

How can timber rents better contribute to poverty reduction through Community Forestry in the Terai region of Nepal?

James Bampton – Terai Forest Advisor – Livelihoods and Forestry Programme (DFID)

Bruno Cammaert – Senior Forestry and Biodiversity Advisor – Biodiversity Sector Programme for the Siwaliks and Terai (SNV)

Presented at: International Conference on Managing Forests for Poverty Reduction: Capturing Opportunities in Forest Harvesting and Wood Processing for the Benefit of the Poor, Ho Chi Minh City, Vietnam, October 2006

Abstract

The paper explores the existing situation of Community Forestry (CF) in Nepal's Terai in relation to timber rents. The legislation behind CF in Nepal is explained, and it is argued that Nepal's model of CF goes a long way to mitigating the fundamental 'anti-poor' characteristics of timber enterprise. Nevertheless, the poor are still unable to benefit sufficiently from timber rents. This is because many poor, particularly in the Terai, are not even members of Community Forest User Groups (CFUGs), and even within CFUGs there are a number of constraining factors preventing 1) optimal productivity of CFs, 2) minimisation of costs, 3) maximum realisation of rents, 4) CFUG value addition, and 5) equitable distribution of benefits. Nevertheless, in comparison with other existing forest management modalities in Nepal's Terai, CF offers considerable potential for contributing to poverty reduction if a number of systematic reforms are undertaken.

Key words: Community forestry, Poverty reduction, Terai, Benefit sharing, Forest policy.

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1. Introduction

It is important to ask to what extent can Community Forestry (CF) serve as a vehicle to contribute to poverty reduction (Sunderlin, 2006)¹, as CF is being offered as an alternative to traditional forest management modalities and as a solution to address the problem that “in most forests, timber is the most valuable commercial product extracted, yet poor local communities tend to receive only marginal benefits” (Angelsen and Wunder, 2003). Therefore the experience of Nepal, having by far the most advanced CF programme, is particularly worthwhile exploring for the lessons that may have wider applicability.

Angelsen and Wunder (2003) also contend that there are some fundamental characteristics of timber enterprise that prove to be ‘anti-poor’². Furthermore a number of authors argue that existing CF systems have so far had a limited contribution to poverty reduction, both internationally (e.g. Fisher, 2000 & 2003) and locally in Nepal (e.g. Maharjan, 1998; Malla, 2000; Timsina, 2002; Malla et al., 2003; Neupane, 2003; Pokharel & Nurse, 2004).

Nevertheless, we believe that CF, such as the model in Nepal, does provide opportunities for poor people to access timber and its benefits through the handing over of usufruct rights to community groups. CF also goes a long way to mitigating the ‘anti-poor’ characteristics of timber enterprise. However, with particular reference to Nepal's Terai, we identify other factors that constrain the poverty reduction potential of CF. We conclude that through judicious and systematic reform the contribution of CF to poverty reduction could be significantly increased.

The aim of this paper, therefore, is to examine the impact of existing forest policies, CF legislation and processes, and internal CF benefit sharing practices, on the realisation of timber rents and their contribution to poverty reduction. These we also briefly compare with other timber rent redistribution systems practiced in the Terai. Our conclusions and recommendations provide some suggestions on how timber rents realised through CF could be increased and better contribute to reducing poverty generally as well as of the poorest members of Community Forest User Groups (CFUGs).

¹ Although discussing the situation in Cambodia, Laos and Vietnam, Sunderlin's assertion is as valid for Nepal as these other countries for the same reasons a) both the Government and a number of donor institutions have high expectations of community forestry's contribution to poverty reduction, and b) the record of CF's contribution to poverty reduction has been unsatisfactory to date.

² 1) Long time horizon, 2) high capital intensity, 3) technology and skill intensity, 4) economies of scale, 5) specialised markets, 6) trees are immobile assets, 7) trees are pure ‘cash crops’,

2. Context of Community Forestry in Nepal's Terai

Only about 10% of the 14,000 handed over Community Forests in Nepal are found in the 20 districts defined as Terai by the Central Bureau of Statistics³, and these CFs cover a little over 200,000ha, which is less than 20% of the forest cover of these districts outside Protected Areas⁴. Nevertheless, approximately 16% of the Terai population, or 320,000 households⁵ (almost 2 million people), benefit from rights to forest products through CF imparted through the Forest Act (1993), Forest Regulations (1995), and 1st Amendment of the Forest Act (1998) (Bampton & Shrestha, in press), although the recent series Financial Ordinances impose some taxes on Terai CFs. The remainder of the forest is either in Protected Areas (PAs)⁶, or under Government 'Management' including the new Collaborative Forest Management (CFM) model. Only negligible areas in the Terai are managed as Leasehold (LHF) or Religious Forests (RF).



Figure 1: Terai districts in Nepal

The natural forests of the Terai region are rich, in economic terms, due to the abundance of valuable timber species such as Sal [*Shorea robusta*], Sissoo [*Dalbergia sissoo*] and Khair [*Acacia catechu*] (e.g. Van Schoubroeck et al., 2004; Hill, 1999) with their relatively easy and abundant regeneration, and fast subtropical growth rates – potentially above 10m³/ha/yr (e.g. Pesonen, 1994; Rautiainen, 1995). The relative easy access of Terai forests and markets also makes the realisation of timber rents more straightforward.

Despite historically providing revenues to the ruling classes⁷, it was not until the 1970s that the first attempts at formal forest management planning were made through the Department of Forests (DoF). However, the plans were never fully implemented (Baral, 2002; Sigdel et al., 2005; Adhikari et al., in press). During the 1990s, recognising that the existing passive management was unsustainable (e.g. Pesonen, 1994; Pesonen & Rautiainen, 1995) a new attempt was made with Finnish technical assistance resulting in technically sound (for timber production) Operational Forest Management Plans (OFMPs) for 19 of the Terai districts. However, OFMPs were never accepted by the local population or outspoken sections of civil society (see Shrestha & Britt, 1997; Hurtig 1997; Sharma et al., 2004) as these did not involve local people or attempt to reconcile their livelihoods needs, and because the plans restricted Community Forestry to degraded patches of forest only. A lack of central government funding of these plans and an ill-advised and unclear ban on green tree felling, further hampered plan implementation (Baral, 2002).

Since then, most Terai forests have remained under Government 'management', which in practice involves little more than the collection of confiscated illegally cut forest products, or the periodic removal of dead, dying and fallen trees⁸ through annual harvesting quotas assigned to District Forest

³ Almost half the nation's population (over 10 million people) reside in these districts that comprise only 23% of Nepal's territory (CBS, 2005)

⁴ Precise figures for forest areas are difficult to come by as most estimates focus on natural forest within the national forest estate. However, large areas of national forest are not actually forest, and 7.7% of CF in the Terai is actually plantations, some of which is outside National Forest and therefore not included in overall forest areas.

⁵ This is the total number of households registered as members of CFUGs. However, there is no data on the degree of duplication, as some members are members of more than one CFUG – hence the figure is undoubtedly an overestimation.

