

ANALYSING REDD+ IN COMMUNITY FORESTRY: HAS IT BEEN EXPERIENCED DIFFERENTIALLY AT DIFFERENT HOUSEHOLDS?

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ABSTRACT

There is growing consensus internationally that the policy instrument of Reducing Emissions from Deforestation and forest Degradation in developing countries (REDD+) could be an effective way not only to reduce GHG emissions from the forestry sector, but also to enhance the bio-diversity and livelihood benefits of forests. Yet, there is a range of unresolved issues about REDD+, such as how this policy instrument will deliver multiple positive outcomes. In particular, the outcomes of REDD+ remain somewhat speculative in terms of how it will affect the livelihoods of local forest-dependent communities. This paper presents emerging results from research that examines the effects of REDD+ being delivered through Nepal's extensive community forestry agenda. The research explores the differential effects of REDD+ experienced by different households within selected villages in the Gorkha district of Nepal. The research reveals varying experiences by different households, with experiences closely correlating to the socio-economic attributes of households. For example, despite the 'no harm' goal of REDD+ for local communities, our research indicates that not everyone is experiencing the anticipated benefits of this new policy instrument. Although poorer and women headed households are privileged, provided support is limited and negligible to compensate the loss they have experienced. Households relying on subsistence forest farming are forced to seek alternatives with little additional skills or support provided, suggesting that poorer households may be doing much of the 'heavy lifting' for REDD+.

Key words

REDD+, community forestry, livelihoods, multiple outcomes, poorer

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1. INTRODUCTION

Reducing Emission from Deforestation and Forest Degradation in developing countries (REDD+) has been unfolding as a key mitigation strategy to deal with global climatic issues. REDD+ has received much political and scientific attention since the concept was first placed on the agenda of the United Nations Framework Convention on Climate Change (UNFCCC) in 2005 and formally accepted in principle during 13th Conference of Parties (COP 13) through the Bali Action Plan. The original idea was to contribute to climate change mitigation by creating incentives for developing countries to keep their forests standing (Phelps et al 2010). Since then, the scope of the policy has expanded, and currently encompasses deforestation, forest degradation, conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries, collectively known as REDD+ (Visseren-Hamakers et al 2012).

Implementation of the REDD+ policy could provide large-scale carbon emissions reduction at comparatively low abatement costs (Stern 2006) while also promoting sustainable forest sector development, enhancing rural livelihoods, and protecting biodiversity (Angelsen et al 2009); win-win objectives reaffirmed during the UNFCCC 17th Conference of Parties (UNFCCC, 2011). In order to develop enabling policy frameworks based on experiences, REDD+ has been piloted in different tropical countries since the concept was acknowledged by the Bali meeting (i.e. COP 13 2007). By the end of 2012, a total of 285 REDD+ demonstration / pilot projects have been implemented globally (<http://www.forestsc limatechange.org> accessed 5 Jan 2013).

In developing countries, local people, indigenous communities in particular, have relied on forests to sustain their population for centuries. Community Forestry (CF) has been increasingly recognized as a promising approach not only to improve livelihoods of rural communities but also to achieve sustainable management of forests (Neupane and Shrestha 2012). CF covers more than 10 percent of forests globally and the extent of forests used by local communities is close to 18 percent (Chhatre and Agrawal 2009) providing livelihood benefits to more than half a billion poor people (Chhatre and Agrawal 2009).

Although CF approaches vary widely in different countries and contexts, embedded principles of its management include rights, rules, and benefits (Charnley and Poe 2007). In general, Community Forest User Groups (CFUGs) make their own management rules, they have rights to access and use forests and forests resources and develop benefit sharing mechanisms of their own. Based on experiences so far, CF has shown its potential to be an effective policy instrument for REDD+ implementation on the ground by not only protecting forests but also providing significant use rights of forests to communities (Acharya et al 2009 ; Agrawal 2008; Corbera et al 2011; Skutsch et al 2011; Paudel et al 2013).

However, the literature (e.g. Corbera et al 2011; Hajek 2011; Phelps et al 2010; Sikor et al. 2010) appears sceptical that REDD+ may change the traditional approaches to CF management towards more conservation focus, where priority is the forest protection rather than the use of forest products. Locally, community

forests have been managed to meet subsistence resource needs of local communities; though may not necessarily comply with REDD+ policy mechanisms that seek reduced emissions (Bluffstone and Robinson 2012; Neupane and Shrestha 2012). It is thus likely that the implementation of REDD+ seeks changes in local approaches to CF.

