

SUSTAINABLE FOREST GOVERNANCE IN A CHANGING CLIMATE: IMPACTS OF REDD PROGRAM ON THE LIVELIHOOD OF POOR COMMUNITIES IN NEPALESE COMMUNITY FORESTRY

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Abstract: Sustainable forest governance is critical to a debate over how multi-faceted impacts of climate change can be addressed at the local community level. Reducing Emissions from Deforestation and Forest Degradation (REDD) is a financial incentive-based carbon emission reduction program of the United Nations (UN) which will likely change the ways community forests in many developing countries are accessed and used. In particular, the REDD program may reduce the access and use of forest products to poor communities who are heavily dependent on forests for their livelihoods. This paper aims to investigate whether and how the REDD program affects community forestry program in Nepal, particularly in relation to the livelihoods of forest dependent poor communities. It examines conceptual and policy aspects of REDD program in respect to Nepalese community forestry policy through the literature review, and also draws upon the current research in three community forestry cases. It then focuses on the analysis of impacts of the REDD program, viz.– a) access and use of community forests for poor communities, b) benefit and costs of REDD program to poor communities, and c) benefits (or costs) sharing mechanism (i.e. who gets what, when and how?). The paper identifies issues of REDD program in relation to community forestry and local livelihoods, particularly the livelihoods of the poorer groups. The paper provides a critique of the market driven, financial incentive-based REDD program to be not sympathetic to the decentralized forest governance. Despite community forestry has proven to be more equitable than the top-down centralized approach to forest governance, we argue

that REDD seems to encourage the top-down approach, and therefore it seems to be anti-community forestry. Further, it does not really safeguard the interest and need of poor and disadvantaged communities who are directly dependent on forests. The paper concludes by underpinning the need to rethink forest governance in a changing climate with due consideration of persisting poverty in many developing countries.

Keywords: community forestry, equity, forest governance, Nepal and REDD

INTRODUCTION

Forest degradation and deforestation is seen to be one of major contributors to unprecedented climate change around the world today. The United Nations Food and Agricultural Organization (FAO) estimate that the world's forests are disappearing at the rate of 13 million hectares annually and that does not include the loss of natural forests to plantation areas (FAO, 2010). Global deforestation and forest degradation contributes approximately 12-20 % of greenhouse gas emission (DeFries et al., 2002; Achard et al., 2004; Houghton, 2002; 2005; IPCC 2007; Van der Werf et al., 2009). And deforestation particularly in developing countries is a major cause of global green house gas emissions IPCC (2007).

Reducing Emissions from Deforestation and Forest Degradation (REDD) was proposed by United Nations (UN) in 2007 viz the Bali Action Plan to manage forests in such a way to reduce deforestation

and thereby increase carbon stocks. REDD (and later on REDD+) is a carbon financing program in forestry which aims reducing carbon emissions from forests by providing financial incentives to developing countries to conserve forests (Phelps et al., 2010). Assumption is that provision of financial incentives can lead to reduce deforestation and forest degradation, thereby reduce carbon emissions. REDD is intended to be applied to a range of forest management situations including the government managed forests, privately managed forests and also community managed forests. Community forestry, decentralized forest management system at the local level, is one of the most effective forest governance systems in developing countries such as Nepal where local forest users manage and use forests to sustain their livelihoods. With the introduction of REDD program in community, it is certainly open up a potential source of income for forest users compensating for their efforts in forest conservation. In the meantime, this financial incentive-driven program can also lead to forest management where forest conservation is prioritized over the use of forest products. The implementation of REDD program may therefore make the poor forest user groups worse off as it can reduce the access and use of forest products.

