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**Bhaskar Singh Karky**

International Centre for Integrated Mountain Development (ICIMOD)

**Kamal Banskota**

International Centre for Integrated Mountain Development (ICIMOD)

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PO Box: 12207, Kathmandu, Nepal

Contact number: +977 1 5552924; 5550631 Fax: +977 1 5535190

Email: [forestaction@wlink.com.np](mailto:forestaction@wlink.com.np); URL: [www.forestaction.org](http://www.forestaction.org)

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## Reducing Emissions from Nepal's Community Managed Forests: Discussion for COP 14 in Poznan

Bhaskar Singh Karky, PhD\* and Kamal Banskota, PhD\*

\*International Centre for Integrated Mountain Development (ICIMOD)

Corresponding author: [bkarky@icimod.org](mailto:bkarky@icimod.org)

**Abstract:** Community Forest Management (CFM) in developing countries has become an important topic in the global discourse on climate change. However, forests as a source of carbon emissions were largely ignored under the Kyoto Protocol (KP) and few opportunities appeared to be available for communities managing forests to benefit from this. Now there appear to be new opportunities arising for forests, and more specifically for CFM, under the proposed Reduced Emissions from Deforestation and Degradation (REDD) policy. This paper analyses the emission mitigating role of forests under the proposed REDD policy and tries to analyse some of the main issues under this that need to be addressed (and raised at COP 14) to enable communities who are managing forests to benefit. The main areas to be addressed are: a) carbon accounting criteria, b) baseline construction, and c) indigenous people's rights. Suggested ways forward on all these are proposed.

**Keywords:** REDD, CDM, COP 14, community forest management, carbon trade, Nepal

### INTRODUCTION

The forests and the forestry sector have two main roles to play under the climate change agenda. Firstly, forests contribute to the adaptation strategies of individuals (in a subsistence economy) and at a larger scale for the promotion of sustainable development and national level adaptation to climate change. Secondly, forests have become an important element of national and international mitigation strategies since they have potential to contribute to reduced carbon emissions. This paper focuses on the second of these roles and analyzes the role of community forest management under the proposed REDD policy for developing countries, under the voluntary framework of the United Nations Framework Convention on Climate Change (UNFCCC).

Countries like Nepal stand to gain if a policy such as REDD is agreed upon in a manner which makes the global carbon market conducive to CFM as practiced in the Himalaya region. Since negotiations will take place in the

upcoming 14<sup>th</sup> Conference of the Parties to UNFCCC (COP) in Poznan (Poland) in December 2008, ICIMOD member nations need to be prepared in cognizance of the proposed REDD policy and be in a position to negotiate on how such a policy could best be formulated to safeguard the interests of the rural communities that have already been managing and conserving forests in the Himalaya region for meeting their livelihood needs, for some time. As such, the aim of this paper is to highlight some of the technical issues related to operationalizing REDD, especially in the context of CFM as practiced in the Himalayan region (Banskota *et al.* 2007). It is hoped that the paper will generate ideas and debates for Nepal to develop its position on REDD in the upcoming COP 14 meeting such that the interests of forest dependent populations can be safeguarded in the new climate treaty.

### FOREST MANAGEMENT UNDER THE KYOTO PROTOCOL

In the forestry sector only two carbon offset activities namely Afforestation and Reforestation (AR) are permitted under the Clean Development Mechanism (CDM) of the Kyoto Protocol (KP) (Bass *et al.* 2000). These AR activities, as per their definitions, do not include CFM. CFM is about 1) avoiding deforestation, 2) avoiding forest degradation and 3) enhancing forest biomass. As CFM was never a part of the CDM, carbon transactions in CFM rely on the voluntary market and not on the regulated

carbon market under the UNFCCC. A major difference between these two markets is that voluntary carbon markets have yet to be standardized in terms of accounting, verification and monitoring. This can result in inconsistent Verified Emission Reduction (VER) credits. The Certified Emission Reduction (CER) credits under the CDM are standardized and regulated by the CDM Executive Board under the authority and guidance of the meeting of the Parties to the KP.