In order to increase carbon sequestration, REDD+ may seek changes in patterns of forest resource use, which would necessarily influence the livelihoods of forest-dependent people. Whether these influences are positive or negative will depend in large part on the institutional design and governance structures of REDD+ programs (Rodgers 2012). The actual benefits that local communities might accrue from REDD+ (how much and on what basis) remain unclear. This has resulted in considerable uncertainty as to whether the policy will deliver real benefits to local communities or not. The literature argues that potential losses (e.g. access restriction) by the local and indigenous communities could exceed potential gains (e.g. compensation money) (Angelsen et al 2012; AIPP and IWGIA 2012). It is also likely that the addition of carbon value to forests will encourage the dispossession of politically and economically marginal forest dependent people from the forests they rely on (AIPP and IWGIA 2012; Chhatre et al 2012).

At the interface of these uncertainties, REDD+ has been piloted via CF in different countries. So far, however, little empirical evidence has been published that reveals REDD+ implications for livelihoods of forest dependent communities, the poor and marginalised in particular (Bluffstone and Robinson 2012; Corbera and Schroeder 2011; Dahal and Banskota 2009; Hajek et al 2011). Concern about who might be winners and losers at local levels has become more prominent in the debate, particularly after the first generation REDD+ activities have been piloted as a part of the readiness process. These concerns have fuelled a growing demand for an analysis of social justice issues (equity, fairness and rights) associated with the implementation of REDD+ mechanism at local levels (Peskett et al 2011).

Based on ongoing case study research on the implementation of REDD+ pilot projects through community forestry in Nepal, this research aims to analyse how and to what extent REDD+ pilot activities might have affected livelihoods of local communities, the poor, marginalized and women in particular. In addition, by analysing the experiences and perceptions of REDD+ at a household level, this research identifies the differential effects of REDD+ being piloted through community forestry.

2. DIMENSIONS OF CF OUTCOMES IN NEPAL

Nepal possesses a strong community based forest management system which not only supports local livelihoods, but also results in enhancement of the resource base and addresses several other cross cutting issues such as social exclusion, gender equity and other types of discrimination (Acharya, et al 2009; Karky and Skutsch 2010; McNally et al 2009; Pokharel and Byrne 2009). Though community management of forests has been practiced since historical time, it was addressed by state policy for the first time in the 1970s. After promulgation of the Master Plan for the Forestry Sector (MPFS) in 1988 followed by the Forest Act 1993 and successive Regulation 1995, community forestry (CF) in Nepal emerged and was established as

a mainstream forestry program. At the beginning of its implementation, CF in Nepal was primarily protection-oriented. But now, after more than 25 years, it has been established as encompassing much broader-based strategies for forest use, enterprise development, and livelihood improvement (Kanel and Dahal 2008; Ojha et al 2009). By the end of the June 2012, CF in Nepal covered approximately 25 percent of Nepal's land area with 39.6% of that area designated as forest. About 1.66 million hectares of forestland has been managed by over 17,685 communities comprising 1.45 million households or 35 percent of the population across the country (DOF 2012).

CF has generated multiple outcomes in Nepalese society. Major outcomes as described in the literature include: (a) legally empowered local communities to manage forests (Ojha, et al 2009; (b) development and establishment of appropriate institutional structures at different levels (FECOFUN for example), from very local level to national (Nagendra et al 2008; Thoms 2008); (c) providing subsistence income for poor families (Pokharel et al 2007; Poudel 2007); (d) local employment and income by establishment of forest based enterprises (Subedi 2006); (e) empowerment of rural people to have more inclusive governance (Luintel et al 2009); (f) improvement of forest conditions (Kanel and Kandel 2004); (g) supporting other social welfare activities such as school buildings, scholarships for poor children, and road networks (Gautam 2009).

However, all of these outcomes have direct or indirect implications for local livelihoods, particularly for those who rely on forests for their subsistence. More than 90 percent of people living in rural areas exist on low income activities (income less than US\$ 2 per day) (MOE 2010). In Nepal, forest resources provide a means of livestock farming, inputs for agriculture and supply for timber and non-timber forest products. Forestry, Agriculture and Livestock husbandry are intimately related in the farming system and are the basis for rural livelihoods (Kanel and Dahal 2008; Pokharel et al 2007). More than 90 percent of households in rural areas need both firewood and grass to sustain their livelihood. However, about 59 percent of them get firewood from CF, while it is 47 percent for grass, 28 percent for fodder and about 47percent for leaf litter (Thoms 2008 p. 1458).

Thoms (2008) identified that household wealth (land holding in particular), caste and gender are correlated with forest dependence. Poor and Dalit households were likely to seek more firewood from forests than richer people who hold more land and private trees. However, there was no significant difference in amount supplied from CF to these groups; benefit sharing approach was equal for all. In most cases, Thoms (2008) found that products supplied from CF were less than households demand. This put the poorer at a disadvantage either because they are not able to afford alternatives, such as private sources that require land on which to grow trees, or they must spend more of their limited financial resources to purchase products, firewood and timber in particular.