Three interdependent factors - rights, rules and benefits - are embedded in community forestry. Community members in community forestry make their own rules of forest management, they have rights to access and use their forests and they have equitable benefit sharing practices. However, the REDD program can impact on these factors. Communities would be affected negatively by the implementation of the REDD program if the provision of giving tenure rights is not clear (Phelps et al, 2010; Murray et.al; 2007). If rights are not well defined, social elites or the state are likely to capture most REDD contracts and benefits (Sunderlin in Springate-Baginski Oliver and Eva Wollenberg 2011, pp 6). Okereke and Dooley, (2010) suspect that the REDD might prefer powerful carbon trade player rather protecting indigenous people's rights. Hence, the aims of the paper are: (a) To review conceptual and policy aspects of REDD program; (b) To analyse impacts of the REDD program in Nepalese community forestry program, viz. – a) provisions for access and use of community forests for poor communities, b) potential benefits and costs of REDD program to the poor communities, and (c) To bring out insights in relation to whether and how the REDD program affects the livelihoods of poor communities in Nepalese community forestry.

We structure this paper as follows. Section 2 reviews relevant literature on the development of the REDD program within the context of climate change.

Section 3 describes the research methods employed to carry out this study. Section 4 reviews REDD policies, particularly focusing on national REDD policy in Nepal. This section also draws upon some of the initial findings from three trail cases of community forestry in Nepal funded by International Centre for Integrated Mountain Development (ICIMOD). Section 5 analyses the review materials to generate lessons as to whether and how REDD program affects the poor and minorities in Nepalese community. Section 6 concludes by summarizing key findings and offering some suggestions to make the REDD program more pro-poor.

REDD IN THE CONTEXT OF CLIMATE CHANGE

REDD program has become a priority task for many countries to address climate change. Global warming impacts on forests and forest-dependent people are a matter of international debate (Schoene and Netto, 2005). As such REDD has become one of central policy reforms in forest governance (Ciesla, 1995; Schulte et al., 2001; Mery et al., 2005; Freer-Smith et al., 2007; Bravo et al., 2008; Streck et al., 2008; Lorenz and Lal, 2010). REDD is a set of steps designed to use market/financial incentives in order to reduce the emissions of greenhouse gases from deforestation and forest degradation. Its original objective is to reduce green house gases, but it can also deliver benefits such as biodiversity conservation and poverty alleviation.

Reducing emissions from *deforestation* and *forest degradation* implies a distinction between the two activities. Deforestation is the permanent removal of forests and withdrawal of land from forest use, whereas forest degradation refers to negative changes in the forest area that limit its production capacity. The REDD is an idea, emerged in the arena of climate financing. Its concept is defined through multiple perspectives. UN-REDD programme states that: The United Nations Collaborative Program on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (UN-REDD Program) is the United Nations collaborative initiative on Reducing Emissions from Deforestation and forest Degradation (REDD+) in developing countries. The Program was launched in 2008 and builds on the convening power and expertise of the Food and Agriculture Organization of the United Nations (FAO), the United Nations Development Program (UNDP) and the United Nations Environment Program (UNEP). (UN-REDD program website)

The REDD concept emerged at the international level. The REDD policy is often seen as a strong move to reduce CO₂ emissions from terrestrial ecosystems by reducing deforestation rates in the tropics (Gullison et al., 2007). As proposed,

developed countries will compensate the developing countries by providing financial incentives for avoided deforestation. Incentives are based on the amount of carbon sequestration in forests. Industrialized countries will pay developing countries to conserve their forests. Countries that reduce producing emissions from deforestation and forest degradation will be paid under REDD scheme. There are a number of REDD initiatives implemented around the world by UNDP and the World Bank. While the REDD program is jointly monitored by the World Bank (WB), United Nations Framework Convention on Climate Change (UNFCCC) and UN-REDD formed by Food and Agriculture Organization, United Nations Development Program (UNDP) and United Nations Environment Program (UNEP). UN-REDD program is endorsed by the UNDP, the FAO and the UNEP. It has responsibility to manage technical and financial components of the initiative at the national and international level. The allocation of funds to maintain forests and to conserve biodiversity and sustainable use through a range of country level projects is implemented by the World Bank. Overall UNFCCC is accountable for the governmental negotiations regarding to the content and format of REDD program.

