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FROM GREEN TO REDD-READY TO TRADE: DISCUSSION ON REDD IN NEPAL'S COMMUNITY FORESTRY

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Abstract

Carbon emission increases at an early stage of industrial expansion as a transition from overdependence on agriculture. Such industrial transformation is heavily dependent on energy-intensive technologies. Moreover, the degree of environmental awareness is very low in developing countries. According to the Environmental Performance Index 2012, Nepal is among the strongest performer. A new international carbon trade mechanism, called 'Reducing Emissions from Deforestation and Degradation' (REDD), has been proposed to curb global Greenhouse Gases (GHGs) emissions. Carbon trade entails the idea that industrialized countries pay developing countries to reduce deforestation and forest degradation. Nepal's community forestry can reap benefits by participating in REDD, but it requires addressing a range of issues and challenges to mitigate underlying causes of deforestation and forest degradation. Ultimately this type of program would encourage local people for conservation and sustainable use of forest resources.

Key words: Carbon emission, Climate change, REDD, Carbon trade, Community forest.

Introduction

Among a host of environmental pollutants, carbon emission is a serious problem in developing countries. This increases at an early stage of industrial expansion as a transition from overdependence on agriculture. Such industrial transformation is heavily dependent on energy-intensive technologies. Knowingly, they also allow foreign dirty firms to migrate from developed countries where environmental standards are comparatively much higher resulting in high regulatory compliance costs of production. The motivation is to entice foreign direct investment (FDI) for job creation to exit abject poverty that is an outcome of rising income inequality. Moreover, the degree of environmental awareness is very low in developing countries. According to the Environmental Performance Index 2012, Nepal is among the strongest performer (epi.yale.edu). Due to the industrialization carbon emission is being increased and it has direct role on climate change. Forest trees sequester carbon from the atmosphere and store in their biomass. Carbon dioxide emitted by the industries and other sources are taken by the forest and have helped in reduction of greenhouse gas from atmosphere.

A new international carbon trade mechanism, called 'Reducing Emissions from Deforestation and Degradation' (REDD), has been proposed to curb global Greenhouse Gases (GHGs) emissions at a time when Nepal is undergoing major political restructuring. Carbon trade from forest is the payment to those forest owners by the emitter of carbon dioxide. The commonly agreed principle on carbon trade entails the idea that industrialized countries pay developing countries to reduce deforestation and forest degradation. Though Nepal emits insignificant amount of greenhouse gases (GHG), the potential risk of vulnerability to climate change is expected to be high in mountains. The risks of climate change for least developed countries like Nepal can hardly be exaggerated, and communities, governments and other institutions must take steps to reduce and minimize the adverse effects without delay. For this, developed countries are offering incentives to developing countries for taking actions that reduce forest-related carbon emissions. As more than 70% of Nepalese depend on agriculture and forestry interfaces for their livelihoods, financial incentives have potential of making forest conservation and management more economically viable. Nepal's community forestry can reap benefits by participating in REDD, but it requires addressing a range of issues and challenges to mitigate underlying causes of

deforestation and forest degradation, while offering rewards to those contributing to enhance forest cover. As REDD is still an agenda of international negotiations than an established regime, there are opportunities for state parties to pursue the process, speed up domestic preparedness and identify priority action points, leading to greater or stronger position for reaping benefits. However, the opportunities are embedded in a number of challenges and complexities. Criteria for monitoring and verifying forest carbon and governance mechanisms for sharing benefit with the rightful owners of carbon, addressing leakages and additionally are some examples of the impending issues.

Review and Discussion

The declining forest capital in the mid-hills of Nepal in the 1970s raised major concerns about the protection and growth of forests and active local participation in forest management. This may be referred to as the first generation issue, which has to do with increasing the capital stock of forests. Since the 1990s, forest capital formation has been fairly successful in the mid-hills of Nepal. This can be attributed to the efforts of thousands of CFUGs, which manage their forests as per agreements reached between those and the district forest offices concerned. Nepal's community forestry is the key element behind the projection of a positive image of Nepal's overall forest status. While community forestry has addressed the first generation challenges by restoring forestry capital and by devising an institutional mechanism to manage this capital, the story is far from over. Currently, there are some 14,572 CFUGs scattered throughout Nepal covering a total area of 1.2 million hectares (25 per cent) of forest land (Kanel 2008, DOF 2010). In many places this capital has eased problems of firewood and fodder supplies in mountain areas. Capital formation has created opportunity for making income. Despite achievements in the forestry capital formation, several contentious issues related to the equitable sharing of income among different stakeholders have emerged, and may even threaten the sustainable management of this capital if issues are not duly addressed. Claim over property rights on the part of the government gave rise to conflict. The sustainable conservation of forest is highly depend on local participation. According to current study on aboveground biomass and carbon stock of Sal forest of Assam India by Rabha (2014) found that in combine effort of local community and forest department currently present study site is well protected and not even single cut