A study by Kanel and Dahal (2008) reported that in addition to supplying subsistence needs, CFUGs in Nepal earn US\$11. 8 million annually from the sale of forest products (p.55). Poudel (2007) reported that 87 percent of CFUG households in a remote district of Jumla, Karnali were involved in collecting None Timber Forest Products (NTFPs) from forests and earn US\$250 in average cash annually. Out of

these, 57 percent of households were living under food deficit of more than six months from their farm production. Poudel (2007) found that NTFPs contribute 30 to 40 percent of food needs and 60 to 70 percent of other livelihood requirements (i.e. cloths, schooling costs and medication) (pp 47-50).

Despite the reported outstanding performance in livelihood support and conservation outcomes, CF in Nepal does have some limitations. It is often criticized for its donor driven approach for policy implementation, lack of consistent outcomes (weak performance in productive forest areas) all over the country and not being able to control corruption. Most of the CFUGs perpetuate local power imbalances and corruption involving community elites and third parties (Bushley 2010).

Discrimination and stratification by caste and gender are deeply entrenched in Nepal. There are also huge disparities between households in terms of income and assets owned (Thoms 2008). Despite having statutory rights, users cannot independently decide how much resources they would like to get for what purpose even with an approved CF operational plan in hand; they have to wait for approval from a government officer (Ojha et al 2009; Paudel et al 2009; Pokharel and Byrne 2009). Moreover, there is uncertainty over carbon rights; government has produced no clear policy regarding whether people are entitled to get full advantages from carbon credits, or whether they will have to share with others such as the government (Ojha et al 2009). All of these limitations have been translated into institutions, social norms and activities that continue social disparity and marginalization in community forestry.

3. REDD+ IN NEPAL: POLICY PROCESS AND PILOTS

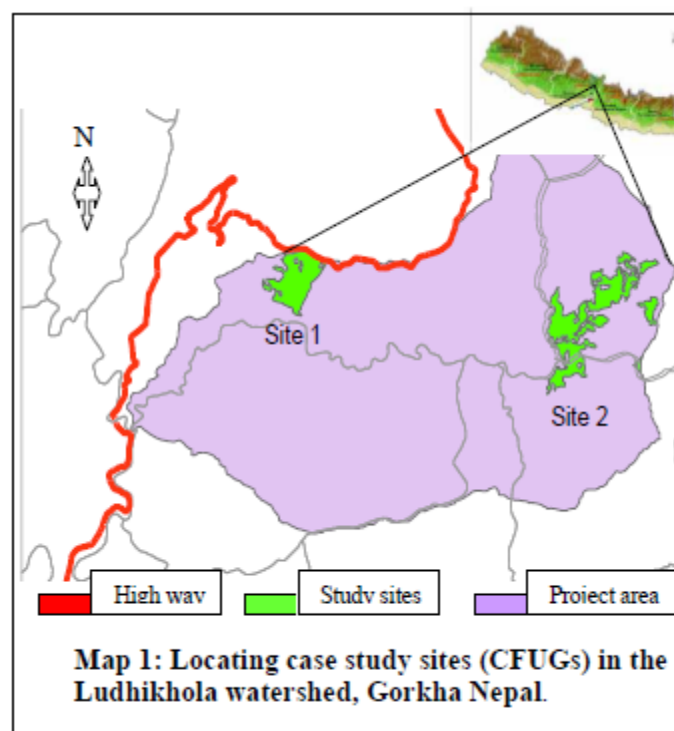
Nepal has been embracing REDD+ as a potential solution and source of funding for the persistent and linked problems of climate change, deforestation, biodiversity loss, and rural poverty. Nepal has been a partner country of World Bank's Forest Carbon Partnership Facility (FCPF) and also joined the UN-REDD program as an observer country in October 2009 (Acharya et al 2009). After approval of its REDD+ Readiness Preparation Proposal (RPP), Nepal is preparing its strategy for REDD+ implementation which is expected to be ready by the end of 2013 (MFSC 2010). In order to prepare itself for the REDD+ regime, the government of Nepal has developed a three tiered institutional set-up. The highest tier is an apex body, which is a multi-sectoral, multi-stakeholder policy level coordinating entity, comprising the highest government officials, national planning commission and at least 50 percent members from civil society and private sectors. The second tier, REDD Working Group (RWG) provides technical support and the third tier (REDD Cell) coordinates the whole REDD+ readiness procedure (MFSC 2010).