⁶ There are 5 Protected Areas in the Terai – 2 National Parks and 3 Wildlife Reserves covering 240,597ha (17%) of Terai forests (DoF, 2005). Around the PAs are Bufferzones (BZs), in which at least 57 BZCFUGs currently manage around 14,500ha (Bampton & Shrestha, in press).

⁷ E.g. during the Rana rule as sleepers for India's expanding railway network under British rule (e.g. Adhikari et al., in press).

⁸ Timber production therefore varies considerably from year to year depending on whether any strong storms afflict the Terai or not.

Offices (DFOs), the Timber Corporation of Nepal (TCN)⁹ or District Forest Product Supply Boards (DFPSBs) (Acharya et al., 2006). The important points regarding government management are 1) their lack of genuine management, and 2) that timber rents from Government Managed Forests are not seen to contribute to local poverty reduction¹⁰, except perhaps through the employment generated by those contracted to undertake the harvesting – although these might not always be ‘local’ – and the trickle down from those involved. Only timber distribution through the DFPSB explicitly aims at meeting local timber needs and targeting poor people, although DFPSBs are not functioning properly in many districts. Nevertheless, local users (including the poor) do still obtain benefits from government forests through illegal collection of timber and other forest products, although greater benefits undoubtedly accrue to the wealthier timber smuggling ‘mafia’ from their illegal activities.

The socio-economic situation and history of the Terai in relation to forestry has been summarised in various studies (e.g. Bampton et al, 2004; Laubmeier & Warth, 2004; Adhikari et al., in press; Bampton & Shrestha, in press). As many authors have noted (e.g. Pokharel, 1999; Pokharel & Amatya, 2000; Paudel & Pokharel, 2001; MFSC, 2003; Bampton et al, 2004; Sigdel et al., 2005), the most important characteristic influencing forest management and use in the Terai is the pattern of forest resource and population distribution. Terai forests are mostly confined to the environmentally sensitive Churia hills in many districts¹¹, and in some, the Bhabar zone immediately to the south of these hills. The Terai plains themselves are largely devoid of large forests, with the exception of some districts mainly in the far western Terai. The majority of the population live in the plains, with many now distant from the remaining natural forests. It is also frequently stated that those now nearest the remaining forests are more recent migrants from the Hills. This migration originated from King Birendra’s drive to populate the Terai following the eradication of malaria in the 1950s, and many migrants are in fact considered as illegal encroachers (e.g. Bhatta, 1998; Pokharel, 1999; Acharya & Dulal, 2003). Gaurev Integrated Development Associates (2003) have estimated that as much as 70,256ha have been encroached recently¹². Indeed, although the case of encroachers turning into forest conservationists through Community Forestry is sometimes

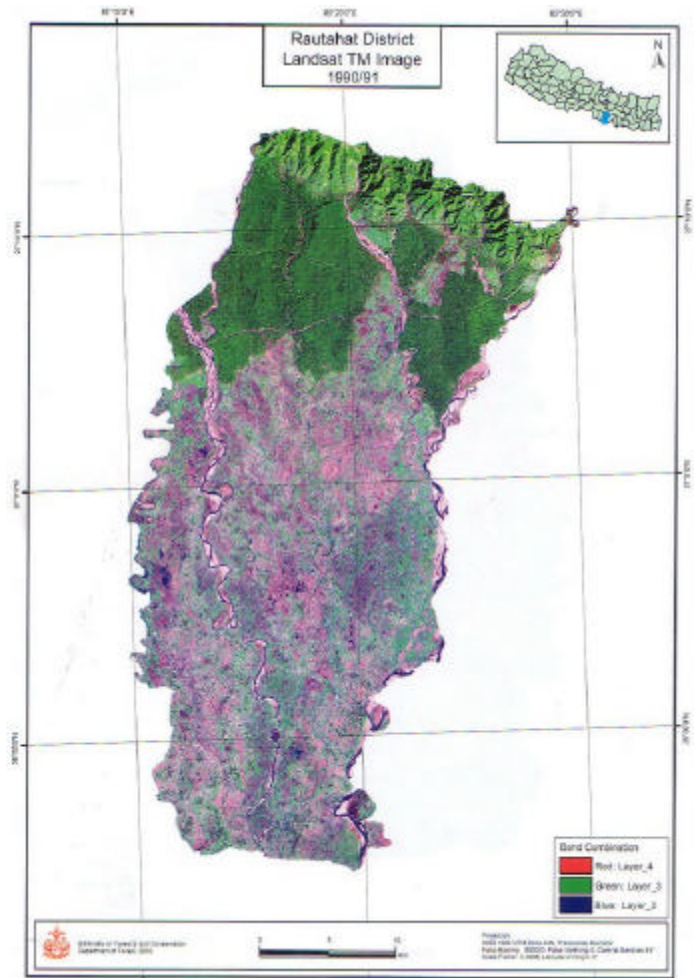


Figure 2: Map of ‘typical’ Terai district (Rautahat) showing forest distribution in the north (churia hills and Bhabar zone) and agricultural land population centres in the south. (From DoF, 2005).

⁹ The TCN is a para-statal enterprise established in 1959 with initial objectives of supplying timber and fuel-wood to Kathmandu Valley and exporting the surpluses to India, although it soon developed into an intermediary timber supply agent obtaining trees from DFOs at the Government rate and selling at a higher price to private wood merchants. It has passed from the jurisdiction of the Ministry of Forests and Soil Conservation to the Ministry of Supply and back again, and in 1998 the Government of Nepal made a decision that authorized the TCN as a sole dealer for selling timber and fuel-wood in 33 Terai and Inner Terai districts (Shrestha R.B., pers. comm.). In 2000 the decision was changed yet again whereby TCN would be responsible for 50%, and DFOs the other 50%. The TCN has spent a considerable part of its existence in debt.

¹⁰ I.e. indirectly through central and local government forest revenues reinvested in local poverty alleviation and basic services, although 10% of revenues are deposited with District Development Committees (DDCs)

¹¹ 57% of forests in the 20 Terai districts are found in hilly regions – Churia or Mahabarat hills (DoF, 2005)

¹² Estimates of deforestation in the Terai have reduced from 1.3% for 1978/79-1990/91 (DFRS, 1999) to 0.06% for 1990/91-2000/01 (DoF, 2005).

celebrated (Pokharel, 2000), deforestation and forest degradation remains an issue.

It is often argued (e.g., Baral & Subedi, 1999; Sigdel et al, 2005; Singh KC, 2005) that present CF hand over mechanisms inevitably favour the few communities living to the north of Terai districts, close to the forests, at the expense of those to the south. If the southern inhabitants are in fact poorer than their northern neighbours, then CF will inevitably have a lesser impact on overall poverty reduction, unless mechanisms are developed to include them in, or benefit them, from the CF programme¹³.