## FOREST MANAGEMENT AFTER BALI

The forestry sector and its role in carbon emission reduction was raised in subsequent meetings by various developing countries after 2003. This discussion gained momentum after the publication of the Stern report which estimated that emissions from the global forestry sector were more than 18% of the total Green House Gases (GHG) emissions (Stern 2007). It was realized that this source of emissions was being completely ignored by the KP (Schlamadinger *et al.* 2007, Skutsch *et al.* 2007). It was also becoming clear that the rules of the KP pertaining to the forestry sector were so complex and bureaucratic that they entailed a high transaction cost and, as a result, by 2007 only one CDM AR project had been approved for China.

Consequently, the forestry sector took the centre stage during the last climate change

meeting - COP 13 in Bali (in December 2007). This meeting charted out the Bali "road map" which paved the way for a new climate treaty after KP expires in 2012. The Bali "road map" was significant in that it opened the way for developing a new policy namely, the REDD which was agreed by the Parties and that aimed to address the issues of the forestry sector raised by developing countries. The proposed REDD policy is appealing to CFM because it recognizes forests as carbon sources and also recognizes management of existing forest and the rights of indigenous peoples who are dependent on forest resources for meeting their sustenance needs. However, this decision was only a start as many more negotiations lie ahead before REDD can be operationalized after 2012.

## POLICY ON REDUCED EMISSION FROM DEFORESTATION AND DEGRADATION (REDD)

Under the proposed REDD policy, there is a strong move to reduce CO<sub>2</sub> emissions from terrestrial ecosystems by reducing deforestation rates in the tropics (Gullison *et al.* 2007: 985-986). It is highly probable that the REDD policy will be accepted under the post Kyoto treaty which will be unveiled at COP15 in December 2009 in Copenhagen. The proposed REDD is different from existing CDM in three main ways.

Firstly, CDM only recognizes AR activities and not the management of existing forests and avoided deforestation in developing countries. REDD recognizes a whole range of forest management activities including avoided deforestation thereby giving legitimacy to CFM.

Secondly, CDM operates at project-level whereas the proposed REDD policy will operate at country level and will use past deforestation rates as the baseline (reference scenario). CDM has project specific baselines whereas REDD proposes a national level baseline which may be redistributed at regional level.

Thirdly, AR under CDM only recognizes the role of forest as a carbon sink. The proposed REDD policy, dealing with avoided deforestation and avoided degradation recognizes the role of forest as carbon sources also. This point raises a technical ambiguity since forests in general switch between being sinks and sources depending on their management. Since CFM plays both these roles it must therefore be recognized as both a sink and source. However, at this stage, it is not yet known whether the proposed REDD policy will also account for the enhancement of forest biomass (i.e. as a sink). Whether and how CFM will be recognized for accreditation under the proposed REDD is not clear and discussions are still ongoing at the UNFCCC and the Subsidiary Body for Scientific and Technological Advice (SBSTA). Related to this are several additional technical issues that need to be addressed before REDD can be operationalized.

## RECENT DEVELOPMENTS IN REDD POLICY

At the policy level, the negotiations ahead for REDD could be rocky since the European Commission, where the largest carbon market currently operates, has released a new proposal that would potentially ban any kind of forestry credit till 2020 from its market (Tollefson 2008: 8). It seeks to address the problem of deforestation

separately by funding government programmes. One argument for this position is that whilst global deforestation accounts for 5-6 gigatons of CO<sub>2</sub> (GtCO<sub>2</sub>) annually, the entire European carbon trading volume is only about 2 GtCO<sub>2</sub>. Consequently, the substantially increased carbon supply could obviously flood

the market with carbon credits (Tollefson 2008: 9). Brazil is also pushing for a separate international fund rather than a carbon market, aimed at assisting tropical countries in reducing their deforestation rates.