In addition to support from World Bank's FCPF for policy development, Nepal REDD+ readiness activities have also been supported by UN-REDD and other Overseas Development Assistances (ODAs). According to REDD Cell in the Ministry of Forests and Soil conservation (MFSC), as part of the readiness program, five different REDD+ piloting projects were underway across Nepal by the end of 2012. Most of these pilots were being implemented through community forestry with the aim of developing methodologies for forest carbon measurement, benefit sharing, and technical capacity building (MFSC 2012; WOCAN 2012). Experiences and learnings from these activities are expected to provide a basis to develop REDD+

policies and an institutional framework for the implementation of REDD+ in the future.

4. RESEARCH PROCEDURES

This research was undertaken in Ludhikhola watershed in the Gorkha district of Nepal. Ludhikhola watershed is one of three pilot sites (other two sites are Charnawati watershed in Dolkha district and Kayarkhola watershed in Chitwan) jointly implemented since 2009 by the International Centre for Integrated Mountain Development (ICIMOD), the Asian Network for Sustainable Agriculture and Bio-resources (ANSAB) and the Federation of Community Forest Users Nepal (FECOFUN) with financial support from Norwegian Agency for Development Cooperation (NORAD).



The main objectives of the pilot project are to demonstrate the effectiveness of REDD+ benefit-sharing mechanisms among Nepal's CFUGs, and to develop a REDD+ payment mechanism at the national scale. In order to meet these objectives, the project has released funds to provide CFUGs with seed grants based on social criteria (ICIMOD et al 2011). According to the project's fund regulating guideline from Forest Carbon Trust Fund (FCTF), four main elements (i.e. carbon enhancement, ethnic diversity, women population, and poor population) are considered for determining the specific amount of REDD+ payments for each CFUG (ICIMOD et al 2011). Payments are made annually based on monitoring and verification reports from district level monitoring committee, and CFUGs received their first instalment in 2011.

The Ludhikhola project site is in a hilly physiographic region in the Gorkha district of western Nepal; about 150 km west from Kathmandu (Map1). The area is characterized by remoteness and poverty but also diversity in culture, ethnicity, and

natural resources. Most people rely on a subsistence farming system that is highly dependent on forest resources. In order to sustain their livelihoods, local peoples have engaged in forest resource management for the last 30 years. Within the Ludhikhola watershed, 31 CFUGs of different sizes exist incorporating 3800 households.

This research was guided by an inductive approach of social research but also includes some deductive elements (Walter 2006). Both qualitative and quantitative data were collected using in-depth interviews, focus group discussions and household survey methods. Data were also substantiated by document review and observations. Based on high and low levels of success in delivering multi-benefit outcomes from CF, two out of 31 CFUGs in the Ludhikhola piloting site were visited for data collection. Birechok (site 1) and Gangate Bahune (site 2) CFUGs were selected as sites of comparatively high and low level of success respectively by a multi stakeholder round table meeting at the beginning of the data collection. Across these sites, 61 household surveys, 38 interviews ranging from local forest users to policy level stakeholders, and eight focus group discussions from different social groups including women were conducted.

Qualitative data were coded by emerging themes using the NVivo computer software to draw thematic information that reveal changes in local approaches to CF due to REDD+ activities. Quantitative data were analysed by descriptive statistics and used to substantiate thematic information. Analysed outcomes from each CFUG were then compared and contrasted to draw conclusions in the light of contemporary literatures.

5. FINDINGS

Given that REDD+ policy and its implementation continues to develop at a local level, and a couple of years of the pilot intervention may not be enough time to draw conclusions on full effects on local livelihoods of REDD+ implementation, this research reveals some initial outcomes of the intervention. These findings in fact suggest the likely implications for livelihoods of CF users in the future. The data reveals that the pilot of REDD+ has resulted in tightened rules to limit or control access to forests and forest resources and minimise harvesting activities. However, REDD+ pilot has also provided livelihood supports for local people including awareness and skills enhancement, seed grant for Income Generation Activities (IGA) and support for Improved Cooking Stoves (ICS). Data reveals that the pilot of REDD+ has been experienced differentially by different households because of varying needs and interests. Households' wellbeing status, gender, ethnicity, and livelihood strategies appear to be major variables causing differential effects at different households. This paper considers how wellbeing and gender factors may cause differential outcomes at different households.

5.1. DIFFERENTIAL EFFECTS BECAUSE OF HOUSEHOLDS' WELLBEING

Household wellbeing has been widely acknowledged as an important dimension for forest dependency in the literature (Adhikari, et al 2004; Dev et al 2003; Kanel and Dahal 2008; Pagdee et al 2006; Thoms 2008). Wellbeing ranking has been practiced in Nepal's CF system since 2006; completing a well-being ranking exercise is one of

the compulsory criteria to be met before any CFUG is formally registered by the government's forest authority (DOF 2006). This research reveals that under the REDD+ pilot regime, different wellbeing ranking households have been effecting differentially; not all households have experienced REDD+ similarly.