Over the years, REDD has attracted enormous international exposure and controversies. In the 1997 global climate agreement, the Kyoto Protocol, policies related to deforestation and degradation were excluded due to the complexity of measurements and monitoring for the diverse ecosystems and land use changes. This exclusion resulted in the formation of the Coalitions of Rainforest Nations. In 2005, at the 11th Conference of the Parties (COP-11), the Coalition of Rainforest Nations initiated a request to consider 'reducing emissions from deforestation in developing countries.' The matter was referred to the Subsidiary Body for Scientific and Technical Advice (SBSTA). The United States challenged the proposal, but failed in its attempts. The RED, an inclusion for the welfare of the Coalition of Rainforest Nations was submitted to the UNFCCC at COP 11 by Costa Rica and Papua New Guinea at 2005 in Montreal (UNFCCC, 2005). Then the parties agreed that developing countries are supported to start voluntary actions to reduce emissions from deforestation while other stakeholders and international organizations are encouraged to promote capacity building and demonstration activities in developing countries.

The RED concept was claimed to be successful between 2005 and 2009 (Cerbu et al, 2010). Some of its success was captured in the decision of COP 13 in Bali, Indonesia. The REDD concept emerged after

placing degradation for an additional "D", which was recommended by the United Nations (UN)'s Conference of the Parties (COP) 13. And it was approved by COP 15 in Cancun in 2010. The Central African Forest Commission (COMIFAC) actively promoted this change, which resulted that parties were encouraged to stimulate further action to reduce emissions from deforestation and forest degradation in developing countries (UNFCCC, 2007). Multilateral agencies and several countries expressed their willingness to support for REDD in their formal communications at COP 13. The wide-ranging discussion of the REDD at UNFCCC meetings in 2008 and 2009 reflected REDD+ concept. Later, at the 2007 Bali UNFCCC meeting (COP-13), an agreement was reached on the urgent need to take further meaningful action to reduce emissions from deforestation and forest degradation.

The REDD+ concept was officially declared by COP 15 in Copenhagen in 2009. This decision provides "Methodological guidance for activities relating to reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries" (UNFCCC, 2009a). Article 6 of the Copenhagen Accord (Decision 2/CP.15), more importantly hand over the global community to substantive and immediate action on REDD+: We recognize the crucial role of reducing emission from deforestation and forest degradation and the need to enhance removals of greenhouse gas emission by forests and agree on the need to provide positive incentives to such actions through the immediate establishment of a mechanism" (UNFCCC, 2009b).

The 2009 UN's Copenhagen Summit highlighted stimulates further action to reduce emissions from deforestation and forest degradation in developing countries. Even though the REDD program will officially start from 2012, REDD pilot programs have been implemented in 14 developing countries and REDD readiness programs have been implemented in some countries. The aim of these programs is to get readiness for post REDD era after 2012. International organizations and national governments across the world have allocated a lot of fund to implement these programs. The UN-REDD - \$59.3 million for National Programs, the World Bank - \$300 million, Norway and UK - \$200 million for Forest Carbon Initiative and Australia, Spain and Denmark – donors to the UN-REDD program. These activities show that the REDD program has become a global initiative, but a range of its crucial issues, particularly its impact on forest governance.



Figure 1: District Map of Nepal
(Source: Maps of World, 2011)

Table 1: Analysis of the REDD impacts based on SL framework.

