; the potential lies with providing an alternative to the lower value crops. If replanting costs remain low enough, afforestation, reforestation and forest regeneration on bare land, shrubland and young forest areas would also be competitive. The estimates however consider only the agricultural output forgone by reducing deforestation and not the timber output forgone. If the returns from clear-felling the timber as part of the conversion to agriculture are included, the opportunity costs associated with land used for the lower value crops jumps from US\$3-5 to US\$7. This does not include the non-marketed local values, such as house construction or fuelwood usage, which are important to people's livelihoods. Factoring these in may further increase opportunity costs.

Further research has been conducted into the costs of pro-poor benefit distribution systems. The initial step was to determine the key cost categories involved in design and implementation of a benefit distribution system, identifying those that would be unique to a pro-poor approach. The latter included initial awareness-raising and consultations with local actors, and establishing supporting mechanisms such as a recourse mechanism and an anti-corruption system. Costs were drawn from SNV budgeting for activities conducted under the UN REDD programme and from estimates from other studies. Some reliance on assumptions was needed for some of the costs items.

Costs were estimated on a per household basis over a five year time horizon and preliminary results are based on two population scenarios, high and low. With the inclusion of pro-poor activities the total cost per household was US\$39 for the high population scenario and US \$52 for the low population scenario. The per household cost for a non pro-poor approach was US\$14 and US\$27 for the high population and low population scenario respectively. Yet 98 per cent of that cost difference can be attributed to one activity: the initial engagement process with communities.

In summary, the opportunity cost analysis demonstrates that REDD+ could be an economically feasible option for preventing further encroachment on forest from low value crops, and to promote afforestation, reforestation and forest enhancement. These options could be relevant to poorer stakeholders. But the analysis has also highlighted the importance of non-timber forest products (NTFPs) and of timber sales in determining the attractiveness of REDD+ relative to forest conversion for agriculture. There is also a risk of rushing into low cost REDD+ options without adequate safeguards. It is therefore also necessary to consider the additional costs involved in ensuring that REDD+ benefits reach the poorest. The costs of a pro-poor benefit distribution system were found to be significant. However, there are opportunities to considerably lower these costs through economies of scale, combining with other activities or co-financing from NGOs.

Tree planting by cocoa farmers on farms (a Ghana cocoa agroforestry REDD+ model)

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A cocoa-agroforestry REDD+ model was presented by Gene Birikorang. This is one of three REDD+ models being examined in Ghana in the context of the impact of REDD+

architecture on small landholders. The other two are sustainable forest management and charcoal production in Ghana's Transitional Forest Zone; and tree planting under community-based forest plantation programmes.

To explain some of the challenges facing REDD+ in Ghana, Gene first gave some background on land tenure. In Ghana, land ownership and tenure is characterised by legal pluralism, under which customary and statutory laws operate side by side. Under Ghana's laws, selected and defined forest areas form the permanent forest estate, referred to as Forest Reserves (FRs). These FRs are vested in the State, and managed as productive forests, for watershed protection, shelterbelts, and as globally sensitive biodiversity areas, on behalf of the owners. Outside FRs, the State also lays claim on timber trees. Land and forest conflicts exist and explain the depletion of forests controlled by the State.

To deal with REDD+, the coping capacity of small-scale farmers must be considered, including their perceptions and expectations. Cocoa farmers report declining yields and a high cost of marketing, while public policy on cocoa penalises them in many respects. The REDD Readiness Preparation Proposal (R-PP) for Ghana includes a strategy to address cocoa cultivation as a key driver of deforestation. But cocoa may well be giving way to other higher value crops. For comparison, cocoa with current yields generates NPV (with a discount rate of 20 per cent, over 25 years) of US\$1,240 per ha; for rubber the figure is US\$ 2,320.

The REDD+ model of incorporating timber trees into cocoa farms was considered alongside a baseline analysis (a 'do nothing' scenario) in which there would be a continued decline in cocoa yields from existing farms, as farmers cannot afford improved farm technology. As a result the NPV of cocoa production in the baseline would be even lower at US\$870 per ha (at 20 per cent discount rate, with an assumed rotation of 25 years). In the REDD+ scenario, the NPV of cocoa and timber production combined would be US\$4,200 per ha. In addition, there could be carbon revenue estimated at US\$1,300 per ha (US\$ 10 per tCO₂). However the upfront cost for farmers in tree planting on farms would be US\$230 per ha, which is about 90 per cent of the annual available household income.