Poorer households have been affected by controlled access

Poorer households appear to be most affected since REDD+ imposed more controlled and restricted access to forests and forest resources. Data reveals that a lack of access to an alternative source of cooking energy and a lack of private trees in their farmland are the major reasons. All research participants including focus groups confirmed that access to forests and forest resources has been controlled since the pilot of REDD+ intervention and that the poorer people have suffered the most. Participants reported that poor and Dalits (lower caste - almost all Dalit are poor) neither hold enough land to grow trees nor are able to access alternative sources such as biogas, electric rice cooker and kerosene stoves, as the well-off can. They use crop residuals (husk) to meet energy gap in their kitchen in most cases. However, richer (well-off & medium wellbeing categories) seem to be experiencing negligible effects due to controlled access. These groups are able to supplement reduced supply of resources from community forest, from trees grown in their private lands. In addition, the richer are also more able to access alternative energy sources such as electricity and biogas.

One elderly farmer, a poor user from Gangate Bahune CFUG reported that he has been suffering from short supply of firewood and fodder since the pilot intervention of REDD+. He said that if the forest closure remains his farm production will be decreased (both livestock and crop) and would not be enough to sustain his family. However, he was not that much worried because he has believed that if the forest is protected, CFUG will get money from foreigners and he will be compensated for his losses. Another participant, a well-off committee member, observed that due to lack of other options some poor households have been forced to access resources illegally:

“.....people of low income, less educated and unskilled need forests more and of course they are highly dependent on forests. Some of them have also been reported for being involved in illegal cutting in order to meet their household needs.....” (PG7).

Because of having complementary resource supply from farm trees (private forests, woodlots) medium and well-off households appear to have little concern about limited access to forest. One male participant (PB6) from a medium wellbeing rank household in Birechok CFUG argues

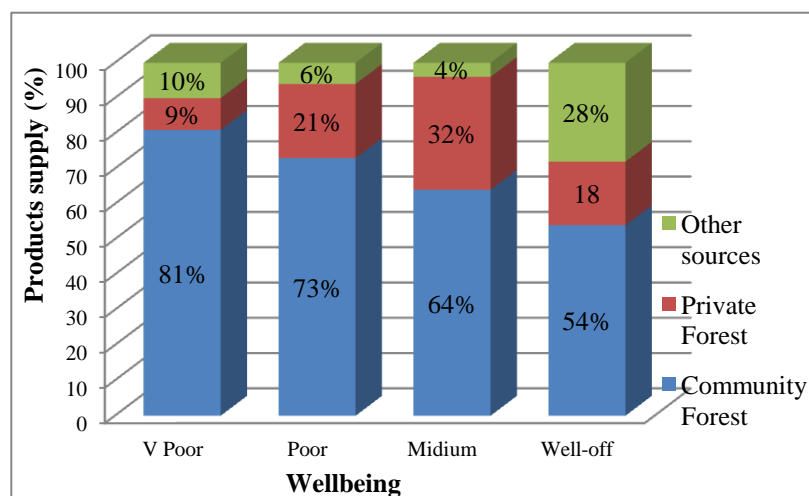


Figure 1: sources of forest products to different wellbeing ranking households. (n=61)

that his family hardly use firewood and fodder from community forest; hence he has never experienced tightened rules and reduced supply. He has been using biogas for cooking since long ago and also having private woodlots providing enough fodder and timber in his land.

Household survey also substantiates that poor households depend more heavily on resources from forests (Figure 1). The survey result reveals that 81 percent forest related resources to very poor households come from community forests. Data also reveals that level of consumption of resources from community forests decreases as the wellbeing level goes up; 73 percent of poor, 64 percent of medium and 54 percent of well-off wellbeing ranking households' resource consumptions come from community forests. Medium wellbeing ranking households get 32 percent forest products from private trees followed by poor (21%), well-off (18%) and very poor (9%). 'Other' sources for well-off and medium wellbeing households include biogas, electric heater, and cattle feeds from market. However, for very poor and poor households, 'other' sources come from forests other than the community forest. The implication of this is that REDD+ is not changing poor people's use of forest resources, just the source of those resources. Thus, there is potentially no net benefit in terms of carbon storage, poor people are likely to be working harder, or travelling further to access these resources, and management of forests outside community forests may be stressed by increased access, resulting in reduced condition of these forests and ultimately reduced capacity to provide these alternative sources of resources.

Limited poorer households receive seed grant for income generation activities

The pilot project of REDD+ has initially focused on very poor households while distributing seed grant for income generating activities (IGA). In 2012, the Birechok CFUG distributed 65 percent of the total seed grant (US\$650) to five households, with individual household grants ranging from US\$108 to 140 based on their IGA plans. All of the seed grant recipient households were very poor and seemed happy, though they were not satisfied with the amount of money. The dissatisfaction was that provided amount of seed grant is not enough to start any kind of IGA.