At the same time across the Atlantic some hope for REDD is emerging. The World Bank is moving ahead to address methodological and institutional issues related to REDD. The Bank established the new Global Forest Alliance (GFA) in 2007, in partnership with agencies like Nature Conservancy, Conservation International and World Wildlife Fund for creating funds to intervene in the forestry sector. The Bank has been able to establish the Forest Carbon Partnership Facility (FCPF) with a financial plan of US\$ 165 million to jump-start REDD policy in developing countries. This is a grant support for building capacity in REDD, establishing emission reference levels and for adopting strategies to reduce deforestation and designing monitoring systems. How this fund will be distributed and whether it will bring benefits to the local-level communities managing forests in practice still needs to be

seen. The FCPF may be regarded as a precursor to the REDD in the same way that Activities Implemented Jointly (AIJ) which operated prior to the first commitment period was an experimental phase before the carbon market under the KP started operating.

Nepal participated in the World Bank's call for submission of a Readiness-Project Idea Note (R-PIN) in early 2008. Based on its experience with CFM, the R-PIN document submitted by Nepal was selected by the World Bank in July 2008 along with those of 13 other tropical countries. Once the R-PIN is formulated into a full Readiness Plan (R-Plan), Nepal will be able to implement a prototype of REDD and will be able to gain experience and build capacity to operationalize REDD by taking onboard community forest users in an experimental way under FCPF. Though the FCPF is outside of the UNFCCC, the experiences from FCPF may be valuable for the development of REDD policy under UNFCCC aimed at the post-2012 period. It may be possible for Nepal to be able to lobby for CFM conducive REDD policies based on experiences from R-PIN.

## **UNCERTAINTIES IN THE TECHNICALITIES OF REDD**

While CFM has been successful in generating forestry capital, the way of actually claiming carbon credits from this is a serious technical issue that still needs to be spelled out by the REDD policy. Ideally there should be three forms of payments for CFM: a) avoiding deforestation; b) avoiding degradation and c) enhancing forest biomass. Whilst the first two are payments for reduced carbon emissions (sources), the third is payment for a carbon sink. For any form of payments to take place, the REDD policy, irrespective of whether it recognizes sink, sources or both, will also have to address a) how to account for carbon in CFM; b) what to use as a baseline against which increments are measured; and (c) the rights of indigenous people - since CFM in most developing countries relates to livelihoods and access to resources. These three technical issues are discussed in more detail below.

### **Carbon Accounting Criteria**

The criteria for how carbon is accounted for will be a crucial for determining whether the REDD policy is favourable to community forest users or not. The COP 13 decision on REDD (2/CP.13) has explicitly mentioned addressing emissions from deforestation and degradation, but it is still not clear if forest enhancement will also be rewarded.

CFM contributes to reducing emissions from activities taken to avoid deforestation, forest degradation (reduce removal of woody biomass) and forest biomass enhancement by implementing protective measures. Avoiding deforestation is easy to account for as it can be measured in area terms. Forest biomass enhancement is accounted by recording the incremental biomass based on the Intergovernmental Panel on Climate Change (IPCC) Good Practice Guideline (GPG) (IPCC 2003). But measuring degradation is more complicated as forest degradation refers to unsustainable removal of woody biomass by local communities for meeting their sustenance needs without necessarily decreasing the forest area. So to claim what is saved by reducing degradation requires a special carbon accounting method that considers the off-take rates as well.

### **Baseline Construction**

The issue of what constitutes the baseline is still uncertain under REDD. How the reference point will be selected will be another critical factor that determines whether REDD will support CFM or not. The REDD policy proposes a national baseline with possible smaller baselines at regional levels, but which will add up to the national level baseline. How these baselines will

be determined for deforestation and degradation and how these will be combined are both major concerns that the proposed REDD policy needs to address since credits will be redistributed within a country based on the national baseline.

Deforestation and forest degradation reference scenarios will have to be established using two different methodologies because of the inherent differences in these activities and accordingly in the data required and available. A deforestation reference scenario can be based on remotely sensed imagery over a historical period which shows changes in area covered by forest, using statistical (secondary) data on carbon stock in different types of forest to calculate the change in terms of tons of carbon. The reference scenario may be projected into the future either by using very simple assumptions (linear continuation of past patterns) or more sophisticated approaches (relating the past changes to particular drivers, and using predictions of these drivers to forecast forest areas likely to be lost in the future (under 'business-as-usual' conditions). The technical problems involved in establishing deforestation reference scenarios can be solved relatively easily, as the methodology for accounting for deforestation can follow Chapter 3 of the IPCC's GPG (IPCC 2003).