Capabilities	Features	Importance for forest governance	Analysis with REDD
Human	Quantity and quality of labor available	Importance to safeguard community forest	How labor is managed in REDD is unclear
Natural	Land, water and biological resources such as trees, pasture, and biodiversity	Access and use for sustainable livelihood	REDD reduces access and use of them
Social	Rights derived from membership of a group	Contribution to sustainable forest governance	REDD does not secure tenure rights
Financial	Stocks of money or other savings in liquid form	Provide opportunities to govern financing in need	REDD financial benefits would be handled in national level
Physical	Roads, irrigation, electricity, reticulated equipment and housing.	Use for sustainable livelihood	Decisions made in national level

(Source: DFID 1999, modified by authors)

Although the above arguments suggest that reducing deforestation in developing countries is important, potential adverse impacts of the REDD+ on the livelihoods of poor communities managing community forestry has been largely ignored in the international and national level policy debates. This is the central issue of this paper. Scholars argue that the focus on increasing forest carbon stocks can have adverse impacts on the livelihoods of local communities particularly the livelihoods of poor and minorities. For example, Ojha et al. (2009) argued that with enforcing the Forest Act of 1961 and the Forest Protection Special Act of 1967 in Nepal, the State permitted local forest guards to shoot people for illegal use (Ojha et al., 2009). Further, despite the assumption of transferring forests from private groups to the state would improve forest user's access to forest resources, local communities were excluded from controlling forest resources, which made a strong techno bureaucratic field (Ojha 2008; Malla 2000). Clearly, community forestry is credited for better forest management and environmental conservation (Brosius et al., 2005; Glasmeier and Farrigan, 2005). Community forestry scheme consists of forest ownership, responsibility, and management authority (Edmunds and Wollenberg, 2003; Ribot et al., 2006). It is likely that the implementation of REDD will change such management regime, with little control of local priorities in decision making. Scholars also highlight the importance of community forestry in term of sustainable forest management. Forests hitherto managed for subsistence use are now managed to store carbon stock, which means that locally design systems for forest monitoring, rule-making and enforcement are going to be changed. This requires external assistance, possibly compromising to meet the local needs. Hence the whole paradigm of community forestry in which local communities are seen to be better and more efficient managers than centralized agencies in term of forest conservation, is challenged by the emergence of REDD in which there is the increased role of centralised agencies. This clearly has a potential to compromise the benefits of community forestry, particularly benefits to the poor and minorities. This is the focus of this study.

RESEARCH METHODS FOR DATA COLLECTION AND ANALYSIS

The research employs policy analysis and case study analysis as a methodological strategy. The focus of the research is on the national level policy analysis of REDD policy in Nepal (see Nepal's map below). Nepal has experienced a significant exposure of community forestry internationally by achieving considerable social and ecological outcomes, particularly improving the livelihood of poor and minority groups. A fundamental element in the

development of REDD is that forests will produce both conservation and poverty alleviation outcomes by storing carbon in the forests. The opportunities and impacts of REDD to the poor and minority groups managing community forests has not been clearly understood. This research is largely based on the critical analysis of relevant literature and policy documents. Data are collected from the internet, census materials, records and publications by individuals and organisations. The research has employed a triangulation method to establish the validity and veracity of the data sources in order to enhance the value and accuracy of the study.

REDD is being trialled to three community forestry in Nepal. Policy materials on the following three CFUGs are also utilised to bring out some insights. *Case 1 is Charnawati Watershed.* It is a poor, remote community moderately dependent on forests for livelihoods. It also represents middle hill area of Nepal. This watershed of Dolakha district, consists of many CFUGs, is the first case study site of this research. 'Design and Setting up of a Governance and Payment System for Nepal's Community Forest Management of the REDD+' is one out of five REDD readiness program implemented since 2009 in this watershed and two other watersheds namely Ludikhola and Khayarkhola in Gorkha and Chitwan districts respectively. This watershed is recently awarded with financial incentive for carbon sequestration in their forests during 2009 and 2010. Almost 4.6 million tonnes of CO₂, 51,483 tonnes more than the previous year is sequestered in 5,996 hectare forest of Charnawati watershed in 2011 (ICIMOD, 2011). Hence, it is recently rewarded with US\$45,535 by Norwegian Agency for Development Cooperation (NORAD) (ICIMOD, 2011). *Case 2 is Ludikhola watershed* and represents very poor communities, who heavy dependence on community forestry, moderately accessible communities and largely dominated by one socio-cultural group called Gurung. Ludikhola watershed sequestered 1.5 million tonnes of CO₂ in 2011 which is 36,680 tonnes more than the previous year. NORAD rewarded with US\$27,560 this watershed (ICIMOD, 2011). *Case 3 is Kayarkhola CFUG.* This is a highly accessible community, which is less dependent on community forests. Mostly wealthy community resides in this watershed including diverse socio-economic groups. This watershed belongs to Chitwan districts of Nepal. Slightly more than 2.5 million tonnes of CO₂ is sequestered by this watershed in 2,382 hectare in 2011, which is 12,087 tonnes more than 2010. It is funded with US\$21,905 by NORAD (ICIMOD, 2011).

