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How can grassroots actors be equipped for effective and equitable REDD+?

Why does governance of community institutions matter in REDD+?

How can the social and environmental risks of REDD+ be mitigated?

How are the reduced emissions measured, reported and verified?

What are the potential benifits of REDD+ for the Community Forest User Groups?

What do stakeholders say about REDD+?

Special Issue on REDD+

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Production Management

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Editorial

It is our pleasure to present this special issue of *Journal of Forest and Livelihood* (JFL) on much discussed contemporary theme related to climate change and forestry - Reducing Emissions from Deforestation and Forest Degradation, including Conservation and Sustainable Management of Forests and Enhancement of Forest Carbon Stocks (REDD+). As a financing mechanism to forest management in the tropical developing countries, REDD+, an initiative under the United Nations Framework Convention on Climate Change (UNFCCC), is expected in contributing to combat global climate change by reducing emissions and sinking atmospheric greenhouse gas. As a party in the UNFCCC, Nepal has been engaged in REDD+ readiness processes through a number of initiatives including policy formulation, research, capacity building and awareness raising during the last five years and has gained significant lessons and experience. However, those lessons are yet to be documented, analyzed, synthesized and shared with wider audiences.

This issue of JFL brings diverse issues, lessons and insights gained from the field experience and therefore contributes to ongoing debate on REDD+ in Nepal and beyond by informing academicians, policy makers and practitioners. This issue has two different sets of articles; the first set - comprising of five articles - brings the analysis and synthesis of the lessons from grassroots interventions and information on REDD+ related concepts. The first article, in this set, by Luintel *et al.* emphasizes the importance and strategies of capacity building of grassroots stakeholders to ensure effective implementation of REDD+. Likewise, Poudyal *et al.* argue that internal good governance of community forest user groups is crucial in ensuring the sustainability of REDD+ in the context of community forestry. While the article by Silori *et al.* discusses the REDD+ safeguard mechanisms developed so far and the issues related to their practical implications, Karky *et al.* emphasize the need to provide sufficient additional economic incentives to forest managing communities through REDD+ mechanism in ensuring effective forest management. The final article in this set by Manandhar highlights the need and maps out the methodology to carry out measurement, reporting and verification of emission reduction.

The second set - comprising of five articles - brings opinions and perspectives of researchers, policy makers, practitioners and activists drawing insights and reflections based on their experience. The article by Paudel and Karki summarizes the perceptions of different actors, representing different institutions, on REDD+ and allied issues. Likewise, Joshi *et al.* present the way co-benefits could be generated from the REDD+ projects in the context of community forestry while Bluffstone in his article discusses the need for better analysis of economic aspect of REDD+ from a community managed forestry perspective. Likewise, Gritten *et al.* argue the potential of REDD+ in addressing the issues related to forest based conflicts. The last article by Sherpa and Rai advocates for the application of free, prior and informed consent of local communities, particularly indigenous peoples on REDD+ in Nepal.

Our sincere thanks are due to all authors, reviewers and contributors including ForestAction Nepal and RECOFTC – The Center for People and Forests for their needful support in publishing this issue. We look forward to continuous support, encouragement, feedback and suggestions from the readers, and concerned stakeholders and professionals in the days to come in continuing this endeavor.

Content

Grassroots Capacity Building for REDD+: Lessons from Nepal

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Abstract: Meaningful engagement and effective participation of grassroots stakeholders and forest managing communities in national policy formulation and local institutional processes for forest management have implications for the future global climate regime and poverty reduction among forest-dependent poor. In this context, the institutional and technical capacity of grassroots stakeholders is critical in ensuring effective and successful implementation of Reducing Emissions from Deforestation and Forest Degradation, including Conservation and Sustainable Management of Forests and Enhancement of Forest Carbon Stocks (REDD+). Capacity building for grassroots stakeholders is particularly crucial as REDD+ has to be implemented in a complex local environment shaped by multiple land use systems, sharply divided politics, conflicting policies, different levels of forest dependencies, complex social relations, unclear governance and tenure structures and differential climate impacts. It has been learned from the grassroots capacity building programme that there is a need of partnership and collaboration between grassroots stakeholders to build capacity for fighting against climate change at local level. However, there is no 'one size fits all' formula for capacity building, partnership and collaboration. Multi-pronged and multi-scale capacity strengthening strategies that draw on the strengths of various learning methods and address the unique needs of targeted stakeholders would be effective. These would/should always be target-driven, addressing the specific needs and conditions of stakeholders, and reflecting their sustainable development strategies, priorities and initiatives. There is still a need to re-orient and strengthen the capacity of the key stakeholders of REDD+ in Nepal so that they can better analyse and understand their own carbon forestry conditions and develop strategies to get more benefits from the REDD+ scheme.

Key words: REDD+, capacity building, stakeholders, institutions, community forestry

INTRODUCTION

Reducing Emissions from Deforestation and Forest Degradation, including Conservation and Sustainable Management of Forests and Enhancement of Forest Carbon Stocks, collectively known as REDD+, has been proposed as a novel collaborative action between developed and developing countries as part of a climate change mitigation strategy under the United Nations Framework Convention on Climate Change (UNFCCC). It creates an opportunity for financial value for the carbon stored in forests of tropical developing countries, offering incentives for, forest managers/owners for their efforts in reducing greenhouse gas (GHG) emissions from forest lands and increasing absorption of atmospheric carbon by managing/conserving forest sustainably.

Meaningful engagement and effective participation of developing countries, particularly those of grassroots stakeholders and forest managing communities in international climate negotiations, national policy formulation and local institutional processes have implications for the future global climate regime, national forest management strategy, local forest ecosystem condition and poverty reduction among forest-dependent poor. As the concept of REDD+ grows, almost all conventional forestry stakeholders have become more interested to know about the applications and implications of REDD+, while a number of new forestry stakeholders are also emerging at different levels. These have triggered all stakeholders re-thinking primary objectives of

forest management and therefore have caused re-configuration of power relationship among and between them as they prioritize forest management differently for provisioning, environmental, cultural and supporting services. Compounding with their different priorities, the global and local contexts also indicated the need for a change in the locus and the direction of environmental justice studies (Pellow and Brulle 2005). Consequently, both conventional and newly emerging forestry stakeholders need capacity building services in terms of re-orientation and political know-how, knowledge and tools, public support and scientific expertise on REDD+. The institutional and technical capacity of REDD+ stakeholders at the national and grassroots levels have been critical in ensuring effective and successful implementation of REDD+. Capacity building for grassroots stakeholders is particularly crucial as REDD+ has to be implemented in a complex local environment, shaped by multiple land use systems, sharply divided politics, conflicting policies, different levels of forest dependencies of communities, complex social relations, unclear governance and tenure structures, and differential climate impacts.

By taking a case of Nepal, this article primarily draws on the REDD+ capacity building activities implemented from 2009 to date in a developing country. The paper highlights the gap in the capacity of key stakeholders of REDD+ in Nepal. Particularly, stakeholders need re-orientation and capacity building services for better analysis of carbon forestry conditions so as to develop strategies to get more benefits from the REDD+ scheme. In addition to the national level, a need of partnership and collaboration between grassroots stakeholders have been identified as a pre-requisite for capacity building for fighting against climate change at local level. Multi-pronged and multi-scale approaches that draw on the strengths of various learning methods and addresses the unique needs of targeted stakeholders would be an effective strategy for sustainable capacity building system in place.

The article is organized as follows. While the section one introduces the paper, section two briefly highlights REDD+ debate and the context for REDD+ capacity in Nepal. Similarly, section three specifically dwells on how a donor-funded project conducted a set of capacity building interventions. Section four discusses some critical lessons that show both opportunities and challenges of REDD+ capacity building programme in a developing country. As conclusion, the final section of the paper indicates some important insights, that have implications for the future programme of REDD+ in Nepal, gained so far from the project experience.

REDD+ DEBATE AND CAPACITY BUILDING CONTEXT IN NEPAL

Debate around REDD+

In 2008, when not so extensive on-the-ground REDD+ experiences were available, REDD+ was seen as a cheap, quick, win–win and significant way to reduce carbon emissions (Angelsen 2008). So far, REDD+ is considered as a mechanism of increased investment in forest management that can bring myriad of opportunities, including achieving critical developmental goals (Economist 2010a), enhancing forest governance and bolstering global conservation efforts (Wollenberg and Springate-Baginski 2010), and reducing carbon emissions and deforestation in tropical countries (Toni 2011). Many people believe that REDD+ not only promotes investment in low carbon paths to sustainable development but also generates funds to fight against persistent problems of deforestation, biodiversity loss and poverty in developing countries. Therefore, REDD+ has been receiving greater attention in climate negotiations, and a range of policies and

institutional arrangements in terms of design and architecture are now being discussed in making it practical and effective.

Nevertheless, there are evidence, and articulations that REDD+ poses many challenges in participating developing countries. This is particularly true as the forest management and land use planning, effective governance, secure tenure and clear property rights, which are yet to be defined clearly, are prerequisites for the success of REDD+ (Cotula and Mayers 2009; Pettenella and Brotto 2012). REDD+ as an influential financial tool can change the landscape of forest governance and exacerbate the persistent efforts of governments and corporations to exert increasing centralized control over forests (Economist 2010b; Lovera 2009; Phelps *et al.* 2010; Khatri 2012), and negatively affect the poor communities expected to benefit from REDD+ (Ratsimbazafy *et al.* 2011). Moreover, it demands different sets of social, environmental and technical standards at international level that should be fulfilled by the participating country or the REDD+ project, which may need competency in advanced science-based technical knowledge and skills. In the context of community forestry (CF), the communities' time-tested and locally relevant traditional knowledge may perhaps be limited in meeting such international standards technically. Therefore, many scholars, policymakers, practitioners and communities have raised concerns on whether the forest managing communities can meet the standards and get benefits from REDD+. To make this issue more understandable and approachable, communication between policymakers at national/ international levels and local forest managing communities may need to be strengthened. Capacity building approach to grassroots and national levels are therefore considered as one of the important initiatives in this regard.

Capacity Building Context for REDD+ in Nepal

The prospect of REDD+ in Nepal depends mainly on the (i) extent and condition of forest cover, forest carbon stock, historical trends of deforestation and forest degradation, and forest management practices; (ii) policy framework, forest governance, tenure and equity; and (iii) REDD+ initiatives and the mandate, commitment and competency of both existing and evolving stakeholders in REDD+. Therefore, understanding these contexts properly and designing appropriate capacity building activities are crucial.

Nepal's contribution to the annual GHG emission is 39,265 gigagram (Gg), which constitutes 0.025% of global emissions (MoEST 2004). Since Nepal primarily has a subsistence agricultural economy and poorly developed industrial infrastructure, land use and land use change including forests constitute major part of GHG emissions. It has been evident that the deforestation was at an annual rate of 0.5 percent during the period 1978/79–1994 (DFRS 1999). Recent studies in 20 deforestation prone southern plain districts suggest that the forest cover has decreased only at an annual rate of 0.06 percent during the period 1990/91–2000/01 (DoF 2004). A large part of this reduction in deforestation rate perhaps could be attributed to the CF programme. The total carbon stock in Nepal's 5.8 million hectare (ha) forest is nearly 900 million tons (152.83 tons per ha) from 1990 to 2005, which has slightly fluctuated over time (FAO 2006, cited in Oli and Shrestha 2009). It has recently been observed from a study in 104 community forest user groups (CFUGs) in three sub-watersheds in Nepal that nearly 2.67 ton/ha (1.75%) per hectare carbon has increased in Community Forests from 2010 to 2011 due to implementation of REDD+ pilot project (ICIMOD *et al.* 2011). However, there are a

range of issues associated with ecological aspects of forest management in Nepal, which includes existence of passive management of forest (Yadav *et al.* 2003), haphazard and over-harvesting of non-timber forest products (NTFPs) and medicinal plants (Luintel 2002; Luintel *et al.* 2004), lack of effective technical knowledge among users, and prevalence of ineffective support system of state forest agencies (Paudel *et al.* 2012), and inadequate investment to forest management. Moreover, despite recognizing the existence of challenges in integrating biodiversity concerns in the REDD+ scheme (Gardner *et al.* 2012), adequate discussions in this regard have not been carried out in Nepal.

Through the introduction of the Master Plan of Forestry Sector (MPFS) 1989 and Forest Act 1993, Government of Nepal (GoN) transferred forest management responsibility and forest product use authority to CFUGs. In fact, the Plan and Act legitimized, formalized and revitalized the local and indigenous forest management practices across the country. The Act recognized the CFUGs as self-governing, independent, autonomous and corporate institutions so that they could acquire, possess, transfer, or otherwise manage movable or immovable property (HMG/MoLJ 1993: Article 43). The use rights usually include basic forest products such as fodder, fuelwood and NTFPs but exclude environmental services, including carbon sequestration, water yield and biodiversity conservation. Therefore, use of these services has generally been restricted or regulated through several stringent conditions. Since overall property rights of forest ecosystem goods and services and forestland remain with community and government (biomass and tangible forest products with communities, forestland with government, and intangible ecosystem services not specified so far), greater complexities and ambiguities prevail in the use of CF resources. Understanding tenure security in Nepal's CF has been a daunting task (Luintel and Chhetri 2008). This seems to be further aggravated by changing market structure for ecosystem services within the framework of REDD+. Similarly, despite civil societies' facilitating equity promotion in CF (Luintel 2006), there are elite domination and inequity (Neupane 2003; Malla *et al.* 2003), participatory exclusion (Agrawal 2001) and token participation of women (Luintel and Timsina 2008). However, CF offers prospects for strengthening local institutions and democratic resource governance (Pokharel 2005; Pokharel *et al.* 2007), empowering women (Chhetri *et al.* 2008) and the marginalized, supporting social harmony and peace-building process during the post-conflict period (B.K. *et al.* 2009; Luintel *et al.* 2009), and community and local development (Chapagain and Banjade 2009), which could be capitalized on to institutionalize REDD+.

To prepare the country for REDD+, the GoN has not only created the REDD Forestry and Climate Change Cell (REDD Cell) under the Ministry of Forests and Soil Conservation but also has been participating in the Forest Carbon Partnership Facility (FCPF) programme of the World Bank and also UN-REDD. It has also formed a national REDD+ Working Group with representation from the government, experts, donors and civil society to forge wider collaboration for generating support to address drivers of deforestation and forest degradation. After the preparation of the Readiness Preparation Proposal (R-PP), GoN is now developing policy and institutional infrastructure for implementation of REDD+ in collaboration with different international/ national non-governmental organizations (I/ NGOs), which have different but inter-related institutional mandates, commitments, focus and competencies (Paudel *et al.* 2010). So far, a range of awareness raising and capacity building activities, participatory action research and policy analysis have been carried out. Gradually,

discussions on the possibilities and implications of REDD+ are being institutionalized in the forestry sector. However, at times, the whole REDD+ initiatives seem to be driven by donor-funded projects and there is still a need to bridge the gap between international REDD+ policy and expectations of grassroots stakeholders. Capacitating and allowing grassroots stakeholders to voice their concerns and expectations at national- and international-level policy processes seem to be an urgent and logical need.

So far, it has been noticed that community networks, including the Federation of Community Forest Users Nepal (FECOFUN), Himalayan Grassroots Women's Natural Resource Management Association (HIMAWANTI) and the Nepal Federation of Indigenous Nationalities (NEFIN) have been actively engaged in articulating and advocating the recognition and inclusion of local communities' and indigenous peoples' rights in the REDD+ scheme. Similarly, other professional organizations such as ForestAction Nepal, International Centre for Integrated Mountain Development (ICIMOD), Asia Network for Sustainable Agriculture and Bioresources (ANSAB), World Wide Fund for Nature (WWF), among others are working in the field of REDD+. However, techno-centric discussions have primarily dominated the overall REDD+ initiatives in Nepal, as the language and issues on REDD+ is alien, abstract and full of technical jargon. This has lessened the accessibility of most local forest-dependent people to the REDD+ initiatives. Also, there are limited exploratory studies to show how emerging REDD+ mechanisms can help address impacts, problems and issues of climate change and rural poverty at local level. Different pertinent questions regarding REDD+ have been raised and remain unanswered so far. Some of these questions include, (i) How do REDD+ initiatives affect existing CF in Nepal?; (ii) Is CF eligible to generate benefits from REDD+?; (iii) Can REDD+ benefits support in reducing rural poverty?; (iv) How will community rights to forests be affected by REDD+?; and (v) Does REDD+ effectively address the drivers of deforestation and forest degradation? Understanding the implications of REDD+ and seeking answers to these questions are vital in the Nepalese context, which perhaps can be of interest elsewhere in the context of participatory forestry. To answer these questions and make REDD+ effective, challenges exist at political, policy, institutional, technical and informational level.

CASE: REDD+ CAPACITY BUILDING PROJECT

In Nepal, RECOFTC - The Center for People and Forests, has been implementing the Grassroots Capacity Building for REDD+ project since November 2009 with the financial assistance of the Norwegian Agency for Development Cooperation (NORAD) and in partnership with FECOFUN and other organizations. The main goal of the project is to strengthen capacity of the grassroots forest stakeholders for successful implementation of REDD+ and, therefore, contribute to local socio-economic development. To achieve the goal, the project identified and addressed key knowledge gaps among grassroot stakeholders so that they are able to participate actively in the policy and planning process of REDD+[1]. The major focus of the project includes development and timely revision of REDD+ awareness and training materials, organizing awareness raising and capacity building activities on the basic concept of REDD+, as well as documentation and sharing of REDD+ issues. The details of the project intervention are

[1]Grassroots Capacity Building Programme for REDD in the Asia–Pacific Region, Project Proposal for Norway Government's Climate and Forest Initiative Funding Scheme – 2009, RECOFTC 2009.

briefly presented in the following six subsections.

Understanding the Context and the Issues

The project started with an effort to understand the context and capacity of forestry stakeholders. Specifically, through an extensive consultative process, a capacity building need assessment (CBNA) was carried out on the basis of competency standards developed to gauge the level of fundamental knowledge and understanding of REDD+ among national, subnational and grassroots stakeholders. Five different types of institutions, including government agencies, federations and networks, projects, NGOs and media having different competencies, strategies, mandates, commitments and focuses, were identified as potential stakeholders for REDD+. The grassroots stakeholders generally lack conceptual understanding of REDD+ despite their demonstrated efforts in revitalizing degraded forests. Even service providers at meso and national level were not aware of REDD+, including its political, social, institutional, economic, ecological and methodological aspects.

The project adopted a multi-pronged and multi-scale strategy for developing a comprehensive capacity building package that draws on the strengths of various learning methods and addresses the unique needs of targeted stakeholders for national to local level. The package provided a space for collaboration and partnership at different levels. A cascade approach to deliver training was identified as the main strategy for capacity building, while other non-training strategies such as networking, seminars, issue-based public discussions, scientific research, publication of information, education and communication (IEC) materials, media mobilization, mass gathering and consultative meetings were also adopted. Similarly, institutional, technical and methodological skills at national and sub-national level and general awareness of the rights of communities at grassroots level were identified as specific needs for capacity building purpose.

Planning Project Activities

A series of meetings with project partners and collaborators were organized, leading to a detailed implementation and monitoring plan of the project. Project sites were identified on the basis of geographical coverage, deforestation trend, socio-economic conditions of forest managing communities and the interest of partners to collaborate. Partnerships and collaborations with different organizations were identified as a key strategy for the project implementation. Most of the activities were planned in the form of cascade training and awareness raising events at different levels. Since there was interest from a wider level of communities, strategies were developed to bring and engage participants from beyond conventional forestry stakeholders during the trainings. To collect feedback from resource persons, facilitators, participants and participating institutions for identifying effectiveness of input, output and outcomes of training, a comprehensive monitoring plan was prepared.

Preparation of IEC Materials

A range of IEC materials were prepared, reviewed, tested and published in partnership and collaboration with a wide range of institutions, including REDD Cell, FECOFUN, HIMAWANTI, NEFIN, ForestAction Nepal, ICIMOD and ANSAB. The partnership and collaboration among institutions created synergy and ensured good-quality IEC materials. Particularly, two training manuals—one for a five-day national and sub-national-level training and another for a two-day community-level training—information

fliers, booklets and posters were published at the initial stage. Most of the issues identified during the CBNA process and in different discussion forums were covered at different levels in these materials. The training manual focused on sensitization and general awareness of informational, institutional, social and economic aspects of REDD+. Some of the issues covered in the training manuals were the concept and context of climate change, the role of forests in climate change mitigation and adaptation, the concept and requirements for REDD+, Nepal's engagement in REDD+, opportunities and challenges of REDD+, forest management regimes of Nepal, causes of deforestation and forest degradation, and implications of REDD+ for forest conservation and livelihoods.

Awareness Raising Activities

REDD+ being an abstract and novel concept, many stakeholders were interested to know about the subject, and, therefore, general awareness raising activities became a priority. By mobilizing a variety of existing communication channels, a wide range of audience were targeted. Write-shops and training events were organized to capacitate journalists and media workers at national and regional levels, which were followed by broadcasting a number of radio programmes and publication of fact-based articles on REDD+ and climate change in print media. Similarly, to respect local initiatives and make the programme more effective at local level, street plays were performed; and cultural programmes were organized by mobilizing local organizations with new sets of information.

Capacity Building Activities

Capacity building activities were primarily based on training at national (3-5 days), sub-national (3-5 days) and local (1 day) level. A cascade approach was strictly followed to deliver training at district and community level. Approximately 20 thousand participants, including forest managing communities (men, women, marginalized and indigenous peoples), government forestry staff, NGO activists, freelance consultants, political leaders, network members, project staff, academicians, social workers, journalists and entrepreneurs participated in the training. To bring synergy, each event was organized in collaboration with local partners and facilitated by a number of local facilitators using participatory methodologies. Hands-on support and coaching constituted an important part of capacity building for district and local level facilitators.

Issue Based Discussions, Case Documentation and Lessons Sharing

Different REDD+ related issues were identified during interactions in the training. Some of those issues were brought to the national and sub-national-level stakeholders' attention for further discussion, clarification and action. Among those issues, conflicts, internal group governance and forest product utilization were selected for research, documentation and wider sharing. The findings and the conclusions derived from the discussions and/or research have been incorporated in the revision of IEC materials and training. The overall lessons of the project are now being documented and shared with wider audiences such as policymakers, development professionals and academicians within the country and beyond.

ISSUES AND LESSONS OF CAPACITY BUILDING INTERVENTIONS

Forging Partnership and Collaboration: A Daunting Task

With an aim to create ownership and increase participation, capacity building interventions were implemented in partnership and collaboration with different organizations at all levels. These have been crucial for legitimacy,

credibility, effectiveness and efficiency of interventions, which resulted in greater absorption of delivered message by the target groups. These also provided an environment conducive to diversify the participation in the programme, facilitate communication and share responsibilities between different stakeholders, all of which are crucial for managing local forests and controlling deforestation and forest degradation. The partnerships and collaborations, by generating wiser decisions, producing more durable decisions and promoting desired changes, are expected to result in effective forest management and better environmental quality. Moreover, these reinforce democratic values and can improve the health of communities by building social capital and fostering collective ownership of problems and resources. Particularly at the national level, relatively expected outcomes were achieved. This is partly attributed to the careful planning and engagement with more professional organizations having adequate resources, knowledge and experience of partnership and collaboration.

Despite overall positive experience in partnerships and collaborations, some challenges and issues were observed at district and community levels. This is perhaps because of the fact that the organizational culture of collaboration and partnership for a certain project is yet to sink down to local level. Grassroots organizations perhaps were not able to properly identify their own strengths at the beginning of the project and, therefore, missed opportunities to fully capitalize on those during project implementation. Defining accountability structure, sharing resources, ensuring synergy and planning greater learning remained challenging at the beginning. The organizations that had greater resources, administrative control, and skills and knowledge of forestry tend to have greater power and control in partnership and, therefore, at times, were not welcomed by other collaborators, which limited collaboration to a mere formality. As partnerships and collaborations were forged hastily without adequate planning and understanding the expectations from partnership, it took longer time and more efforts in creating a shared vision and building trust among collaborators, resulting in trade-off in intended outcomes.

Developing Facilitators and IEC Materials: Way to Sustain Capacity Building Interventions

Capacity building interventions were planned considering institutionalization and sustainability, and therefore, development of REDD+ facilitators and IEC materials were the primary focus. In this regard, selecting and equipping facilitators with appropriate and adequate knowledge, skills and motivation have been crucial. Both institutional background and individual interest and commitment were considered equally important while selecting participants. Despite difficulties associated with selecting appropriate participants, institutionally and culturally suitable, practical and informal ways, such as participatory development of criteria in advance, consultation with the concerned institutions/individuals have been proved useful. It has also been noticed that socio-cultural, personal and professional images of facilitators have implications for the uptake of training delivery at the local level. This is particularly important when abstract and novel concepts like REDD+ are under consideration.

As REDD+ is a new, abstract and emerging concept, production of evidence-based, concise and relevant IEC materials in local language has been crucial for efficiently informing local participants. Many terminologies and concepts used in REDD+ and climate change are still difficult to translate into local languages, which hinders the learning efficiency. The format of

the material (text, diagram, picture, audio, etc.) has also been equally important to make the complex message simple and easy to understand. The pictorial materials that logically present the message have been effective in making capacity building interventions successful. Pooling different expertise in developing, reviewing and testing materials added great value. Well-developed materials in durable form could be referenced in the future as well. It has been noticed that a good mix of concepts and examples from international, national and local levels are effective in communicating with people at different levels.