However, the initial implementation of the REDD+ pilot in the Gangate Bahune CFUG had not produced such an outcome. This CFUG not only allocated a smaller amount for IGA (i.e. US\$362 in total, or 20% of the total seed grant money available), but also did not distribute seed grant to the targeted households on time. Responding to concerns about the delayed process, one responsible committee member (PG5) reported that the committee had informed users to come up with their IGA proposals (up to US\$100). However, very poor and Dalit (lower caste) participants during focus group meetings appeared to be unaware of the IGA seed grant and its conditions (e.g. activities, pay back time and interest). These conflicting claims between users and the committee member reveal that either the committee has not properly communicated to people or is reluctant to provide seed grants to very poor users. None of the committee members was from very poor wellbeing category households. Nevertheless, this committee member provided assurance in research interview that the seed grant will be distributed soon, and poor, Dalit and single women will be the first to benefit. He commented, for example:

“...the committee has called people to come up with plans for IGA and we (the committee) are still waiting more people to come. Poor, single women and disabled are in first priority.....”(PG5).

Data reveals that although the allocated seed grant is limited in amount and only a couple of households from each CFUG are likely to gain benefit in one year (unless the provided amount is increased), household wellbeing condition remains the major criterion for seed grant distribution and the poorer are primarily focused beneficiaries. The manner in which this has been applied varies between the two case study sites, such that to date, the target people (poor, Dalits, women) are yet to receive any benefit in one CFUG.

Identified poor households have been subsidised on timber price

Subsidised timber price to poorer was reported as an achievement of REDD+ in the case study CFUGs. Most of the participants working as members of executive committees from both CFUGs reported that the poor, marginalised and single women are subsidized for timber. However, although this claim was confirmed by participant users from Birechok CFUG, it was denied by participant users from Gangate Bahune CFUG.

Situation in the Gangate Bahune CFUG was that although subsidised royalty for poor households was incorporated into CFUG benefit sharing mechanism, as one of the steps for pro poor governance particularly after the pilot intervention of REDD+, it has not been applied yet in practice. One male participant from very poor Dalit household said that he has never noticed that any poor person has benefited because of royalty subsidised products in his neighbourhood. The product distribution register of the Gangate Bahune CFUG also did not reveal any subsidised royalty since the pilot of REDD+ intervention started.

Situation in the Birechok CFUG appeared better. Almost all research participants including focus groups confirmed that poor, marginalised, and households affected from natural calamities have been getting subsidised timber since last couple of years. According to the secretary (office bearer) of the CFUG, differential prices have been applied to households with differential wellbeing ranks. The well-off households for example pay 125 rupees per cubic feet timber followed by medium, poor and very poor households with subsidised price of 100, 75 and 50 rupees per cubic feet respectively. However some young participants from poor and Dalit groups during respective focus group discussions argued that the committee often listen to their relatives at first; poor and Dalit have to wait for more than a couple of years to get few cubic feet of timber. Because of such delayed process, users are forced to buy expensive timber from the market to meet their urgent requirements.

Overall, despite policy commitments, it seems very few poor people have benefited from subsidised timber. Appropriate policy commitments (users' constitution in case of CFUG) may not necessarily address inequity in themselves; it is also important how the policy is applied.

Limited poor households have benefited from firewood minimizing scheme

In order to minimize firewood consumption, the pilot of REDD+ has promoted efficient firewood consumption schemes such as Improved Cooking Stoves (ICS) and domestic production of biogas. Although ICS and biogas schemes are reported to be effective ways to not only reduce firewood consumption but also result in cleaner and healthier in-house environments, poorer households appear to be receiving less benefit. Research participants reported a couple of reasons for this including a lack of capacity to provide feed for large cattle (e.g. buffalo and cow) and thus shortage of feedstock for biogas generator, insufficient subsidy, and lack of space inside houses.

The biogas scheme, which could reduce firewood consumption by up to 80 percent, as reported by some participants, appears beyond the capacity of poor households because of some reasons. First, biogas is costly to set up (\$US300 - 400) for the poor; second, the project provides nominal subsidy in comparison to set up cost (i.e. 3-5% of the installation cost); and also the poor lack capacity to hold big cattle regularly (a couple of cows or buffalos are needed to produce enough gas for a normal family). Mostly well-off but also some medium wellbeing category households are capable of using biogas. Although the ICS (research participants reported that ICS can reduce up to 50% of the firewood consumption) is popular among poor households, it is not that much popular among the very poor. Participants from very poor households argue that not only the biogas but also the ICS is not of many poorer households' interest because they either lack appropriate houses to set up an ICS or are not able to pay even the subsidised price. One very poor Dalit woman participant reported that she didn't install ICS because her house was old and will not last for a long:

“.....we (her family) don't have permanent house yet and are planning to build in near future. We will get ICS after that.....” (PB5).