stem was evidenced during the field study. It clearly shows the good example of local participation in forest conservation that should be followed by Nepali community forests too. Biological sequestration of carbon from forest can occur through reduced deforestation or degradation and better management of forest. In developing countries, including Nepal, all these are primary sources and sinks of carbon. Thus, when forests in developing countries such as Nepal sequester carbon and implement measures to prevent forest degradation, they need to be compensated for the emission reduction made possible through one of these means. This was the general argument made by some developing countries in the global climate change discourse during CoP 6 held in Germany in 2000, especially after realizing the failure of the CDM to address deforestation drivers, leading to loss of large tracts of forest in the tropics (Sikkema and Kenzie 2001). Unless a significant change is made in the existing proposal of REDD till Copenhagen in December 2009, prospect of benefiting Nepal's forest in general and community forestry in particular looks not so encouraging. It is mainly due to factors like poor documentation of deforestation and degradation (uncertainties of baselines), small scale of forests to attract global buyers and Nepal's low influence in the international REDD policy process, among others. For example, under REDD provision, Nepal's Terai forests where high rates of deforestation and degradation have been registered, could be an appropriate target for generating Emission Reduction Units (ERUs) by slowing down the rates of deforestation or degradation by a credible method. However, distribution of benefits to the Terai communities alone would be counterproductive unless fair shares were provisioned for hill communities for restoring and managing their forests in a sustainable way. There is now a new dimension added to the use of forests. The recognition to compensate for carbon sequestration function of forest has added to the potential value of community forest resources. After the UNFCCC meeting in Bali held in December 2007, forests in developing countries are identified as an important source of carbon sink under the concept of REDD.

At the 13th Conference of Parties (CoP 13) of the United Nations Framework Convention on Climate Change (UNFCCC), held in Bali in 2007, it was agreed in principle to implement a policy called REDD in developing countries upon completion of the first commitment period of Kyoto Protocol, i.e. 2008-12. The major objective of REDD policy is to encourage countries which would undertake measures to minimize existing rates of

deforestation and forest degradation through a mechanism of reward (by making payment). This is a major policy shift as it recognizes the role of the forestry sector, which contributes nearly 20% of the total global emissions. The payment is important for achieving the target, but there is a need to ensure that the real causes of deforestation and forest degradations, for example poverty and inequitable sharing of benefits, among others, are properly addressed (KTGAL 2007). In December, 2009 the UN climate change Conference (CoP 15) issued the Copenhagen Accord that specified REDD-plus as a crucial climate change mitigation measure for the post 2012 climatic regime. REDD plus aims to prevent forest degradation and deforestation, and promotes forest conservation through offering payment to developing countries and Local population (Saito-Jensen, 2010). The "+" signifies that in addition to reducing emissions, REDD+ projects should also strive to protect biodiversity and local livelihoods (Agrawal, 2010). To simplify the concept, REDD means the fulfillment of the following four objectives:

a. Increase in forest land b. Increase in forest density c. Reduction in the rate of deforestation and forest degradation, and d. Reduction in the use of fossil fuels (Pokharel and Baral 2009). REDD concept came to the global discourse after Cop 13 of Bali. Later in Cop 15 in Copenhagen due to the pressure from developing countries it took the REDD-plus shape which also includes community forest management under the carbon trade regime (Saito-jensen, 2010).

REDD is meant to increase forest cover and forest density while also combating deforestation and degradation in developing countries. Nepal is also involved in various activities to take part in global carbon market after 2012. Nepal has expressed its commitment through various international conventions and treaties to jointly work on the initiative for climate change responses. Nepal had submitted the Readiness Preparation Proposal (RPP) for Reducing Emissions from Deforestation and Forest Degradation (REDD) plus on April 19, 2010 to the World Bank, and has got fund access from its Forest Carbon Partnership Facility (FCPF).