The analysis of policies are done by the use of Sustainable Livelihood (SL) framework, developed by UK's Department of Foreign and International

Development (DFID) (Scoones, 1998, p.5b) and Framework for Assessing and Monitoring Forest Governance (FAMFG), developed by an international conference organized by the World Bank, FAO and the Swedish International Development Cooperation Agency (SIDA) in September 2010 to analyse the impacts of the REDD program. In Sustainable Livelihood framework, researchers found five capitals or capabilities embedded human society are; human capital, social capital, financial capital, natural capital and physical capital (DFID, 1999, Bebbington et al., 1997, Bebbington, 1997, Scoones 1998 and Carney, 1998). The sustainable livelihood is possible based on the presence of these capitals. Bebbington, (1999) argues that capitals are not simply resources that people use in building livelihood: they are the assets that give them capability to be and to act. The following table outlines the SL framework to analyse the REDD impact on local livelihood.

For REDD, access and use of community forest would be reduced in term of increasing carbon in forests, which can create risk of undermining forest tenure rights of local communities. The financial capitals, which consist of stocks of money or other savings in liquid form provides opportunity to govern financing in need. The financial management in implementation of the REDD nevertheless is suspected to be handled in national level and it cannot address actual needs of forest dependent communities. Communities use roads, irrigation, electricity, reticulated equipment and housing for sustainable livelihood. However, in the implementation of the REDD program, decisions over handling these capabilities are made in national level, which creates further frustration for forest dependent local communities with the risk of not addressing their actual needs.

COMMUNITY FORESTRY IN NEPAL

The concept of community forestry in Nepal is established by the identification of interdependency between people and forests. A principle behind this concept is that improved socio-economic well-being and ecological sustainability can be attained by local community's significant role in decision making process over forest management. The 1993 Forest Act guaranteed the rights of local people in forest management. Nepal was one of first countries in the world to implement such national legislation allowing local community in decision making process under community forestry scheme (Malla 1997; Kumar 2002). Community forest user groups (CFUGs) are managing community forests across the country with following achievements (DoF, 2009): (a) Households directly affected – 1,659,775 (32% of total population) (b) Number of CFUGs – 14,439 (c) Number of districts with community forestry

operations – 75 (all districts) (d) Area of forest under CFUG management 1,229,669 (25% of total forest area)

Forests users have secured rights to use forest products while the land is owned by the State. Table 2 outlines the rights of CFUGs as per the Forest Act (1993) and Forest Regulation (1995).

Community forestry in Nepal is seen to be addressing the problems of deforestation and adverse ecological effects of top-down approach of forest management (FAO, 1978; World Bank, 1978).

It is claimed to be successful by researchers based on number of specific factors: (a) Legally empowered local communities to manage forests (Ojha, 2006). (b) Establishment of existing forest-based livelihood systems in rural Nepal and incentives for local people to participate in forest management for a range of forest products and livelihood opportunities (Gilmour and Fisher, 1991). (c) Establishment of social networks and traditional models of collective action around local forest management in Nepal (Fisher, 1989; Chhetri and Pandey, 1992). (d) Discontinuation of traditional power relationships through political movements and emergence of "subaltern" groups taking leadership power at the CFUG level (Bhattarai, 2007).