The secretary from the Birenchok CFUG (supported by office record) reported that out of the 50 ICS supported by the committee in 2011, 15 were fully subsidised to very poor and poor households (only a couple to very poor households) and 35 that were partly subsidised (57% subsidy) are mostly accessed by medium wellbeing households (maximum initial cost would be not more than 10 \$US). However, only a couple of very poor households set up The Gangate Bahune has also allocated subsidy (budget) for 30 ICS in 2011, but at the time of this research this had not been distributed.

To sum up, despite subsidy and also interest, not all very poor households are benefited from ICS. Their priority is to arrange enough foods for their family rather than to get smokeless stoves. The smokeless stove, although appears an important approach to minimize firewood consumption, the very poor wellbeing ranking households are seeking skills, employments and income at first.

5.2. DIFFERENTIAL EFFECTS OF REDD+ BECAUSE OF GENDER

In many societies men and women are differentially involved in the use and management of forest resources. It is normal to find that women depend more on forests than men for off-farm income. The products that women collect mostly

contribute to satisfying the food needs, medicinal needs and other practical needs of daily life, such as firewood. Therefore, it is likely to affect women if the forest management regime is modified or changed, through REDD+ intervention in CF for example. Data reveals that women are privileged by the pilot intervention of REDD+. For example, 15 percent of the seed grant (financial support) received by CFUGs is based on women population. Following are some aspects of REDD+ intervention which are differentially applied to men and women.

Women are privileged to access REDD+ benefits

The pilot of REDD+ intervention has given priority to women, single women in particular, while distributing benefits such as seed grant for IGA; and awareness and skills development. If there are more households interested and eligible to get IGA seed grant than the actual limit of budget, single women from poor and marginalised households are selected first.

Birechok CFUG office record reveals that three out of five (60%) IGA seed grant recipients in 2011 were women headed households. Similarly, four out of five (80%) Local Resource Persons (LRPs) in Birechok and two out of two (100%) LRPs in Gangate Bahune CFUG are women. LRPs are getting casual employments and hence complementing subsistence to their families. The Birechok CFUG has been continuously organizing awareness and skills development trainings particularly for women. One female interviewee reported that women are excited thinking about potential REDD+ benefits to them based on experiences how they have been privileged so far:

“...many women, young in particular, seem really excited about REDD+ believing that it will provide them skills trainings and they will get employment in future....” (PB3).

However, Dalit women, particularly from Gangate Bahune CFUG, appear to be neglected compared to women from other castes. They are lacking proper information about REDD+ and its potential effects to them. While one female Gangate Bahune CFUG committee member claimed in interview that women are considered as the primary beneficiaries of REDD+, the Dalit focus group meeting did not verify this claim. Most of the Dalit women that were supposed to get REDD+ benefits, IGA seed grant and ICS subsidy at least, were unaware of these benefits and of their eligibility to apply. Further, not only are there fewer women representatives in the CFUG committees (33% in site 1 & 22% in site 2) but none of the key leadership positions in these committees are held by women, depriving women of influence in decision making. Respondent committee members indicated that there has been no increase in the number of women committee members since the pilot of REDD+ started.

Women’s access to CFUG activities and other social networks is increased

Data reveals that women are not only excited to be involved in REDD+ activities but also their numbers are increased in social events such as meetings, workshops and other welfare activities like alcohol control. Although the number of women members in the committees has not increased, even after the pilot of REDD+ (as discussed above), their participations in REDD+ related activities (e.g. trainings, workshops,

carbon monitoring & IGA) have reportedly increased. One Dalit woman from Birenchok CFUG reported that they are encouraged to join in the regular meetings and discussions related to REDD+. She has no recollection of women (non-committee members) being encouraged or invited to attend before REDD+.

Participants from Gangate Bahune CFUG also verified augmented involvement of women in different social activities in recent years and they acknowledged that REDD+ has supported this opportunity. A female committee member from Gangate Bahune CFUG explained that increasing interests and involvements of women, not only in CF but also in other social activities such as the women's cooperative and the alcohol control campaign by mothers' group, have enhanced their knowledge and confidence. She believes that existing gender disparity in the community is mainly a result of poor knowledge and lack of confidence among women. REDD+ activities such as frequent meetings, discussions, exposure visits, and increased external visitors (e.g. project workers & researchers) have not only enhanced women's knowledge but also their confidence to deal with contemporary social issues like household violence and over use of alcohol by their male counterparts.