Implementing Capacity Building Interventions: Way to Reinforce Learning

Capacity building interventions were broadly limited to sensitization and training, focusing on imparting knowledge at individual level. Customized and two-way communication that links concepts and evidence between training facilitators and participants has had a crucial role for making these interventions effective. Therefore, greater flexibility was allowed to facilitators to communicate adequately and appropriately. A combination of local and national facilitators has been effective in synergizing learning as they complement each other by bringing local perspectives and examples, and clarifying conceptual issues respectively. Similarly, local facilitators seemed to value an endogenous, incremental and continuous process of institutionalization and learning, while external facilitators tend to bring novel perspectives and inject ideas for breakthrough in institutional and learning processes. However, care should be taken that these perspectives do not conflict with each other and retard the overall learning process.

It has also been realized that series of linked interventions, in a package, at institutional and system levels and also complemented by mass communication would be more effective than snap-shot events to institutionalize capacity building. The strategies followed by facilitators to deal with conflicting issues such as allowing more discussions from different perspectives have had greater bearing on the effectiveness of training. While some facilitators tried to avoid confusing and conflicting issues, many others brought such issues to the centre of discussion and made them more lively and productive.

Carrying Out Awareness Raising Activities: Reaching Out to Many Stakeholders

With an aim to reach a wider audience with the message on climate change and REDD+, a range of activities such as mobilizing journalists through writing feature articles, broadcasting radio and television programmes, performing cultural programmes and organizing street plays were carried out. Mobilizing mass communication channels for raising awareness has proven to be important to generate support in capacity building activities and local environmental and forestry initiatives.

Since most of the journalists are engaged and interested in political, urban and semi-urban issues, with an aim to gain better professional position, name, fame and resources, it has been challenging to find suitable persons who are interested in environmental, forestry and rural issues. Also, the gap in relationship between local collaborators and journalists remained a challenge to mobilize media effectively. The disciplinary and sectoral knowledge and focus of forestry stakeholders and media persons also did not match, which limited building of professional relationships. For example, media persons might be interested to cover bad news as they travel faster than analytical articles advocating communities' rights on natural resources. However, collaborators like FECOFUN and HIMAWANTI are interested to convey success stories of inspiring nature and

community rights, which demands more energy, efforts and passion. Also, most media have one-way communication channel and are limited in creating impact. However, a series of interactive programmes in Radio that incorporate voices and issues of local people were effective in delivering the message. Similarly, broadcasting time and method also mattered a lot for the effectiveness of the message. For instance, artistic presentation such as street drama and cultural programmes was easily taken up and retained for longer.

Maintaining Diversity: Way to Bring Synergy

Efforts were put to achieve synergy diversifying capacity building interventions, participation, facilitation, collaboration and partnership. These diversities brought both opportunities and challenges. Different non-conventional forestry stakeholders such as media and the private sector are now interested to contribute to local forest management, climate change adaptation and environmental improvement. The conventional forestry stakeholders are now interested to set up multi-stakeholders forums for collectively addressing deforestation and forest degradation issues by bringing creative and novel ideas from all collaborators.

Diversity in interest, competency and perspective made stakeholders unique and therefore brought conflicts as well. In such cases, synergizing through partnership and collaboration have been challenged. More efforts, transaction costs and energy were needed for synergistic collaboration in such situation. At times, diversity became a source of discrimination and exploitative power relations between stakeholders and, therefore, the question of fairness emerged. The differences in understanding level and learning capacity among partners and collaborators have had implications for making capacity building effective.

Conducting Monitoring: Making Interventions Effective

Proper monitoring has been essential in ensuring the effectiveness of capacity building interventions in terms of learning and behavioural change. The project planned and conducted different levels of monitoring including taking baseline of knowledge, and input for, output of and outcome of capacity building interventions. At times, it has been noticed from the on-going monitoring that some of the capacity building interventions had disempowering effects on the participants. For instance it occured while the forest managing communities realized that the international standards for REDD+ are complex and difficult-to-understand. Such confusions generally occurred when abstract and novel concepts were discussed without local examples. However, such effects were short-lived as the facilitators carefully dealt with them. Monitoring has also been found to be important in creating an environment conducive to bringing different views from participants and maintaining healthy discussions and knowledge sharing.

CONCLUSION

While the capacity building interventions were primarily focused on strengthening knowledge of existing forest governance and management in view of climate change and REDD+ through training, coaching and hands-on support, awareness raising activities increased political know-how and generated public support for better forest management so as to contribute to climate change mitigation and adaptation. Capacity building interventions have been generally promoted and institutionalized as a collaborative learning process among a wide range of stakeholders. While partnership and collaboration boosted local institutions' competency in forest management, REDD+ and climate change by bringing their ideas, competencies and resources together, these have

been instrumental for legitimacy, credibility, effectiveness, and efficiency (through synergy) of the intervention. However, there is no 'one size fits all' formula for capacity building interventions including partnership and collaboration; they could and should always be target-driven, addressing specific needs and conditions of stakeholders and reflecting their sustainable development strategies, priorities and initiatives. For REDD+ grassroots stakeholders, a multi-pronged and multi-scale capacity strengthening strategy that draws on the strengths of various learning methods and addresses unique needs of targeted stakeholders would be effective. Development of facilitators, advocates and IEC materials are proved to be effective to expand and sustain the main ideas of capacity building interventions beyond the temporal and spatial limits of the project. Similarly, monitoring has also been crucial to focus the limited resources in the intended interventions, timely correction of the unintended effects and maximize the learning.

The clearer the linkages between climate change and REDD+ with forest management, community development and local livelihoods of the grassroots stakeholders, the better would be the support for them in preparing climate-friendly development packages. The crucial elements for this – capacity building, partnership and collaboration - can be fostered through both promoting local initiatives and mobilizing externally sponsored development resources. However, this may take some time, efforts and cost to institutionalize due to existence of unequal power relations between grassroots stakeholders, which are shaped by not only traditional socio-cultural values but also differential access to knowledge, skills and resources guided by modern institutional set up.

The project helped local people to increase their level of understanding on climate change, REDD+ and local forest management in an integrated way. However, a key challenge still remains on how and through which ways stakeholders might have access to REDD+ resources and begin to critically judge the prospects of REDD+ and voice their concerns at different levels of policy processes. Still, key champions of REDD+, including researchers, consultants, negotiators, rights activists and real forest stewards tend to put more efforts on exploring ideas on how to comply with emerging options as if they were final, rather than exploring and advocating their own expectations in the context of evolution of REDD+ architecture and policy at the international level. Hence, there is still a need to re-orient and strengthen the capacity of key stakeholders of REDD+ in Nepal so that they can better analyze and understand their own carbon forestry conditions and develop strategies to get more benefits from the REDD+ scheme.

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Enhancing REDD+ Outcomes through Improved Governance of Community Forest User Groups

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Abstract: Since forests are both source and sink of carbon, scholars have suggested reducing emissions from deforestation and forest degradation, including conservation and sustainable management of forest and enhancement of forest carbon stock (REDD+) to be part of climate negotiation. Studies have shown that forests can play a role in reducing emissions in a cheaper, quicker and effective way, while generating important co-benefits, including biodiversity conservation and watershed management. However, governance that shapes relations between different stakeholders at grassroots level has been shown to be a crucial issue in managing local forests in a way that sequester more carbon from, and emit less of it to, the atmosphere. The authors of this paper argue that the lessons gained at community forest user group (CFUG) level regarding forest governance could be useful in designing a REDD+ governance structure at grassroots level. For this, both positive lessons and challenges faced so far could be documented, analyzed, synthesized and shared at broader level. REDD+, being an external intervention to local communities, can bring a range of challenges that influence the governance dynamics. However, if the programme is managed carefully, CFUGs are capacitated adequately and governed collaboratively, REDD+ may bring synergistic outcomes with existing community forestry at grassroots level, particularly by bringing both environmental and livelihood benefits.

Key words: Internal good governance, REDD+, CF, sustainable forest management

INTRODUCTION

Community forestry (CF) in Nepal has become a successful example of devolved community rights in managing common property resources. Legal provisions in the Forest Act (1993) such as the rights to organize, protect, manage and utilize forest resources have increased community ownership over local forests and empowered the community in taking decisions regarding forest management. During the last three decades and a half, CF has significantly contributed to forest management, livelihood support, community development, social change and strengthening democratic practices at local level (Pokharel *et al.* 2007; Luintel *et al.* 2009). However, challenges and issues related to forest outcomes such as sustainable management of forest, communities' livelihood, social inclusion and governance of community forest user groups (CFUGs) have emerged gradually in recent years. In this context, community rights and autonomy over forests have been recognized as crucial factors for improving overall forest outcomes (Arnold and Stewart 1991; Charnley and Poe 2007). Realizing community rights and autonomy and achieving synergy between forest outcomes primarily depend on fair and equitable internal good governance of CFUGs (Poudyal *et al*. 2010). Now, the Government of Nepal (GoN), donor communities and civil society organizations (CSO) have been putting efforts in improving CFUGs' internal governance as a key area of intervention. The CF Guidelines (revised in 2008) has also highlighted the importance of promoting internal governance of CFUGs for better forest outcomes (CFD 2009).

The recent climate change debate under the United Nations Framework Convention on Climate Change (UNFCCC) has proposed REDD+[1] as a strategy for mitigating climate change, which according to Stern (2006) is considered a quick, effective and cheap mechanism. When carefully designed, REDD+ can provide additional benefits for community livelihoods (Angelsen and McNeill 2012) and biodiversity conservation (Venter *et al*. 2009). Scholars have argued that policymakers can improve the likelihood of success of REDD+ with the use of success factors[2] of CF management (Agrawal and Angelsen 2009) and incorporation of biodiversity considerations and livelihood goals (Visseren-Hamakers *et al*. 2012).

REDD+ demands a high priority on effective forest governance and institutional capabilities so that sustainable management of forests and enhanced carbon stock can be achieved. Due to its associated factors with drivers of deforestation and concerns of livelihoods, REDD+ has been a socioeconomic and political agenda beyond carbon. Therefore, in addition to carbon benefits, it should address the social issues of forest management. This can be achieved only when transparency and accountability; free, prior and informed consent; equitable benefit sharing and social inclusion are assured (Springate-Baginski and Wollenberg 2010). For CFUGs to become viable and eligible local institutions for REDD+ implementation, special attention to CFUG governance is required. Similarly, CFUGs' governance is equally important to ensure that the REDD+ outcomes are institutionalized and distributed equitably.

This article attempts to highlight the key aspects of CFUGs' governance and its role in enhancing the REDD+ outcomes. Although the prospects of REDD+ implementation through CF have been studied, consensus among researchers on the outcomes is still debated. In this article we present existing governance practices of CFUGs and discuss their relevance to REDD+. The first section introduces the importance of CFUG's governance in REDD+, while the second section highlights the methods of this study. Existing practices of CFUGs' governance are elaborated explicitly in the third section by taking two cases from the field. The fourth section discusses the significance of CFUGs' governance practices in promoting climate change outcomes through the implementation of REDD+. The final section concludes the paper.

METHODOLOGY

The article is an outcome of a CFUG governance study by Poudyal *et al.* (2010), which employed the CFUG governance assessment framework proposed by Luintel *et al.* (2007). The framework has introduced some important non-conventional parameters into the scene of CFUG governance. These include (i) participation and voice, (ii) heterogeneity and inclusiveness, (iii) access to forestlands, territories and related practices, (iv) accountability and transparency, (v) power relations, dispute resolution and equity, (vi) agencies of change and respect for local knowledge, (vii) implementation, self-monitoring, adaptive capacity and collaboration, (viii) planning and decision-making practices, (ix) constitution, compliance and enforcement of rules at local level, (x) mechanisms to monitor the macro environment, and (xi) effectiveness and efficiency.

Relevant literature was reviewed in determining whether the given parameters were sufficient

[1] Reducing Emissions from Deforestation and Forest Degradation, including Conservation and Sustainable Management of Forests and Enhancement of Forest Carbon Stocks

[2] These factors include sufficient size, clear boundaries of forests, predictability of benefit flows, local autonomy in rule making (Agrawal and Angelsen, 2009).

to assess CFUG governance. Expert consultation[3] aided in assessing the emerging knowledge of governance in the face of environmental value of forest.

Considering diverse community contexts in terms of socio-cultural, ecological and geographical variations, Patle CFUG of Lalitpur district and Sundari CFUG of Nawalparasi district were selected for the field study. The required data were collected through meetings with the members of the executive committees (EC), transact walks, focus group discussions (FGDs), key informant interviews (KIIs), expert consultations and observations of CFUG activities. Moreover, secondary information was collected from the records of the district forest office (DFO), village development committees (VDC) and the Federation of Community Forestry Users, Nepal (FECOFUN).

KEY FEATURES OF CFUGs AND THEIR GOVERNANCE PRACTICES

Historical and Biophysical Features of the Selected CFUGs

Patle CFUG: Patle CFUG is located in Lamatar VDC of Lalitpur district in Kathmandu valley. A total of 158 households (HHs) have been managing 119 hectares (ha) of forest. Ranging from 1,400 to 1,800 metres in altitude, this subtropical forest represents the middle hill forest and is primarily dominated by broadleaved tree species that are not commercially valuable but are important for local livelihoods.

Local forest management initiatives started in 1991 when local people formed a forest users committee to protect and manage the forest. Initially, they had the dual objective of promoting forest productivity and supplying the basic forest product needs of the community. A forest guard was appointed, and every households collected money to pay the salary of the forest guard. In 1997[4], the DFO officially handed over the forest to the community. The community was able to control overgrazing and rampant forest fires. As a result, forest productivity is restored; forest product supplies are increased and biodiversity is enhanced. The community fund also increased significantly, the sale of forest products being the major source of the fund. Other sources included the revenue generated through drinking water supplies, imposition of fines and penalties, and grants from government and non-governmental organizations (NGOs) for forest management activities. These days, the members of this CFUG are increasingly becoming aware of payments for environmental services (PES) as well. CFUG developed its own operational plan (OP)—a detailed plan of community forest management activities—and group constitution (plan of internal governance). Recently, it has amended its constitution and OP for ten years. These plans stipulate that the CFUG will be self-reliant in forest products and become a prosperous community.

Sundari CFUG: Sundari CFUG is located in Amarapuri VDC in Nawalparasi district. The community comprises 1,533 households and has been managing 385 ha of forest. Located in the southern lowlands, Terai, from 650-700m in altitude, it has a productive forest, rich in valuable timber stock (such as *Shorea robusta*) and, therefore, earns higher income each year.

During 1997, when CF was gaining momentum in its expansion in the middle hills of Nepal, some young local people started a dialogue with the local forestry officials to devise a pragmatic approach to local forest management in the village. This led to forming a forest protection committee chaired by a young leader. The DFO

[3] Six experts in the areas of environmental governance, local governance, forest management and livelihoods were consulted.

[4] The CFUG was registered with the DFO on 3 June 1993, and was approved on 30 January 1997

provided support to the community to prepare necessary legal documents, including the group's constitution and OP. The DFO registered the CFUG, approved its OP and formally handed over the forests to the community in 1998. As stipulated in the forestry policies[5], Sundari CFUG has amended its OP twice since the time of its establishment: first in 2002 and second in 2008.

Active participation of the local people, coupled with strong legal backing, significantly contributed to reviving the forest conditions. Under the initiative of the local community, haphazard grazing, forest fire, illegal logging, encroachment and shifting cultivation were controlled, thereby enhancing forest productivity, biodiversity richness as well as watershed protection. In addition, the community fund significantly increased from the sale of forest products, membership fees, fines and penalties, and grants from both government agencies and NGOs. These days the CFUG generates about 3.5 million Nepalese Rupees (approx US$ 42,000) annually from the sale of timber within the CFUG. The price of the timber is highly subsidized by the CFUGs for the community members (about 25% of the market price). The CFUG has been utilizing the fund for construction of roads, drinking water, schools, pro-poor income generation, forest management and support to disabled persons. Sundari CFUG has its own office premises with a facility for residential training, a forest nursery and a non-timber forest product (NTFP) demonstration plot.

Existing Practices of Governance in the Selected CFUGs

The study analyzed the governance practices of these two CFUGs using the framework stated earlier. The framework goes beyond the classical four-pillar approach of governance—participation, transparency, accountability and rule of law—to understand the complex relationships within communities and between the communities and other actors. Here, we briefly describe the CFUGs' engagement in terms of identified governance parameters.

Participation and voice: Both CFUGs are promoting participation of users at grassroots level through multiple arrangements such as general assembly (GA), *tole*[6] or ward[7] assemblies, executive committee (EC) meetings, etc. These decision-making fora provide opportunities for CFUG members to voice their concerns. This has encouraged people, particularly *dalits*[8], women, poor and other marginalized groups to participate in CFUG activities such as electing EC members and taking decisions about forest management and benefit sharing.

CFUGs have rules to ensure participation through allocating special quota for *dalits*, women and marginalized people in the EC and other institutional structures. These provisions are instrumental in increasing participation. However, there are constraints on participation of these groups. *Dalits* feel more comfortable to express their views at *tole* meetings than in the GA. Sometimes, they find their concerns and voices being overlooked in the GA. Similarly,

[5] Primarily, forest policies include The Forest Act 1993, Forest Regulation 1995, and CF Guidelines

[6] A small settlement located in a small geographical area where people generally share common interest, problems and aspirations regarding forest management.

[7] The lowest administrative and political unit of local government.

[8] The so-called 'untouchable' groups are highly marginalized from mainstream development and bottom-layered groups in Nepali hierarchical society.

dalit women have other pressing concerns. They have experienced discouragement and humiliation at the hands of the so-called higher castes when they participate in the GA. Since *dalits* and poor are mostly daily wage labourers, most of them are too tired by their routine work and cannot actively participate in every discussion.

Heterogeneity and inclusiveness: Due to the influx of immigrants from various parts of the country, the central Terai of Nepal (e.g. Sundari CFUG) is more heterogeneous than the middle hills (e.g. Patle CFUG). Heterogeneity comes from ethnicity, class, caste, age, education, occupation, gender, geographical location and political ideology. CFUGs have introduced a wide range of institutional mechanisms for addressing the needs and interests of heterogeneity. Provisions of special facilities to *dalits* and the poor; reserved quotas for women, *dalits* and ethnic communities in representation/leadership positions; and special care to disadvantaged communities while implementing programmes are some of the innovations to address the diverse needs and interest of the community. Institutional arrangements such as the provision of different sub-committees (advisory, monitoring and evaluation, internal audit and poverty reduction sub-committees) have provided space for the poor, marginalized, *dalits* and women in leadership positions. However, the prevailing caste-based hierarchy in the community has maintained discrimination in different manifestations (such as untouchability) and precluded *dalits* from enjoying community benefits.

Access to forest, lands, territories and related practices: CFUGs exercise their 'bundle of rights' in forestry based on legal provisions stipulated in their constitutions and OPs. The right to become a CFUG member is based on the inherited land titles within the boundary of the community. However, immigrants are eligible to become CFUG members when they permanently live in the community and pay the 'differentiated entry fee'[9]. CFUGs have developed criteria to determine the entry fee, for example, free membership for the poor and landless. The right to access forests is important as the presence of legal and/or customary rights over forest resources creates incentives and/or disincentives to the CFUG members to invest in forest management activities. The Forest Act 1993 has provisions that define ownership over forests. For example, government holds the land ownership of the community forest, whereas CFUGs have 'use rights' to the forest products and services.

Accountability and transparency: Both CFUG and EC members are aware that accountability and transparency are important for better governance. Both CFUGs responded that their actions were in line with government policies, as well as with their own constitutions and OPs. The ECs are made accountable to the CFUGs through different institutional mechanisms and processes such as GAs and *tole*/ward assemblies. This has helped strengthen trust amongst users. Formation of account subcommittee for internal audit is one example to maintain financial integrity. The external audit through government registered firms has also been made mandatory, as per the government rule. The audit reports, as well as other decisions made by the EC, have to be presented and approved in the GA each year. However, there is still a need to reflect on the effectiveness, efficiency and outcomes of such institutional practices.

Power relations, dispute resolution and equity: The two CFUGs in this study have witnessed direct or indirect effects of power dynamics on CFUG governance and resource

[9] The CFUGs' entry fees are 'differentiated' on the basis of well being (rich or poor or landless), distance (living close to or away from forest), and use of forest product types (all or selected products).

management. Caste, class, education, political affiliation and social leadership are a few factors that weaken or strengthen governance practice. This ultimately determines the strength of an individual's position in the decision-making process. The EC and sub-committees exercise their formal power in carrying out CFUGs' activities, whereas political parties influence CFUGs indirectly in the elections of the EC. From the interaction with the members of Sundari CFUG, it was revealed that the CFUG did not have any serious disputes among members in forest governance. However, in Patle CFUG, most of the members still believed CF had 'EC-controlled' governance, which sometimes created conflicts within the group.

Agencies of change and respect for local knowledge, value, skills and management systems: Interactions in CFUGs revealed that individual leadership qualities and characteristics had a major influence in bringing changes at CFUG level. Community members believed that the role of external agencies has been crucial to introduce and institutionalize innovative practices and reorient local leadership to facilitate social and biophysical changes. CFUGs appreciated the role of trained local change agents for making social change and innovations in forest management. It has also been revealed from most of the FGDs that the respect of local knowledge, values, skills and management efforts is instrumental to introduce innovative practices. However, some of the traditional social values are discriminatory and, therefore, need change in people's mindset.

Planning and decision-making: The study shows that the CFUGs had lots of innovations to ensure inclusion of oppressed communities like *dalits*, women and the poor. The concept of *tole-* or hamlet-level assemblies is one such innovation where users feel free to share their interests than they do in the GA. Moreover, the agenda adopted in such assemblies become the *tole's* collective interest, capable of influencing decision making at CFUG level. The *tole's* collective voice is stronger than an individual's interests or viewpoints. Similarly, the formation of other sub-committees, including an advisory committee, also contributes to the planning process where the poor, *dalits*, women and other marginalized communities push their agenda and concerns. However, the functions and role of sub-committees sometimes become rudimentary and ritual. Our study found that the CFUG planning and decision process have been influenced by multiple actors operating at national, district and local levels such as forest bureaucracy, CSOs, federations and networks, political parties, donors and their projects.

Implementation, self-monitoring, adaptive capacity and collaboration: The CFUGs have contributed to a wide range of community benefits, such as capacity building, empowerment, livelihoods improvement, income generation and democratization of the CFUG practices. CFUGs have implemented most of the decisions made collectively by the EC and GA. These decisions were backed up by different monitoring mechanisms such as participatory self-monitoring (by CFUG itself) and monitoring by the government (i.e. through DFO). Self-monitoring has enhanced the quality of the CFUGs' activities and helped to build trust among different [sub] committees that have engaged many people and, hence, has been effective in checking malpractice and promoting good practices. Self-reflection, interaction and review within the CFUGs have increased their adaptive capacity. The CFUGs have been collaborating with other local-level institutions successfully, particularly in managing forests and carrying out community development. However, sub-committees are not adequately inclusive and, therefore, concerns about the quality of outcomes of such activities has been raised at times.

Constitution, compliance and enforcement of rules at local level: Despite some challenges, CFUG members are complying with the groups' constitutions and OPs. Compliance of the

provisions made in these documents becomes impractical, complex and challenging when they are externally influenced. For example, people (and documents) in Patle CFUG have indicated about externally-induced provisions in these documents, which are related to climate change, payment for environmental services and pollution. As these are less prioritized issues for the CFUG than the inclusion and livelihoods issues of *dalits*, women and the poor, the provisions made in the constitution and OP have received less attention. Socio-economic factors also have implications for the compliance of CFUGs' rules. For example, while implementing rules, including penalty provisions, EC seemed less sympathetic towards the poor and marginalized ones living close to the forest (e.g. in Sundari) and remain silent while users of high social status don't comply with the rules (in Patle).

Mechanism and capacity to monitor the macro-environment: Though EC members have a little knowledge about the global and national forestry issues, trends in policy development and discourses on forestry, the CFUG members, in general, lacked enthusiasm on these updates. However, they have mentioned a few provisions related to biodiversity, payment for environmental services or carbon trading in their OP, which have been adopted from elsewhere. Patle CFUG is very close to the national capital, Kathmandu, and has access to many information sources, including different agencies that have executed projects in the area. However, it has neither enthusiasm nor any mechanism in place to foster institutional learning, particularly from the greater understanding of the macro-environment, i.e the broader context of forestry development. They have learnt a few global concepts, not from internalized institutional learning mechanism, but from media and training/workshops organized by external agencies.

Effectiveness and efficiency: Most of the users appreciate the performance of the EC for their efforts in making CFUG effective and efficient. The EC's efforts have been successful in increasing the CFUG fund and are found to be effective in restoring the greenery and supplying daily forestry needs. However, improvements are necessary to enhance effectiveness and efficiency. They are still not able to deliver sufficient and needed services on time. Although the CFUG fund has significantly increased, pro-poor income-generating activities receive little priority. Despite the sensitivity to the issues of poverty, livelihoods and inclusion, the capacity and competence of EC to respond to the needs of poor and marginalized groups is not sufficient.

SIGNIFICANCE AND IMPLICATIONS OF CFUGs' GOVERNANCE IN REDD+ OUTCOMES

Drawing from the case studies and literature, this section articulates the relevance of CF lessons to the REDD+ scheme.