Nepalese government is interested to participate in the implementation of REDD program. It had submitted the REDD Readiness Plan Idea Note (RPIN) to forest carbon partnership facility (FCPF) of the World Bank on April 2008 to take part in the post REDD program. Nepal was one of the winner countries (out of 14) for FCPF fund to develop R-PLAN (Dahal and Banskota, 2009). Nepalese initiative was funded and permitted to submit readiness preparation plan (RPP). Recently, the UN-REDD programme's third Policy Board welcomed Nepal as the first to officially request to participate in the UN-REDD programme (UN-REDD, 2009), which allows opportunity to be funded to get ready for REDD. UN-REDD's such action with other five nations viz. Argentina, Cambodia, Ecuador and Sri Lanka including Nepal emerged, based on their experience and knowledge, particularly on the issue of measurement, reporting and verification (MRV) systems, and consultation with civil society and indigenous people. The submitted RPP was approved by the forest carbon partnership facility (FCPF) of the World Bank in July 2010 (Bhusley and Khatri 2011).

Nepal is currently fast-tracking the process of policy development of REDD+ program implementation. Few REDD related pilot programs are implemented in Nepal. The government of Nepal has created REDD forestry and climate change cell (REDD Cell) to carryout readiness activities.

Table 2: The rights of CFUGs as per the Forest Act (1993) and Forest Regulation (1995)

<p>1. Right to self-governance</p> <ul style="list-style-type: none"> • Communities have rights to form a Community Forest User Group (CFUG) as per their willingness, capacity, and customary rights. • Community forest boundaries will not be restricted to existing administrative or political boundaries. • Government can dismantle the CFUG if the latter is found to engage in large scale deforestation but it is the duty of the government to reconstitute the CFUG. • CFUGs can elect, select or change executive committee anytime. • CFUGs can punish members who break their rules. • CFUGs can amend or revise their constitution any time. <p>2. Rights to forest management and utilization</p> <ul style="list-style-type: none"> • There is no limit to the forest area that can be handed over to communities. • CFUGs can make optimal use of their forest by growing cash crops together with forest crops. • CFUGs can mortgage their standing forest products with financial institutions to obtain loans. • CFUGs can utilize their funds for any purpose (but 25% of income from forest must be spent in forest development) • CFUGs can freely fix prices and market their forest produce. • CFUGs can establish enterprises and make profits. • CFUGs can seek support from any organization. • CFUGs can raise funds by various forestry and non-forestry means with all income going to group funds with no requirement for sharing financial revenue with government. • CFUGs can invest in any areas, persons or development activities according to the decision of CFUG assembly.
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Source: Synthesized from Forest Act (1993) and Forest Regulation (1995)

Table 3: Analysis of the impacts of REDD on local livelihoods in Nepal

Pillars	REDD Policy	Planning and decision making process under REDD	Implementation, enforcement and compliance of REDD	Output
Accountability	Policy made in Int/Nat level	Int/Nat bodies make decision	Unsatisfactory for local level	No accountability to local level
Participation	Policy made in Int/Nat level	Int/Nat bodies make decision	Unsatisfactory for local level	No participation of local level in decision making of REDD
Effectiveness	Policy made in Int/Nat level	Int/Nat bodies make decision	Unsatisfactory for local level	No effectiveness for local level
Fairness/Equity	Unclear policy on benefit distribution	Int/Nat bodies make decision	Unsatisfactory for local level	No equitable distribution of REDD benefit to local level
Transparency	Assumed to be transparent	Int/Nat bodies make decision	Unsatisfactory for local level	Locals suspects on transparent flow of REDD benefit