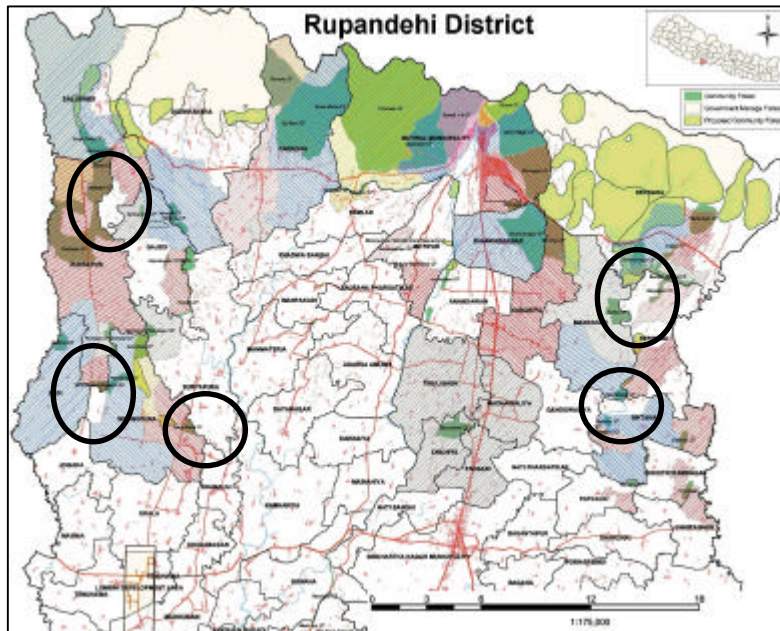


Figure 3: Map of northern part of Rupandehi district showing the distribution of CFs and their members in 2002, and proposed new CFs (After Bampton et al., 2004).

The history of CF hand over in the Terai has created enormous differences and serious inequities between CFUGs and between CFUG members and non-members. One of the factors leading to inequity is simply the availability of accessible forest resources and the distribution of adjacent communities. Other factors are more related to the lack of clear CF hand over policies and procedures. CF hand over has too often been ad hoc, based on encroachment patterns and local requests by self-selecting CFUGs, leading to the exclusion of people who might also use the forest, but are excluded because they belong to a different community (some examples of communities excluded from CFUGs managing CFs that they reside next to in Rupandehi district are circled in figure 3).

The principle of CF user groups was deliberately established to allow groups to form without recourse to administrative boundaries. However, in the Terai, we frequently find that CFUGs do in fact follow administrative boundaries. The lack of comprehensive forest use surveys, the arbitrary use of administrative boundaries and the reluctance to hand over more productive forests has resulted in exclusion and inadequate forest resource allocation and inequitable distribution. Furthermore, the landless, or those without land titles, are frequently excluded from CFUGs, despite there being no legal justification for this. As those without land are frequently poorer than landowners, a perverse scenario appears such as in the municipality of Butwal in Rupandehi where homeowners, who generally use alternatives to fuelwood for cooking and live in brick and concrete houses are CFUG members, whereas their tenants and squatters who are more likely to use fuelwood, or timber for the construction of their dwelling, are not.

A further distinction between CFs in the Terai is the quality of the forest handed over. In many cases the forest handed over is highly degraded and therefore incapable of providing large quantities of forest products until rehabilitated (e.g. Statz & Tumbahangphe, 2004). 8% of Terai CFs are primarily plantations¹⁴, although the number of households supposedly benefiting from them are high, and disproportionately make up a large part of the population involved in CF in the Terai (20% overall)

¹³ Poverty data to support or refute this hypothesis is not available to the authors, although personal observations would suggest that, on the whole, southern communities are indeed poorer and that their populations are higher.

¹⁴ The CF database records F = Forest, S = Scrub, P = Plantation, G = Grassland, and combinations. Bampton & Shrestha (in press) classify CF with F and / or S as predominately natural forest, even though some have some plantations. The remainder they classify as plantation. Unfortunately actual area figures for plantations are not kept adequately despite the database containing a field for such data.

(Bampton & Shrestha, in press), because they are mainly found in densely populated areas outside the National Forest.

Additionally, as there is no limit to the forest area that CFUGs can apply for, there are cases of relatively small numbers of households capturing inordinate resources in some CFUGs (as can be seen for those CFUGs circled in figure 4 well above the line and), whilst others have or have been given inadequate resources to meet even their members' basic needs, let alone to contribute to poverty reduction (Bampton et al., 2004; Chhetry et al., 2004; Bampton & Shrestha, in press; Iverson et al., 2005;)¹⁵. How much forest is required depends on its quality and people's needs.

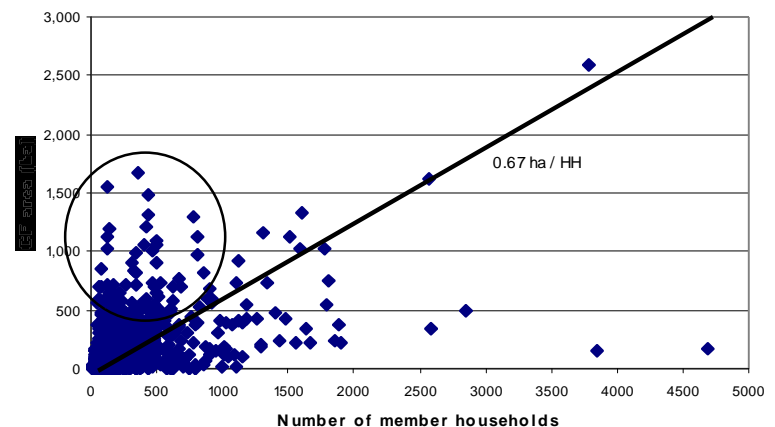


Figure 4: Terai Community Forest area against number of member household (after Bampton & Shrestha, in press). NB the line at 0.67 ha/HH represents the current mean area per household of existing CFs in the 20 Terai districts.

The combination of forest quality and CF area leads to significant differences between the value of CFs in terms resources currently available to users. NORMS/ODG (2003) calculate from their small sample that one CFUG has access to resources worth NRs 1.6 million / household (~ US\$ 22,000), whereas another has access to resources only worth NRs 4,000 / household (~ US\$ 55).

Instead of addressing these disparities through a more inclusive and realistic reallocation of CF and government forests and/or through flexible taxation of CF forest revenues, the Government of Nepal (GoN) issued a revised forest policy (MFSC, 2000) that prevents new Community Forests from being handed over in large, contiguous blocks of production forest¹⁶, and introduced an flat tax on CF on sales outside CFUGs. Such forests would be managed through a new modality called “Collaborative Forest Management” whereby management responsibilities and benefits are supposed to be shared among central government – through District Forest Offices (DFOs), Local Governments – through District Development Committees (DDCs) and Village Development Committees (VDCs) and elected CFM committee members representing both nearby and distant forest users, who should also benefit.

CFM could address some of the shortcomings of the CF programme in the Terai such as the exclusion of distant forest users and GoN's desire to receive contributions to government revenues at different levels. According to Sah et al., (in press) CFM has been developed to: 1) establish sustainable forest management, 2) fulfil needs for forest products, 3) help in poverty reduction by creating employment, 4) maintain and enhance biodiversity, and 5) increase national and local income through active management of the Terai and inner Terai forests¹⁷.