Participatory, Inclusive and Transparent Decision Making

The central idea of participation is to promote inclusion (Agarwal 2001). Participation is one of the fundamental principles for recognition of the rights of forest-dependent communities in the REDD+ schemes (Sikor *et al.* 2010). As highlighted by Ribot *et al.* (2008), cases discussed above demonstrate that the participation of CFUGs in the REDD+ scheme requires policies and procedures. CFUGs' practice of forming different sub-committees strategically provides space not only to socially prestigious people but also to the poor and marginalized. Similarly, CF has been successful in benefiting the poor and increasing the participation of the poor, women and *Dalits* (Pokharel and Niraula 2004). Learning from the CF practices such as

institutionalization of discussion and sharing spaces, equitable benefit-sharing practices and addressing the issues of social heterogeneity could be instrumental for better REDD+ governance. This forms the part of synergy between CF and REDD+, thereby leading to better outcomes and fair sharing of carbon and non-carbon benefits. Moreover, by drawing lessons from CF, the REDD+ scheme can embrace the very essence of community participation in its design itself. Placing an inclusive process for formulating a strategy for REDD+ could be an effective intervention to promote participation and transparency in the process. Similarly, decentralized forest management helps to enhance participation of local people in decision-making (Sikor *et al.* 2010).

However, the discriminatory socio-cultural norms, practice of decision-making based on the majority and scanty or unorganized voices of marginalized in the CFUGs might restrict participation of certain groups of people in the CF as well as REDD+ initiative. Similarly, participation could be broken down in its essence at any stage of the process. For example, Pokharel and Nurse (2004) have summarized the case of exclusion in the CF participation process as follows:

> The poor suffer the most in CFUGs as they cannot afford to participate; if they do, they hardly speak; if they speak, they are rarely heard and if heard, hardly get decisions made in their favor; if decision made, very few decisions are implemented and if implemented, only a few get benefits.

So far, it has been noticed that CFUGs' efforts towards effective and meaningful participation of all through experience-based innovations are still inadequate to actively engage the poor and marginalized in the CF processes itself. Therefore, exclusive efforts are important to promote the quality of participation of the community forest stewards in the REDD+ processes. Perhaps, the application of free, prior and informed consent might help the REDD+ scheme to ensure effective and meaningful participation of CFUGs. Also, forming an alliance and network of CFUGs might be needed to meet the required scale for the REDD+ scheme to operate. This might cause greater complexities in managing alliance, network and/or CFUGs, as larger and ethnically diverse groups are more complex to manage (Springate-Baginski *et al.* 2003). In such case, attention to capacity building and empowerment of the poor and marginalized might be useful. Also, the role and influence of different sets of actors may need to be analyzed and managed as required.

Access, Equity and Power Relations

Equitable distribution of REDD+ benefits between heterogeneous forest stewards is another principle that recognizes the rights of CFUGs in forest resources under the REDD+ scheme (Sikor *et al.* 2010). The presence or absence of legal and/or customary rights to forest, carbon and land affects the flow of REDD+ incentives to the forest managing communities (Robledo *et al.* 2008). Safeguarding rights over, and access to, forest resources and REDD+ benefits creates incentives and/or disincentives for the CFUGs to invest in forest management activities and, therefore, affects the REDD+ outcomes. While the right to forest carbon is yet to be defined legally, the right to forest resources and land rests with the CFUGs and the state respectively. In this situation, there is high likelihood of conflicts between the state and communities in getting REDD+ benefits from the community forests. Only a few CFUGs and a few of their members were aware of the forest land tenure systems and their implications for REDD+ benefit sharing. However, awareness programmes might be instrumental in making CFUGs aware of the land tenure system and their implications for forest resource rights and REDD+ incentives. Despite the limited knowledge of forest tenure and implications of REDD+ for forest rights,

commitment of CFUGs to secure CF rights and to make REDD+ a success seems to be encouraging.

As the value of forests grows locally (for livelihoods and community development) and globally (for environmental services), different types of stakeholders with often diverse and conflicting interests have emerged in the forestry sector. Stakeholders' access to resources, equity in benefits (cost) and opportunity (challenges/ risk) sharing and dynamics of power relations, which are the key factors that determine governance outcomes, have been more complex and ambiguous. This may lead to frequent changes in the interactions of these stakeholders' resulting influence on governance mechanism, benefit sharing, gender equity, resource management, conflict resolution and the CF processes that have direct bearing on REDD+ outcomes (Pokharel 2006). For example, the government forest bureaucracy is still exercising its power to control forest product harvesting, distribution and sale in CF, though its role has already been changed from policing to facilitating (*ibid*). Despite having autonomy legally, CFUGs are still not sufficiently empowered to determine the price of forest products independently. The local forestry bureaucrats and/or the local political leaders either formally and/or informally affect CFUGs' resource governance and management activities. In this context, there is high likelihood that the government may want to subtly strengthen its role in governing and managing the already devolved forests in the name of REDD+ (Khatri 2012).

Compliance, Monitoring and Adaptive Capacity

It has been observed that CF has contributed remarkably to the improvement in forest management, social mobilization, income generation and grassroots-level institution building (Kanel 2004). In addition to a range of factors that contributed to shaping community-friendly policies on CF, the compliance of CFUG, local knowledge, skills and forest management systems, and adaptive capacity of local leaders also play a significant role in bringing those changes at grassroots level. These changes can be further enhanced and institutionalized through the empowerment and capacity building of communities and their leaders. The REDD+ scheme can build on these initiatives so as to bring further institutional innovations for strengthening its outcomes.

If CFUG members are directly involved in the formulation of rules and regulations, and are aware of updates to these rules, they become motivated in compliance of those rules. However, the provisions made in the CFUGs' constitutions and OPs are highly complex and impractical, especially when they are prepared under the influence of external ideas and/or agents. Since REDD+ is an external concept for CFUGs, the real forest stewards might have less motivation in respect of REDD+ activities, which may lead to less compliance of rules and less trust among stakeholders. Therefore, adequate awareness and information flow regarding the process and implications of REDD+ is important so that potential conflicts are avoided through enactment and compliance of policy and building trust among stakeholders.

The lessons learned on forest governance and management from past deliberations and reflections can be instrumental in better understanding the implications of the REDD+ scheme. In order to capitalize on this, participatory monitoring, self-reflection, interaction and review of CFUGs' practices, in addition to sustainable management of forest, may need to be strengthened and adapted as part of CFUGs' organizational culture. These organizational cultures may need to be duly recognized and respected by other stakeholders and collaborators that are engaged in REDD+ so that they can learn from the practices of CFUGs and institutionalize the same in the REDD+ process. However, looking at the

cultural practices of Nepal's CF, more powerful and resource-rich actors might have undue dominant role in the collaboration and, therefore, institutional cross learning might be curtailed.

The existence of a few provisions related to biodiversity, payment for environmental services or carbon trade in the OPs indicates that they are aware of the broader and macro-level issues related to forest. However, FGDs indicated that these provisions were particularly made due to the influence of external agents/facilitators and CFUG members lacked knowledge of global and national forestry issues and trends in forestry policies and discourses. This is partly due to lack of opportunities in engaging with the macro-level forestry issues. As REDD+ is also a newly emerging international initiative, there is high likelihood that most of the CFUGs lack competency in engaging in the REDD+ processes. Capacity building, partnership and collaboration, resource provisioning and safeguards might be useful for increased engagement of CFUGs in REDD+.

Effectiveness and Efficiency

Though REDD+ is considered as one of the effective strategies for reducing carbon emissions, there are a range of challenges and risks associated with formulating a policy and setting up institutional provisions at different levels. Within a country, grassroots-level institutional provisions and practices might have greater bearing in determining the outcomes of REDD+.

In situations where local people largely depend on forest resources, devolution of forest management rights has been an effective strategy as it has addressed both the livelihood and forest management needs of local communities. However, there are tradeoffs in the outcomes of forest management that are acceptable to the communities and the state. Though the transfer of resource ownership to communities is identified as a feasible and cost-effective strategy for poverty reduction (Arnold 2001), application of this idea in the REDD+ context may be contested. In the context of REDD+, the main and prioritized objective of forest management is to reduce the emissions from the forest and, therefore, its tradeoff with poverty and livelihood outcomes may not be considered as REDD+ outcomes for payment. In the situation where co-benefits are not considered for payment, the enthusiasm of forest-dependent communities towards managing forest may be less. So far, there is no clarity on the very objectives, targets and co-benefits of REDD+ that may be rewarded through payment and, therefore, its effectiveness seems to be unclear.

A focus on participatory approaches to forest management and defining clear land tenure and carbon rights may lead to effective and efficient outcomes of REDD+. Moreover, CFUGs' governance, backed by legislation, has increased the effectiveness and efficiency of CF (Kanel 2004), which may contribute towards success of REDD+ in Nepal. However, it is advisable to strengthen the REDD+ programme by formulating explicit national legislation for the REDD+ scheme to operate so as to ensure effectiveness and efficiency in the outcomes.

CONCLUSION

Better governance of forest management communities has been considered as one of the prerequisites of REDD+ to be effective in its outcome. Efforts are inadequate in synthesizing past forest governance lessons and linking them with the REDD+ policy development process. This study shows that the lessons gained through the study of CFUGs' governance could be instrumental in designing REDD+ governance at grassroots level and realize its outcomes effectively. As a local-level institution managing forest successfully for more than three

decades, CFUGs might take viable and effective grassroots initiatives for implementing REDD+ so as to reduce emissions as well as securing co-benefits at optimum level. Also, while assessing through key parameters of governance, CFUGs are found to be appropriate institutions at grassroots level for REDD+ interventions. However, capacity building, empowerment and additional resources might be needed for them to carry out additional activities related to REDD+. It is also important to make CFUGs inclusive so as to create a feeling of ownership by all local people. Failure to do so may weaken governance, resulting in weak negotiation capacity of CFUGs, at both policy and practice levels.

Some of the specific key findings and observations of the study that might be related to REDD+ are as follows:

- Under the current CF policy framework, CFUGs' access to forest resources, particularly for fulfilling the subsistence needs of forest products, has been secured through a range of locally devised policies and mechanisms. Therefore, the existing CF policy by and large may be useful in providing a space for CFUGs to exercise their rights over use of forest products at local level. However, gaining benefits from the environmental services, including carbon sequestration and REDD+ scheme, may need a more explicit and elaborate policy framework.
- A range of effective and locally suitable governance measures that promote participation, accountability and transparency are devised and applied at CFUG level. Such measures themselves (or at least the lessons gained through them in CF) might be equally relevant to improve REDD+ grassroots level governance in both technical and financial aspects.
- Participatory planning and a bottom-up decision-making process have been institutionalized in the CFUGs and therefore, the ownership of the CFUG members has increased in CFUG activities. However, these processes have often been handicapped by formalities and elite captures. Therefore, care should be taken while the lessons from CF are taken over to REDD+.
- So far, dynamics of power relations between CF stakeholders have greater bearing in the functioning of CFUGs, particularly in selecting leaders and sharing benefits. It is perhaps due to the engagement of people in the current process of political transformation. Existing power relations could be changed through REDD+ implementation since the private sector might enter the stakeholder landscape and might have greater say due to their role in financial transactions.
- Despite having clear vision, strong commitment, passion and action for forest management on the part of CFUGs, the individuals or institutions supporting CFUGs either from within it or from the external environment may have great influence in the CFUGs' change process. Therefore, the role of facilitating individuals and institutions is important not only to convey the message on REDD+ in the CFUGs but also to institutionalize it.
- Though the CFUG members' compliance of approved constitution and OP indicates encouraging sign for the success of CF, little organized and institutionalized self-monitoring and reflection of the broader context and past deeds might cause constraints on REDD+ implementation. Perhaps special consideration and investment in this aspect of community

action might add value to synergize REDD+ outcomes.

- The collaboration and partnership that the CFUGs have made so far with different local institutions might provide an opportunity for learning that can be used to forge broader collaboration for REDD+ as well as community development.
- Consideration of macro environment and their chain effect at grassroots level is important to provide policy feedback for ensuring forest rights of local communities. However, it is still questionable whether CFUGs can secure community rights over forest resources and equitable share of benefits even if they respond to the macro-level policy environment where mechanisms such as REDD+ are evolving.

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Social Safeguards in REDD+: A Review of Existing Initiatives and Challenges

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Abstract: Reducing emissions from deforestation and forest degradation, as well as conservation and enhancement of forest carbon stocks and promoting sustainable management of forests in developing countries (REDD+) has been proposed as an effective mechanism to mitigate the impacts of climate change. However, in view of the significant dependence of the local communities, indigenous peoples, women and other marginalized groups on the forest resources for their livelihoods and other daily needs, a number of apprehensions have been raised, citing the potential risk associated with the faulty design and weak implementation of the REDD+ mechanism. In this context, a number of international initiatives have been proposing different sets of social and environmental safeguards, which can prevent potential social and/or environmental damage or harm to such forest-dependent communities and increase benefits for them in an equitable manner. By presenting brief overviews of various international level social and environmental safeguards, the authors argue that the initiatives taken so far provide a solid basis for formulating them at national level despite several challenges. There is a need to customize and harmonize the safeguard measures proposed so far with the national level initiatives related to forest/land rights, forest governance, benefits sharing, and so on. Ensuring effective and meaningful participation of local communities and civil society has been identified as challenging prerequisite to address genuine concerns of forest managing communities while developing, implementing and monitoring safeguard provisions. Similarly, allowing utmost important factor – flexibility - in the interpretation and implementation of safeguard provisions at the national and local contexts has to be recognized and managed properly.

Key Words: REDD+ safeguards, REDD+ social and environmental standards, SFM principles and criteria, free, prior and informed consent, women's carbon standard, MRV of REDD+ safeguards

INTRODUCTION

It is now widely acknowledged that forests play an important role in mitigating the impacts of, and adapting to, climate change. Following the last couple of Conferences of Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC), there has been a rapid proliferation of initiatives at international and national level that are aimed at reducing emissions from deforestation and forest degradation, as well as conservation and enhancement of forest carbon stocks and promoting sustainable management of forests, in developing countries, collectively known as REDD+. While REDD+ has the potential to deliver significant social and environmental co-benefits, many have also highlighted the serious risks (Murphy 2011), particularly for indigenous peoples, local communities, women and other marginalized communities, who depend significantly on the forests for their livelihoods and other daily needs. One potential way to address such risks is to have a set of social and environmental safeguards measures in place, which can prevent social and/or environmental

damage or harm to such forest-dependent communities and increase benefits for them in an equitable manner.

During the COP15 held in Copenhagen in December 2009, a consensus was reached that a number of safeguards should be supported and promoted at both global and national level while undertaking REDD+ actions (UNFCCC 2009). This consensus was later developed into an agreement during the sixteenth session of the UNFCCC, i.e. COP 16 at Cancun and was considered as one of the most important breakthroughs in the climate change negotiations (Kant *et al.* 2011).

The social and environmental safeguards, as stipulated in Annex 1 of the Cancun Agreement (UNFCCC 2011) (see Box 1), emphasize implementing REDD+ activities in accordance with the guidance provided by the COPs and cover a range of issues. These include conservation of natural forests and biological diversity, establishment of transparent and effective national forest governance structures, respect for the knowledge and rights of indigenous peoples and local communities, and their full and effective participation in the designing and implementation of REDD+. The agreement also stipulates that REDD+ actions need to be consistent with existing policies of the conservation of natural forests and biological diversity and serve to improve ecosystem services and enhance other social and environmental benefits (Kant *et al.* 2011).

Box 1: United Nations Framework Convention on Climate Change (UNFCCC) safeguards articulated in the Cancun Agreement

1. Actions complement or are consistent with the objectives of national forest programmes and relevant international conventions and agreements,
2. Transparent and effective national forest governance structures, taking into account national legislation and sovereignty,
3. Respect for knowledge and rights of indigenous people and local communities, by taking into account relevant international obligations, national circumstances and laws, and noting that the United Nations General Assembly has adopted the UN Declaration on the Rights of Indigenous Peoples,
4. Full and effective participation of relevant stakeholders, in particular indigenous people and local communities, in the actions referred to in paragraphs 70 and 72 of this decision,
5. Actions are consistent with the conservation of natural forests and biological diversity, ensuring that actions referred to in paragraph 70 of this decision are not used for the conversion of natural forests, but are instead used to incentivize the protection and conservation of natural forests and their ecosystem services, and to enhance other social benefits,
6. Actions to address the risk of reversals,
7. Actions to reduce the displacement of emissions.

Source: UNFCCC 2011

Following the Cancun Agreement, there have been a number of initiatives at global level to develop social and environmental safeguards by various multilateral and bilateral agencies, with a range of overlaps between them. This review provides an overview of some of the most discussed REDD+ safeguards, particularly the social safeguards, and initiatives to develop

provisions and their integration at national level, and challenges with respect to the implementation, monitoring, reporting and verification of these safeguards at national level. Furthermore, the article also shares practical experiences related to addressing some of the key elements of social safeguards through training and capacity-building activities at grass roots level in four countries, viz. Lao PDR, Indonesia, Nepal and Vietnam. In these countries, RECOFTC – The Center for People and Forests has been implementing Grassroots Capacity Building program for REDD+, which is funded by the Norwegian Agency for Development Cooperation (NORAD). This project is being implemented since 2009, and following a cascade approach of training and capacity building at national, sub-national and grassroots level, the project has imparted training in the basic concepts of climate change, role of forests in climate change and REDD+, and the potential roles and responsibilities of grassroots stakeholders in REDD+ programme in the project countries (RECOFTC 2011; RECOFTC 2012). With respect to strengthening the understanding of grassroots stakeholders on social safeguards of REDD+, the project has also focused strongly on organizing training and capacity-building activities on gender mainstreaming and on Free, Prior and Informed Consent (FPIC) in REDD+. In this article, experiences from organizing such training programmes are also included as part of experience sharing.

AN OVERVIEW OF REDD+ SAFEGUARDS

The COP in Cancun laid a sound foundation on which a more comprehensive structure for REDD+ could be built in the future. Subsequent to the Cancun Agreement, a number of multilateral and bilateral initiatives have responded to develop sets of provisions for promoting social and environmental safeguards of REDD+. Some of them have also taken initiatives to integrate safeguards within national REDD+ frameworks. Following is a brief review of current initiatives.

Forest Carbon Partnership Facility (FCPF)

The World Bank's Forest Carbon Partnership Facility (FCPF) under its Strategic Environmental and Social Assessment (SESA) has developed a set of safeguards. A set of ten policies of SESA allows for the incorporation of environmental and social concerns into the formation of national REDD+ strategies and ensures that the FCPF readiness activities comply with the World Bank's policies during the strategic planning phase of REDD+ projects and programmes, considering that these strategic activities could have potentially far-reaching impacts. For REDD+, the most relevant World Bank policies are likely to be on Environmental Assessment (OP/BP 4.01), Natural Habitats (OP/BP 4.04), Forests (OP/BP 4.36), Involuntary Resettlement (OP/BP 4.12) and Indigenous Peoples (OP/BP 4.10) (FCPF 2011).

A specific output of SESA is the Environmental and Social Management Framework (ESMF). The ESMF is a framework to avoid and/or mitigate and manage potential risks of the REDD+ strategy options related to adoption of future REDD+ projects, activities and policies. The strength of SESA for REDD+ is that it combines analytical and participatory approaches by engaging with a number of key stakeholders. It follows an iterative process throughout the REDD+ readiness phase, including the development of national Readiness Plan Proposal (R-PP). Furthermore, SESA advocates integration of key environmental and social considerations relevant to REDD+ at the earliest stage of decision making and establishing their inter-linkages with economic, political and

institutional factors. Through this process, social and environmental opportunities and desirable outcomes are identified and agreed upon to ensure that the REDD+ programme will be sustainable and contribute to the country's development objectives.

UN-REDD Programme

The UN-REDD Programme has drafted a set of six principles and 18 criteria and associated tools and guidance (UN-REDD 2012) to develop the Social and Environmental Principles Framework for REDD+. Six key principles are democratic governance, stakeholders' livelihoods, policy coherence, protection and conservation of natural forests, maintenance and enhancing of multiple functions of forests, and minimizing indirect adverse impacts on ecosystem services and biodiversity. This framework follows an approach of '*do no harm*' and aims to ensure that UN obligations and commitments are met in the REDD+ programme, including United Nations Declaration on Rights of Indigenous Peoples (UNDRIP), FPIC and UN Development Group Guidelines on Indigenous People.

The Framework has two main components:

i) **Aminimum standard risk assessment and mitigation** – The UN-REDD Programme funded programmes/projects/actors will have to comply with a set of minimum environmental and social standards. These principles frame a code of conduct for activities supported by the UN-REDD Programme and are based on international treaties, conventions and best practice guidance.

ii) **An assessment of impact magnitude** – It is intended to minimize social and environmental risks and maximize multiple benefits for climate, sustainable development and conservation.

To complement this, the UN-REDD Programme has also developed guidance and activities on a participatory governance assessment and monitoring tools for REDD+ to identify governance challenges and recommend responses (UN-REDD 2012). Additionally, it has also developed guidelines on stakeholder engagement and FPIC and the provision of information on REDD+ governance. Furthermore, 'benefits and risk tool' is also being developed to help apply and elaborate the concepts encompassed in the social and environmental principles and criteria.

REDD+ Social and Environmental Standards

The REDD+ Social and Environmental Standards (REDD+ SES) is a multi-stakeholder initiative facilitated by the Climate, Community and Biodiversity Alliance (CCBA) and CARE International (REDD+ SES 2012). They have been developed to support the design and implementation of government-led REDD+ programmes that respect the rights of indigenous peoples and local communities and generate significant social and environmental benefits. The standards have been explicitly designed to go beyond laying out minimum safeguards and to identify and elaborate benefits. The REDD+ SES consists of principles, criteria and indicators and a process of monitoring, reporting and verification (MRV) through multi-stakeholder assessments. A set of seven principles, listed below, provides the key objectives that define high social and environmental performance of a REDD+ programme.

1. Respect for rights of indigenous peoples and local communities, including FPIC
2. Equitable benefit sharing
3. Benefits for indigenous peoples and local communities improve human well-being

4. Contribution to broader sustainable development
5. Maintenance of biodiversity and ecosystem services
6. Full and effective participation and access to information
7. Compliance with national and international laws

At principle and criteria level, the standards are intended to be generic (i.e. the same across all countries). At indicator level, there is a multi-stakeholder process for country-specific interpretation to develop a set of indicators that are tailored to the context of a particular country. The standards have been piloted in countries including, Ecuador, Nepal, Tanzania, the State of Acre in Brazil and the Province of Central Kalimantan in Indonesia.

Rainforest Alliance Social and Environmental Safeguards for REDD+

Rainforest Alliance Social and Environmental Safeguards for REDD+ were developed in Brazil through an inclusive process. It includes eight principles and 27 criteria (Bonfante *et al.* 2010). The principles address legal compliance, rights recognition and guarantee; benefit sharing; economic sustainability; improvement in quality of life and poverty alleviation; environmental conservation and recovery; participation of all stakeholders; monitoring and transparency; and governance.

Sustainable Forest Management Principles and Criteria

The principles and criteria for sustainable forest management (SFM) put forward by the Forest Stewardship Council (FSC), which are based on ten principles (summarized below) (FSC 2012), can also be useful to shape safeguards for REDD+.

- **Compliance with laws and FSC Principles** – to comply with all laws, regulations, treaties, conventions and agreements, together with all FSC Principles and Criteria.
- **Tenure and use rights and responsibilities** – to define, document and legally establish long-term tenure and use rights.
- **Indigenous peoples' rights** – to identify and uphold indigenous peoples' rights of ownership and use of land and resources.
- **Community relations and worker's rights** – to maintain or enhance forest workers' and local communities' social and economic well-being.
- **Benefits from the forest** – to maintain or enhance long-term economic, social and environmental benefits from the forest.
- **Environmental impact** – to maintain or restore the ecosystem, its biodiversity, resources and landscapes.
- **Management plan** – to have a management plan implemented, monitored and documented.
- **Monitoring and assessment** – to demonstrate progress towards management objectives.
- **Maintenance of high conservation value forests** – to maintain or enhance the attributes which define such forests.
- **Plantations –** to plan and manage plantations in accordance with FSC principles and criteria.

Women's Carbon Standard

In April 2013, Women Organizing Change in Agriculture and Natural Resource Management (WOCAN) launched Women's Carbon Standard (WCS). The WCS is a set of project

design guides that complement existing compliance or voluntary carbon standards, such as the Verified Carbon Standard, the Gold Standard and the Clean Development Mechanism (CDM), among others. The WCS specifically includes guidance as how to encourage and then measure women's empowerment and participation in carbon projects (WOCAN 2013). The WCS specifically includes mechanisms that measure women's empowerment and participation in carbon or ecosystem services projects. The WCS will quantify beneficial outcomes for women, their families and communities. As proposed by WOCAN, the WCS espouses three principles:

1. WOCAN will challenge the prevailing public perception of women as members of vulnerable groups most affected by climate change, thus limiting their opportunities to participate in the market. This will be done by showcasing their roles as entrepreneurs, resource managers and leaders who engage with carbon markets.
2. WOCAN will employ the WCS as a transparent, rigorous and realistic mechanism that can promote women's empowerment using private sector market approaches. This is necessary to quantify and value women's contributions to green house gas (GHG) mitigation.
3. The WCS will permit projects that include social co-benefits for women to receive a premium price on the carbon market. Corporate Social Responsibility (CSR) buyers—those companies who pay for offsets to enhance their brand image—are willing to pay more for credits that are generated from projects that have compelling human interest stories.