Source: Authors' synthesis

It has also formed a national REDD working Group, an Apex Body for policy coordination comprised of top-level officials from nine government ministries and the National Planning Commission. The International Centre for Integrated Mountain Development (ICIMOD), the Asian Network for Sustainable Agriculture and Bio-resources (ANSAB) and the Federation of Community Forestry Users Nepal (FECOFUN) are collaborating with the government to run REDD readiness programs. Nepal is now working out on RPP and planning to write it in upcoming National Constitution of Nepal. The RPP represents national REDD policies and programs of Nepal. The RPP states: "By 2013 and beyond, our greenhouse gas emissions resulting from deforestation and forest degradation will be significantly reduced by forest conservation and enhancement, by addressing the livelihoods concerns of poor and socially marginalized forest dependent people, and by establishing effective policy, regulatory and institutional structures for sustainable development of Nepal's forests under the forthcoming new constitutional framework." (RPP, 2009)

Many scholars argue that the RPP creates controversy in term of access and use of community forests. According to the RPP of Nepal, GHG emission would start to be reduced from the year 2013 with the provision of forest conservation. However, in term of increasing carbon sequestration in forests, the access and use of forest also needs to be reduced. This reduction will have severe impacts on livelihood of local community, particularly poor communities in community forestry.

Community forestry has contributed significantly in poverty alleviation practice in Nepal. According to the recent report of National Planning Commission (NPC), poverty level in the country has lower to 24.8 percent (Koirala, 2009). National Living Standard Survey (NLSS) also found that some 31 percent people in Nepal live below severe poverty line. These poor communities heavily rely on community forests. Some poor communities sell forest products such as firewood and timber, and use money to rice, groceries and clothing. While these communities are aware of the adverse effect of deforestation, they use forests for their livelihoods. Cavendish (1997) argues that poor households derive a relatively larger share of their income from forests and wild lands. Then, it is likely that the focus of REDD in carbon storage will restrict the poor communities to use forests, leading to the degradation of their livelihoods due to the REDD program.

IMPACTS OF REDD ON LIVELIHOOD OF FOREST DEPENDENT COMMUNITIES

Multiple views on potential impacts of the REDD program are emerged. REDD will benefit the local community, REDD will harm the communities however REDD will have no effects on local communities (Larson, 2010, Ricketts et al, 2010, Griffiths, 2008; Phelps et al, 2010; Corbera and Schroeder, 2011). This paper argues on how the REDD program, the top-down forest governance approach, affects the livelihoods of poor communities managing community forestry scheme. The current REDD readiness programs in Nepal has created a number of issues to the livelihoods of forest dependent poor communities. First, these communities are precluded from accessing and using their forests under REDD readiness program. There are number of reasons for them to suspect on the distribution of funds potentially captured by social elites. Embed

Community forestry consists of three interdependent factors namely; rights, rules and benefits. Community members in community forestry make their own rules of forest management, they have rights to access and use their forests and they have equitable benefit sharing practices. However, the REDD program can impact on these factors. Communities would be affected negatively by the implementation of the REDD program if the provision of giving tenure rights is not clear (Phelps et al, 2010; Murray et.al; 2007). If rights are not well defined, social elites or the state are likely to capture most REDD contracts and benefits (Sunderlin in Springate-Baginski Oliver and Eva Wollenberg 2011, pp 6). Okereke and Dooley, (2010) suspect that the REDD might prefer powerful carbon trade player rather protecting indigenous people's rights. Rules of community forest management will have to be changed in the context of the implementation of the REDD program. The REDD would necessitate changes in the decision making processes of community forestry, which determine benefit flow to the local communities. Agrawal et al., (2011) argue that the involvement of the local communities in decision making of the REDD projects is rare.