3. Impact of legislation and policies on CF timber rent realisation and redistribution

CF originated in the eighties basically in response to: 1) the perceived pending environmental crisis in the Himalayas due to deforestation and degradation, 2) a recognition that the forest authority was unable to manage and patrol such a large and inaccessible estate, and 3) a better understanding of the livelihoods needs from forests of rural communities. The programme was therefore ostensibly

¹⁵ Bampton et al. (2004) demonstrated for 3 Western Terai districts that on average CFUGs managed areas/household equal or less than the district forest:household ratio, although this is dragged down by some small CF plantations outside the natural forest with high numbers of users.

¹⁶ I.e. forest areas in the flatter lands of the Terai proper, bhabar zone or inner Terai with valuable mature timber trees. The Churia hills are supposed to be classified and managed as 'protection' forest.

¹⁷ For further information on how CFM evolved and where it now, see MFSC (2003); Singh KC (2005);; Sah et al. (in press) & Bampton et al. (in press). The whole of *Hamro Ban Sampada* Vol. 3(2), published by ForestAction is dedicated to issues of CFM.

established to “green the hills” and to provide for people’s basic needs. It is interesting to test Sunderlin’s (2006) assertion that “if the guiding motivation is *not* poverty [reduction] from the outset, then the priorities and character of the program tend to become ingrained and difficult to alter”.

3.1 The Forest Act

The Forest Act (1993) supposedly gives CFUGs autonomy to decide how to manage their forests, and how to use or dispose of the forest products derived from them. However, in reality, there are a number of constraints on the decision-making freedom of CFUGs imposed by subsequent legislation and the dominant paradigms of Community Forestry in Nepal, as well as the practice of CF not always reflecting the theory. In order to understand how Community Forestry works in the Terai, it is essential to understand the fundamentals of the legislation and how the various instruments introduced over time affect CFUG decision-making.

Under the Forest Act (1993) CFUGs may be formed to “develop, conserve, use and manage [the] forest, and sell and distribute the forest products by independently fixing their prices, according to an operational plan” (Section 25), “using the forest products for collective benefit ... in the prescribed manner” (Section 41). “A users’ group ... shall be an autonomous and corporate body with perpetual succession” and “... may acquire, use, sell or transfer, or otherwise dispose movable and immovable property like an individual” (Section 43), and “... shall have a separate fund of its own” which “... shall be operated in the prescribed manner” (section45). The main features and spirit of the original legislation were concisely summarised by Joshi (1997):

- 1.) All accessible forests can be handed over to users (no area limit).
- 2.) Any National Forests suitable to be converted into Community Forest (CF) will not be given to others, such as leasehold forests.
- 3.) CFUGs will not be beholden to any political boundary while handing over the forests.
- 4.) District Forest Officers (DFOs) can hand over forest to a CFUG. (It used to be the responsibility of Regional Directors (RDs), a higher authority).
- 5.) A CFUG is an autonomous and corporate body with perpetual succession.
- 6.) The Community Forest User Groups (CFUGs) have to manage the forests as per the approved constitution and Operational Plan (OP) of handed over CF.
- 7.) CFUGs can amend the OP simply informing DFO.
- 8.) A CFUG can fix the price of the forestry products irrespective of the government royalty.
- 9.) CFUGs can transport any forest products simply by informing the DFO.
- 10.) CFUGs can use surplus funds in any kind of community development work.
- 11.) A CFUG can plant long term cash crops (e.g. medicinal herbs) without disturbing the main Forestry crops.
- 12.) A CFUG can establish forest based industries.
- 13.) CFUGs can punish misusers (encroachers and thieves) who contravene the rules of the OP.
- 14.) The DFO can take the forest back from a CFUG if they contravene the OP (agreement). However, the DFO must return it as soon as possible once the problem is solved.
- 15.) Any agency can help users to manage CF.

Table 1: Principal features of Community Forestry in Nepal (after Joshi, 1997).

The Forest Regulations state “The DFO shall have to take into account the distance between the Forest and the village and the wishes as well as the management capacity of the local users who have to manage the Forest, while handing over any part of a National Forest to a Users’ Group as a Community Forest”. As there is no further guidance on how ‘distance’ should be taken into account, or what constitutes ‘local’, DFOs tend to take a conservative approach when identifying users for a given CF. If people from more distant locations are already using such forest areas, distance obviously isn’t a problem for them, and they should be included.

This granting of full access to forest resources to CFUGs does give those poor people who are members the opportunity to benefit from timber rents as members of CFUGs. The legislation also goes a long way to eliminating the first of Angelson's & Wunder's (2003) anti-poor characteristics of timber enterprise (long time horizon) by granting perpetual succession¹⁸. The other anti-poor characteristics are less relevant in the Nepal CF situation – technology is basic (trees are harvested and processed with axes or hand saws, and transported manually or on regular trucks and tractors) and traditional local markets are well developed leading to lower pressure for economies of scale. The fact that trees are immobile assets perhaps makes it easier for communities to control. Finally, forests are more than trees in Nepali society, providing multiple services and products from fuelwood, poles and materials for agricultural tools, medicines, fruits and leaf litter, and other NTFPs besides timber and therefore trees are not considered pure cash crops.

3.2 Operational Plans

The legislation also gives CFUGs considerable freedom to determine how they manage their Community Forests, although 'everything' CFUGs want to do should be included in OPs. The Forest Regulations (1995) detail matters that must be included in an OP, although nowhere state the duration of such a plan. Section 26, subsection 1 of the Forest Act states that CFUGs "may make timely amendments according to need in the OP relating to the management of community forests, and must inform the DFO accordingly". It does not say "seek approval" of such amendments, which involves considerably higher transaction costs¹⁹.

Nevertheless, DFOs impose control over OPs, and 5-year plans are the accepted norm, followed by revisions that do require DFO approval. However, there are no accepted standards to objectively evaluate OPs. Therefore, CFUGs do not have the flexibility to prepare long-term plans for the whole forest, and shorter-term plans for more detailed work in specific areas of the forest. In practice, DFO staff are the principal service providers to CFUGs for OP preparation and, as the same office also approves OPs, this provides them with ample scope for abuse of authority and rent-seeking opportunities. Furthermore, again despite no basis in law, DFOs impose control on the harvesting of trees already approved in OPs through issuing permits and second 'hammer marks' on the timber. These factors together also increase transaction costs as well as curtailing CFUGs autonomy.

This also reduces the scope for independent, professional service provision to CFUGs, as there is a risk that DFOs will not approve a plan developed by others as there are no standards for objectively assessing them. This is compounded by a reluctance amongst professional foresters to accept that anyone not formally trained should be able to develop OPs²⁰.