Other Initiatives

The need for safeguards is also being reflected in a number of other initiatives, including bilateral agreements. For example, the Government of Norway's International Forests and Climate Initiative has made their funding to Guyana and Indonesia conditional upon implementation of certain governance requirements aimed at limiting deforestation. Similarly, other projects, such as those funded by Australia and others, include frameworks specifically targeting gender equity and environmental assessment. The Clean Development Mechanism (CDM) provides safeguards for stakeholders, including that they must be consulted during the planning of a CDM project activity and that designated operational entities must verify that local stakeholders' concerns have been considered and properly addressed by project developers. Also, project participants are able to communicate with the Executive Board directly on matters related to a project, its registration and the issuance of certified credits.

EMERGING CONCERNS ON THE IMPLEMENTATION OF SAFEGUARDS

The implementation and monitoring of safeguards have been a contentious issue in the REDD+ debate. Following the Cancun Agreement on REDD+ safeguards, major decisions on how the scheme will be funded and how both 'safeguards' and deforestation will be monitored remain unresolved (Austin *et al.* 2010). Some argue that safeguards could potentially make implementation of REDD+ more complex and increase transaction costs (Jagger *et al.* 2012), and therefore, less able to compete with other land uses or with other sources of carbon credits. One simple example of this is related with capacity building at grass roots level, as experienced in the grass roots project being implemented by RECOFTC in four countries. The project has delivered training programmes on FPIC and gender mainstreaming, and simplification of the international language on climate change, REDD+ and safeguards to the level that local

stakeholders can understand and communicate back their concerns to the policymakers involves significant efforts and costs. On the other hand, a number of civil society organizations and community representatives argue that the safeguards do not go far enough to protect the culture and livelihood of forest-dependent communities. And it will be important that the development and implementation of safeguards takes the points of view of these REDD+ stakeholders into account.

Following are some of the major concerns and challenges regarding formulation and implementation of social safeguards at national level.

Customizing and Harmonizing Safeguards

One of the key challenges at national level is with regard to customizing the internationally developed safeguards mechanism and integrating them into the national processes. This requires institutional frameworks that can establish national interpretations of global standards of safeguards. Integrating the development of safeguards within country systems is important in allowing the flexibility to define safeguards based on national issues or existing national safeguards systems. For example, a number of countries already have well-defined policies on gender mainstreaming in the forestry sector in general, which can be easily adapted and contextualized to inform the relevant processes at national level with regard to REDD+ safeguards. Such a process will help in maintaining sovereignty of the process while ensuring that national interpretation responds effectively to international common principles.

The existing international initiatives related to the development of REDD+ safeguards demonstrate the commonality and overlap in their approaches, yet there are differences in the levels of details of the requirements and the intended processes and outcomes of application, evaluation, and monitoring of the safeguards. All the principles, criteria and indicators, as developed by different agencies are important references. However, they need to be harmonized with the national circumstances, as national governments are expected to promote and support REDD+ safeguards in their own situations. This is more challenging for those countries which are involved in both the UN-REDD Programme and the World Bank's FCPF programme.

Civil Society and Community Concerns

Meaningful and genuine engagement of the stakeholders concerned is necessary while drafting national-level REDD+ safeguards and integrating them into national REDD+ processes. Especially indigenous peoples and local communities, including women and marginalized groups, need to be informed and engaged. They may need to be supported by technical experts, resources and capacity-building services to enable them to participate meaningfully and effectively. Additionally, the elements of good governance, empowerment of women, benefit sharing and long-term livelihood security of indigenous peoples and local communities need attention, particularly for ensuring social safeguards of REDD+.

Experiences from the ongoing grass roots project of RECOFTC have reflected that indigenous peoples and local communities have genuine concerns related to REDD+ and uncertainty in various aspects of resource governance caused by it. These are basically linked with the non-recognition of the land tenure rights over the forest land and resources, elite capture of resources and weak capacity of local communities and marginalized groups to raise their concerns with policymakers, leaving them vulnerable to exploitation. The complex language and the related concepts associated with REDD+ and relevant safeguards are other

dimensions to this challenge, which in many instances act as a barrier to the meaningful and effective participation of these communities in REDD+ planning and implementation.

Land Rights and Benefit Sharing

Unclear rights of forest-dependent communities, including indigenous peoples and local communities, to land, territories and resources are other major challenges to formulating safeguards. Government agencies often have ambiguous, unclear and sometimes conflicting mandates regarding the management of land resources, which can cause problems with defining and negotiating rights issues in both setting standards for social safeguards and their implementation. Besides clarity on property rights over carbon, issues related to land tenure and other user rights, transparency, accountability and broad participation of local communities, indigenous peoples and the private sector should underlie the achievements of multiple social and environmental benefits of REDD+. Linked to this is the issue of equitable benefit-sharing and going beyond 'no harm' to 'more good'. Since forests are more than carbon, they provide benefits through diverse ecosystem services, including water and biodiversity.

Enforcing Safeguards

Once the safeguards are drafted, implementing them on the ground is equally challenging. If implemented too rigidly, they may create conflict over use of forest resources and the resultant benefits from them between and among stakeholders. This could, in turn, affect the acceptance as well as growth of REDD+ severely and may limit its advantages to limited forestlands. The need is to ensure that these safeguards are enforced wisely, not dogmatically, which while appearing virtuous, may harm the very people that are sought to be protected. Another important aspect that will need adequate consideration while implementing the safeguards is the approach of REDD+ implementation. The process of REDD+ implementation at national level involves a phased approach, therefore, demanding for a flexible approach in integrating and adapting them to and in all stages of REDD+. Learning from other similar initiatives such as the European Union (EU) Forest Law Enforcement, Governance and Trade Initiative (FLEGT), FSC principle about SFM, which are focused on combating illegal logging and trade in illegal timber, can help in complementing the process of design and implementation of REDD+ safeguards at national level.

All these initiatives will need strong coordination between and among different line agencies at national and sub-national levels, with adequate capacity development support, and stronger governance structure at local level. For effective implementation of FPIC, an easily accessible grievance mechanism will need to be in place to provide an opportunity to marginalized communities to voice their concerns and also to address the challenge of elite capture.

Monitoring of Safeguards

Discussions on MRV have so far tended to focus on the technical elements of REDD+ implementation, primarily carbon measurement. However, it is equally important to build monitoring frameworks and capacity for MRV for social safeguards, including governance system of REDD+ implementation, at national and local level.

After the Cancun Agreement, parties to the convention are currently in the process of developing guidance to create a system for providing information on how the REDD+ safeguards are being addressed and respected. The UN-REDD programme has drafted social principles and a risk identification and mitigation tool to be used in the UN-REDD national programme for monitoring REDD+

governance, an important element of the social safeguards. The particular focus of this process is on defining key aspects of governance relevant to REDD+ and how these could be monitored, including core governance parameters, such as clearly identified roles and responsibilities of different institutions, coordination among them and across sectors, participation of stakeholders, transparency of decision making and developing principles for effective monitoring. By supporting a mechanism for monitoring and reporting on how safeguards are addressed and how social and environmental benefits of REDD+ programmes have been delivered, CCBA and CARE International are piloting a new approach to social and environmental safeguards monitoring in selected countries.

Another initiative for MRV on safeguards has been from Global Witness, which has developed a set of principles advocating independent monitoring of REDD+ safeguards by a third party that is endorsed by the state authorities. Such an independent assessment is to look into compliance and observation of and guidance on official law enforcement systems. Furthermore, the role of civil society is important in independent monitoring, which could help in improving transparency and accountability by publicly reporting on the evidence gathered in an objective and unbiased manner. Transparency in information sharing between and among lead ministries and agencies is necessary to integrate the social and environmental considerations and recommendations into policy formulation processes and developing independent monitoring of REDD+ safeguards.

CONCLUSION

The recent initiatives of formulating social and environmental safeguards for REDD+ implementation by multilateral and bilateral agencies have provided a solid basis for formulating them at national level. Nevertheless, there is a need to customize and harmonize the safeguard measures. In this process, there are a number of challenges which need adequate attention from the national governments and other stakeholders. Moreover, it is equally important to create appropriate and measurable indicators which are also culturally sensitive in order to monitor the implementation of the social safeguards. While nationalizing REDD+ safeguards, looking beyond carbon benefits and exploring opportunities for additional economic incentives and maximizing the co-benefits will help improve buy-in from indigenous peoples and local communities for the REDD+ programme. Transparency and participation lie at the heart of social safeguards. Indigenous peoples and local communities need stronger capacity to actively participate in REDD+, particularly in the development of social standards. Raising stakeholder awareness of participatory approaches is essential and requires substantial capacity-building efforts, followed by support at local to national level. All these initiatives at national and sub-national level will only work when coordination among key stakeholders within and outside the government is guaranteed.

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What is REDD+ Additionality in Community Managed Forest for Nepal?

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Abstract: Reducing Emissions from Deforestation and Forest Degradation (REDD+) is a policy currently under consideration by the United Nations Framework Convention on Climate Change (UNFCCC). This study carries out a Nepal-specific research to understand REDD+ policy's potential role in carbon sequestration, by identifying the economic and preferential rationales that drive deforestation and degradation in community managed forests. The study explores four different land use options, making use of both community based survey and field data used to generate net present value (NPV). Both techniques give consistent results that, in the current economic situation, farmers prefer using land for livelihood purposes rather than solely for community forest management. This has a very strong implication for policymakers. First, the results imply that conversion and degradation are inevitable, thus placing community forest in imminent threat and making this risk reduction additionality in REDD+ terms. Furthermore, it shows that, to combat the drivers of deforestation and forest degradation, policies such as REDD+ need to provide enough financial incentives that will incur the opportunity costs and direct farmers towards the efficient use of community managed forest.

Keywords: REDD+, additionality, land use options, opportunity cost, community forest

INTRODUCTION

Reducing Emissions from Deforestation and Forest Degradation (REDD+), recognized as the most effective and efficient way to combat climate change, is a policy currently under consideration by the United Nations Framework Convention on Climate Change (UNFCCC). Approval of this policy will ensure carbon credit eligibility for carbon abatement through reduction in deforestation and forest degradation. The Hindu-Kush Himalayan region is witnessing regeneration of forest in vastly deforested land, making collaborative forest management a valuable carbon pool (Banskota *et al.* 2007). Thus, implementation of REDD+ policies in this region will provide the communities involved in forest management with strong incentives to participate in the global carbon market. Participation, however, will depend highly on the costs and benefits to the communities. To understand such economic rationales and preferences, pilot projects are underway in three different watersheds in Nepal, one of which is the basis of the study presented in this paper.

LITERATURE REVIEW

The economic rationale and preferences behind an individual's land use options introduce a basic economic concept of opportunity cost. The concept of opportunity cost looks at the cost of foregone benefits (White and Minang 2010). In this context, it is the benefits from deforestation and forest degradation that are being lost by implementing forest conservation practices such as those undertaken by the community managed forests of Nepal. For a REDD+ project, the opportunity cost is 'the single most important category of costs a

country would incur', making it highly valuable in determining the carbon payment compensation (White and Minang 2010). In order to provide enough incentives to farmers, the compensation has to incur the opportunity cost.

To understand the economic rationale and farmers' preferences, it is important to recognize the different land use options. Forest land usage can be divided into two categories: those that offer either a market value or a non-market value (Barbier *et al.* 1991). Market value is generated from timber, non-timber forest products such as fruits and nuts, land for agricultural purposes or cattle grazing and infrastructural use such as hydro dam, road or building construction. On the other hand, non-market value is achieved through watershed protection, microclimatic regulation and indirectly through recreation and tourism (Barbier *et al.* 1991). Evidently, market value can only be achieved through deforestation, while non-market value requires the forest to be in its conserved state. Thus, in terms of opportunity cost, forest conservation would imply giving up the current income that could be generated from the deforested state for long-term benefits that are not guaranteed.

Among the mentioned market values, deforestation for agricultural purposes is the most common problem in developing countries, expansion of the agricultural frontier being one of them. As Schneider (1994) argues, 'the returns to sustainable farming on existing frontier land ... rarely compare favorable with the returns from unsustainable farming' (as cited in Barbier 1997). Low income rural households are primarily found where land productivity is poor. Thus, these households find it more profitable to gain short-term rent by fully exploiting the land they are already in and to abandon it once yields decline. If a farmer were to invest money in making their existing land more sustainable in the long term, then they would have to incur the cost of land improvement and immediate income. Where land is abundant and expansion is relatively cheap, this is not seen as the most efficient strategy (Barbier 1997).

Most of the options that are available make deforestation highly favourable to low income households. Due to this, the provision of strong incentives is required to encourage them to take on forest conservation practices. These incentives can be given a value by calculating its opportunity cost. Several prior case studies have been carried out that specifically look at the opportunity cost of forest preservation. Once such study took place in the Brazilian Amazon, the largest rainforest in the world, covering 3.3 million km^2 of land and preserving 47 billion tons of carbon (excluding soil carbon) (Nepstad 2007). Using spatially explicit models, the study calculates an opportunity cost of US\$5.5/tCO_2, which has a total value of US\$257 billion for the entire area. Another case study was carried out in Cameroon, which is one of the six countries that form the Congo basin, the second largest rainforest after the Brazilian Amazon (Bellassen and Gitz 2008). Exploring the idea of *Compensated Reduction* (creating financial incentives through the allocation of monetary value to the stored carbon), the study calculates the opportunity cost specifically in terms of shifting cultivation. The study computes the breakeven price of carbon, which is the point where compensated reduction and shifting cultivation yield equivalent revenue. The analysis shows that avoided deforestation has an opportunity cost of US\$2.85/t CO_2, a value much lower than that of the Brazilian Amazon. This implies that a compensation of US\$2.85 for every ton of CO_2 stored will be enough to make up for the loss they would face from ceasing shifting cultivation. Comparing these opportunity costs with the European price for carbon of US\$20/tCO2e (in 2008), it is observed that forest preservation practices are highly profitable.

Looking specifically at Nepal, a research undertaken in three different areas indicates how the cost of REDD+ implementation varies mainly due to the differences in the opportunity cost in different locations. The study shows that the cost for REDD+ implementation by individual community forest user group (CFUG) can vary from US$0.55 to US$3.7 per tCO_2 (Karky and Skutsch 2010).

The cost for avoiding deforestation and forest degradation in developing countries is near the opportunity cost of the business as usual activity. Estimating the opportunity cost is strategic for REDD+ to work, as it will influence the role of forests in developing countries and will serve as a basis for setting the level of financial incentive (Pirard 2008). This clearly indicates that the opportunity cost for forest conservation differs significantly. Thus, the REDD+ policy needs to take this into consideration to ensure meaningful conservation and sustainable management of forest.

STUDY AREA BACKGROUND

This study is conducted in one of the watershed sites of the REDD+ project in Nepal. The study area is confined to Pragati Community Forest (CF), Shaktikhor Village Development Committee (VDC)-6, Chitwan that lies within the Kayarkhola Watershed (Centre coordinates: 27.71700°N, 84.623074°E).

Kayarkhola watershed is located in Chitwan district, which is a part of the Central Development Region of Nepal. Its total area is 8,002 hectares (ha) and it consists of tropical to sub-tropical forests, covering an altitudinal range of 245m–1,944m. It covers five Village Development Committees (VDCs) in Chitwan district, out of which, only three fall under CF. These three VDCs further consist of 15 CFUGs, covering 2,381.96 ha of CF area: Shiddi (5 CFUGs), Shaktikhor (9 CFUGs) and Chainpur (1 CFUG). Land use of Kayarkhola watershed is categorized as shown in Table 1.

Table 1: Land cover types within the Kayarkhola watershed

Land Use/Land Cover	Area (ha)	Land Cover %
Close broadleaved forest	4,119	51.48
Open broadleaved forest	1,702	21.27
Agriculture areas/Built-up Areas	2,038	25.47
Bare soil	30	0.38
Natural water bodies	31	0.39
Clouds	81	1.02
Total watershed area	8,002	100
Total forest within watershed	5,821	72.74
Total other Forest (National, Religious, Leasehold Forest) within watershed	3,439.04	42.98
Total Community Forest Area within Watershed	2,381.96	29.77

Source: MENRIS 2010

In the watershed, CFUGs were first formed in the year 1999 (2056 B.S.); formally, the Pragati CF was registered at District Forest Office. A total of 124 ha of CF are being managed by 153 households. The CF managers are from Shaktikhor VDC, ward no. 6; especially from Naya Tandi, Koshrangdi Tandi and Hishe Tandi. The dominant forest type in the area is Sal (*Shorea robusta*), with presence of other species like Saaz (*Terminalia* alata), Karma (*Adina cordifolia*), Bhalayo (*Semecarpus anacardium*), Amala (*Emblica officinalis*), Harro (*Terminalia chebula*), Barro (*Terminalia bellirica*), Chiuri (*Aesandra butyracea*) and fauna like deer, rabbit, wild boar; reptilian species like snakes, lizard, gohoro, etc. The field survey indicates that the demand for fuel-wood and fodder is sufficient for the CFUGs, whereas the demand for timber is somewhat insufficient. Recognizing these features, the Pragati Community Forest Operational Plan (2003) mentions that the CF needs to be managed further by timber wood and other species that grow fast in bare land despite the forest having a good regenerating capacity; focus is needed to ensure that the forest does not get mono-cultured tree species; the CF needs to aim at sustainable management of the forest, which will fulfill demand for forest product.

RESEARCH OBJECTIVE

The objective of the research is to identify and understand potential economic and preferential rationale that drives deforestation and forest degradation of community-managed forests. Economic rationale, in this case, refers to the economic benefits and costs involved in potential alternative land use options. Preferential rationale refers to the preferences of respective farmers in terms of different land use options.

There are two reasons for understanding the potential economic and preferential rationale that drive deforestation and forest degradation. The first is to be able to identify the level of payment required by REDD+ to promote performance-based forest management by linking economic incentive with conservation and sustainable management of forest in community-managed forest. Second, REDD+ requires the additionality of certified emission reduction (CER) than business as usual scenario. The advent of CF dates back to more than three decades, but it was not initiated in terms of REDD+. However, there is imminent threat of loss of forest biomass in the future from land use conversions. This study attempts to understand the drivers of change so that such threats can be reduced, which may be regarded as meeting the additional criteria of REDD+.

METHODOLOGY

In order to achieve the research objectives described above, several steps were taken. Two focus group discussions (FGDs) were conducted in Pragati CF, Shaktikhor VDC-6, Chitwan. Furthermore, Key informant Interviews (KII) was conducted with District Forest Officers (DFOs).

During the FGDs, the farmers identified different possible land use options and their preferences with respect to the listed options were recorded. Additionally, data on the costs and benefits of implementing these different land use options were calculated. Using the data gathered on the costs and benefits of CF (for 2007–10), projections of future costs and benefits were made (until 2030). These data were used to calculate net present values (NPVs) of different land use options. This approach is similar to that of Purushothaman (2005).

All data used in this paper except those in the 'study area background' and 'livelihood and land use linkages' area were collected by the authors through field research in 2010. The data on 'study area background' and 'livelihood and land use linkages' were taken from MENRIS (2010)

and ICIMOD *et al.* (2010) respectively. Note that project database surveys a sample of 365 households.

Each of the possible land use options identified by the farmers is described below:

Option 1: There is no additional intervention or activity in the CF.

Option 2: A small part of the CF is converted into grazing land.

Option 3: A small part of the CF is used for agriculture.

Option 4: A small part of the CF is used to build a resort.

LIVELIHOOD AND LAND USE LINKAGES

In this section, a brief background of livelihood and land use linkages in Kayarkhola watershed, where the study area, Pragati CF lies, is provided. As can be seen in Table 2, Janajati[1] (indigenous people) households form the majority and approximately half the total population in Kayarkhola watershed. Brahmin/Chhetri[2] follows with 129 households (approximately 35 percent). *Dalit*[3] households are a minority, accounting for 56 households (approximately 15 percent).

Table 2: Caste/ethnicity distribution in Kayarkhola watershed

Caste/Ethnic Group	No. of households
Janajati	180
Brahmin/Chhetri	129
Dalits	56

Source: ICIMOD *et al.* 2013

From Table 3, we see how the livelihoods of different caste/ethnic groups depend on different sources of income, including land-based ones like farms and forests.

Table 3: Income source and distribution in Kayarkhola watershed

	Sources of Income								
	On-farm			Off-farm					
				Forest-Based			Others		
	B/C	J	D	B/C	J	D	B/C	J	D
>0 and < 20000	37	84	21	0	7	0	8	36	7
20,000-40,000	33	19	1	0	0	0	14	26	5
40,000-80,000	16	7	1	0	0	0	22	13	13
80,000 +	7	1	0	0	0	0	62	51	24
Total	93	111	23	0	7	0	106	126	49

Source: ICIMOD *et al.* 2010

- B/C refers to Brahmin/Chhetri, J refers to Janajati, and D refers to Dalit.
- On-farm income includes income received from sale of cereal crops, vegetables, cash crops, and milk and meat products.
- Off-farm (forest-based) income includes income received from sale of timber and non-timber products and products based on other forest resources. Off-farm (non-forest-based) income includes income received from wage labour, job/services, pension, business and remittances

[1] Janajati or indigenous people: people who have been residing in a place for a very long time; have cultural authenticity; hold spiritual ties with their land and possess very limited ability to participate in, and are most often marginalized by the development process.

[2] Brahmin/Chhetri: In general terms Brahmin and Chhetri are the natives of the hills of the Nepal Himalayas and the dominant population with almost 30% of the total population. The mother tongue of this community is Nepali, which is spoken throughout the country.

[3] Dalit: Literally meaning 'downtrodden', this is a category of caste system where they are considered 'untouchables' in society that puts them at the heart of an insidious form of discrimination and social unacceptability.

The data shows that a large number of households coming from different caste/ethnic groups depend on farm income. However, income from farm activities for most households is minimal, i.e. on-farm income for most households is less than NRs 4,000 per year. Moreover, an even larger number of households depend on off-farm (non-forest-based) income. Income from such activities for most households is greater than NRs 4,000 per year. It should be noted that farmers use forest resources mainly for subsistence and not income-generating purposes. Thus, as shown by the data, farmers barely depend on forest resources for income, even though the forests support rural livelihoods in a substantial way.

As we can see from Table 4, individual CFs are unable to meet the demand for forest products in the Kayarkhola watershed region. This is true across all products. The problem is especially severe in the cases of fuel wood, grass and fodder. Consequently, farmers are forced to rely on other sources, e.g. private forests and government forests, among others.

Table 4: Household demand and supply of forest products in Kayarkhola watershed

Products	Demand	Supply by sources						
		CF	Other CFs	GF	PF	LF	Purchase	Total
Timber (cubic feet)	268	208	0	0	60	0	60	328
Fuel wood (Bharis)	30,568	16,385	528	240	10,738	1,256	2,386	31,533
Grass (Bharis)	36,891	3,918	30	0	26,407	2,757	45	33,157
Fodder (Bharis)	46,498	18,196	600	0	23,317	4,171	50	46,334
Leaf Litters (Bharis)	11,688	5,269	121	0	5,391	1,111	30	11,922
Others (kg)	210	120	0	0	70	20	60	270

Source: ICIMOD *et al.* 2010

- One *Bhari* equals 30kg

- CF, GF, PF and LF stand for community forest, government-managed forest, private forest, and leasehold forest respectively.

IDENTIFICATION OF POTENTIAL LAND USE OPTIONS

To examine the economic rationale for (or against) CF management and farmers' preferences on this matter, farmers were asked to identify four potential land use options, including that of a community-managed forest, and discuss their attributes, benefits and costs. In this section, each option for the use of 137 ha of land is described. In addition, the respective benefits and costs of each option to farmers are discussed.

Option one is 'community-managed forest', where communities manage the forest sustainably. This option benefits the farmers as it allows them to have access to fuelwood, fodder, timber and water supply. Meanwhile, the cost is the expenditure incurred in forest management: mobilizing members for sustainable management, implementing conservation measures and maintaining administrative procedures.

Option two is 'community-managed forest with 20 ha (approximately 14.59 percent) of forest land converted to grazing land', leaving 117 ha of community-managed forest. The additional benefit provided by this option to farmers is the increase in livestock products and increased

income from tree-felling (for the first year). The additional cost to farmers is the cost of livestock rearing and reduction in forest resources such as fuelwood, timber and so forth. in the subsequent years.

Option three is 'community-managed forest with 10 ha (approximately 7.29 percent) of forest land converted for mixed agriculture', leaving 127 ha of community-managed forest. The additional benefit provided by this option to farmers is that they can now plant perennial and seasonal crops, which yield higher returns. The additional cost to farmers, apart from reduction of forest resources, is the expenditure involved in preparing land, cash crop plantation, weeding and growing, and mixed agricultural systems.

Option four is 'community-managed forest with 5 ha (approximately 3.64 percent) of forest land being used for resort construction', leaving 132 ha of community-managed forest. This resort would oversee the valley and would provide a trekking trail to *Gadi,* i.e. the top of the hill. The additional benefit of this option is the revenue generated by the resort for the community. The additional cost is the expenditure incurred in the construction, management and maintenance of the resort.

ECONOMIC RATIONALE OF LAND USE OPTIONS

After identifying the potential land use options of Pragati CF, a cost–benefit analysis was carried out for each, including that of a community-managed forest. For each option, data on costs incurred under that particular option were collected for the period between 2007 and 2010. Using this data, future costs for years between 2011 and 2030 were projected. Finally, using the collected and projected data, the NPV for each option for the period between 2007 and 2030 was calculated. The base year was taken to be 2011. The formula used to calculate the NPV is:

$$NPV = \sum PV = \sum_t R_t/(1+i)^t$$

Where t is the time of the cash flow, R_t is the gross margin at time and is the discount rate.