These estimates raise challenges for a pro-poor approach to REDD+. Principally, farmers' incomes are not adequate to meet both livelihood needs and the upfront cost of tree planting. Timber and carbon revenues are promising but they are subject to a gestation period. To address this financing gap, alternative livelihood activities would need to be developed, such as beekeeping. Another option is a more complex agroforestry approach

combining food crops, tree crops and timber trees. In the short-term, food crops would provide the main returns, in the medium-term, the tree crops would take over this role, and in the long-term, timber species would generate revenue. Growing timber in this way is sustainable and will also sequester carbon.

The next steps in the research will be to examine the specific trade-offs in more depth looking at changes in the cost of chemical applications for example, or changes in cocoa yields as a result of increased shade. There is also a need to improve carbon estimates with specific site references; and to develop simulation models to predict the likely responses of smallholders to changes in REDD+ architecture.

Discussion

Governance and the link between national and local

A number of questions concerned governance and decision-making structures at different levels. A comment was made that there is a cost of driving people out of the forest, as demonstrated by the experience of involuntary displacement for parks and dams. For a pro-poor approach the people need to be involved in the decision-making. On a similar theme, a question was raised about how to make the connection between pilot project activities and national-level REDD+ Readiness work, and where decisions over the pursuit of REDD+ are being made. A community REDD+ model may proceed by asking communities through an FPIC process whether they want to pursue this. But how would this fit with subnational political decisions? This is particularly relevant to design of benefit distribution systems, where assumptions need to be made about the landscape of decision-making. A related question was how benefit-sharing could be matched with the drivers of deforestation. Does it make sense to pursue pro-poor REDD+ when the drivers are not the poor but business? Responding to the governance question, Gene Birikorang considered the linkages between what is happening on the ground and what is happening at the national level. In Ghana, there have been strong forest sector policy reform negotiations, which after a certain point begin to roll back. The issues confronting the country at the moment are not yet who is taking the decisions on REDD+, which may reach a point of negotiation, but rather the elite capture that is happening all the time. Alliances need to be built to avoid this issue.

Adrian Enright furthered this discussion, pointing out the need for organisations developing REDD+ projects to engage with sub-national and regional planning processes. For REDD+ activities to have continuity, they need to be integrated into these plans. Opportunity cost

analysis could be a useful tool for decision makers involved in national and subnational planning as it could highlight the advantages of alternatives to converting forest to low return agriculture.

Responding to the drivers question, Mette Løyche Wilkie argued that a pro-poor approach does not necessarily mean linking benefit-sharing to the direct drivers of deforestation. In Latin America, for example, that would imply paying large-scale agriculture to stop. Measures to stop deforestation through governance and law enforcement are where we should look. This means not simply looking at opportunity costs and comparing that to what would be received for the carbon, it means including the other benefits that the current population are obtaining.

Two questions were made specifically relating to the Vietnam study but with wider relevance. Firstly it was asked whether within communities, households grew different crops, preventing extrapolation to the landscape level. A second question asked if the low value crops have the same degree of deforestation pressure as the high value crops. If deforestation pressure was low this would raise doubts about the extent of additionality. A more general comment made was the advantages of drawing from behavioural science to understand how to induce a change in practices. Simply compensating for opportunity cost is not enough. But this raises the same challenges of going from individual household surveys at the local level to collecting information for national scale jurisdiction.

The response from Adrian Enright confirmed that the opportunity cost estimates would be applicable at the landscape level. There are some crops grown only in a small area but tea and coffee are the predominant income generating crops. Opportunity costs cannot be the only form of compensation but this type of analysis is useful for low emissions development planning. Whether information could be extrapolated from the local level to the national level would be very dependent on the country context. NGOs are generating a wealth of information at the local level and a national level survey may not be necessary.

Going beyond the rural poor

In terms of a 'pro-poor' approach, a comment was made that the term assumes indigenous people or rural communities, to the exclusion of the urban poor, who may also be impacted. For example, REDD+ restrictions could affect supply of price elastic commodities that households need to pay for, such as charcoal in Uganda. Justine Namaalwa followed up on this pointing out that this could apply to agricultural food production also. In countries such as Uganda, small scale agriculture is not just for food for own consumption, it is for sale of

food for cash income. Restricting the clearing of forest for agriculture could therefore affect people in urban areas such as Kampala. This would need to be factored in to the analysis.