Forest degradation reference scenario, on the other hand, is much more difficult to establish because most degradation cannot be detected from remotely sensed imagery. There is no historical record of the spatial pattern of forest degradation (which areas are being degraded and the level of degradation), and because of lack of forest inventory data in most developing countries, there is no detailed information on the rate at which carbon stock is being lost in the areas that are subject to degradation. The GPG 2003 (IPCC 2003) provides no clear recommendations for methodology for assessing and quantifying forest degradation rates.

### **Indigenous People's Rights**

The global climate treaty that will follow the KP will have implications for livelihoods of those dependent on forest resources. Many communities in developing countries that manage and conserve forest resources will be affected by climate policies and whether and how their existing efforts to reduce emissions are recognized for payments. Local communities that manage community forests have an incentive for managing and protecting their

forest since they derive fuel wood, timber, fodder and Non Timber Forest Products (NTFP) from them. It is highly unlikely that carbon revenue will be able to replace this incentive because the social gains from community forest are far greater than the potential revenues from carbon. REDD needs to take into account and respect the principles of human rights, customary rights and land rights of indigenous peoples in subsistence economies as well as in mountain areas (Mehata and Kill 2007:1). In this respect, the COP 13 decision on REDD (2/CP 13) has already explicitly stated that any policy on REDD must recognize the needs of local and indigenous communities.

This is an important issue since there is a possibility that credit buyers would prefer to keep forests only for carbon purposes and restrict all other uses, including sustainable management to reduce the risk from deforestation and degradation. Such an action could eventually alienate local communities from their forests and lead to central control of forests as was the case before the implementation of CFM policy in many developing countries. Such an action could accelerate deforestation and forest degradation as witnessed in Nepal between 1957 up to 1987 due to forest nationalization, before the authority was finally given to hand back accessible forest to locals in the 1990s. Without the local people's involvement, forests cannot be managed and conserved (Gilmour and Fisher 1991, Hobley 1996) and this will apply for carbon management as well. Although CFM has done fairly well in the mountain areas of Nepal, the challenge now is on how to synchronize CFM policy with the emerging global climate policy so that the local communities that manage and conserve forests can benefit from the emerging global carbon markets under the UNFCCC.

What the new treaty needs to permit is a sustainable extraction of forest resources such that local and indigenous communities' rights are protected as they continue to extract resources for meeting their livelihood needs, and that credit is awarded to what is left after resource extraction, with a penalty for over-extraction. The proposed REDD policy is expected to permit sustainable resource extraction which the KP failed to include. At COP 13 in Bali (2007), the decision on REDD (2/CP 13) states that crediting should be allowed whether under strict protection or sustainable harvesting, although CFM is not



explicitly mentioned. But if the treaty fail to allow sustainable resource extraction for meeting sustenance needs, when it is declared in December 2009 then there is a strong

likelihood that communities will not see any benefit in it and thus may not participate in carbon trading under REDD.

## CONCLUSION

It is now widely recognized that CFM policy in Nepal has been successful in terms of generating natural capital, namely forests. It is now becoming possible to add value to the existing capital of forests vis-à-vis carbon payments. With this new potential for carbon payments, there is now a new challenge of making it workable in the CFM sector so that local and indigenous people that are managing and conserving forests receive payments for the global service they render. As the Post-Kyoto climate treaty is being debated and drafted, this is the right time to analyze CFM in the broader context of the global climate treaty. The Government of Nepal has already

expressed its interest to participate in the global carbon trade and has shown commitment in implementing REDD on an experimental basis. With its successful experiences of implementing CFM in the Himalaya region and with its brief experience in participating in FCPF pilot phase, Nepal must raise its voice at the international level at COP 14 in Poznan (December 2008) in order to lobby for the proposed REDD policy to be conducive to CFM as indicated in this paper, so that rural livelihoods can derive additional benefits while forest resources are being managed and used in a sustainable manner.

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