In Table 5, we see the calculated NPV for each of the options described in the previous section for Pragati CF. Clearly, the NPV of community-managed forest is significantly lower when compared to the NPVs of all other options. The NPV of a community-managed forest with grazing land is the highest, valued at NRs 85,260,484, while the NPV of community-managed forest with mixed agriculture is the second highest, valued at NRs 46,761,468. Community-managed forest has the lowest NPV value of 3,696,917, which shows that there exists an economic rationale for farmers to be lax in their stance to prevent deforestation and forest degradation under the current option.

Table 5: NPV and farmers' preference on land use options for Pragati CF

Land use options	Net Present Value (NRs)	Farmers' preference (%)
Community-managed forest	3,696,917	11.3
Community-managed forest with grazing land	85,260,484	30.2
Community-managed forest with mixed agriculture	46,761,468	26.4
Community-managed forest with built environment	24,254,984	32.1

Source: Calculations based on field survey, 2010

FARMERS' PREFERENCE ON LAND USE OPTIONS

During the FGDs, farmers were also given the opportunity to pick one or more land use options that they preferred most among the four. In Table 5, we can also see that farmers' preference for community-managed forests as a land use option, was significantly low compared to all other land use options. Farmers' preferences for all other land use options were relatively the same. Comparing this to the NPV, this indicates that farmers' preference on land use options are

fairly consistent with the economic rationale of land use options discussed above.

DISCUSSION

As can be seen in Figure 1, the NPV of option 1, community-managed forest, is significantly lower compared to other options. Similarly, farmers' preference for community-managed forests as a land use option is significantly low compared to all other land use options. This indicates that there is both an economic incentive and desire of farmers to move away from community-managed forests. From a legal point of view, CF area cannot be converted to other land uses. However, the threat is the loss of biomass from community-managed forest area. Even though CF will always remain a forested area, there can be significant loss of woody biomass. Hence, unless community-managed forests are able to provide more benefits to farmers, the risks of their management in a sustainable manner and succumbing to deforestation and forest degradation are very high. Therefore, it can be said that CF is in imminent threat from loss of woody biomass as a result of different market forces. This calls for intervention to compensate or provide incentive for conservation and/or sustainable management of forest if this risk is to be reduced in the future. Reducing the risk of deforestation and forest degradation may be the additionality of REDD+ in such community-managed forest.

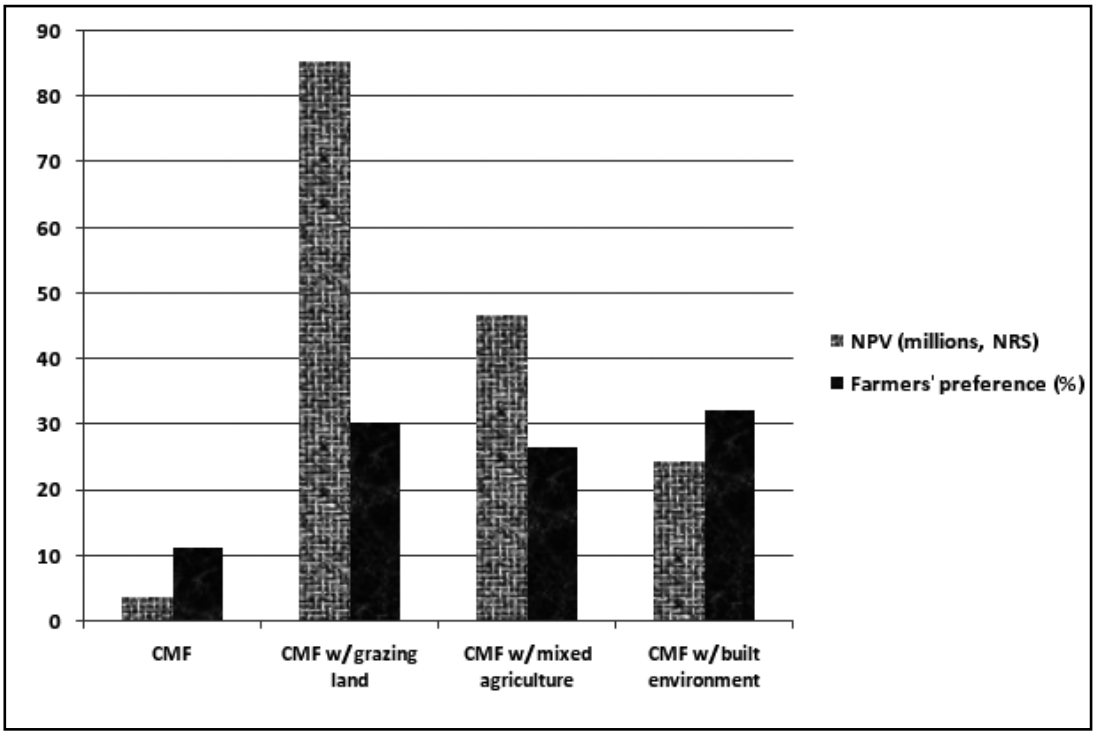

Figure 1: Economic rationale and farmers' preference

Source: Calculations based on field survey, 2010

CONCLUSION

The research indicates that there is both an economic incentive and desire for farmers to move away from community-managed forests under business as usual scenario. Hence, it is very important to come up with ways in which REDD+ financing instruments are able to provide more benefits to farmers so that community-managed forests are not converted to other land uses.

The research has two main implications. First, it can be said that there is ample ground for believing that REDD+ payment may be regarded as an important financial source that could add value to standing forests, consequently reducing biomass loss and land use conversion in community-managed forest. For this to happen, REDD+ payment needs to account for the opportunity cost. Second, addressing the drivers of deforestation and forest degradation by understanding the opportunity cost of different land use options will reduce imminent threat of loss of carbon pool from community-managed forest. Reducing this risk in the long run could be argued as the additionality factor for REDD+ in community-managed forests. This opportunity cost study needs to be further extended by computing the REDD+ cost at national level in order to develop a meaningful incentive for forest conservation and sustainable management.

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Forest Monitoring, Measurement, Reporting and Verification: from Principle to Practice

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Abstract: Under the United Nations Framework Convention on Climate Change (UNFCCC), many tropical developing countries have agreed to participate in the Reducing Emissions from Deforestation and Forest Degradation as well as conservation and enhancement of carbon stocks and sustainable management of forests (REDD+) programme so as to receive payments for their contribution in reducing emissions from forestry sector. The emission reduction is measured in terms of quantifications of carbon dioxide (CO_2) equivalent, upon which payments are made. To quantify emissions in terms of CO_2 equivalent, a process called measurement/monitoring, reporting and verification (MRV) has been developed, which forms the backbone of performance-based payment under the REDD+ mechanism. This paper primarily reviews the principles and methods of MRV. By taking the case of the Terai Arc Landscape (TAL) of Nepal, a sub-national level proposed project, the paper demonstrates how an institutional mechanism for MRV can be designed and practiced at national level considering national circumstances and existing institutions. Also, the cost effectiveness and transparency of the MRV process are identified as important elements.

Key words: Climate Change, UNFCCC, REDD+, MRV, CO_2

INTRODUCTION

Forestry sector has been responsible for approximately 20 percent of the global greenhouse gas (GHG) emissions (CIFOR 2010; van der Werf *et al.* 2009) and, therefore, standing forests that sequester and sink atmospheric carbon dioxide (CO_2) and reduce emissions from forests are critical to combat global warming. In this context, a financing mechanism in the forestry sector, Reducing Emissions from Deforestation and Forest Degradation as well as conservation and enhancement of carbon stocks and sustainable management of forests (REDD+) has been under prolonged debate under the United Nations Framework Convention on Climate Change (UNFCCC) negotiations. Initially started as Reducing Emissions from Deforestation (RED) at the eleventh Conference of Parties (COP 11) in 2005 in Montreal, the concept expanded to Reducing Emissions from Deforestation and Degradation (REDD) in 2007 during COP 13 held in Bali and eventually termed as REDD+ in 2009 during COP 15 held in Copenhagen. Yet, till date, new ideas and issues around REDD+ keep emerging that delays the implementation of the REDD+ mechanism. According to the Ad Hoc Working Group for Long term Cooperation for Action (AWG-LCA) in COP 18 in Doha and follow up Subsidiary Bodies session in Bonn in June 2013, REDD+ and its associated technical and financial issues need to be further discussed, debated and resolved under the Subsidiary Body on Scientific and Technological Advice (SBSTA) and Subsidiary Body on Implementation (SBI) so as to ease and fasten the REDD+ implementation process. In order to quantify emissions in terms of CO_2 equivalent from forest and take stock of the carbon in the forest, a process called measurement/monitoring, reporting and verification (MRV) has been developed as one of the technical issues and being discussed under SBSTA and SBI.

Under the REDD+ mechanism, emission reduction is measured in terms of quantification of CO_2 equivalent upon which payments are made. The MRV system is, therefore, designed to quantify emissions in terms of CO_2 equivalent and take stock of carbon in the forest, which forms the backbone of performance-based payment under the REDD+ mechanism. Therefore, in order to make REDD+ functional at national and sub-national level, countries should have a National Forest Monitoring System (NFMS) that drives design and functionality of national and/or sub-national MRV systems to help access payments. A national MRV system guide will be important to understand the whole performance-based systems (CIFOR 2010). With MRV, other issues that run parallel are reference levels, safeguards, drivers of deforestation and forest degradation, non-market approaches and non-carbon benefits.

The Intergovernmental Panel on Climate Change (IPCC) Good Practice Guidelines for Land Use Land Use Change and Forestry (LULUCF) and IPCC Guidelines for National Greenhouse Gas Inventories could be used as a basis to help develop the designing of the national-level MRV systems. Recognizing the need for an MRV system, the World Bank under the Forest Carbon Partnership Facility (FCPF), has also started a process for developing an MRV framework such as in the Democratic Republic of Congo and Costa Rica. This initiative is expected to bring new lessons and insights into MRV so as to make the REDD+ mechanism more robust.

In this paper, I bring some of the ideas to bridge the gap between the principles and practices of MRV by taking a case of a Terai Arc Landscape (TAL) programme of Nepal, a sub-national-level proposed project. The paper demonstrates how the institutional mechanism for MRV can be designed and practiced at the national level considering national circumstances and existing institutions. Also, the cost effectiveness and transparency of MRV process are identified as important elements.

APPROACHES TO MRV

Generally, both the NFMS and MRV framework should be designed to oversee the national forest cover and land use change over time. The MRV process can be made easier using various statistical and analytical tools and Geographic Information System (GIS) software that convert data into desired form. Examples of some tools include Arc-GIS, E-cognition, Forest Canopy Density Mapper (FCD), Normalized Differential Fractional Index (NDFI), Google Earth, LiDAR Assisted Multisource Programme (LAMP), Participatory Rural Appraisal (PRA), surveys and grievance mechanisms.

Individual countries can also develop a sub-national project based on national circumstances to start or test the functionality of NFMS and MRV mechanisms. To start with the choice of project area, the country will have to look into the forest and non-forest cover in the proposed area, forest classes based on national forest inventory, forest cover change (both positive and negative) in that area within a span of time and emission factors for the change in forest cover so as to integrate them with the NFMS and MRV framework.

PRINCIPLES AND NEED BEHIND MRV

Monitoring

Monitoring systems are the physical and technical methods used to generate forest cover data, to provide information on non-forest area and to detect land use changes. The information collected from the national forest monitoring process is the primary data source and should be a derivative of or coherent with the national forest inventory process. These data are, therefore, critical for overall accuracy and precision of the MRV system, as well as for developing a reference scenario. Therefore, the

NFMS needs to be comprehensive enough to allow the tracking of all forest classes within the country, as well as sensitive enough to be able to detect forest presence/absence based on how forest has been defined.

Developing NFMS needs to be done integrating two ways: (i) *indirectly* using remote sensing technologies (e.g. satellite-based time series images or airborne detectors) and other ancillary -data (e.g. maps, historical records); and (ii) *directly* using the ground crew to collect field data. In both cases, data should be comprehensive enough to allow monitoring of all forests in the country as well as sensitive enough to detect changes in forest cover according to the country's definition of forests. Some of the relevant concepts and practical considerations regarding both systems are briefly described below.

Remote Sensing Technologies

Over the past decade, ranges of free and paid satellite technologies have become available for forest monitoring. The choice of remote sensing data is driven by just a few key factors such as acquisition period and frequency, spatial resolution and spectral band as these factors have different impact on the data.

Acquisition period: The timeframe for which data are available is critical. Satellite data are ideally required over a continuous period for developing reference levels, which is generally done on the basis of historical deforestation and associated emissions and for monitoring of forest dynamics in the future.

Acquisition frequency: Satellite data is typically not continuous; therefore, the time period between images capture is a key factor in the choice of remote sensing technologies.

Spatial resolution: The spatial resolution of remote sensing systems ranges from sub-meter (e.g. Quickbird, Pleiades) up to sub-kilometre (e.g. MODIS). Common wisdom says higher resolution associates with better quality of data as we get to 'see the forest'. However, this often comes with a trade-off in cost, processing time, storage space and in some cases acquisition frequency and spectral resolution. Low-resolution Landsat images are also available free of cost and have the advantage of more spectral bands.

Spectral bands: Perhaps the most important consideration for remote sensing is the bandwidth or frequency of image detection system. Different bandwidths allow for different land use and forest characteristics to be measured (e.g. biophysical parameters of vegetation such as chlorophyll content and humidity), as well as offering other benefits (e.g. cloud penetration).

Field Data

Field plots are the second cornerstones of forest monitoring system (WWF 2010). Forest cover data generated via remote sensing sources need field validation to enhance and calibrate the quality of monitoring system, a process that is often referred to as 'ground-truthing'. Deriving activity and/or forest cover change data and ground-truthing via fieldwork are iterative processes allowing constant enhancement of accuracy in a monitoring system. As accuracy, cost and time of field measurements are some of the key components of the overall forest monitoring system, selection of field sites through stratification and sampling is essential to enhance accuracy in shorter time and lesser cost.

Stratification: Before any field measurements are taken, forests need to be stratified into reasonably homogeneous types so that relatively small numbers of sample plots laid out become representative of the entire strata. Those strata can be derived either from remote sensing or from other ancillary data. The quality of stratification would be a key determinant for the degree of accuracy in carbon estimates. In

practice, generally two-step stratification is recommended: (i) a preliminary stratification with sample field plots to assess how estimates behave statistically and (ii) ideal sample sizes (e.g. number of plots needed) and/or strata are generated based on initial estimates. It is a common practice to base such stratification on a combination of factors, including forest type, soil type, topography, eco-region and so forth. In order to optimize logistical resources, it is advisable to incorporate additional factors into the stratification approach such as likelihood of deforestation in a given area. If the areas are most likely to produce emissions, higher accuracies are desired.

Sampling: Once the stratification is completed, field measurements can be taken from sample plots within the strata. The number of samples depends on the level of certainty needed for the MRV system, which in turn depends on heterogeneity within the individual strata and the number of strata. Various tools that can be used for this process are available, e.g. Winrock Sampling Calculator (Winrock International 2013). If very large numbers of samples are required for a given stratum because of large variance in forest data, a reassessment of stratification may be needed to make more homogeneous strata.

Carbon Pools

Typically field measurements of carbon pool follow a standardized approach. Since field measurements are the primary source of data to estimate forest carbon, key data need to be collected. The IPCC has identified above-ground biomass (AGB), below-ground biomass (BGB), dead wood and litter (DOM) and soil organic matter (SOC) as carbon pools that the parties in the UNFCCC are encouraged to report against. Therefore, during field measurement practitioners need to gather data across all of these pools. In some cases, assessing all these pools is not possible and, therefore, only the most relevant pools are assessed. Usually, the most significant pool in terms of carbon fluxes is AGB, i.e. tree biomass[1]. Direct measurement of AGB would mean felling trees and drying them to measure biomass and, thereby, carbon content. This is an expensive process, and is often neither possible nor desirable. Therefore, it is often advisable to rely on estimates of AGB derived through allometric equations (see measuring for more detail) that are based on the correlation between measured variables with tree volume and hence biomass.

Community Based Forest Monitoring

Communities can play an important role in NFMS, including MRV. Studies have clearly established (Danielsen *et al.* 2010) that data collected by communities on the ground are comparable with those collected by trained scientists. Examples of tools that can help incorporate communities in forest monitoring activities include the Geo-Wiki project with its biomass branch (Geowiki 2013; Bottcher *et al.* 2009) and Google's Open Data Kit.

Measuring

Measuring is the physical process of accounting carbon stock in different carbon pools as decided by a country and may include any of the five carbon pools using appropriate technologies such as ground-based inventory or air-borne laser scanning or a combination of both, as appropriate. The IPCC Good Practice Guidelines (GPG) for LULUCF defines measurement system as the continuous collection of data on anthropogenic forest-related GHG emissions by sources and removals by sinks, forest carbon stocks and forest area changes. The purpose of the measurement is to convert information from forest monitoring

[1] This is not always the case, e.g. in peat swamps BGB is the dominant source of carbon fluxes.

systems into the emissions reductions and removals that result.

Deriving Carbon Estimates

The first step in converting forest monitoring data into reportable measurements expressed in ton CO_2 equivalent (tCO_2e) is to use allometric equations to estimate carbon content in individual trees. Allometric equations can either be a set of predefined equations based on general species types and forest compositions, or be specifically tailored to a particular forest area developed using local measurements and even destructive sampling of forest areas. The latter approach, however, is both costly and environmentally degrading as it requires destruction of a representative number of trees for a given forest type[2]. In any case, the difficulties involved with carrying destructive sampling and developing new specific allometric equations mean predefined equations are often used to estimate forest carbon stocks.

The IPCC has established a system of three-tier levels for the estimation of biomass: tier one uses generic equations and data; tier two uses generic equations but uses data acquired at national level by means of a national forest inventory; and tier three uses both nationally produced allometric equations and national field data. It is assumed that as tier levels increase, the accuracy of our estimates also increases (IPCC 2003).

From Plots to a Carbon Map

The second stage under measuring is to scale up plot estimates of forest carbon to the jurisdictional or national or sub-national level that use remote sensing and ancillary data. The most common and simple approach is to average plot data across each of the forest strata[3] to estimate forest carbon content, including error estimates. This redoubles the importance of accurately mapped forest strata since poorly defined strata lead to large variance in forest carbon estimates and, therefore, to large confidence intervals.

When plot data are not sufficient, relationships between plot data and other independently collected variables (e.g. tree height, canopy density, elevation and NDFI) may be used. These variables are often derived from remote sensing data or other ancillary data (e.g. topography and elevation maps). Examples of synergies between plot data, canopy and other datasets are currently being explored in some cases. For example, remote sensing high spatial resolution data like Rapid Eye and Light Detection and Ranging – LiDAR is being used (to estimate tree height) for the ongoing Forest Resource Assessment project in Nepal. The feasibility of using such synergies has been established (Asner *et al.* 2012) elsewhere. These datasets, however, can also be technologically demanding and expensive to obtain in terms of the total forest coverage of large countries.

Reporting

Reporting is the process of combining data from NFMS and measured carbon stocks from appropriate pools in a complete, transparent and accountable manner and providing information to all national and international shareholders, including the UNFCCC, UN systems and agencies, bilateral and multilateral agencies, national entities, international/national non-governmental organizations (I/NGOs), local communities, indigenous people, civil society organizations (CSOs), research institutions and academia. Reporting also entails information on reference levels, drivers of deforestation and forest degradation, implementation and monitoring of safeguards and non-carbon benefits. It needs to be done transparently, consistently, accurately and with reduced uncertainties that ensure capturing verifiable processes and methodologies.

[2] This type of data can be gathered from forest management concessions; however, this approach limits the scope to commercial species only.
[3] Identified in the stratification process.

Reporting requirements for REDD+ differ depending on the level (national or sub-national) at which REDD+ is implemented. However, only the reporting requirements for national-level REDD+ implementation are discussed here. The national reporting is data-intensive and, therefore, many countries may need expanding their technical capacity on forest carbon measurements, particularly when a country chooses a stepwise approach through various tiers. As developed by different organizations, the countries should develop online interface systems to manage the data. Depending on the level of advancement in reporting systems, they should provide information on carbon stock and land cover changes. Ground survey requirements for these types of information are extremely high, and may only be practical over relatively small, homogeneous, or well-known areas. Countries need to have a proper information collection and analysis system to undertake reporting effectively. Effective reporting should account for all technical and social issues of concerns, including drivers of deforestation and forest degradation, safeguards and non-carbon benefits.

Verification

Verification is the process whereby an independent third party with the right technical skills is able to crosscheck, examine and validate the information reported regarding emissions reductions so that the country can claim performance-based payments ensuring there is no conflict of interest. According to the agreement made under the UNFCCC, verifications for REDD+ process probably go through the International Consultation and Analysis (ICA) process, which is not through the verifiers or auditors of verifying companies accredited by the UNFCCC, as followed in the Clean Development Mechanism (CDM) projects. The ICA process consists of two steps. First, a *technical analysis* of Biennial Update Reports (BURs) prepared by a team of technical experts in consultation with the Party, resulting in a summary report. The information considered should include the national GHG inventory report; Nationally Appropriate Mitigation Action (NAMAs), their impacts and progress made in their implementation. Second, a *facilitative sharing of views*, which will have BUR as input and summary report referred above.

MRV CASE IN NEPAL

Nepal was one of the applicants for REDD+ as a participant country in the Forest Carbon Partnership Facility (FCPF) under the World Bank in 2008 through a Readiness Project Idea Note (R-PIN). Upon the approval of the R-PIN, the Bank invited Government of Nepal (GoN) for submitting a Readiness Preparation Proposal (RPP). With the approval of RPP, GoN received a funding of US$3.4 million for implementing it. With this grant, the REDD, Forestry and Climate Change Cell (REDD cell) under the Ministry of Forests and Soil Conservation (MoFSC) is currently developing an MRV framework.

More specifically, the GoN is currently developing a sub-national level Emissions Reduction Project Idea Note (ER-PIN) for Terai Arc Landscape (TAL), covering 12 districts, for submission to the FCPF. Though the process is outside of the UNFCCC process, it is expected to bring important lessons for the preparation and implementation of REDD+ projects in the future. The Department of Forest Research and Survey (DFRS) is the supporting agency for the MRV process in the project. The measurement in the project area will be carried out using ground plots and LiDAR. Landsat and Rapid Eye images will be used for analysis. Five carbon pools will be considered and measured using local resource persons and government staff supported by the World Wide Fund for Nature (WWF)–Nepal at field level. Moreover, WWF Nepal is

now technically supporting the development of a reference level. Based on the reference level and the emissions reduced from deforestation and forest degradation and carbon stored from conservation, enhancement and sustainable management of forests, GoN, on behalf of the project, can claim payments for its performance till 2020. The emission reductions need to be reported along with the drivers of deforestation and forest degradation, safeguards and non-carbon benefits by the project. The report will be subjected to verification by an independent third party prior to release of payments. However, verification for this project will not be under the ICA.

DISCUSSION

The GoN is in the process of developing an MRV framework. In this context, a proposed framework is given below, which still needs further clarification through discussion (Figure 1).

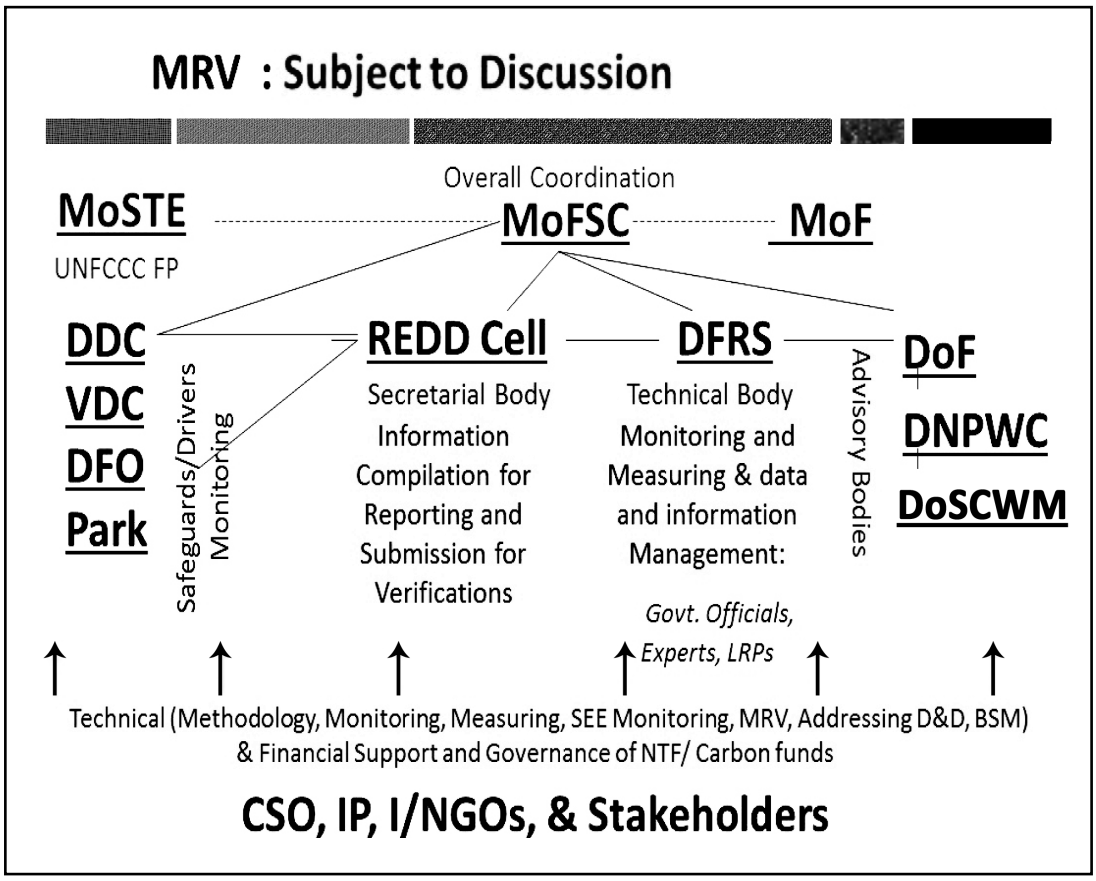

Figure 1: Proposed MRV framework

According to the framework, the overall coordination role is to be played by the MoFSC, while the Ministry of Science, Technology and Environment (MoSTE) acts as the nodal agency for the UNFCCC processes and the Ministry of Finance (MoF) takes care of the carbon financing part.