Methodology and the science base

A general point was made that work on the costs and benefits of REDD+ could benefit in terms of science base by drawing on previous work done on conservation and development, for example the work of the Alternatives to Slash- and- Burn programme of the Collaborative Group on International Agricultural Research (www.asb.cgiar.org).

Some specific questions were raised by participants on the information presented and the cost analyses. It was clarified that Dr. Khamaldin Mutabazi included labour costs in the analysis for Tanzania, not just increase in yield value. For the Vietnam work, Adrian Enright confirmed that the cost of people's time was considered, in the sense that a small amount was paid to individuals in the communities who undertook activities, based on an estimate of labour time. A question was asked directly to Adrian Enright over ways to minimise the costs of engagement for the pro-poor REDD+ approach. The response set out a variety of ways to reduce this, largely by achieving economies of scale, but also by training local people, engaging institutions such as universities, and combining it with activities such as the FPIC process. A comment was raised from the audience on the quantification of carbon estimates, that biomass of existing forest has been estimated but it also needs to incorporate the carbon sequestered where land has been converted to agriculture; Justine Namaalwa confirmed that in the Ugandan study these figures are included.

Chair's closing remarks

Isilda Nhantumbo highlighted some of the key issues coming out of the first panel discussion:

- One key comment from the floor was the need to look at the science behind the estimation of the costs of REDD+ and to build from previous knowledge. For example, the opportunity costs will vary between crops, but costs will also vary for a single crop depending on whether it is grown for commercial purposes or for own consumption. The research presented has used different discount rates, as these have been defined in the local credit markets in the countries concerned. This affects the ability to draw comparisons across the countries so it would be important to incorporate some sensitivity analysis with a common discount rate. A more common basis for the analysis will ensure that it generates recommendations that will be useful at a national level while also informing the international debate.
- The concept "pro-poor REDD+" goes beyond the poor in rural areas to include urban

consumers of the products that come from deforestation and degradation.

- It is necessary to look at other benefits of REDD+ projects beyond carbon.
- REDD+ should perhaps be seen not as providing full compensation for opportunity costs but as a premium that may give an added benefit of improvement of technologies.
- A key question is how to aggregate the analysis from the pilot areas to the national level making the link between the drivers and the benefits.

4. Panel 2: Pro-Poor REDD+ in practice: pitfalls and potential

Chaired by Dr Darley Kjosavik of the Norwegian University of Life Sciences.

The aim of the session was to address the following questions: How are different models for pro-poor REDD+, such as payments for environmental services, integrated conservation and development projects and hybrid approaches, operating in practice? What are the lessons for ensuring fairness and what are the gaps in knowledge?

Pro-poor approaches to REDD+: What does this mean in practice?

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Byamukama shared the experience of a pilot PES project which, while not specifically set up as a REDD pilot, is very relevant to the topic of pro-poor REDD+. The project is located in the Albertine Rift, in Hoima and Kibaale Districts in Western Uganda. One aim of the project was to develop a randomised evaluation methodology to test the effectiveness of PES. 140 villages in the area were divided randomly into a treatment group and control group in a public lottery process. Private forest owners in the treatment group of villages have been invited to join the PES, and those that have decided to participate are paid US\$35 per ha of forest. Comparison between a baseline survey and a future endline survey of both the treatment and the control group will enable evaluation of the impact of the payments. The project is being implemented by a partnership of different organisations, the National Environmental Management Authority, Chimpanzee Sanctuary and Wildlife Conservation Trust (CSWCT), Nature Harness Initiative, as well as IIED, Katoomba Group, Innovations for Poverty Action and Stanford University. The main funder is the Global Environment Facility (GEF) but there is co-financing from other organisations through complementary projects for specific aspects: for the design and implementation of the scheme from the UK Darwin Initiative, for technical studies from ICRAF/PRESA and ASARECA, and for the randomised evaluation from 3ie.

The project is located in the Albertine Rift because of its importance for biodiversity, in particular for chimpanzee populations, and the potential for other important ecosystem services such as carbon storage/sequestration and watershed services. In addition, the rate of deforestation is particularly high in the area of the scheme and much of it occurs in private and community forests. The baseline socioeconomic survey conducted by IPA shows low

income levels with an average per capita weekly income of US\$4 and a predominance of small forest holdings, the median being 2 ha per household.