Once REDD is decided through international agreement, implementation of the same will be a matter of national sovereignty. Clearly, the success of REDD+ (i.e. account of forest carbon stocks not only from reduced deforestation and degradation but also from enhanced carbon stocks) program will depend on governance policy at different level. Heading already

towards federalism, Nepal, in its simplest form at least four levels of hierarchical governing bodies can be discerned: national, autonomous state, district and local. Obviously, there has to be clarity at local level on how the funds should be distributed or utilized. The proposed administrative structure, and hence the resource governance there under, may face a setback, particularly if the current tenurial regime and the use right practices under the current community-based management models are somehow curtailed. The national sovereignty issue on REDD implies that the state will be the recipient of the financial rewards of any carbon credits. It would of course be wise for the state to distribute the major benefits to the custodian of the resource and retain only a part for itself as administrative and monitoring cost. Clearly, many difficulties are likely to be encountered, and hence the need to design a governance system capable of addressing the aspirations of a number of stakeholders having a vested interest in conserving the resource base. A number of key social and governance issues on REDD are still emerging and there are more questions than answers. They serve as discussion agendas while formulating a national strategy to participate in REDD. For example, a key question is: How will equity issues in the distribution of financial benefits be resolved given the following scenario?

a) Stakeholders in different parts of the country have different natural forest growth rates. How to develop a system that awards more to those who have managed their forests better for a longer period of time?
b) How to share benefits among members of a community if forest interventions are managed at community level?
c) Different levels of government/administration which have overheads related to REDD, and all of whom therefore have some claim: national level, subnational level, intermediary organizations, and landowner/user. Also, a matter of serious concern is how to keep down these overheads at each level?
d) Control of corruption in the payment system. Discouraging frauds at different levels are real threats for achieving the REDD benefits.
e) Clarity and accessibility to the stakeholders for registering their interests.
f) Ensuring that all possible participants are timely informed in such a way that they can decide whether they want to participate.

g) Developing a mechanism to resolve disputes regarding claims to given parcels of forest as regards carbon ownership.
h) Developing principles and methodological guidelines for assessing carbon gains/losses and institutionalizing a verification mechanism amongst themselves, peers, intermediary bodies and the state.
i) Seeking agreements on the basis for making payment to registered carbon stakeholders for any potential carbon gains (e.g. quantitative basis, area basis, lump sum basis or the like).
j) Finding suitable mechanism for the registered stakeholders who lose rather than gain carbon.
k) Planning an organizational structure required to manage all these based either on existing institutions or on a new organization. Some of these issues have already surfaced during development of a proposal (known as R-PIN) to the World Bank's FCPF.

Many organizations are working to combat global climate change. REDD and associated carbon trade discussions are also being dealt by number of national and international organizations. The World Bank, soon after the CoP13 meeting in Bali, created FCPF with the stated objective of providing support to developing countries to be ready for REDD by 2012. FCPF is essentially a pilot scheme, not a fixed template for REDD (World Bank 2008). It is designed to identify positive incentives that will help ensure an 'economically effective and socially just' implementation of REDD. The FCPF consists of two funds: a Readiness Fund, rolled out in 2008, and a Carbon Finance Fund to be launched subsequently in 2010. Till December 2008, the Bank has endorsed applications of twenty countries in two rounds of selection. Nepal is among the first fourteen countries selected in the first round and now eligible to receive 'readiness support' (approximately US$1-2 million). With the FCPF fund countries can prepare themselves for making appropriate response to REDD, but this is no guarantee for actual carbon transaction with the World Bank. In mid-April 2008, an initiative taken by an informal meeting of senior officers from various organizations of government and non-government sectors concluded that it is in the interest of Nepal to participate in World Bank's recently announced FCPF.