The REDD cell will be playing the secretarial role in the implementation of the REDD+ project and will be responsible for the overall compilation of data and information regarding reference level, emissions reduction, drivers of deforestation and forest degradation, safeguards, and non-carbon benefits and, therefore, will report all necessary information needed for verification. The REDD cell will be supported by the DFRS for monitoring and measuring data and conducting all remote sensing and ground measurement work. Furthermore, the Department of Forest (DoF), Department of National Parks and Wildlife Conservation (DNPWC), Department of Soil Conservation and Watershed Management (DoSCWM) and other organizations will be providing advisory support at the central level, whereas the District Forest Office (DFO), national park offices, District Development Committees (DDC), Village Development Committees (VDC) and other local line agencies will be supporting in terms of addressing the drivers of deforestation and forest degradation at the local level. Finally, other than government line agencies, CSOs, indigenous people, I/NGOs and other stakeholders may play a supportive role in the implementation of the MRV system. However, care should be given to ensure the accuracy, time and cost of the overall MRV system. In the context of designing an MRV framework and its implementation, it will be very important to ensure the cost effectiveness. If this is not taken into account, most of the payments received may result in the expenditure during the MRV process and nominal amount of money will be retained with the actual beneficiaries of REDD+, i.e. the local communities.

CONCLUDING REMARKS

Generally, the governments of participating countries take the responsibility in designing an MRV framework and mechanisms. However, the governments are not the only entity to be involved in the overall MRV process; rather, they need to engage a broad range of stakeholders and maintain transparency in the process of development and implementation of the MRV framework. The stakeholders for MRV include local communities, indigenous peoples, women groups, youth groups, representatives of different government agencies, CSOs, I/NGOs and academia. Finally, it is important to look into the cost effectiveness and transparency issues of designing and implementing MRV framework. This is particularly important to reduce uncertainties and unnecessary costs. The framework also needs to provide adequate and appropriate space for spatial analysis over time so as to monitor, report and verify the carbon emissions and the changes in deforestation, forest degradation, carbon stock enhancement and re-growth of forest.

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REDD+ Governance, Benefit Sharing and the Community: Understanding REDD+ from Stakeholders' Perspective in Nepal

(Perspective)

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INTRODUCTION

Reducing Emission from Deforestation and Forest Degradation, including conservation and sustainable management of forest and enhancement of forest carbon stock (REDD+) is a climate change mitigation strategy which aims to offer financial incentive to forest stewards for their contribution to forest management and carbon stock enhancement. REDD+ has successfully created a global excitement (Angelsen and McNeill 2012), which, in turn, has raised optimism at national level, at least during the initial phases (Khatri and Paudel 2013). Also, there has been a rapid proliferation of activities at national as well as at international level aimed at reducing deforestation and forest degradation (Silori *et al.* 2013). This is partly due to high level of expectations that people had from REDD+ in reducing emissions and improving livelihoods of forest-dependent communities. In Nepal, such expectations have attracted stakeholders to engage with REDD+ initiatives.

Yet, there have been diverse opinions and views on the REDD+ mechanism. It is thought to be a viable option for addressing climate change. First, it is one of the cheapest options for tackling climate change (Stern 2006) and an effective climate strategy in 'making live trees more valuable than the dead ones' (Angelsen *et al.* 2012). Second, emissions in one place can be offset by carbon enhancement elsewhere (Skutsch and DeJong 2010). Third, in addition to carbon benefits, it contributes to generate co-benefits such as social benefits (e.g. poverty reduction, community development) and non-carbon benefits (e.g. ecological) (Busch *et al.* 2010). Finally, it fosters collaboration in the fight against climate change, while facilitating huge financial flow from developed and developing countries (Angelsen and McNeill 2012).

Despite such assertions about REDD+, international negotiations have not yet come to a consensus on its institutional mechanism, including financing, implementation and benefit sharing (Angelsen *et al.* 2012). REDD+ has become increasingly complex (Angelsen *et al.* 2012) and, therefore, realizing REDD+ outcomes is neither fast nor easy (Hansen *et al.* 2009). Scholars have argued that it threatens community autonomy (Phelps *et al.* 2010), local people's access to forests (Graham 2012), community livelihood, biodiversity and provision of ecosystem services (CBD 2010). To the extreme, REDD+ has been perceived as 'CO_2lonialism[1] of forests' with false hope and empty promises and consequently generating negative results for the people, politics and climate (Goldtooth 2010).

Some pertinent questions around REDD+ have recently been raised. These include (i) Are

[1]Advocates of indigenous people's right have coined a term 'CO_2lialism' for referring REDD+ as a recent manifestation of 'colonialism'. In this view, REDD+ is a 'CO_2lonialism'- capitalism of the trees and air (Goldtooth, 2010, p.13).

the stakeholders optimistic, pessimistic or indifferent towards REDD+?; (ii) Do they see a possibility of benefiting from carbon as well as non-carbon incentives?; (iii) How do REDD+ benefits trickle down to the forest stewards, e.g. communities?; and (iv) How could the benefits be distributed? Both theoretical and empirical studies have shown that the knowledge of REDD+ amongst the stakeholders at present is not sufficient (Romijn *et al.* 2012) to answer these questions. However, Purnomo *et al.* (2012) argue that communities managing forests can independently decide whether REDD+ is necessary only when they have adequate knowledge, power and leadership. Therefore, searching answers to these questions becomes important.

Amidst such global debate, Nepal has initiated readiness process by developing Readiness Preparation Proposal (RPP) in partnership with the World Bank's Forest Carbon Partnership Facility (FCPF). The REDD+ process is coordinated by the REDD Forestry and Climate Change Cell (REDD Cell). Besides implementation of RPP with financial support from FCPF, a number of other projects and initiatives such as research and studies, capacity-building activities, piloting REDD+ project, workshops and sharing at national and international fora are being undertaken to support the readiness process. Along with this, the preparation of National REDD+ Strategy is underway. In these initiatives, a number of stakeholders, including Government of Nepal (GoN), academics, researchers, donor and international organizations, federations and networks, freelance consultants and media are actively engaged. It has been crucial in facilitating debates on REDD+ and forging partnerships and collaborations to synergize their efforts, for which greater understanding of perspectives has been crucial.

To fulfil this gap, the authors conducted brief interviews with 11 stakeholders who were engaged in the REDD+ initiatives in Nepal. These actors were selected on the basis of their involvement and expertise in REDD+. Their ideas and perspectives have been synthesized and brought to the forefront of discussion. Primarily, professionals from GoN, academic institutions, international organizations, federations and networks were interviewed, in addition to freelance media persons. To focus the discussion during interviews, facilitate articulation of opinions of interviewees, and organize, synthesize and distil information, four questions were asked: (i) What do you think about the relevance of REDD+ in Nepal, particularly in the context of community forestry? (ii) Does the current REDD+ process address the issues raised around REDD+ so far? (iii) What should be the financing mechanism and basis of payment system?; and (iv) What do you suggest to make REDD+ beneficial to communities? Face-to-face interviews, email communication and telephone conversations were carried out in order to collect the views of the interviewees.

The responses were organized, summarized and shared with the interviewees concerned to make sure that their views are articulated appropriately. The second section of the paper presents the responses and views of the individual interviewees, while the final section presents a brief synthesis of the responses.

STAKEHOLDERS' PERSPECTIVE ON REDD+ PROCESS

Narendra Chand, REDD Forestry and Climate Change Cell, Ministry of Forests and Soil Conservation

REDD+ can be beneficial to Nepal if we are able to get payment for both carbon and non-carbon credits. However, the success of REDD+ largely depends on how successfully we address the issues of deforestation and forest degradation. For this, substantial 'behavioural change' is essential among the actors involved in the REDD+ process. If this really happens,

REDD+ will also contribute significantly to the country's biodiversity or sustainable forest management efforts. Existing political instability, however, may pose a great threat to planned actions against deforestation.

The current REDD+ initiatives have tried to make the REDD+ process inclusive and participatory. However, it is widely acknowledged that the REDD+ actors are neither fully prepared nor have the capacity to take on emerging challenges. Strategic actions that are expected to address deforestation/forest degradation are not in place. Though we are striving to address the concerns of all stakeholders, it is becoming increasingly difficult to take into consideration the aspirations of diverse actors.

Regarding the REDD+ financing mechanism, a hybrid of what is being practised in the government and the trust fund can be a feasible option to ensure funds reach the forest users efficiently and in a transparent manner. The forest users should be paid on the basis of carbon enhancement, carbon retention, non-carbon (ecological) services and biodiversity conservation.

The REDD Cell will play a coordinating role amongst the REDD actors, including the government agencies concerned. The cell will also take part in designing REDD+-related policies. Engagement in REDD+ discussions and lobbying for the REDD+ payment mechanism at international level can be a likely role for the REDD Cell in the future.

Bharat K Pokharel, HELVETAS Swiss Inter-cooperation Nepal

Looking at the current discourse on REDD+ and its impact on ground, it does not seem to be beneficial to forest-dependent communities as expected. Whether REDD+ is relevant in Nepal or not depends on how it is linked with the community-based forestry regimes and the extent of tenure rights that local communities and private forest- and tree-owners can enjoy, and the type of policy and legal frameworks of the national and local governments for recognizing the role of local communities and private land owners in forest management and restoration. In and around community forest areas, it is clear that local communities, private land holders and government cannot afford to meet all the requirements of REDD+ in terms of meeting the conditions of additionality, permanence, leakage, scientific measurements and technical knowledge. It also does not seem to be relevant even in non-community forest areas in the Terai region because it cannot meet the objectives of REDD+, which is to create new forest areas to increase the forest cover and density and reduce the rate of deforestation and forest degradation. Only devolution can meet the objectives of REDD+. However, real devolution can only happen with accountable, democratic and pro-poor government at the centre. With the current mixed electoral system (i.e., majority election and proportional representation systems), the chance of having any stable government is remote. Therefore, an effective REDD+ also seems a remote possibility in Nepal. However, voluntary market and continuation of development cooperation in forestry and climate sectors in Nepal for some time can perhaps be an option. As far as the role of our institution is concerned, internationally we have been engaged with our development partners and government delegates to make the REDD+ policy in favour of forest-dependent poor and local communities. In Nepal, we have been supporting government, local communities, private sector actors, school teachers, children, youth clubs and farmers to implement national and local-level adaptation plans and raise their awareness of the possible cost and benefits of both climate mitigation and adaptation measures. It is up to them to choose the activities in which they would like to be

involved. Our organization, nevertheless, has realized that Nepalese farmers and local communities could benefit more if they invest their time and energy in climate adaptation measures.

Bhaskar Karky, International Centre for Integrated Mountain Development (ICIMOD)

In theory, REDD+ is relevant in Nepal; however, in practice we do not yet know its relevancy. The rules, agreements and policies by and large will determine the applicability and feasibility, which are yet to be ascertained. Nevertheless, we have some preconceptions about how and on what basis the REDD+ payment should be. REDD+ payment should be on the basis of two major criteria: carbon and population density. This is also what we've observed through the learning from the pilot project. REDD+ payment is neither a poverty reduction nor a social uplift programme. The investor is solely interested in the payment generating incentive for increasing the carbon stock. There is a need for putting in much more efforts by all sides to work out a common, feasible and sustainable mechanism for implementing REDD+ that meets its intended objectives. As a regional learning platform that shares new knowledge between the regional REDD+ stakeholders, ICIMOD will provide technical backstopping to its regional member countries and their focal points to pilot and test the REDD+ initiatives and share their lessons on what worked and what did not.

Santosh Rayamajhi, Institute of Forestry (IoF), Pokhara

REDD+ is very much relevant in Nepal as a payment mechanism so as to support forest management initiatives that are being carried out either by the government or by local communities. It can serve as a strong motivational factor to both conservation and expansion of forests in Nepal. The primary basis of REDD+ payment should be the additionality of carbon sequestration as compared to the base situation. To make REDD+ a success, a national-level REDD+ fund should be established based on the national forest coverage and payment should be allocated according to the estimate of carbon sequestration by different types of forests. The Ministry of Forests and Soil Conservation and its Departments have to be mobilized to take the stock of the base year carbon and carry out periodic inventory through a combination of modern technology, including GIS tools and LiDAR-based forest inventory, and on-the-ground survey. Additional efforts should be directed at strengthening and institutionalizing the role of forestry field staff for monitoring, capacity building, field research and documentation. In this connection, IoF as an academic institution, may have three distinct roles. These include (i) Orient and train new cadre of foresters and in-service staff in the concept, theory and process of REDD+, (ii) Conduct research for establishing baseline, methods, process and benefit sharing

mechanism as well as offer policy feedback, and (iii) Disseminate research findings, national policy implications and process mechanisms of REDD+ through seminars, workshops and publications.

Apsara Chapagain, Federation of Community Forestry Users Nepal (FECOFUN)

We carried out REDD+ piloting in three districts and have been conducting awareness-raising programmes in 16 districts. During project implementation, in both cases, we realized that not only the basic objectives but also the major activities of community forestry and REDD+ match to some extent. For example, the activities carried out under the REDD+ projects such as forest management and alternative energy promotion have already been carried out by communities as part of community forestry development activities. Therefore, REDD+ might add value to the community forestry activities, particularly in managing forest. Nevertheless, I don't think that it will create a lot of changes, but it will support sustainable forest management activities.

Looking at Nepal's negotiation power and the level of incentive that the community forest user groups would enjoy, it is still doubtful whether the real forest stewards will receive fair benefits. Also, the major question remains whether a policy conducive to transforming tenure rights will be designed or not. There are still unclear and dubious tenure rights over forest products, carbon and other environmental services, as the state still owns forestland, while the communities have been utilizing forest resources. In addition, there are questions to be addressed so that the benefits will be shared fairly within the group. More attention is required to address the issues of the poor and the marginalized.

The government has been putting efforts in terms of formulating a policy and programme in the course of preparing Nepal for REDD+. However, by looking at the past experience of policy processes, there are still questions whether the current policy process is democratic and inclusive enough in formulating a fair and equitable REDD+ policy. Similarly, in the implementation side, the REDD+ activities led primarily by the government have rarely been decentralized in the real sense. As a responsible institution, FECOFUN always carries out its activities by keeping forest user groups at the centre. There is need for space for FECOFUN in all REDD+ processes as it is the umbrella organization of community forest users in Nepal. Besides, FECOFUN has a significant role in coordination and consultation with forest users and dissemination of REDD+ information to them.

Rama Ale Magar, The Himalayan Grassroots Women's Natural Resource Management Association (HIMAWANTI)

In the current scenario at national level, stakeholders are aware of, and have a high level of expectation from, and dedication to, the REDD+ scheme. The REDD+ initiative is positive in the sense that the stakeholders are aware, capable and dedicated towards it. However, policy formulation and implementation of REDD+ scheme is not as easy as perceived by many stakeholders. Immediate attention and greater clarity are needed in various dimensions such as how to receive REDD+ payments from the developed countries.

The REDD+ strategy formulation process needs to be inclusive and participatory in such a way that all stakeholders concerned, particularly women, should be able to participate in some way or the other. For this, a few issues need to be clarified: language should be simple and comprehensible to everybody, and a proper monitoring mechanism should be in place. Similarly, the policy should also guide the formulation of a fair benefit sharing mechanism at local level. Also, the basis of payment should include representation of women and *Dalits*[2], as suggested by the pilot project conducted during the last four years. The design of the payment mechanism should avoid too many layers so as to keep it simple and efficient. It is important to provide spaces for the organizations of women and the marginalized in the payment mechanisms, including carbon trust fund distribution committee, so as to ensure effective and fair implementation of REDD+ from their perspectives. With the aims to promote women's participation in REDD+ initiatives and to ensure their forest rights, HIMWANTI Nepal is engaged in networking, lobbying and advocacy.

Pasang Dolma Sherpa, Nepal Federation of Indigenous Nationalities (NEFIN)

Indigenous peoples have a symbiotic relationship with forest, land and other natural resources for their livelihoods and identity. Therefore, REDD+ would be relevant in Nepal only if it adequately addresses the concerns and issues of indigenous peoples and other forest-dependent communities by ensuring and recognizing their traditional customary law, practices, and knowledge system.

The Government of Nepal is working on developing the national REDD+ strategy in Nepal and also implementing their programs. In this process, it is a crucial time for indigenous peoples for their full and effective participation in the whole process of developing relevant policies and programs. Therefore, the concerned Government agencies, other relevant stakeholders including bilateral and multi-lateral agencies, donors and non-governments organizations will need to address the issues and concerns of indigenous peoples', particularly their rights of continuing traditional livelihoods system enshrined by international treaty and convention like ILO C 169 and UNDRIP in Nepal. It is also pertinent for them to support and cooperate for developing the capacity and awareness level of indigenous peoples for their meaningful participation and engagement in the process of REDD+ and other relevant policies and programs to contribute for sustainable management of forest and livelihoods in Nepal.

Sunil Pariyar, Dalits Alliance for Natural Resources (DANAR), Nepal

REDD+ implementation is not expected to make much difference to the poor and *Dalit* communities in Nepal. *Dalit* communities are mostly dependent on forest resources for their livelihoods. However, in many cases, they have been deprived of their right to access forest resources despite the implementation of the community forestry programme. This has been particularly due to lack of a policy provision that exclusively promotes *Dalit* participation in the policy process and secures their rights over forest resources. Also, in a situation when the entire community forestry institution has been facing the accusation of weak governance, the issue of benefiting the poor and *Dalit* communities

[2] *Dalits* are the oppressed communities who are often considered as untouchable class of society.

through the REDD+ mechanism is dubious. Without addressing the issues of exclusion, discrimination, exploitation, inequity and domination at grass roots level in community forestry, REDD+ may not be beneficial for *Dalit* communities and in the long run the REDD+ scheme itself may fail to fulfil its basic objectives.

If a policy and legal framework are formulated for REDD+ and implemented in such a way that *Dalit* participation is promoted and their forest rights are secured in practice, then only will a scheme like REDD+ be beneficial to *Dalit* communities. Also, a strong monitoring, reporting and verification (MRV) mechanism for social safeguards at local level is imperative. Moreover, there needs to be adequate consultations among relevant stakeholders before designing any payment mechanism. Nevertheless, the role of civil society organizations (CSOs) as a watchdog might be useful while the government coordinates, owns and implements the whole range of REDD+ initiatives.

REDD+ would be effective if the supporting agencies, including donors, through their ongoing initiatives, give due consideration to *Dalit* communities and put efforts on issues of inclusion, capacity building and advocacy together. In this situation, DANAR's role would be to advocate for *Dalits*' rights.

Ram Rup Kurmi, Association of Collaborative Forest Users of Nepal (ACOFUN)

REDD+ is relevant only if the government and stakeholders have the exact translation of the principles of REDD+ in order to improve forest governance and address deforestation and forest degradation. However, REDD+ implementation seems to be a challenging task as long as the issue of elite capture over resources exists. As there are different forest management modalities in Nepal, there should be a different REDD+ payment mechanisms for each forest management regime. More payment should be done in areas where high level of efforts is needed to curb deforestation, improve governance and to ensure rights of local forest managers. The carbon-centric payment should be focused only on those areas where conservation of forest is necessary and enhancement of carbon stock is possible. While designing a payment mechanism, local stakeholders' investment and role should be recognized and respected. While a multi-stakeholder committee should be formed to govern the REDD+ payments, the Ministry of Commerce and Supplies and the local government should be given the coordinating role at national and local level respectively. There is need for significant change in the structure of the REDD Cell and the processes it follows to make the REDD+ preparation initiatives more inclusive and participatory.

As we all know, there are several issues related to the Terai forest management and the government has not been serious in this. ACOFUN was established to address some of the pertinent issues in Terai forest management. It aims to establish local peoples' rights over forest resources by handing over forests to the Terai dwellers that are prevented from exercising their rights. In this context, ACOFUN has been advocating for policy change at national level and capacity building for forest management and awareness raising on REDD+ at grassroots level in the Terai. It has also been trying to be the part of various policy fora with an aim to contribute to ensuring equitable benefits.

Kapil Adhikari, Federation of Forest-based Industries and Trade (FenFIT)

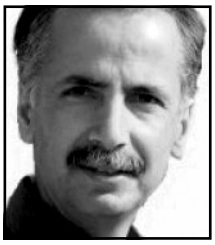
REDD+ is more important for industrialized countries, as they are required to reduce their emission levels through this mechanism. But for developing nations, where large numbers of people are living in poverty, utilization of natural resources, for instance water and forest, would be more important than REDD+. REDD+, in other ways, is a domination of developed countries over the developing. If the income through sustainable management of forest exceeds that from REDD+, then why should we choose the latter?

Though REDD+ looks fine in principle, it is yet to demonstrate value addition to the existing forest management and forest-based economy.

Before talking about a fair REDD+ benefit sharing mechanism within the country and communities, a cost–benefit analysis should be carried out to see whether the payment of REDD+ implementation would exceed its cost. If REDD+ seems to be beneficial, then an inclusive multi-stakeholder process may be designed and initiated to allow other stakeholders to raise their concerns and own the process where government can play a coordinating and facilitating role. Regarding a payment system for REDD+ incentive, establishing a separate fund would perhaps be a better option. Such fund could be managed by a multi-stakeholder mechanism, including government, at two levels: one at national level and another at district level. The district level mechanism may be effective to monitor the grassroots-level REDD+ activities and to ensure the real forest right holders receive the payment.

FenFIT always has its own stance of scientific and sustainable management of forest because it is imperative also for the existence and sustainability of forest entrepreneurs.

Krishna Murari Bhandari, Freelance Journalist



REDD+ is something that Nepalese may receive in the form of bonus. However, this does not mean one will receive it for free. There are liabilities and costs associated with it. Whatsoever, it should be planned in such a way that it benefits the real forest managers. Analysis of country's economic and poverty conditions should be considered as one of the prioritized agenda while formulating a REDD+ policy. Though embarking on REDD+ would not require any financial cost for Nepal, measures should be applied carefully while adopting its activities.

There is a famous saying in Nepali "*Kaam garne kaalu, Makai khane bhalu*" (nearest English translation: one enjoys benefits over the work of another). Should this happen in the case of REDD+, it would not benefit the country. To make sure the benefits are shared fairly and equitably at local level, there are different ideas and mechanisms being discussed at international and national level. However, there are risks associated with each one of them. For this, communication and other skills and techniques matter. Looking at the present development trend in Nepal, there is a high probability that only 10–15 percent of the fund might reach the community, while the rest being spent on administrative purpose. A national-level payment mechanism through the government machinery may not be fully trusted, as we have seen inefficiency and corruption. On the other hand, if private sector middlemen or brokers are involved in the REDD+ process, which is highly likely, the lion's share of the

money may go as part of their service charge and transaction cost. This situation has been very much apparent in the agriculture sector of Nepal, where local farmers have been victim of middlemen's game. We cannot say similar situation might not arise in REDD+. Therefore, every mechanism has its pros and cons, which should be studied and analyzed carefully to best suit the country's context.

In the current scenario, media has been viewed merely as news reporters. They have simply been used for publishing news. However, this will not work now. If media is not welcomed to be involved in the overall REDD+ process, support of the media cannot be exprected. Media needs to be viewed as a partner rather than merely reporters. Their involvement should be in every phase, from project design to sharing of resources on REDD+. The role of media will be critical in every aspect of REDD+ in Nepal.

SYNTHESIS

This note summarizes the diverse opinions of the respondents listed in the preceding section. The stakeholders have different and contrasting opinions on the relevance of REDD+ in Nepal. People who agreed on the relevance of REDD+ believed that it would incentivize the communities and government to carry out forest management activities. Others also agreed in this line but with conditional requirements. In their view, REDD+ would be relevant to Nepal if the rights of local communities, indigenous peoples and other marginalized communities such as *Dalits*, women and poor are kept inviolable and they get fair share of the benefits. They do not believe in free lunch, and, therefore, REDD+ will have conditions. So, if REDD+ is designed to ensure equitable sharing of benefits among the local forest managers, it will benefit the country.

Similarly, there were also views arguing that Nepalese forest stewards, such as communities cannot afford to meet the conditionality of REDD+ such as permanence, leakage, carbon measurements and other technicalities. In this view, REDD+ is more in favour of developed countries than developing ones. It is a scheme offered to have a domination of rich countries over the poor and, therefore, discourages the use of forest resources for development and livelihoods. Though it looks fine in principle, it is not convincing in practice. From this point of view, it can be argued that it is too early to indicate relevance of REDD+ for Nepal. The real benefits of REDD+ would only be determined through its actual implementation.