The process to introduce the scheme in the area started with community consultations after which those interested were invited to submit applications. Consent of family members was considered very important. Few of the landowners have formal legal titles so the local council leader was asked to endorse applications and confirm that the applicant owned the land in question. Forest assessments were then conducted by specially trained community monitors and individual forest management plans developed with milestones. The contract setting out the terms of payment and the forest management conditions was then signed by the landowner and CSWCT. The community monitors followed up to give technical support and to examine compliance with the terms of the contract and the forest management milestones.

To date 341 contracts have been signed covering 1,341.4 ha of sustainably managed forest and 172.2 ha of reforestation. The first annual payments have been made in five of the eight subcounties involved.

Some key lessons from the experience for REDD+ include:

- The advantages of a partnership of organisations which bring diverse skills and experiences and the importance of a lead institution such as NEMA to help in policy influence and scaling up.
- The importance of addressing conservation while meeting the needs of the communities involved
- Local recognition of land and resource tenure is very important
- Clear benefits beyond opportunity cost are essential as some forest owners did not apply or pulled out because they felt the payment was too low. A cost benefit analysis conducted recently estimates that payment should be somewhat higher at US\$79.8 per ha per year.
- Participatory forest planning and monitoring is important in helping the community to understand the PES scheme so avoiding conflict.

Baseline survey in a pilot area in Brazil and the Bolsa Floresta Programme

Suelen Marostica, Amazonas Sustainable Foundation, Brazil

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Suelen presented findings from research on the Bolsa Floresta programme drawing mainly from a baseline survey of socioeconomic conditions in a protected area reserve that has recently joined the programme. She also presented some opinion survey research on people's perceptions and preferences in three other reserves which have been in the programme for longer.

The Bolsa Floresta programme is located in Amazonas State in Brazil and operates in 15 protected areas of the state covering an area of 10 million ha with participation of nearly 8,000 households. Participants in the programme have signed agreements committing to zero deforestation in primary forests and in return receive support in four different forms:

- Family component: Payments to family of about US\$25 per month, paid to the mother (only one paid in cash).
- Social component: Support to community level investments in health, education, communication and transportation.
- Income generation component: Support to the establishment of income-generating activities based on sustainable production in forests, fisheries, tourism, permaculture and agroforestry.
- Association component: This aims to strengthen the association of residents through support for office facilities and transportation.

Implementation of the Bolsa Floresta in a reserve follows a series of steps starting with a presentation workshop with the communities, followed by signing of agreements, commencement of cash transfers and the other support programme, planning workshops to identify and prioritise community projects, implementation of activities and leading to monitoring and evaluation. There is usually an evaluation survey but only after the programme has been implemented. For the APA Rio Negro, the latest reserve to join the Bolsa Floresta, it was possible through the Norad project to conduct a baseline survey before implementation had started. This will facilitate future evaluation of the impact of Bolsa Floresta as it will provide a basis for comparison.

The baseline survey of this new addition to the Bolsa Floresta gives a good picture of the types of communities that FAS is working with. The majority of people are young, with low

education levels. The main occupation is subsistence agriculture and the deforestation involved is small-scale. The majority of people have cleared one hectare or less in the last five years. The survey also shows that a sizeable proportion of households are finding it difficult to meet their needs with their current sources of income.

Some results from an opinion survey of three reserves where Bolsa Floresta is already in operation were then presented. This survey shows that the cash payment is being used to cover basic items, especially food. This survey also involved a choice experiment to assess people's preferences for different compensation packages. Respondents were asked to choose between the current Bolsa Floresta package and four other options which kept the overall amount the same but changed the distribution between the four components. One increased the annual cash payment to families by a fifth from US\$300 to US\$360 but reduced the income generation and social components by US\$30 each. The other three options kept the cash payment at the same level but increased one of the three non-cash components at the expense of the other two.