3.3 1st Amendment to the Forest Act

More recent legislation in the form of the 1st Amendment (1998) prohibit forest related industries from being located in the forest within set distances from the forest²¹, thus imposing extra costs to transport raw materials to processing sites. Associated with this is a limitation on CFUGs to register enterprises in the name of the CFUG. Registration can only be done in the name of individuals. Clearly this restricts CFUGs as: they have to trust particular individuals; CFUGs are legally accountable to their members; CFUGs have a longer lifespans than individuals; CFUGs are likely to have significantly more collateral than individuals, hence CFUGs should be able to access loans more easily as well as being able to bear risk better than individuals.

¹⁸ This is particularly the case where CFUGs gain rights over mature natural forests that can provide rents from harvesting to cover further capital investments

¹⁹ Furthermore, subsection 2 states that only if such an amendment "is considered likely to adversely affect the environment in a significant manner" may the DFO "direct the users' group not to implement the concerned amendment in 30 days".

²⁰ Many donor funded CF projects are supporting the training and development of Local Resource Persons (LRPs) to assist CFUGs in the basic technical aspects of OP preparation. There are moves afoot, supported by Nepal's Community Forestry Supporters Network (COFSUN) to certify these through Nepal's national vocational proficiency testing agency.

²¹ 5 km is the limit in the case of the Terai

The 1st Amendment (1998) also made it necessary to undertake a forest inventory while preparing an Operational Plan. The Community Forest Inventory Guidelines (CFIG), first prepared in 2000 (DoF, 2000), were updated in 2004 (DoF, 2004) but remain extremely prescriptive²². Furthermore, they go beyond inventory, giving conservative silvicultural prescriptions based on Annual Allowable Cuts (AACs) as a percentage of estimated existing Mean Annual Increment (MAI)²³, which is not appropriate in many cases²⁴. By basing harvests entirely on existing stand characteristics, forest managers do not have the flexibility to drastically change the nature of a forest according to objectives²⁵ and to maximise productivity through intensive silvicultural interventions. As no other standards to appraise OPs exist, forestry officials take these guidelines as if they were a directive, rather than simply guidance.

The 1st Amendment also directs Community Forest User Groups to spend 25% of their income²⁶ on forest development activities, although a clear definition of what forest development activities are remains elusive. Obviously, forest investment and management costs will vary from year to year, and cost effectiveness and sound financial planning should be encouraged so as to minimize costs and maximise profit. The combined impacts of these instruments are restrictions to CFUGs' autonomy, higher than necessary costs, and a reduction in productivity, and hence reduced rents.

3.4 CF Taxation

The most recent legislative impact on timber rents from Community Forestry in the Terai comes from the imposition of taxes on the sale of timber of two species outside CFUGs. The idea was included in the Revised Forest Policy (2000), although it had no legality in law. Despite this, DFOs began collecting a flat 40% from such sales. The move was challenged by FECOFUN²⁷ in the Supreme Court in 2003, which won the case. However, after the dissolution of Parliament, the tax was legalised through a Finance Ordinance later in 2003, and has been renewed every 6 months. During this time, the tax has momentarily been applied to the whole country, on all species, reduced to 25%, and finally restricted to 15% of Sal and Khair sales outside Terai CFUGs. This tax is on gross revenue, and is frequently referred to by forestry officials as 'royalty', and bears no relation to CFUG investments to realise such revenues, nor to CFUGs' own needs for revenues. In addition to this, CFUGs are obliged to pay 15% VAT on the same sales, although exactly how this is calculated is still a mystery to the authors²⁸. One further constraint on CFUGs is the prohibitively high tax rate applied to timber exports.

The assumption is that the Government will use at least some of these revenues for implementing the 10th Plan (HMG, 2003), alternatively known as Nepal's Poverty Reduction Strategy Paper (PRSP), although it is highly unlikely that much will filter back to the communities involved in managing CFs in the Terai. Such taxes, and the instability of the system, are discriminatory against sales outside CFUGs, hence acting as a strong disincentive for CFUGs to seek maximum prices for their timber in the open market therefore encouraging some CFUGs to minimise their external sales, with the consequence of lowering overall timber revenues – often to the loss of the CFUGs themselves, as well as the Government of Nepal.

²² E.g. CFUGs are required to measure regeneration throughout their forest regardless of whether they intend to regenerate particular blocks (such as pole stage stands) or not. Sample size is predetermined regardless of required or likely precision.

²³ There are no accurate estimates of growth MAIs for different forest or site types in Nepal, nevertheless, low estimates are used based on historic growth patterns, rather than future growth rates possible through the application of appropriate silvicultural regimes.

²⁴ E.g. the permitted allowable annual harvests in Dhuseri CF in Nawalparasi district is calculated to be only a third of sustainable production potential of the predominately sal forest (NORMS/ODG, 2003) as the growth rates are likely to be significantly higher than those projected in the CFIG. Chand & Ghimire (2006) have explained the situation with overstocked pine plantations in the hills of Nepal where specific thinning guidelines have necessarily been developed instead.

²⁵ This is a problem in relatively pure stands of sal (*Shorea robusta*) in Nepal's Terai, particularly when they are overmature and moribund, thus requiring heavy canopy opening to stimulate regeneration, and when they are at pole stage with extremely high stocking rates requiring heavy thinning. It is also theoretically in any kind of plantation whereby a stage is reached when the final crop should be removed totally to allow for restocking. Taking only a percentage of current growth would theoretically eventually result in a situation of one tree having to remain.

²⁶ Not all income comes from the sale of FPs – income includes membership fees, fines, grants, interest on loans, etc.

²⁷ FECOFUN is the Federation of Community Forest User Groups Nepal.

²⁸ Data available from DFOs on quantities, revenues and taxes from CFUGs show no logical pattern to how the taxes are calculated. It is clear, however, that DFOs in some districts are illegally collecting taxes on species that are not subject to them.

4. Impact of internal CF management on timber rent realisation and redistribution

There are further reasons why timber rents to CFUGs are not as high as they could be. A fundamental limitation on CFUGs is the prevailing paradigm that internal demand should be satisfied before any external sales are allowed, and that individual CFUG members should not sell their share of forest products. In April 1996, the Ministry of Forests and Soil Conservation (MFSC) sent a circular stating that without fulfilling the demand of the local community and then of adjacent districts, a CFUG cannot sell forest products in other places (Kanel and Acharaya, 2006). This was against the Act and Regulation, but was considered a good intervention as it helped to meet local requirements (Shrestha, R.B., pers. comm.)²⁹. In typically ineffective and restrictive fashion – ostensibly for environmental reasons – Buffer Zone CFUGs³⁰ are not allowed to sell forest products (FPs) outside their group at all (MFSC, 2002).