In response to the question on whether the present REDD+ process addresses the issues related to inclusion, participation, capacity building, etc., most actors opined that the current process is less likely to address those issues. Most of the civil society actors are concerned that participation, inclusion, capacity building and actors' role in REDD+ decision-making have not been adequately considered. They assert that the process itself is not conducive to encouraging participation and engagement of women, *Dalits* and poor. For them, initial efforts intending to address these issues are gradually becoming naïve and obligatory. Moreover, the current REDD+ process has been perceived to not have fully embraced the aspirations of women, indigenous peoples and other communities, and a lot is to be done to make the process transparent, inclusive and participatory.

The actors, however, have similar responses regarding the REDD+ financing mechanism and the basis of carbon payment. All agreed that the carbon fund should be managed separately and jointly controlled through a multi-stakeholder body. The mechanism should minimize the transaction costs, for example, fund operating at two levels: national and sub-national/local (at district) level. However, the mechanism should ensure that forest managers get equitable benefit. In their view, carbon

enhancement as well as carbon retention, actions against deforestation and forest degradation, shift from traditional carbon-intensive energy use to alternative energy sources, and efforts to contribute to livelihood improvements of the poor and the marginalized should be the basis of carbon payment. Finally, all stakeholders gave specific suggestions that will eventually contribute to the success of REDD+. These suggestions include variety of actions and approaches on awareness raising, capacity building, participation in the REDD+ policy process, advocacy for the rights of the marginalized communities and equitable benefit sharing.

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Co-Benefits of REDD+ in Community Managed Forests in Nepal[1]

(Perspective)

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INTRODUCTION

Since the United Nations Framework Convention on Climate Change (UNFCCC) Conference of Parties (COP)-16 in Cancun promotes co-benefits and safeguards on Reducing Emission from Deforestation and Forest Degradation (REDD+), these have been prioritized agenda on the international climate negotiations. Many countries have shared their views on how social and environmental safeguards can be addressed under REDD+ and what measures, including information system and feedback mechanisms for different stakeholder, need to be undertaken.

From the perspective of REDD+, co-benefits arise from the maintenance or restoration of forest ecosystems that would otherwise have been degraded or lost. The rapidly growing literature on safeguards and co-benefits from REDD+ reflects the importance and sensitivity of the issue. The co-benefits and associated key stakeholders are determined by the social, ecological and institutional contexts in which REDD+ activities are implemented. In fact, Visseren-Hamakers *et al.* (2012) in their review paper conclude that the non-carbon values of biodiversity conservation, equity and sustainable livelihoods should be taken as prerequisites to ensure both legitimacy and effectiveness of REDD+. Likewise, the location of forests, national policies and forest management approaches employed will all influence the delivery of co-benefits and their equitable sharing.

Nepal has demonstrated the effectiveness of community engagement in forest resource management in achieving the objective of forest restoration. Community forestry in Nepal is an example of decentralized system of forest governance to respond to local needs and institutions. Its success in the country can partly be attributed to both realized and intangible benefits of forest conservation and sustainable management of forest to the local communities. The scope for carbon payments in community forestry is a recent development. In fact in the Nepalese context, carbon payments may be seen as a co-benefit of successful community forestry activities that reduce carbon emission and increases carbon stocks in forests. Nevertheless, REDD+ can bring the much-needed additional incentives to community forest users and it provides an opportunity to address the issue of poverty and social injustice with potential for triple dividends: climate change mitigation, community empowerment and forest restoration.

The non-carbon benefits as co-benefits of implementing REDD+ activities are of utmost importance and substantial for Nepal. A large proportion of its population is poor, have limited

[1]This paper is prepared from output of two -day consultation meeting in Pokhara, 20-21 January 2013

livelihood options and depend on forest resources in the mountains and plains.

Lee *et al.* (2011) list five categories of co-benefits of REDD+: biodiversity conservation, ecosystem protection, economic benefits, adaptation needs and community benefits. Chhatre *et al.* (2012) argue that short-term co-benefits of REDD+ activities include improved rural livelihoods and lower costs of implementation, while long-term co-benefits include improved adaptive capacity of local communities and good forest governance.

In the context of community forestry in Nepal, the following co-benefits (Figure 1) can be realized from implementing REDD+ activities.

KEY CO-BENEFITS OF IMPLEMENTING REDD+ ACTIVITIES

A. **Enhancement of local livelihoods:** Through improved management of different types of forests and forest resources, REDD+ activities can contribute to generating employment opportunities in forest-based industry, provide food and nutrients from forests, enhance quality of water and provide fuel wood for meeting energy requirements.

B. **Increased value of biodiversity:** Based on expected incentives generated from REDD+ activities, substantial conservation of biodiversity and wildlife habitat can be expected. This translates into increased local and national income, from, *inter alia*, wild flora and fauna.

C. **Better ecosystem services to people and environment:** As the state of forests improves, the resulting ecosystem goods and services such as provisioning, regulation, cultural and supporting functions will benefit the people and also lead to higher resilience of human communities to climate change.

D. **More resilient ecosystems for climate change adaptation:** With effective and efficient management of forests, the local environment and interfaced ecosystems will be less vulnerable to the adverse impacts of climate change. Ecosystem-based adaptation measures can enhance resilience of ecosystems, which will mitigate climate change impact on people and ecosystems.

E. **Improved governance, institutional setup and policies for natural resource management at local to national level:** Effective implementation of REDD+ activities requires a transparent and accountable compliance process and promotes inclusive decision-making process and equitable benefit-sharing mechanisms at various levels. These contribute to improved forest governance.

F. **Contributions to multinational environment agreements:** Implementing REDD+ activities will also contribute towards meeting the objectives and targets of many international conventions and agreements such as the Aichi targets and other provisions of the Convention on Biological Diversity (CBD), Ramsar Convention, Convention on International Trade in Endangered Species (CITES) and United Nation Convention to Combat Desertification (UNCCD).

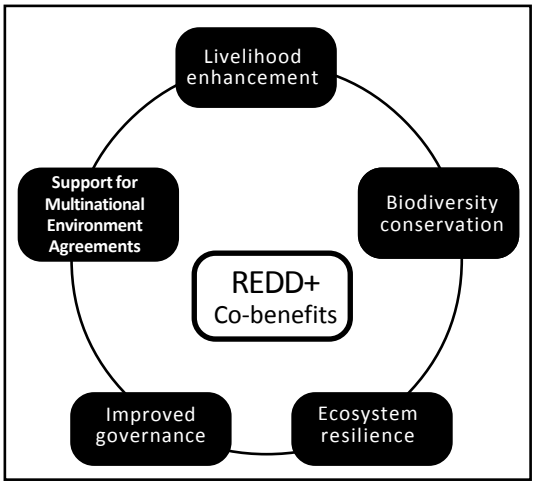

Figure 1: Five co-benefits of implementing REDD+ activities

Table 1: Co-benefits of REDD+ activities and their indicators

Co-benefits	Indicators	Examples from pilot project*
Livelihood enhancement	1. Employment (forest- and biodiversity-based) 2. Food and nutrient supplement 3. Water availability and flow regulation 4. Wood energy	Revolving fund, regular income from employment opportunities for women and poor, hydropower, improved cooking stoves
Increased biodiversity value	1. Reduced loss of habitat 2. Increased number of species and their populations 3. Conservation of endangered species 4. Increased income from bio-prospecting	Increasing wildlife (wild boar, tiger, peacock, bats); control of illegal harvesting; better management of Non-timber Forest Product (NTFP) harvesting; wetland conservation, water fall; increased awareness of the local people about the value of forest products and services
Enhanced ecosystem resilience against climate change	1. Reduced vulnerability from fire, flood, pest infestation, landslides and siltation	Fire line construction and forest protection
Improved governance, institutions and policies	1. Transparent and participatory decision making 2. Equitable access and benefit sharing	Inclusion of women, indigenous and marginalized groups in decision making; women leadership
Contribution to Multi-national Environmental Agreements (MEAs)	1. Aichi targets of and other provisions of CBD, Ramsar, CITES, UNCCD	-

*Examples from REDD+ pilot project funded by NORAD and implemented jointly by the International Centre for Integrated Mountain Development (ICIMOD), Asia Network for Sustainable Agriculture and Bio-resources (ANSAB) and Federation of Community Forest Users Nepal (FECOFUN).

WAYS TO INCENTIVIZE CO-BENEFITS FROM IMPLEMENTING REDD+ ACTIVITIES

There are three strategic options or ways to incentivise co-benefits resulting from implementing REDD+ activities in the context of community forestry in Nepal.

Option 1: Bundle incentives for co-benefits with incentives for carbon in single payment: A certain predetermined additional value may be included in the REDD+ payment. Adjustments to the additional payment may be done based on existing principles, considering, for example, the social and environmental safeguards. This is relatively simple as there is

no need for systemic assessment in every country and location. However, assuming that the co-benefits are of equal importance in all contexts may not be appropriate and acceptable to the stakeholders concerned.

Option 2: Keep incentives for co-benefits separate from incentives for reduced carbon emission: This will allow adjusting incentives to the different countries and contexts. However, systematic evaluation of co-benefits will require a lot of capacity, effort and investment.

Option 3: Combine Options 1 and 2 and let countries choose: As both Option 1 and Option 2 have pros and cons, a third option of combining the two approaches may be considered. Where systematic assessment is available or possible in the near future, the second option of separate incentives may be applicable. Where this is not the case and until systematic assessment of the values of co-benefits is not available, the first option of bundled incentives may be more appropriate.

PREREQUISITES FOR BUILDING SYNERGY BETWEEN REDD+ AND CO-BENEFITS IN COMMUNITY FORESTRY

The following five points require serious consideration to ensure that both carbon and non-carbon co-benefits from REDD+ activities are optimized under REDD+ initiatives in Nepal. Relevant government and non-government agencies as well as donor institutions may contribute to addressing these issues in order to proceed with REDD+ activities in community forestry in Nepal with optimum level of co-benefits.

1. Technologies and methods: There is a need for easy access to technology related to remote sensing and renewable energy. Methodologies, formats, tools and guidelines for monitoring and verification, economic valuation of ecosystem services, periodic assessments and monitoring will be required and adapted to national and local contexts.
2. Capacity development: The current capacity of institutions and officials/individuals at relevant ministries and non-government organizations will require significant improvement for making effective use of technologies and methodologies mentioned above.
3. Financing: The sustainable funding sources and mechanisms are of utmost importance for incentivising co-benefits so that REDD+ activities become effective and sustainable in the long run.
4. Sustainable forest management: Community forest management should be based on optimiing benefits from ecosystem services that include forest carbon, livelihoods as well as social and environmental enhancement.
5. Cross-sectoral planning and implementation: Benefits from carbon payment and its co-benefits will require joint efforts of different sectors (such as forestry, environment, local development and finance) in planning, implementing and monitoring of REDD+ activities.

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Economics of REDD+ and Community Forestry

(Perspective)

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INTRODUCTION

Reducing Emission from Deforestation and Forest Degradation (REDD+) is a payment for ecosystem services (PES) system created under the Framework Convention on Climate Change (FCCC) that tries to reduce deforestation and degradation in countries not subject to requirements under the convention (non-Annex 1 countries) and, therefore, release less and sequester more carbon. Other co-benefits have been added, such as biodiversity protection, poverty reduction and afforestation, which make up the '+' in REDD+. The '+', therefore, attempts to address potentially negative, unintended effects on non-carbon ecosystem services and take account of effects on those who currently have claims to forests. Many of the forest areas where the '+' is most important are community managed. Community forestry is therefore at the heart of REDD+.

Fundamentally, REDD+ is about creating markets for carbon sequestration services where REDD+ buyers are in FCCC Annex 1 countries and sellers remain in non-Annex 1 countries. These markets, which presumably will be linked to other created carbon markets, are believed to be necessary because of the common pool nature of carbon sequestration services. Services from common pool resources are depletable and difficult to defend from intrusion and/or depletion. For example, carbon sequestration services can easily be reduced by slash-and-burn agriculture. Furthermore, once carbon is sequestered, in principle, everyone on earth who cares about climate stability also immediately gets access to those benefits. Access to carbon sequestration as a form of ecosystem services is, therefore, open and potentially impossible to defend.

These common pool features of carbon sequestration services imply that it is difficult for businesses to earn profits (except perhaps as government or multilateral agency contractors) by providing them. Businesses, therefore, generally do not provide services like carbon sequestration (or for that matter, most other ecosystem services), which means that without government help there are no carbon markets, no carbon prices and potentially no carbon value.

The lack of carbon prices due to missing markets is believed to be particularly problematic. When prices are absent for something, some people may perceive the price as zero, which can be interpreted as meaning carbon sequestration services are not at all scarce and therefore a) there is no reason to provide them and b) we should use forests for other purposes[1]. This problem of not having market prices for many services is inherent in the management of all common pool resources. Such issues are

[1] This set of conclusions emerges from models of behaviour that presume that people primarily operate in their self-interest and are unwilling to sacrifice in meaningful ways for the greater good. This assumption certainly has limits. Indeed, without tendencies for cooperation, humans would probably long ago have completely degraded most ecosystems that have commercial value. Nevertheless, it is reasonable to suppose that self-interest plays a very important role in human behaviour.

especially complicated in developing country forests because they provide a variety of sometimes conflicting common pool resource ecosystem services.

Developing appropriate REDD+ carbon markets is a potentially important tool to give value to forest ecosystem services. In the process, once valued properly, the hope is that REDD+ will create incentives for those who control forests to sequester carbon and for those who emit carbon into the atmosphere to pay for sequestration services. But what would cause such transactions to take place? Following the logic presented above, sequestering carbon must be in the interest of those who control forests and those who emit carbon. That is, both sides must benefit financially or in other key dimensions for REDD+ to work.

THE IMPORTANCE OF OPPORTUNITY COSTS

From the community managed forest perspective, the basic economics has everything to do with carbon prices and the opportunity costs of carbon sequestration (i.e. what communities and community members give up to sequester carbon). As long as carbon buyers offer benefits to communities that are more than communities' costs of providing carbon sequestration services, our basic behavioural model suggests that it will be in the interest of communities to sequester carbon. There must also be a match from the carbon buyer perspective. Carbon sequestration in non-Annex 1 countries must, therefore, be perceived as relatively 'cheap' compared with other potential abatement options, such as fuel switching and installation of energy efficiency, among others.

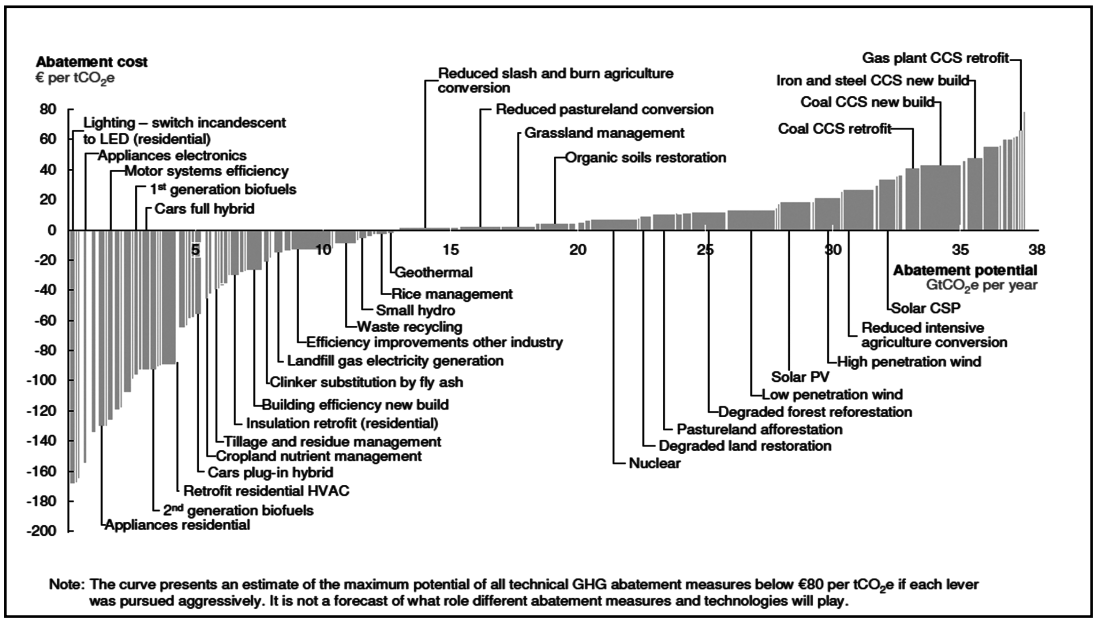

Figure 1: Costs to reduce carbon concentrations in the atmosphere

Source: McKinsey and Company (2010)

A particularly influential report was published by the consulting firm McKinsey and Company (2010). This paper ranked costs to reduce carbon concentrations in the atmosphere per ton of carbon reduced. One of the findings of the report, as summarized in Figure 1, is that

carbon benefits from land improvements, such as degraded land restoration, reduced slash and burn agriculture and better forest management, could be achieved at a very low cost. For example, they estimate that reduced forest degradation, in addition to providing potentially significant co-benefits, could reduce carbon at less than €10 per ton. Similar results were also found using simulation techniques by Kindermann *et al.* (2008) and Strassburg *et al.* (2009), estimate that 80% of avoided deforestation costs less than US$5.00 per ton of Carbon Dioxide (CO_2). Though controversy remains regarding whether all local opportunity costs of carbon sequestration were effectively included (Dyer and Counsel 2010; Gregorsen *et al.* 2011), such results suggest that forests may be able to effectively compete with other methods to reduce carbon in the atmosphere.

POTENTIAL LINKS BETWEEN REDD+ AND COMMUNITY MANAGED FORESTS

The findings of the above-stated studies generated a lot of interest because it is believed that deforestation and forest degradation are major sources of carbon emissions. Loss of forest biomass through deforestation and forest degradation accounts for 12–20 per cent of annual greenhouse gas emissions (Saatchi *et al.* 2011; van der Werf *et al.* 2009). UNEP (2012) estimates a smaller, though still significant, share at 11 per cent. In the 1990s, it was estimated that deforestation, largely in the developing world, released about 5.8 gigatons of CO_2 per year, which was more than all forms of transport combined. Total carbon stored in forests is estimated at 638 gigatons CO_2 (UNFCCC 2011), with about 247 gigatons stored in Latin America, Sub-Saharan Africa and Southeast Asia. About 80 per cent of total sequestered carbon accounts to above ground (Saatchi *et al.* 2011).

Community managed forests could be a potentially important player because while most forests in developing countries are government-owned in papers, in practice much of this forest is actually controlled, to an important degree, by the communities (Agrawal *et al.* 2008). About 25 per cent of developing country forests, or three times as much as is owned by the private sector, is under community ownership and/or administration and this percentage appears to be increasing over time. During the period 1997–2008, the area of collective ownership roughly doubled to 250 million hectares (World Bank 2009). Given the importance of community managed forests and the recent increases observed, it is difficult to envision a successful REDD+ without coming to terms with community managed forests.

And the use of forest biomass extracted from community managed forests also appears to be very important for climate change. Over two billion people around the world cook and heat with biomass on a regular basis, and most of this comes from community managed forests. Though fuelwood is in principle carbon neutral, the black carbon from biomass fuels for cooking and heating, particularly in Asia, is believed to be a key contributor to climate change. CO_2 emissions cause about 40 per cent of anthropogenic climate change, but black carbon comes in second with perhaps as much as a 30 per cent contribution (Rosenthal 2009; Bond *et al.* 2013). Bond *et al.* (2013) find that 25 per cent of black carbon emissions come from residential cooking and heating, mostly in the developing world. Smith *et al.* (2000) find that, depending on the timeline examined, the global warming contribution of a meal cooked using biomass can be significantly higher than those for fossil fuels.

KEY CAUTIONS IN MOVING AHEAD WITH REDD+

The potential for REDD+ applied to community managed forests to contribute to climate change mitigation appears significant, but we must also ask what could be on the way

of incentives for REDD+ transactions. An obvious point that applies not only to community managed forests or even to carbon sequestration is that at the present time, a very small percentage of firms in FCCC Annex 1 countries face binding limits on their carbon emissions. Except for voluntary motivations, including those related to altruism, public relations and hedging against future regulations, such firms have very limited incentives to purchase carbon sequestration credits. To make REDD+ markets work, economic actors that emit carbon in the developed world must, therefore, be subjected to binding caps.

Because Annex 1 country emitters typically do not have binding caps, private transactions are very limited. The crafters of REDD+, as discussed in Angelsen (2008), envisioned multiple types of REDD+ finance, with development assistance being one that is an 'order of magnitude' less than market finance (pp. 60, 110). In practice, as of 2013, REDD+ appears to be moving towards a fund-based institutional structure that some say is more like foreign aid than a true PES scheme. Such a trend has generated serious concerns about the 'aid-ification' of REDD+ (Evans 2012).

The second major reason why REDD may not work as hoped in community forest contexts is that costs may prove higher than expected and bargains cannot be reached. Costs associated with community negotiations, meetings, monitoring, risk aversion and high discount rates (Yesuf and Bluffstone 2009;2013) could turn out to be significant and potentially make communities unwilling to participate in REDD+ at prices carbon buyers would be willing to pay. This would, of course, imply that carbon sequestration from community managed forests would be too costly for Annex 1 buyers.

Particularly if hidden costs turn out to be very high, there may be risks that REDD+ could distort or destabilize well-functioning community managed forests. This very issue was examined by Elinor Ostrom and a variety of collaborators in the context of irrigation systems. As discussed in detail in Ostrom (1990), Ostrom and Gardner (1993) and Ostrom (2000; 2009), social systems supporting irrigation systems, like those related to community managed forests, are typically complicated, with very detailed rules and norms. These systems can be, and have been, destabilized by outside attempts to improve the efficiency of irrigation through, for example, construction of permanent headworks. Such steps have sometimes reduced incentives for reciprocity among farmers at the head and tail of irrigation systems, destabilizing social systems that were working reasonably well (Ostrom and Gardner 1993).

Third, while it is widely agreed that REDD+ should not impose excessive constraints on local processes or, much worse, forcibly take away existing community rights, these issues will remain as serious concerns. Bushley and Khatri (2011), Ostrom (2010) and Agrawal *et al.* (2011), all suggest that a core challenge is to create appropriate institutions for channelling REDD+ benefits and imposing costs on those who control community managed forests. All three authors note that critical inputs for getting institutions right are collaborative design processes between all levels of REDD+ actors (e.g. international, national and local), recognition of local rights and commitments to locally-tailored solutions.

A key overarching mechanism design issue, therefore, is how REDD+ benefits can effectively be transferred to the local level and additional costs apportioned without disrupting successful community management systems. Taking into account the seven design principles proposed in Ostrom (1990) and expanded in Ostrom (2009) and elsewhere, we know that group membership, benefit-sharing rules, fairness, public participation and social sanctioning are very important. Any REDD+

flows would likely raise the stakes associated with proper institutional design. If REDD+ is to go fo rward successfully, the structure of REDD+ funding mechanisms will, therefore, have to be closely linked with community management institutional structures.

There are a variety of issues particularly tied to the use of fund-based finance mechanisms (Bluffstone *et al.* 2013). First, such an approach probably cannot provide enough funding to meet developing country needs or to effectively exploit community managed forest carbon sequestration opportunities. Second, under such systems, governments hardly receive any REDD+ payments (Humphreys 2008) and will be monopsony[2] buyers of carbon. Implicit in this approach is that government owns the carbon stock, gets the carbon rents and chooses to what extent and how to compensate villagers for lost access to forest resources. There is, therefore, a possibly legitimate concern that governments could set exploitative prices and terms. From their side, communities may view these terms as government requirements over which they have few bargaining rights.

There is also a tendency in the literature to think in terms of estimating opportunity costs and extracting carbon rents from local communities in order to purchase the most carbon possible with donor budgets (Gregorsen *et al.* 2011; Bakkegaard *et al.* 2012). Such approaches are not in harmony with free bargaining or community property rights and mechanisms should be developed that allow communities to earn rents as occurs in a variety of other circumstances. On the positive side, donors often are very supportive of approaches that involve local communities. A central role for donors may, therefore, protect communities when appropriate.

Very limited rigorous empirical research on REDD+ has been conducted within the context of community managed forests and I am aware of no economic analysis of compensation mechanisms and governance complexities associated with REDD+. To date, such issues have merely been raised by researchers and advocates as I am doing now. As I have tried to emphasize, the literature on social capital and community managed forests point to important cautions that should be respected and suggest a variety of practical details that must be addressed. These huge gaps in the economics literature must be at least partially closed before moving ahead with REDD+.

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REDD+ as a Source of Conflict and Cooperation

(Perspective)

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INTRODUCTION

Throughout the developing world, any action, or proposed action, that affects the way forests are managed will inevitably be contentious (de Koning *et al.* 2007; Gritten *et al.* 2012). The importance of this is underlined when considering the number of forest-dependent people in the world; for example, in Asia there are up to 450 million people living in and around forests in the region (ADB 2003). In this context, the development and implementation of Reducing Emissions from Deforestation and Forest Degradation (REDD+), with its ambitious scope and implications on environmental, social and economic levels, is being scrutinized and discussed by many interest groups, and is seen by many of these groups as being a possible source of conflict (Yasmi *et al.* 2012).

The development of REDD+ reflects the belief that forests could play a fundamental role in climate change mitigation, with 12–17 percent of global greenhouse gas emissions being attributed to land-use changes and loss of forests (IPCC 2007). As the name suggests, REDD+ sets out to reduce these emissions, with the '+' emphasizing sustainable forest management, as well as the role of conservation and enhancement of forest carbon stocks. One could argue that the '+' and how it is interpreted is the bone of contention for many, including civil society organizations (CSOs), forest communities, as well as those taking part in negotiations on REDD+ at the international level.