The majority (80 per cent) of respondents picked the option that increased the cash payment. Suelen argued that people in very poor conditions are likely to prefer increases in cash payments, because they tend to think more about the present instead of the medium- or long-term investments. But this does not mean that they do not want investments in social services. Another question from the opinion survey on preferred investments revealed that people were interested in investments to improve health services, education, transportation, electric power, and water. In the baseline survey of APA Rio Negro, the majority of respondents (over 75 per cent) were interested in payments as well as other incentives such as increasing job opportunities, alternative sources of livelihood and improved social services.

The following lessons from the Bolsa Floresta experience and this research were highlighted:

- It is very important for people to feel part of the project and they must set their priorities.
- Discussion of climate change and environmental services with communities has to be in a language adapted for their reality.
- Monitoring of outcomes and impacts of the programme are important to guide future activities.

Gaps in knowledge were highlighted. Information on the perceptions and degree of satisfaction with the programme is needed for all the reserves supported by FAS. Better understanding of income dynamics and tradeoffs in the local context is also required.

Pro-poor REDD+ What models for Mozambique?

Milagre Nuvunga, MICAIA

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Milagre started by discussing the challenges faced by REDD+ in Mozambique, in particular the complexity of land rights patterns. She stressed that she was presenting the viewpoint of MICAIA rather than a national one. The case of Manica province where MICAIA operates was used to illustrate this complexity. The province has a mix of conservation areas, concession areas, individual landholdings and areas where annual cutting licences are provided. In the midst of this there are other people who live in the rural areas and continue their business there. This raises the inevitable question of where the communities are living, and what implications this will have for REDD+. Currently, people are being pushed out of the freehold areas into conservation areas; settlements are developing and agriculture is expanding. This complexity is almost everywhere in Mozambique.

An introduction to MICAIA and its inclusive business approach was then given. It is a hybrid organisation consisting of an operating foundation (Fundação MICAIA) and a social enterprise (Eco-MICAIA Ltd). MICAIA's purpose is *"to enable people to prosper in strong local economies and healthy vibrant communities*. Eco-MICAIA aims to create market access for smallholder producers and communities and to increase the flow of investment to community-based enterprises. There is a limit to what can be done through the market; much preparatory work needs to be done by NGOs or other organisations and therefore MICAIA has an important role to play. REDD+ is not seen as totally new by MICAIA. Rather it is an opportunity for additional benefits through MICAIA's existing approach. Food security needs addressing in Mozambique and therefore looking into alternatives and diversifying rural incomes is important. MICAIA's approach is largely through inclusive business approaches with producers and/or communities included as suppliers, managers and owners.

Examples given from other countries have demonstrated how institutions are working together on REDD+ initiatives with donor funding but financial sustainability is an issue. It is important to look at more sustainable aspects that involve communities and have more staying power. The approach advocated by MICAIA is to learn and plan together; this

includes talking to elders, leaders and everyone in the communities. The available resources and current opportunities are looked at, to consider what can be taken to scale. Examples from MICAIA's work include an eco-lodge that gives the community 60 per cent of revenue; and a honey company, now in its second year of operation but with products already in the market.

In considering the future under REDD+, in common with the previous presentations, it is necessary to consider the current socio-economic context. There is a predominantly poor, rural population, with most local farmers holding an average of one hectare of farmland and weak farmer organisation for market access; infrastructure such as roads, bridges and electricity are poor or non-existent. Little effort has gone into diversifying rural livelihoods on any scale. Most community members have low levels of formal education and many people are not aware of their rights as citizens or the responsibilities either they or different actors in the development process hold.

Whatever REDD+ model is considered, it has to be context specific, and it needs long-term sustainability, with government commitment and the ability and willingness of funders to commit long-term. Through REDD+, there is an opportunity to add value through co-owned business, across all sectors.

Discussion

Questions raised by the participants concerned the following issues:

- The credibility of choice experiments.
- The role of the private sector in REDD+ projects and the implications of an inclusive business approach.
- The basis for the determination of the payment level in the Ugandan PES scheme.

Credibility of choice experiments

Concern was expressed about the credibility of choice experiments since what people say they prefer often does not correspond to their actual behaviour and what they choose in practice. Suelen highlighted another aspect of ensuring credibility pointing out that the opinion survey was carried out by an independent company. She also stressed that the responses that people give are heavily dependent on how the questions are framed. Essam Yassin Mohammed of IIED, who had been involved in the choice experiment, gave an example of this. The choice experiment question in the opinion survey was framed in a way that people had to choose between packages such that increasing one component would

mean reducing another. But there was another more open-ended question in the opinion survey which did not require people to trade off one type of benefit against another. The answers given to these two question formats were quite different.