The inclusion of forest enhancement to REDD is a positive decision and adds value to the forests managed by communities in developing countries. Nepal can benefit from REDD

and help mitigate the negative impacts of climate change. To claim the benefits Nepal has to demonstrate in the world market that carbon sequestration is real and in the domestic front it will have to maximize the retention of carbon benefits and distribute them equitably among all stakeholders. There is scope to involve CFUGs in measuring and monitoring forest/carbon growth. With the awarding of funds from FCPF of the World Bank, Nepal has the opportunity to develop policies not only for them implementation of REDD but also for moving towards sustainable forest management. For effectiveness of REDD, however, the forest-based mitigation and adaptation measures must ensure delivery of sustainable development, build resilience in rural communities, and ensure full participation of forest-dependent people, civil society, forest workforce and the private sector (Forest Dialogue 2008). Finally, the support received by Nepal for essential capacity-building activities for possible participation in REDD mechanism is very timely and should be directed to: a) influence the current international policy dialogues in favor of Nepal, along with other least developing countries; b) develop criteria for country-specific baselines and monitoring techniques for determining forest biomass stocks; c) develop a benefit-sharing mechanism in federal governance structures; and d) secure a fair price of carbon saved in Nepal's forest. Through the engagement of key stakeholders such as FECOFUN, there is ample time to work on these crucial issues for a win-win plan through which both communities and government share the benefits for achieving common public good. The roles of key stakeholders such as FECOFUN can be very important at this juncture. Equitable distribution of carbon revenues among the forest rights holders is challenging given the complex and numerous national level governance issues.

National interim strategy For REDD plus has been prepared by REDD-Forestry and Climate Change Cell of the ministry of forestry and soil conservation (REDD-Forestry and Climate Change Cell, 2010). This document was prepared with the vision to be well prepared to respond international policy framework to reduce carbon emissions from deforestation and forest degradation in national interest. It recognizes REDD+ as a carbon focused Payment of Environmental service too. It also aims to work on many principles. Notable of them are to ensure recipient of funds, align the national REDD+ strategy with Nepal's sustainable development agenda, recognize the importance of forests to mitigation and adaptation to climate change. The vision for Nepal's REDD strategy is that by 2013 and beyond, our

greenhouse gas emissions resulting from deforestation and forest degradation will be significantly reduced by forest conservation and enhancement, by addressing the livelihoods concerns of poor and socially marginalized forest dependent people, and by establishing effective policy, regulatory and institutional structures for sustainable development of Nepal's forests under the forthcoming new constitutional framework (REDD-Forestry and Climate change Cell 2014).

Government of Nepal is of the view that REDD plus is seen as a win-win strategy that has the potential to reduce global emissions significantly as well as deliver financial benefits in the most chronically underfunded areas (ibid.). Nepalese political and bureaucratic leadership are of the confidence that Nepal will be benefited from REDD strategies. This fact is supported by many experts, institutions and stakeholders such as World Wide Fund, International Centre for Integrated Mountain Development, Federation of Community Forestry User Nepal, Karki and Banskota, 2009, Dahal and Banskota, 2009 etc. The Ministry of Forests and Soil Conservation has established a three-tiered institutional mechanism for implementing REDD plus, consisting of the REDD plus multi-sectoral, multi-stakeholder coordinating and monitoring committee as the apex body; the REDD Working Group at the operational level and the REDD-Forestry and Climate Change Cell as the coordinating entity. Besides these mechanisms, a stakeholder forum has been established to engage a wide range of stakeholders in the entire REDD plus process. The ultimate goal of Nepal's REDD readiness process is to prepare the National REDD Strategy (REDD-Forestry and Climate change Cell 2014).

Conclusion

Carbon dioxide emitted by the industries and other sources are taken by the forest and have helped in reduction of greenhouse gas from atmosphere. A new international carbon trade mechanism, called 'Reducing Emissions from Deforestation and Degradation' (REDD), has been proposed to curb global Greenhouse Gases (GHGs) emissions. Though Nepal emits insignificant amount of greenhouse gases (GHG), the potential risk of vulnerability to climate change is expected to be high in mountains. As more than 70% of Nepalese depend on agriculture and forestry interfaces for their livelihoods, financial incentives have potential of making forest conservation and management more economically viable. Nepal's community forestry can reap benefits by participating in REDD. Different conferences at

different dates discussed about the REDD and REDD plus to combat with climate change. Nepal has expressed its commitment through various international conventions and treaties to jointly work on the initiative for climate change responses. Nepal had submitted the Readiness Preparation Proposal (RPP) for Reducing Emissions from Deforestation and Forest Degradation (REDD) plus. If the REDD-plus happens to be to the favor of local people, it will be great source of income to them. It would encourage local people for conservation and sustainable use of forest resources.

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