As with any activity affecting the management of forest resources, sustainability is the key. REDD+ draws on different interpretations, and with that emphasis, on what is required for management of a forest to be sustainable. REDD+ is a classic case of an external, in this case international process affecting how forests are managed at national and sub-national levels. Simply put, each of these levels—the international (e.g. reducing emissions), national (e.g. economic development and poverty reduction) and sub-national (e.g. safeguarding way of life)—has its own priorities for how forests are managed and this is where the seeds of conflict are sown. The seeds then grow and are fed by issues such as weak rights and non-participatory methods in decision making. For REDD+ to succeed at the various levels, it must be both effective and equitable, dealing with the various interests and values at play in a coherent manner.

In the above context, the aim of this paper is to briefly examine possible areas of conflict within REDD+ and put forward recommendations aiming at minimizing the negative aspects of conflict and, in turn, maximizing the positives.

REDD+ AS A DRIVER OF CONFLICT

The implementation of the REDD+ initiative comes with significant risks, with great potential for exacerbating ongoing conflicts, or creating new ones. Naturally, the way in which these risks are managed is fundamental to the success of the initiative; therefore, tools for supporting REDD+ proponents, grassroots organizations, are fundamental.

RECOFTC – The Center for People and Forests, driven by its vision of local communities being actively involved in the equitable and

ecologically sustainable management of forest landscapes, has been examining the fundamentals of REDD+ and how it is being developed and implemented across the region. As part of this work, the organization is developing a framework identifying possible sources of conflict, i.e. sources of impairment felt by communities resulting from forest management, including REDD+, with the implementation of REDD+ (Patel *et al.* 2013, Table 1). To date, the framework has been applied in Nepal and Vietnam and is currently being applied in REDD+ sites in Cambodia and Myanmar

Table 1. Sources of impairment

Source	Examples of impairment	Justification
Access and use restriction	Regulations limiting stakeholders' access to, or use of, forests due to creation of protected areas and/or granting of land concessions to private companies	Access to natural resources is essential in meeting the subsistence needs of forest-dependent stakeholders. Policies or practices that limit local access and ability to harvest forest products can cause conflict. REDD+ may come with such restrictions that have potential to alter the relationship that people have with forests.
Benefit distribution	Unclear or inequitable arrangements for distributing benefits from forest management	The lack of fair and equitable benefit distribution mechanisms may create hostility among local stakeholders regarding their share of expected benefits. The potential benefits from REDD+ must be factored into this already complex equation of benefit generation and distribution.
Competing demands	Overlap between extractive management objectives, development agenda, prioritizing economic growth, opportunity costs of conservation and cultural importance of forest areas	Prioritization of conservation or exploitation for economic development makes natural resource management highly contentious. Cultural values attached to the resources (e.g. sacred forests, ancestral land) place further demands that can influence resource management. Alternative forest management options might generate more income, making REDD+ a less favourable option to the communities.
Conflict management capacity	Lack of support or resources from local or central government for managing conflict	The lack of a clear and effective mechanism or process for managing conflict over forest land and resources may escalate conflict. Ongoing tensions can undermine existing institutions, increase the socioeconomic vulnerability of dependent users, and result in environmental degradation. The absence

		of grievance mechanisms or unclear processes aimed at ensuring social safeguards, like Free, Prior and Informed Consent (FPIC), could make REDD+ itself a driver for conflict.
Leadership	Leadership is not representative, accountable, or transparent; elite groups dominate decision-making processes and bodies	Community elite often exert disproportionate influence on executive committees and other leadership positions. Their elevated social status enables them to circumvent accountability or transparency and misuse their leadership roles to engage in corrupt practices. The approach to and content of REDD+ implementation may strengthen these prevalent power imbalances.
Legal and policy frameworks	Dominance of state law over local and/or customary traditions; multiple and ambiguous regulations for forest management; legislation not well understood or effectively enforced	Effective forest management depends on the clarity and consistency of legal and policy frameworks. State regulations often do not explicitly accommodate customary laws or reflect local realities. The resulting legal pluralism can create conflict. Inadequate provisions for implementation, monitoring and evaluation of programmes likewise contribute to legal instability. The commoditization of carbon through REDD+ will add complexity to existing regulatory frameworks for forest management.
Participation and information	Lack of understanding and access to information; limited opportunities for stakeholders to meaningfully participate in forest management	State forest policies and interventions are sometimes made without active participation of local stakeholders, and thereby fail to account for local rights and practices. Inadequate consultation and communication with stakeholder groups can lead to conflict. Even where REDD+ implementation is equipped with grievance mechanisms and processes to ensure that affected parties understand and agree with the implications, the use of such tools is not fullproof.

Quality of resources	Actual and perceived decrease in the condition of forest resources caused by an external actor	Decreases in the amount or quality of available forest land and resources can create tensions among stakeholders. The pursuit of REDD+ benefits may lead to intentionally skewed perceptions of forest quality.
Tenure security	Overlapping boundaries between state and community forests, contested boundaries, lack of recognition of customary rights and traditional uses of the land	The lack of clear and consistent recognition of stakeholders' claims to forestland and resources can fuel conflict. Such recognition could afford stakeholders rights to manage, control and utilize resources. In practice, however, tenure arrangements are vaguely defined or absent, leading to overlapping boundaries between state and community forests. This is especially true where customary and traditional rights are concerned. REDD+ poses important questions about carbon ownership and entitlement to its benefits.

Source: Patel *et al.* 2013

In Nepal, the framework was applied in three watersheds—Kayarkhola (Chitwan District), Ludhikola (Gorkha District) and Charnawati (Dolakha District)—where REDD+ was piloted by the International Centre for Integrated Mountain Development (ICIMOD), Federation of Community Forestry Users, Nepal (FECOFUN) and Asia Network for Sustainable Agriculture and Bio-resources (ANSAB), with the financial support from the Norwegian Agency for Development Cooperation (NORAD). The findings suggested that some issues that could be a driver of conflict within Community Forest User Groups (CFUGs) were not adequately addressed by the REDD+ proponents, and national and local authorities. The representatives of communities that took part in the research particularly emphasized issues relating to benefit sharing, participation and provision for information sharing that were drivers of conflict prior to REDD+. For example, on the issue of benefit sharing, including the practical challenge of identifying poor households, the methods and results it was felt were prone to manipulation. Additionally, there was the concern of overemphasis on forest protection over harvesting (for more information see Patel *et al.* 2013).

The framework can be used as a basis to help predict conflicts not only related to REDD+ (e.g. to ensure that lessons are learned from the 'readiness' phase of REDD+ prior to actual implementation phases) but also in other areas of community–outsider relations regarding forest management and within this conflict management. Conflict management in this context is not just for resolving a conflict, but for addressing the underlying causes of conflict that may jeopardise the implementation of REDD+ as well as maximise positive impacts of any conflict when it does occur, i.e. conflict transformation.

REDD+ AS A DRIVER OF SOCIAL TRANSFORMATION

REDD+ can also provide impetus for addressing the underlying drivers of conflict, i.e. sources of impairment such as tenure. The potential of

REDD+ in this role has been recognized by various bodies, as illustrated by the active participation of many CSOs such as the Indigenous People's Alliance (AMAN)in REDD+ Indonesia, based on the expectation that it will facilitate the opportunity to strengthen indigenous peoples' land rights (Pye 2012). Additionally, under the United Nations Framework Convention on Climate Change (UNFCCC), Cancun Agreement (CoP 16) and Durban Outcomes (CoP 17), safeguards are set out that implicitly seek to ensure that REDD+ is not a driver of conflict. For example, the safeguards in the Cancun Agreement include 'the full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities'. These safeguards place pressure on relevant government institutions and REDD+ proponents, as well as decision-making bodies, for example, within CFUGs, to address the issues of equity to enable them to access the REDD+ funds. An example is the Norway–Indonesia Partnership, where Norway will provide up to US$ 1 billion over the coming years, provided that Indonesia delivers not only on deforestation and forest degradation, but does so in a participatory and transparent manner (Wertz-Kanounnikoff and McNeill 2012) addressing many of the sources of impairment presented in Table 1. The REDD+ initiative's movement on this will encourage governments to address issues relating to governance, if they wish to have access to the large sources of funds that have been discussed.

The importance placed in addressing the threats to REDD+ as well as the opportunities it may provide at the social level, are demonstrated by the investment by numerous development organizations and donors such as NORAD and the Swiss Agency for Development and Cooperation (SDC). The funding and support has been translated into different projects at the grassroots level, e.g. the RECOFTC coordinated Grassroots Capacity Building for REDD+, and national and regional levels, e.g. ASEAN-Swiss Partnership on Social Forestry and Climate Change (ASFCC). The work of the former, for example, in advocating the use of Free, Prior and Informed Consent (FPIC) in REDD+ sites, as well as building the capacity of numerous stakeholders at the grassroots level, e.g. in Indonesia, Lao PDR, Myanmar, Nepal and Vietnam, helps to ensure that as REDD+ develops, they are able to actively contribute to the decisions on the implementation, as well as ensuring that they get appropriate benefits for their investments in their forests.

The increased awareness of the importance of participation regarding the sustainability of operations has driven governments and companies to increasingly involve key stakeholders in decision-making processes, such as social impact assessments and FPIC. There are, however, different drivers for this increased participation, as well as differing methods employed and impacts around the world (Gritten 2009; Gritten *et al.* 2009). Nevertheless, the development and implementation of REDD+ can be a catalyst for this positive development with the framework for REDD+, including funds coming from developed nations, requires that a great deal of emphasis is placed on addressing underlying causes of conflict that may arise through the implementation of REDD+, more so than if a different type of outsider intervention was to occur (i.e. pulp and paper company wishing to establish plantations). In other words REDD+, along with other international initiatives such as European Union Forest Law Enforcement Governance and Trade (EU FLEGT), can encourage governments to address issues that are sources of impairment (Table 1), thereby facilitating social transformation.

CONCLUSION AND RECOMMENDATIONS

Weak governance lies at the heart of the challenges facing forest management in Asia.

REDD+ is a challenge, but also opportunity in terms of how it is designed and implemented, addressing issues related to, for example tenure security, benefit-sharing and how conflict is managed or transformed.

What do we want REDD+ to be? We want it to be a tool for encouraging sustainable management of forests in the holistic sense, not a tool for the management of carbon alone. REDD+ has significant potential to deliver on the former, as illustrated by the level of funding being discussed that are greater than all current investments in forest conservation (Phelps *et al.* 2010). The potential, however, will not be fulfilled until REDD+ proponents, national governments, REDD+ funders and international organizations, e.g. UN-REDD, as well as CSOs, including grassroots organizations, work together in ensuring that safeguards are in place. These safeguards would address the underlying causes of conflict (Table 1).

SPECIFIC RECOMMENDATIONS

1. Build the capacity of grassroots organizations, sub-national and national governmental organizations, as well as private organisations to coherently address the underlying causes of conflict that are likely to exacerbate with the implementation of REDD+. The inclusion of private sector emphasises the fact that, in most cases, the drivers of deforestation lie outside the forestland and in many other cases, for example, forestland concessions, trigger the conflict.
2. Research needs to be facilitated in the countries concerned. This paper is, to a large extent, based on limited application of REDD+. But once REDD+ starts to further roll out on the ground, additional issues are likely to arise. Therefore, diversifying research to different cultural and bio-physical contexts and type and value of forests is another aspect that needs to be considered for further research. As part of this, the research should have the starting point that REDD+ could be a driver for conflict transformation. Additionally, a great deal can be learned from existing conflicts and how they are transformed that can help inform the potential conflict in REDD+.
3. From the REDD+ grassroots project point of view, there is a need to develop tools and methods to resolve or transform conflicts at the local level—identifying local cultural practices and making use of them to communicate the message of transforming conflict.
4. All articles on REDD+ have the same recommendation; address statutory and customary claims on forestlands and this opinion paper is no different. Secure tenure lies at the heart of sustainable management of forest (returning to the '+' in REDD+) as well as at the heart of safeguarding the basic human rights of the communities concerned. In other words, tenure for forest communities needs to be coherently and progressively addressed.
5. The next step beyond tenure is that, to further ensure the sustainable management of forests, communities need to be able to legally make a living from these forests, i.e. an enabling regulatory environment needs to exist whereby communities are able to harvest and sell timber. Governments in the region need to revisit the regulations regarding forest management and examine whether the regulations are providing the best route to the sustainable management of forest, including combating illegal logging.

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Experience of Nepali Indigenous Peoples on Free, Prior and Informed Consent (FPIC)

(Perspective)

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INTRODUCTION

Free, Prior and Informed Consent (FPIC) is a principle concerning the rights of indigenous peoples in the exercise of their collective rights over natural resources. It is recognized in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and International Labour Organization's Convention on Indigenous and Tribal Peoples (ILO C 169). UNDRIP contains the mechanisms and processes regarding respect of indigenous peoples' rights to land, territories, resources, ancestral domain, their rights to self-determination and to cultural integrity (Article 10, Article 11 (Point 2), Article 19, Article 26 (Point 1), Article 26 (Point 2), Article 28 (Point 1), Article 29 (Point 2), and Article 32 (Point 2), ILO 169 Article 14 (Point 1), Article 15 (Point 1), and Article 16 (Point 2).

The four different elements, 'Free', 'Prior', 'Informed' and 'Consent', carry integral and substantial meaning to the whole principle of FPIC. Each of these terms has its own meaning, principles and processes of, and in, its implementation. AIPP (2012) states that the principle and the substance of each element of FPIC are interrelated and should not be taken or treated separately. The term 'Free' means independent process of decision-making. 'Prior' refers to the right to follow their own decision-making process for any projects that concern them before its implementation. 'Informed' refers to the right to have accurate, accessible, sufficient and culture-friendly information on matters for decision-making. 'Consent' is a collective and independent decision of affected indigenous communities after following their own process of decision-making. The first three elements (Free, Prior and Informed) qualify and set the conditions of 'consent' as a decision-making process. Therefore, 'consent' is required before any action takes place (Prior), independently decided (Free), and based on accurate and sufficient information (Informed) for it to be a valid outcome of a collective decision. Most importantly, the processes in each of these steps of FPIC should be fair and of good faith. Its implementation requires a framework of upholding the collective rights of indigenous peoples. Therefore, aspiration of FPIC is crucial for the indigenous peoples across the globe. It is relevant in order for them to ensure meaningful and effective participation in the decision-making process in the field that affects them directly and indirectly. Indeed, it ensures mutual respect and dignity of indigenous peoples, among others, rather than to confront with any actors of development.

RATIONALE OF FPIC: WHY ARE INDIGENOUS PEOPLE ENTITLED TO FPIC?

Indigenous peoples have a collective existence and, therefore, rely on each other for their survival and prosperity (AIPP 2012). They hold a common world-view of their 'indigenoushood' with distinct identity. Contrary to the fact that the industrial revolution focused on economic growth in Europe during the 18th century, it had actually neglected the social and cultural assets of human being with a negative impact on indigenous peoples' livelihood in particular. Even

after the end of World War II in 1940s, the concept, 'development', emerged and spread rapidly around the globe. It was heavily a uni-dimensional thought concentrated on assimilation of multiple life-ways, including of indigenous peoples' culture, into the so-called universal development ladder of living standards. These matters impacted indigenous peoples adversely.

In the context of Nepal, the first ever Law of the Land, Muluki Ain 1854, was discriminatory. The law legally placed indigenous peoples into the lower hierarchy of the caste system. Given the fact that indigenous peoples never belonged to the caste system and the hierarchy before, the justice system and the social, political and economic opportunities were subjected to the caste hierarchy that someone belongs to. Although the caste-based discrimination was legally abolished in 1963, multiple ways of exclusion and deprivation continued since it was deep-rooted in the mindset of society.

Along with time, development activities are taking its pace and have come a long way till date. New inventions are still impacting indigenous peoples in one way or the other. They are being pushed towards the verge of social exclusion. Multiple layers of inequality, political marginalization, economic deprivation, and cultural and symbiotic devaluation are the common experience of indigenous world because new plans, programmes, projects, policies and laws have had negative impact on indigenous peoples' multiple relationship with forest, land, territories and natural resources. There have been serious implications for indigenous peoples' health, traditional healing practices, territorial integrity, collective identity, ancestral domain, cultural integrity, livelihoods, customary practices and law, knowledge system, skills, social cohesion and well being, among others.

Due to these historical challenges among indigenous peoples, the decade-long discourse and efforts coined FPIC as a safeguard enshrined in the international measurement of collective rights of indigenous peoples in UNDRIP and ILO C 169. Hence, indigenous peoples are entitled to FPIC that applies to every matter, including policy formulations and/or adoption of legislative and administrative decisions that directly and/or indirectly affect them. Conducting FPIC allows indigenous peoples to exercise their collective rights and control over their ancestral domain and the respect to their cultural integrity and self-determination, especially on their own development as distinct peoples (Hill *et al.* 2010).

In order to respect diverse and peculiar ways of living and the collective rights of indigenous peoples, any external entity such as the government, corporations, institutions, organizations and project proponents need to seek an agreement, authorization and consent of indigenous communities as they are the rights holders on local natural resources upon which proposed project may have impacts. Therefore, FPIC is inevitable and is a collective undertaking of the members of community/ies that are involved in the collective decision-making processes (UN-REDD 2009). Nepal, as a party to the UNDRIP, ILO C 169 and other relevant international instruments, is itself obliged, and can get any company working in the area of indigenous peoples, to follow the FPIC process, while indigenous peoples have the rights to exercise FPIC.

FPIC AS A SAFEGUARD IN REDD+

The Conference of Parties (COP) 16 of the United Nations Framework Convention on Climate Change (UNFCCC) held in Cancun, Mexico in 2010 agreed upon the 7-point safeguard measures in order to adopt REDD+ as a means to mitigate climate change impact by preventing deforestation and forest degradation and conserving forests and biodiversity, with no negative impact on indigenous peoples and

forest-dependent communities. As the parties to the convention agreed over the set of 'safeguards', governments are obliged to implement the agreed safeguards, including the rights of indigenous peoples mentioned in UNDRIP, ILO C 169 and in other international instruments of indigenous peoples' rights, including FPIC.

As the safeguards can be clustered into social and environmental sets, FPIC comes under the social safeguard. Parties to the convention agreed to implement FPIC in every mechanism and process related to REDD+ at all levels—local, sub-national, national and global. The safeguards entail effective and inclusive processes of FPIC of indigenous peoples at all levels. Parties agreed to develop a Safeguard Information System (SIS) in all REDD+ countries to provide information on how these social and environmental safeguards are being addressed and respected in the REDD+ activities. Later, in the COP 17 (2011) held in Durban, REDD+ countries agreed to make SIS report as a part of country's reporting mechanism to the UNFCCC secretariat. The Subsidiary Body for Scientific and Technical Advice (SBSTA) under UNFCCC is requested to develop guidelines on SIS to agree upon. An important implication of these agreements is the recognition of UNDRIP, including FPIC in REDD+ activities. This illustrates that the international negotiation on climate change and REDD+ has adopted FPIC.

In line with the UNFCCC agreement, the major delivery partners of the fund related to REDD+ initiatives have also adopted FPIC. For instance, Forest Carbon Partnership Facility (FCPF) of the World Bank and United Nations' REDD Programme (UN-REDD) have safeguard policies, including FPIC. Though the World Bank defines 'C' of FPIC as 'consultation' rather than 'consent', it has been addressing the issues of indigenous peoples. The Bank has been having dialogues and meetings with indigenous peoples at national, regional and global levels. It has a very clear policy about consultation, communication and participation of indigenous peoples in its programmes.

FPIC IMPLEMENTATION IN REDD+ PROCESS IN NEPAL: GROUND REALITIES

As mentioned in and guided by the REDD+ Readiness Preparation Proposal (R-PP), Government of Nepal (GoN) is trying to incorporate indigenous peoples' issues and rights in the Strategic Environmental and Social Assessment (SESA) and REDD+ Social and Environmental Standards (SES) standards. Similarly, since Nepal is carrying out some targeted programmes on climate change and REDD+ under UN-REDD, it is obliged to comply its work with the Social and Environmental Principles and Criteria (SEPC) of UN-REDD programme. So far, GoN has been working on drafting a framework for the National REDD+ Strategy. The Strategy may have impacts on indigenous peoples' traditional livelihoods, practices, knowledge system and identity (NEFIN 2012). Therefore, it is crucial to address the issues and challenges of all stakeholders, particularly the concerns of indigenous peoples. To minimize the negative impact and harness optimum benefits from REDD+, FPIC should be followed well in the REDD+ processes, including strategy formulation with effective and meaningful participation of all stakeholders in decision-making process at both local and national levels.

Nepal Federation of Indigenous Nationalities (NEFIN) has taken initiatives at both national and local levels for implementation of FPIC. Cases in the boxes below are some of the examples.

Box 1: Initiative at National Level

NEFIN Climate Change and REDD+ Programme has been conducting awareness and capacity building of indigenous peoples and stakeholders concerned to educate them about FPIC on community-based REDD+ implementation. The programme developed an FPIC Manual for the Training of Trainers (ToT) and produced groups of resource persons across the country. They have been educating people at the community level. For the effective implementation of FPIC, NEFIN has also been working on Implementation Guidelines to facilitate proper implementation of FPIC. The process has already completed a series of consultations and meetings with Indigenous Peoples' Organizations (IPOs), their District Coordination Councils (DCCs), affiliated organizations and constituencies. The guideline contains necessary steps, mechanisms, processes and procedures of implementing FPIC, which can be used by all stakeholders, including government agencies, international non-government organizations (I/NGOs) and community-based organizations (CBOs).

On the other hand, at the grassroots level, indigenous peoples are exercising FPIC not only in REDD+ activities but also in other related matters. For example, indigenous peoples of Ilam, in coordination with NEFIN DCC, are exercising the FPIC process in some development projects (see the cases in Box 2).

Box 2: Initiation at Local Level

Ilam municipality harvests drinking water from Gitlang River. The municipality demanded more drinking water for the increasing population in the town. The municipality officials eventually decided to supply more water from river. The sufferings and the story of the village near the source of water/river are, however, different. At the village level, indigenous peoples' livelihood depends on the river in many ways. Families belonging to indigenous communities run traditional water mills. On top of that, the river is sacred for them, for which they have been worshipping this river for generations. They have been managing and utilizing the water and have been attached to the river for time immemorial. Instead, the municipality simply planned to get water from the river. Indigenous peoples in the village realized that they were going to suffer from that water supply project, for which they then consulted NEFIN DCC. They held dialogues with the government personnel at the district level. They had a series of consultations and dialogues and agreed to the construction of pipelines on the condition that 50 per cent of the income from water use should go to the communities. The government would provide financial assistance for the schools in the village. They would provide health services in the district hospital to 50 households of the village free of cost. In order to keep the source of water clean, the government would assist in the construction of improved pig barns. Dialogue is ongoing to agree upon some more issues. The FPIC principle has been a tool to facilitate dialogue between the government and the communities concerned in Ilam.

Source: Based on the interview with Kiran Sunuwar, NEFIN DCC Ilam, Chairperson

ISSUES, CHALLENGES AND RECOMMENDATIONS

- FPIC implementation is a priority of both the FCPF World Bank and the UN-REDD guidelines. However, proper implementation of FPIC at local level is the major issue and the challenge of indigenous peoples in Nepal. Despite Nepal being a signatory of UNDRIP and the party for ILO C 169, GoN has not yet enacted a law for the proper implementation of FPIC. There are still gaps in policies and mechanisms to be set up for its implementation. The state seems reluctant in implementing FPIC. For this, Sterotypical mindset of bureaucracy has to be changed.
- Abolition of land tenure, collective rights and ownership of indigenous peoples on forest by the Forest Act 1993 contradicts with the FPIC principle. Community forestry violates the communal land tenure system and collective ownership of indigenous peoples over land. Representation of indigenous traditional institution by self/internal selection is another concern of indigenous peoples of Nepal.
- Awareness level among indigenous peoples, government officials and stakeholders varies. As a result, in some cases, FPIC is taken as a one-time event. In many cases, 'consent' is taken as one-way consultation. It is, however, a dynamic and ongoing process. Indigenous peoples may revise their decision depending upon the situation. They hold their right to say either 'yes' or 'no' and even to hold on their decision until they get enough information and time to make a collective decision.
- 'Consent' is a collective and independent decision of affected indigenous communities. It should provide them with time and space for their own decision-making process. Therefore, government and all stakeholders concerned need to understand the essence of FPIC and should engage in its implementation.
- Indigenous peoples often experience the lack of complete, accessible and culture-friendly information on matters affecting them. So, FPIC must be based upon a free and bottom-up process while designing and implementing any project and programme, including REDD+ in Nepal.

Therefore, it is urgent to address these issues and challenges to respect indigenous peoples' rights for the continuation of their traditions, knowledge and culture with dignity that ultimately fosters justice, social inclusion and cohesion in the country.

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Established in 2000, ForestAction (Forest Resource Studies and Action Team) is a Kathmandu based non-governmental organization working in the field of Forestry, Agriculture and Climate Change. ForestAction is established and nurtured by a multidisciplinary team of professionals combining natural and social science. It follows deliberative governance, transformative learning and collaborative partnership as its guiding principles. It has made significant contribution in transforming Nepal's forest governance and policy making environment from a traditional, top-down, state-centric approach towards a deliberative, collaborative and community based approach. During its decade-long institutional life, it expanded considerably in the scale and diversity to become a national centre of excellence and a regionally well-recognized actor in social science research and policy processes, along with a strong international knowledge network.

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