The role of the private sector in REDD+ projects and the implications of an inclusive business approach

The question of whether a private sector approach is pro-poor with particular reference to MICAIA's inclusive business approach was raised. How much will go back to the communities? Linked to this was the suggestion that inclusive business could be a way of helping the urban poor taking up the point raised in the first panel discussion.

Milagre responded that MICAIA's approach was to look at knock-on effects across value chains, even in the case of rural business. For example processing plants for honey could have an effect on employment in production but also in marketing, and young people can sell products at schools and at bus stations. There are strong connections with urban markets but it is important to bring policymakers at all levels on board from conception to implementation. Suelen added that the income generation component of the Bolsa Floresta is the programme's most important benefit as it gives alternatives to local people that will sustain them in the medium- to long-term. FAS is working on nine strategic sustainable product chains to build capacity of the local people.

Determining the payment level in the Uganda PES scheme

Byamukama explained the background to the US\$35 per ha annual payment. The funds for the payment were allocated in the GEF project. The payment level had been determined through consultation with communities on how much they were willing to accept and a review of what other schemes were paying but also there were funding constraints. A cost benefit analysis has since been done by NAHI which indicates that the payment level does not fully cover the costs to forest owners. To ensure wider and sustained participation in the scheme the payment level would have to increase, assuming that the market will pay this. Alternatively, additional benefits need to be provided to forest owners in other ways. In closing the session Darley Kjosavik emphasised the need for the REDD+ process to be brought to a conclusion urgently because of the challenges at ground level.

Closing remarks

Chimère Diaw

Director General of the African Model Forests Network Secretariat

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In his closing remarks Chimère Diaw reflected on the governance of REDD+ and the implications for achieving a pro-poor approach. The key to governance (including REDD+ governance) is strategic vision – based on social justice, norms and performance. Adapting the capabilities framework of Amartya Sen, value creation is about the process of transforming what we have, that is, our assets, into something else valuable. To transform these assets requires capabilities. Therefore, our strategic vision needs to focus on enhancing the capabilities of the poor or the poorest of the poor.

What do we do with what we have, and how do we do it differently? Development has been regarded as something synonymous with excessive consumption. This has led to the destruction of natural assets. We have realised that over-consumption is not the way forward. We have also learned that our carbon-dependent economy is not sustainable. So the key question is how do we move from a carbon-based economy to another (low or no-carbon) type of economy? Legal pluralism that prevails in forests with overlapping property regimes, nested rights and multiple claims means that a property-based approach to carbon is not workable. Instead it needs to be based fundamentally on the needs of people and programmes developed from that. There is also an apparent disconnect between the science and practice of REDD+ governance. Our practices (project design etc.) need to be informed by science.

Annex 1 Speaker biographies

Gene Birikorang

Gene Birikorang is Chief Consultant at Hamilton Resources and Consulting. He is a Natural Resources Economist, and spent a substantial part of his career as Chief Economist and Acting Chief Director of the Ministry of Lands and Natural Resources in Ghana. At Hamilton Resources, Gene has worked on governance and tenure issues in forest enterprises; the EU's Voluntary Partnership Agreement in Ghana, and much beyond.

Byamukama Biryahwaho

Byamukama Biryahwaho has spent over fifteen years working on issues of conservation and environmental economics. Byamukama previously worked as a community conservation officer with CARE International; and with EcoTrust. He has experience of working with the private sector on environmental issues and has extensive expertise in Payments for Ecosystem Services schemes. He is now the Executive Director of the Nature Harness Initiatives in Uganda. NAHI works with private businesses to better manage their environmental foot print and communities to derive sustained benefits from management and utilisation of natural resources.

Chimère Diaw

Dr. Chimere Diaw has held the post of Director General of the African Model Forests Network Secretariat, based in Cameroon, for over four years. The network's mission is to establish a well-governed, innovative African Model Forests Network by 2013. Prior to this, Chimere spent nine years at the Center for International Forestry Research as a Senior International Scientist and Governance Coordinator – Central Africa.