In addition, the pilot intervention of REDD+ has encouraged women to participate in the project level REDD+ network of CFUGs. According to the Ludhikhola REDD+ project coordinator, women members in the network must be at least 50 percent (at least one female out of two representing member from each CFUG). There are 16 females out of 31 total members in the Ludhikhola REDD+ network.

To sum up, although the pilot of REDD+ has acknowledged the need of social justice (equity, fairness and rights) to women and has privileged women to access benefits, they are still lacking equity in decision making process. Aware and elite women are more likely to receive benefits than uneducated and Dalit women; equity among women is lacking.

6. CONCLUSIONS

The needs of poorer people are inadequately met by REDD+ compensation

In order to minimize negative effects of its activities, the pilot of REDD+ intervention proposes the privileged targeting of benefits to poorer households. For example, all IGA seed grant recipients in the Birenchok CFUG were very poor wellbeing ranked households. The poorer have also been privileged for ICS scheme, subsidy in timber royalty, and skills development activities. The flow of benefit streams in the case study CFUGs suggests that REDD+ policy can be a pro-poor approach of forest management as described in the literature (e.g. Angelsen et al 2012; Corbera and Schroeder 2011; Phelps et al 2012).

However, data also reveals conditionality for REDD+ to be pro-poor. Ensuring adequate financial support appears to be a major condition, as poor performance in the Gangate Bahune CFUG is largely due to inadequate financial support. For example, the total budget of US\$362 in a year for IGA in the Gangate Bahune CFUG, where 41 percent out of 232 households are poor, is inadequate. Such a limited availability of funds not only creates dispute among committee members

while selecting a couple of beneficiaries, but also generate frustration among majority users because of not being selected.

Even more, the dissatisfaction among the IGA seed grant recipients in the Birenochok CFUG (receiving US\$100-140 per household) apparently suggests that although REDD+ highlights a pro poor approach of livelihood support, it fails to provide adequate compensation of loss being experienced by forest users.

From a livelihoods perspective, poor people need more than subsistence products, and their needs may be more for cash income (Pokharel et al 2007). The implications of controlled access to forests and forest resources (reduced firewood & fodder supply for example) and negligible alternative arrangements for compensation reveal that losses by the local communities could exceed gains as speculated by different authors such as Chhatre et al (2012), Angelsen, et al (2012), and AIPP and IWGIA (2012). The likelihood of high cost to poor households as a result of forest closure to improve forest condition was also reported by Thoms (2008); Khatri et al (2012); Adhikari et al (2004); Dev et al (2003); Neupane and Shrestha (2012).

REDD+ privileges women but CFUGs' internal governance remain detrimental

This research reveals that the pilot of REDD+ through community forestry in Nepal has not only highlighted but also attempted to address gender inequity. In addition to 15 percent seed grant reservation for women (ICIMOD et al 2011), gender equity is reflected in its program activities also. For example, 60 percent IGA seed grant recipients and more than 80 percent LRPs are women in the Birenochok CFUG. In addition, women are encouraged to come out from their home and participate in different social activities. Data reveals that more than 50 percent of active members in the project level REDD+ network are women. Increased awareness, confidence and enthusiasm, as reported by women participants, also reveal that REDD+ has privileged women. However, differential experiences between two CFUGs suggest that it is not only the pilot of REDD+ that makes a difference. Experienced differences are largely determined due to CFUG governance, the attitude of committee members in particular. Committee leaders in the Gangate Bahune appear to be reluctant to share power with women, Dalit women in particular. The poor performance (in terms of pilot activities implementation) in the Gangate Bahune CFUG might have some links with gender disparity in it. For example, because of a lack of women committee members from the Dalit group, women in the whole Dalit group have been deprived of adequate communication and knowledge about seed grants. This finding supports those of Gurung and Setyowati (2012) and WOCAN (2012) that enhanced women's participation in decision-making committees improves forest governance and sustainability of community forestry.

To sum up, the pilot of REDD+ affects CF user households differentially. Poorer households are affected the most, positively as well as negatively. Although a pro-poor approach is applied to share the accrued benefits, the negative effects of tightened forest protection outweigh the benefits. Provided supports, financial in particular, are negligible in comparison to the reduced firewood supply and limited access for grazing and other resource collection. Although women are encouraged to take part in different activities including IGA, they are still deprived of equitable participation in decision making. Despite claims of multiple benefits and 'do no harm' policy, REDD+ negatively affects forest dependent communities. Nevertheless, the

pilot intervention has also generated hopes that negative effects can be minimised by changing CFUGs' governance; generating additional skills; enhancing awareness; and providing adequate income opportunities. In addition to wellbeing and gender, other variables such as livelihood strategies and ethnicities are also likely influenced by the pilot of REDD+ intervention. In order to draw comprehensive conclusions on differential effects of REDD+ at different households, remaining variables should also be assessed and analysed.

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