4.1 Equity, Equality and Equality of Opportunity

So, although there are significant legal and policy restrictions on CFUG decision-making, it is actually more interesting to examine how CFUGs use their remaining discretionary powers and rents, and how these are influenced by the prevailing paradigm for CF in Nepal, as these can have the most significant impact on how timber rents can be used for poverty reduction. It is noted that in many CFUGs, not only in the Terai, but also nationally, that the concept of “equality” is applied in theory (although concepts of “equity” are now being promoted). However, many CFUGs actually employ a concept of “need” to determine who gets what, and the concept of “equality” changes to one of “equality of opportunity”; opportunities that are not necessarily realised by everyone. Take, for example, the situation of fodder in the Kumarbarti BZCFUG in Nawalparasi district summarised by Ghimire (2004). The users mainly comprise two distinct social groups, with different historical and cultural values, and livelihoods systems. One group is composed of higher caste Hindus, many of whom have landholdings and livestock. The other group consists of Bote / Mahji, comparatively landless, fisher folk. The CF provides fodder for those who need it, i.e. the higher castes with livestock. This has been valued at an annual value exceeding NRs 30,000/HH/yr (~ US\$ 410). The Bote / Mahji, without livestock, are excluded from these benefits, and receive inadequate compensation through a few extra headloads of far less valuable thatching grass. The situation is compounded by the Bote / Majhi lack of access to decision-making due to historical cultural barriers to social inclusion. Social exclusion is a powerful impediment to the poorest from accessing decision-making levels of CFUGs and from benefiting equitably from CF in Nepal (Timsina, 2002; LFP, 2004b).

4.2 A Case of Inequitable Timber Distribution

A similar situation arises with timber used within CFUGs, as documented by a study undertaken by NORMS/ODG (2003) in 14 CFUGs in Nawalparasi and Rupandehi districts. They find that commonly, CFUGs sell timber internally to members at a price significantly lower than the prevailing market price, and often only in set quantities. However, those who avail themselves of this subsidised timber are usually those who “need” it, and can still afford the subsidised price for the quota. “Need” for timber usually relates to house construction or maintenance, and this “need” is frequently greater for relatively richer households with larger houses³¹. More importantly, it is only the richer members who can afford to purchase timber, even at the subsidised price. Typical local market prices for Sal timber are around NRs 600-800/cuft (~ US\$ 8-11). Typical subsidised prices for Sal sold internally within CFUGs is around NRs 150-300/cuft (~ US\$ 2-4). Therefore, many CFUGs as institutions are in effect foregoing around half of the available timber rents, with these in practice going to richer households at the expense of poorer CFUG members who can’t even afford buying at subsidised rates. NORMS/ODG (2003) call these “hidden subsidies” whereby the poor in fact subsidise the rich.

²⁹ A recent agreement between FECOFUN and MFSC maintains this paradigm, as it was agreed that CFUGs should first satisfy their own need, then that of neighbouring CFUGs, then the rest of the district, before being allowed to sell to others (MFSC/FECOFUN press statement 01/07/06).

³⁰ GoN has established Buffer Zones around the Protected Areas in the Terai according to the Buffer Zone Regulations (MFSC, 2002). 57 handed over Buffer Zone Community Forests cover 14,583ha (7% of Terai CF area) with 19,362 member households (6% of Terai CF total) (Bampton & Shrestha, in press).

³¹ Although the richest may require less than middle-income households as they can afford to construct brick and concrete houses.

This research has been more recently summarised by Iverson et al. (2005) where they calculate for one CFUG studied that potential net benefits (after subtracting administration and harvesting costs) could be NRs 2.3 million (~ US\$ 31,000) on an annual harvest of 5,000cft if sold at market rates. These benefits amount to NRs 3,839 (~ US\$ 51) per member household, which is equivalent to earnings from around 55 days of female agriculture wage labour. However, because of the CFUG's timber quota and pricing policies, 63% of the net benefits, worth NRs 1.5 million (~ US\$ 22,500), are usurped by the households awarded timber quotas. Awards of timber quotas in this case show stark distributional bias favouring wealthier households, as quotas are each for 50cft requiring an upfront payment of NRs 15,000 (~ US\$ 200), which poorer households are unable to pay. This policy therefore effectively excludes the poor from availing themselves of the "hidden subsidy".

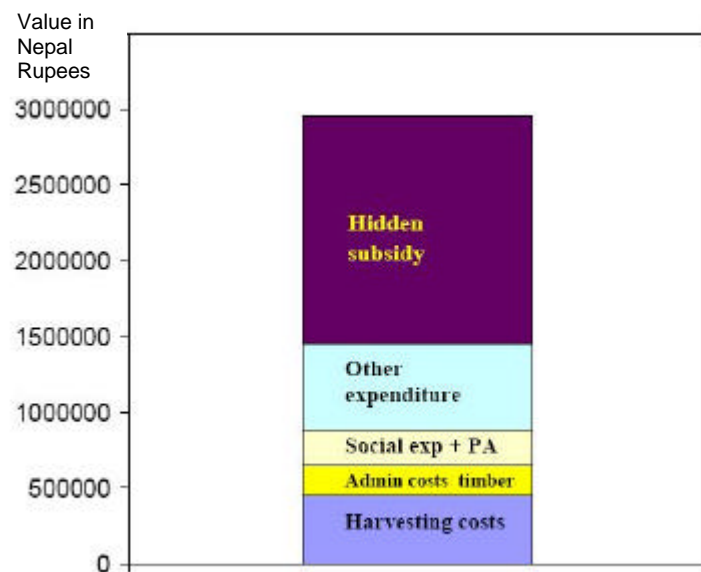


Figure 5: Distribution of the value of potential timber sales (from Iverson et al, 2005)

Furthermore, NORMS/ODG (2003) detect a further hidden economy in a number of instances, whereby fund management is far from transparent, and corruption probable. In this case study, the CFUG harvested more than specified in the OP and this was under-reported by the CFUG committee who sold part of the extra illegally.

There is in fact no legal restriction on individuals selling their shares of CF timber, although the transport permits required and rent-seeking behaviour of forest officials means that legal routes are generally avoided. It is known that at least a part of CF timber is sold illegally at higher prices by individuals availing themselves of subsidised timber (Shrestha, R.B., pers. comm.). This allows these individuals to realise the hidden subsidy in cash. Unfortunately it is impossible to get an idea of how prevalent such distribution systems are in Community Forestry in Nepal's Terai, but we expect it is quite commonplace.

4.3 More Equitable Timber Distribution Systems

Many CFUGs have actually developed more equitable timber rent distribution systems, although frequently in CFUGs with less resources and high demand where the temptation to indulge in inequity or dishonesty is lower (field observations). These include:

- Free equal distribution;
- Variable timber quotas based on poverty ranking. Member households are divided into rich, medium and poor households whereby the highest quotas are provided to the poorest families;
- Variable and affordable pricing based on poverty ranking. Prices per cuft are adapted to the wealth of member households. This allows affordable prices for all members and to some extent prevents inequitable hidden subsidies. Prices applied to the richest member households are closer to the real market price whereas prices paid by the poorest households are very low and therefore affordable for them. This system is sometimes combined with timber grading where A grade timber is sold internally at a price slightly below the local market price and B and C are sold at a minimum price, affordable for all households. If supply exceeds demand, timber grading is sometimes applied to optimise rents by selling A grade timber outside the

CFUG to the highest bidder. Some CFUGs apply free distribution of a certain annual quota to their poorest members or victims of natural disasters;

- Timber distribution based on demand and poverty ranking where a special sub-committee examines individual annual demands made by members, verifies them and allocates timber using variable pricing based on poverty ranking. If demand exceeds supply, some CFUGs apply a prioritised allocation system where the demands of the poorest households are met first.
- Benefits shared based on individuals' inputs into CF management and timber harvesting through labour contributions³².