Adrian Enright

Adrian Enright is an environmental economics advisor for the Netherlands Development Organisation in Vietnam, having previously worked as an environmental economist for the Australian government. He leads SNV's work on benefit distribution systems and is responsible for managing the work in Vietnam on the 'poverty and sustainable development impacts of REDD architecture' project (Norad REDD). Adrian provides further support for projects on Payments for Ecosystem Services – including working with the FSC to provide advice on international markets for ecosystem services.

Dr. Darley Kjosavik

Dr. Darley Kjosavik is an Associate Professor in the International Environment and Development Studies department of the Norwegian University of Life Sciences. Her expertise is in the political economy of environment and development and the development of marginalised social groups. Darley has written extensively on indigenous rights and land conflict, with a particular focus on India; and her current research also focuses on climate change perceptions, impacts, vulnerabilities and adaptation amongst Indigenous Peoples of India.

Suelen Marostica

Suelen Marostica is a project analyst at the Amazonas Sustainable Foundation (FAS), working on environmental and social impact evaluation and indicator systems. She is responsible for coordinating FAS's input to the poverty and sustainable development impacts of REDD architecture' project. She is a forest engineer (University of Brasilia) with an MSc in Climate and Environment from the National Institute for Amazonian Research. Before joining FAS in 2012, she worked for the Foundation for the Defence of the Amazon Biosphere and as a consultant for The Green Initiative on developing a REDD project in the Atlantic Forest in Brazil.

Dr. Khamaldin Mutabazi

Dr. Khamaldin D. Mutabazi is a Senior Lecturer in the Department of Agricultural Economics and Agribusiness at Sokoine University of Agriculture. He teaches postgraduate courses on research planning and methods and micro-computer data handling; and mathematics for economics and econometrics for undergrads. He does research on agricultural marketing and agro-value chain analysis; farmers' livelihood and risk analysis; smallholder commercialization; agricultural water management economics; climate change adaptation economic; and recently has developed interest in livelihood impact analysis of REDD+ mitigations in smallholder agriculture.

Dr. Justine Namaalwa

Dr Justine Namaalwa Jjumba is a lecturer in the School of Forestry, Environmental and Geographical Sciences, College of Agricultural and Environmental Sciences, at Makerere University in Kampala, Uganda. She has a PhD in Forest Economics from the Norwegian University of Life Sciences (2002-2006) as well as an MSc in Natural Resources Management and a BSc in Forestry. She teaches graduate courses on forest resource assessment and GIS, environmental management and natural resource management. Her research interests include forestry and climate change, forest resource use and

management, resource assessment and forest economics. She is a member of the National REDD Working Group and is engaged in a number of research projects on REDD+ in Uganda.

Dr. Isilda Nhantumbo

Having worked as a natural resource specialist consultant for FAO, the UN Drylands Development Centre and the World Bank, Isilda Nhantumbo joined IIED in 2010 as a Senior Researcher in the Natural Resources Group. Bringing her in-depth knowledge on REDD and Mozambican forest policies, she has worked on the development and implementation of integrating forest rights, practical governance and capacity development approaches into REDD preparations. She is currently spearheading a three-year project [Testing REDD].

Milagre Nuvunga

Milagre Nuvunga is the Executive Director of the MICIAIA Foundation in Mozambique. MICIAIA's aim is to strengthen local economies, by improving food security, creating new economic opportunities and helping communities to secure their land. Milagre's expertise is in community engagement in enterprise development for mainstream markets, private-community partnerships and benefit-sharing. Recently, she has been working with communities supporting pro-poor or inclusive businesses that contribute to conservation of forests. Milagre is currently leading the first REDD+ pilot in Mozambique.

Mette Løyche Wilkie

Mette Løyche Wilkie is the Interim Head of the UN-REDD Programme Secretariat (until January 2013) and a Principal Officer in the Forestry Department at the Food and Agriculture Organization of the United Nations (FAO). Mette has particular expertise in forest management and forest monitoring, and in the role of forests in climate change mitigation. She has worked with FAO for 15 years and before that worked for 10 years in Africa.



Cover photo © Mike Goldwater

Aurelio Fuastino, 35, in primary forest two kilometers from his village. He thinks the forest is important as a source of many products including medicinal plants. Here he is cutting a Nahilili creeper and the bark of the Nikoria tree that boiled together are a cure for epilepsy. He and other villagers would like to protect the forest by rotating their crops and not cutting down more forest but they have not fertilizers or other inputs.