There is enormous controversy about REDD in relation to how benefits will be shared and who receive the benefits. While the REDD continue to focus on the national government (Agrawal et al, 2011), overlooking the incentive structure and benefit sharing mechanisms at the local community level. There is no clarity on to what extent local communities can share REDD benefits (Larson, 2011). Relationship between carbon sequestration and other potential co-benefits of forest protection of the REDD program is not clearly understood (Chhatre and Agrawal, 2009 and Persha et al., 2011). Greater transparency and better access to financial benefit from REDD is expected by local communities

(Corbera and Schroeder, 2011, Lawlor, et al. 2010 and Thompson, et al., 2011). Madeira (2008) highlighted five potential effect of national REDD policy. (a) National-based REDD policies might create bureaucratic procedures that could discourage investors in forestry projects from participating in the market. (b) National-based policies require strong central governments, whether to enforce forestry policies or to reform national agricultural and transportation program. (c) National-based policies might discourage participation by sub national groups that have the interest and ability to abate deforestation despite national-level disinterest. (d) National-based REDD policies may discourage bottom up participation in forest management.

Table 3 provides a brief analysis of the impacts of REDD on the livelihoods of poor and minority groups managing community forests in Nepal

By utilising the Framework for Assessing and Monitoring Forest Governance, some relevant pillars are used to assess potential consequences of the REDD program's implementation. The REDD program is not accountable to the interest of local community because its decisions are made at the national and international levels. Local participation is poor in the REDD decision making process which may compromise the needs of local users. Policies and programs are assessed, based on technical effectiveness which largely ignores socio-cultural aspects of communities. Since the REDD policies are not clear about benefit distribution procedures, equity in the REDD benefit distribution can be compromised, making the elites better off (while the poor worse off). Even though the REDD program is assumed to be transparent, its policies are unclear in relation to the above factors. Clearly, REDD offers some benefits from forest conservation, but these benefits are more likely to be at the expense of many poor and minority groups who will have to forego the direct use of forest products in which they heavily depend on.

It is also reported that poor communities from two trail cases - Chandrawati and Ludikhola watershed areas - have experienced the reduced access and use of their forests since the REDD readiness program. Users do not know how distribution of the readiness fund will be carried out. The National REDD policy analysis indicates that bureaucratic procedures could discourage investors in forestry projects from participating in the market. It also indicates that REDD policies may discourage bottom-up participation in forest management. Based on these findings, it is reasonable to suspect that the REDD in community forestry in Nepal is likely to offer a very limited help to the poor people managing community forestry.

CONCLUSIONS

The paper has provided a critique of the market driven, financial incentive-based REDD program to be not sympathetic to the livelihoods of poor people managing community forestry. Despite community forestry has proven to be more equitable than the top-down centralized approach to forest governance, we argue that REDD seems to encourage the top-down approach, and therefore it seems to be anti-community forestry. There are a number of reasons for the poor people to be cautious about REDD program: (a) Social elites, bureaucrat and central government will handle the financial benefit of the REDD program. There is no clarity of how benefits will flow to the forest dependent poor communities; (b) REDD is emerged from top-down forest governance scheme. While the State handles the financial benefit of the REDD, it can impose various policies and regulations which can jeopardise access and use of forest products; (c) Poor communities, who heavily depend on their forests, are excluded in the design of REDD which pushes them further to inequity, impartiality and uncertainty. (d) REDD does not secure tenure rights. For example, limited access and use of forests results several barriers to meet cultural as well as spiritual needs for many people

Based on analysis, this paper concludes with six important implications; a) Security of tenure rights needs to be guaranteed in the implementation of the REDD program, b) Impacts of the implementation of the REDD program on local livelihoods in term of rules and benefits, particularly to the livelihoods of poor minority groups have been identified, c) Tension between REDD and community forestry needs to be clearly identified, d) REDD program does not safeguard the interest of community forest dependent poor communities, e) The REDD program is anti-community forestry, and f) It is necessary to rethink about different schemes under different forest governance system under the REDD scheme. Hence, the paper concludes by underpinning the need to rethink forest governance in a changing climate with due consideration of persisting poverty in developing countries.

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