4.4 Potential and Actual Timber Rents

Bampton et al (2004) summarised some interesting points from sample data from CFUGs in 12 districts analysed by Kanel & Niraula (2004). They noted that from this data it appears that, surprisingly, Terai CFUGs actually sell less of their forest produce outside their groups than in the case of hill CFUGs (only 14% of their production against 24% for the hills). Nevertheless, due to the higher value of Terai forests and volume of production, overall Terai CFUGs make up 35% of forest products sales from all CFUGs³³. More recent data from Rupandehi district showed that 89% of timber produced was used internally (Bampton & Shrestha, in press). Although the national CF database held by the DoF contains no information on such matters and CFUGs are extremely lax in submitting annual reports and audited accounts, despite this being compulsory by law³⁴, the DoF holds data generated by DFOs of CFUG sales outside their groups gives an indication that timber rents contribute substantially to CFUG income – some 890,000 cuft of Sal timber³⁵, 470,000 cuft of other species, and 14.2 million kgs of Khair timber³⁶ (from data presented in Bampton & Shrestha, in press). A simple calculation suggests that Sal alone provides an income in excess of NRs 100 million/year to Terai CFUGs at a market rate of NRs 600/cuft (~ US\$ 1.3 million/year). If Terai CFUGs are indeed using 80% of their production internally, and are selling this to their own members at only NRs 300/cuft, they could be foregoing double the amount they actually generate from external sales (NRs 200 million/year – ~ US\$ 2.6 million/year) by not selling all timber at market price. The realisation of such sums could contribute significantly to poverty reduction if more equitable distribution systems are employed, or if rents are reinvested by CFUGs to the benefit of the poor.

4.5 Reinvestment of timber rents

Regardless of the losses CFUGs make in relation to the potential timber rents available to them, in the Terai many still receive significant incomes from the sale of timber. We therefore need to analyse how CFUGs use their funds and whether they contribute to poverty reduction. In order to understand how CFUG expenditure benefits the poor, it is first necessary to know who the poor are, and what community development activities are undertaken. Situations are extremely variable in reality. Allison et al (2004) demonstrate how CFUGs are able to address the livelihoods of their members through supporting a wide variety of activities of interest to users outside forestry per se. This in turn reinforces interest in and commitment to 'good' CF management. We see clear evidence that CFUGs are undertaking wealth ranking to identify their poorer members, and that CFUG funds are being used for Income Generating Activities (IGAs) – mainly agriculture or livestock related, although bee-keeping, shop keeping, trade skills development are also quite common. Other activities that have positive impacts on the poor are emergency funds for health or natural disasters, or for birth control. A

³² This is often the case in the Brazilian Amazon, such as at the Mamirauá Sustainable Development Reserve, where one of the authors has worked.

³³ Kanel & Niraula (2004) actually combine true Terai districts with semi-Terai districts that consist of Churia, inner-Terai valleys and Mahabarat hills. Nevertheless, Terai districts still only comprise <15% of all CFUGs in Nepal, so on average produce significantly more than CFUGs in the hills.

³⁴ Bampton & Shrestha (in press) calculated from data available for 7 Terai districts that over the last 4 financial years less than 40% of CFUGs have submitted annual reports. For the last fiscal year, only 1 CFUG, out of the 100 or so in the three districts supported by the Livelihoods and Forestry Programme's Terai component, has submitted its annual report by the stipulated deadline of 1 month after the end of the year (Paudyel, V., pers. Comm.).

³⁵ This figure for the 20 Terai districts is incomplete (e.g data for Sarlahi district for 2057/58 and 2058/59 is missing as records have been burnt by the Maoists). Similar data for 5 Churia and inner-Terai districts (Surkhet, Makwanpur, Sindhuli, Udaypur and Ilam) show that these districts have in fact had far more significant Sal timber sales outside CFUGs (approx. 1.2 million cuft over the last 5 years).

³⁶ Khair [*Acacia catechu*] heartwood is used to extract *katha* (used for chewing with betel leaves) and *cutch* (used for tanning and dyeing) (Kayastha, 2002).

‘good practice’ encouraged by LFP and other donor funded programmes is the establishment of ‘revolving funds’ that CFUGs loan to poor members for IGAs (NORMS, 2006), thereby establishing CFUGs as micro-finance institutions. Finally, expenditure on improving CFUG governance also has positive impacts on the poor, by increasing transparency and awareness of CFUG activities and the poor’s participation in CFUG decision-making.

However, Kanel and Niraula (2004) report that only 0.88% of Terai CFUG funds are spent on pro-poor activities, although a more recent study by Bampton & Shrestha (in press) shows, that in Nawalparasi and Rupandehi districts at least, CFUGs spent 5.32% and 3.28% respectively of their total funds on targeted poverty alleviation programmes during the last financial year. This is attributed to the raised awareness amongst CFUGs and willingness to contribute towards poverty reduction in line with Government, donor and FECOFUN policy.

Data Source	Forest Development			FUG operational cost					Community development				Miscellaneous
	forest watcher	Sivicultural operation	Trainig study tour w/s	stationery	Building construction	Rent equipment	Salary/ Allowance	Meeting/ assembly	School support	Road	Others infra-structure	Pro-Poor program	
Kanel & Niraula (2004)	14.99%	16.97%	1.59%	2.06%	6.60%	1.09%	7.58%	4.10%	6.07%	0.54%	10.10%	0.88%	27.44%
Rupandehi (2061/62)	7.43%	14.89%	0.93%	1.85%	5.58%	0.58%	10.71%	3.41%	2.99%	7.32%	10.47%	3.28%	30.54%
Nawalparasi (2061/62)		43.03%			21.13% (Institutional Development)					19.41%		5.32%	11.11%

Table 2: Breakdown of CFUG expenditure from different sources (from Bampton & Shrestha, in press).

A large part of CFUG spending through community development, although not directly targeted, probably also benefits the poor to a certain extent. However, many community development activities benefit the poor less – for example, expenditure on schools will not benefit those too poor to send their children to school, or temple construction that *dalits*³⁷ are not allowed to enter. It also appears that management costs are higher in the Terai than in the Hills (Kanel and Niraula; 2004), and therefore spending on community development is proportionally less (ENPHO, 2006). In addition, both Kanel and Niraula (2004) and Bampton and Shrestha (2006) find that, in the districts surveyed at least, between 10% and 30% of fund expenditure is miscellaneous, i.e. not spent on forest development, CFUG operational costs, or community development (which includes pro-poor programmes).

Currently Terai CFUGs rarely invest in value adding silvicultural interventions or enterprises for timber. Nevertheless, if CFUGs adopt more market oriented sales strategies, there is scope for improving timber quality, perhaps through more intensive silviculture, and certainly through grading. There is also scope for larger Terai CFUGs to develop their own timber-related enterprises using simple technology. CFUGs could also work through cooperative arrangements to develop enterprises that benefit from economies of scale. By adding value to their timber, rents could be increased with subsequent possibilities for greater contributions to poverty reduction. Another strategy CFUGs could employ to redistribute rents to poorer members is to increase the employment opportunities and wages in CF management.

Finally, it is important to remember that CF does not contribute to poverty alleviation through timber rents alone. In many cases, more equitable systems of forest product distribution have been developed, whereby the poorer or needier families receive additional concessions, such as free fuelwood (e.g. Janajagaran, Kalika, Sahara and Gautam Buddha CFUGs of Kapilbastu district) or free timber for welfare support (e.g. Dhuseri CFUG in Nawalparasi reported by NORMS/ODG, 2003). A further initiative becoming more widely adopted recently is the allocation of small areas of Community Forests to poor families for NTFP production for their exclusive use. Such provisions are extremely important to poor households (LFP, 2004a).

³⁷ Members of the Hindu ‘untouchable’ caste

5. Other timber rent realisation and redistribution systems

Most productive Terai forests (not including PA) still remain under government management. For government managed forests there are two main management systems producing timber rents. The first one is the direct management by the DFO, the second one is the newly established CFM model.

5.1 Government Forest Management

For government forest managed by the DFO, an annual plan allocates harvesting quotas to the DFO itself, the TCN and the DFPSB³⁸. Allocations to TCN only occur in districts with sufficient forest resources. Timber harvested by the DFO are auctioned (highest bidder) and rents are sent to the central treasury. The same commercial auctioning system is applied by the TCN. The quantities and price of timber lots sold by the DFO and the TCN are not within reach of the poorest within the district. Timber is bought by traders who sell it in urban centres where demand and prices are high. The DFPSB supposedly ensures local (district) forest product supply for household fuel wood consumption, agricultural implements and the construction and maintenance of houses. The DFPSB sells timber just above the royalty rate (e.g. NRs 250/cuft for Sal), which is still not within reach of the poorest households, but more manageable for many others. This system creates the same hidden subsidy as in the case of CF. In exceptional cases the DFPSB can supply forest products at 10% of the royalty rate, for example to victims of natural disasters, cremations and other religious rituals, etc. This type of distribution is in theory supposed to target the poorest but the functioning of DFPSBs has been less than optimal (Acharya et al., 2006).

Problems with the above modalities include: that forests are sub-optimally managed well below their sustainable potential; that real management costs are not accounted for so profitability and efficiency is not enhanced; that harvesting costs are arbitrarily fixed; that sales systems are inflexible, inefficient³⁹ and open to abuse; and that 90% of revenues accrue to the central treasury, with only 10% going to district level governments – District development Committees (DDCs) – and none at all to local communities.

5.2 Collaborative Forest Management

CFM includes all ‘users’, including the closest and most distant, regardless of their likely contribution to forest management. Cost and benefit sharing mechanisms are unclear, but in our understanding, the minimum prices for the sale of timber within the CFM User Group (if not sold outside to the highest bidder) should exceed the government royalty rate, as CFM benefit sharing is based on the royalty. CFM is expected to pay 75% of the royalty to the central treasury⁴⁰. This minimum price, even if it remains below the market price, is again too high for the poorest CFM members and poses the same problem of hidden subsidy identified in CF. In order to sell timber at an affordable price to its poorest members, the CFM committee would have to use internal revenues to further subsidise timber prices. CFM is very new and is still being piloted but if this new forest management model is to efficiently contribute to poverty reduction, government taxation levels should be reviewed together with the timber pricing mechanisms. As the CFM model also includes distant forest users, CFM groups can be very big. This requires sufficient forest resources to be allocated and for timber rents or revenues focused on targeted poverty alleviation.

³⁸ The DFPSB and the TCN have their own funds to finance harvesting operations. In general DFOs (Terai districts) receive about NRs 200,000 Government funding each year for the harvesting of their quota. Forest products harvested by the DFO are auctioned (highest bidder) and all revenues, including the harvesting cost, are sent to the central treasury. The minimum auctioning price is based on a set royalty rate plus harvesting costs. The same commercial auctioning system is applied by the TCN. Revenues go to TCN after the payment of royalty to the treasury. The harvest of the DFPSB quota is done by the DFO on behalf of the DFPSB. The price of forest products sold by the DFPSB includes royalty, harvesting costs and a small profit margin. The DFPSB ensures the local (district) supply of forest products for household fuel wood consumption, agricultural implements and the construction and maintenance of houses. The DFPSB can supply forest products at 10% of the royalty rate to victims of natural disasters, for religious rituals, etc.

³⁹ E.g. standing sales aren't undertaken, all timber is transported to depots for sale, grading is inadequate, fuelwood is cut into 2ft lengths precluding alternative uses, large standard lots preclude small buyers, etc.

⁴⁰ Benefit sharing in CFM is currently 75% of revenues to central government, with 25% remaining at the district level – originally envisaged as 10% to DDCs, 10% to VDCs and 5% to CFM Groups. Current MFSC thinking makes benefit sharing of the district level 25% the discretion of District Forest Coordination Committees (DFCCs), a large part of which would have to be reinvested into forest development (MFSC, 2005). Suggestions for the revised CFM guidelines include changing the benefit sharing to 50/50 vis centre/district (Ebregt, A., pers. comm.).

5.3 Community versus Collaborative and Government Forest Management

At issue here is whether central government, local governments, or local communities are better at using rents from forests for forest management and poverty reduction, or even individuals in the case of poverty reduction. Clearly central governments are able to redistribute funds to poorer regions, which might not necessarily coincide with forest resource wealth. However, central government is criticised for leakage, unnecessary costs, poor prioritisation and lack of knowledge of local needs, as well as sub-optimal forest management. Local governments have a closer link to the people of their districts and a better idea of needs and priorities relating to poverty reduction. However, local governments have limited capacity and also suffer from non-optimal use of funds through inadequate accountability systems, as well as currently having a limited role in forest management.

The principle of subsidiarity⁴¹ should be applied. This means local communities (CF or CFM) and the individuals in them should be given the responsibility and means to address their needs and to reduce poverty. District and national level administrations should play a facilitating, regulating and monitoring role based on a clear comparative advantage. Benefit sharing mechanisms between the levels should be responsive to the principle of subsidiarity.

Unfortunately, there is currently an ongoing dispute between those who believe that only CF should be applied to Terai forest, and those who believe that the most valuable forests should be managed under CFM. We believe that had the GoN and proponents of CF considered reforms to CF along the lines we are suggesting, the need for a new concept, such as CFM, might never have materialised.

6. Conclusions and Recommendations

We conclude that Government Forest Management in the Terai is still failing to contribute to poverty reduction effectively. However, the introduction of Community Forestry has started to contribute to local poverty reduction, but could contribute significantly more if systematic reforms are undertaken.

The limitation of CF handover to mainly small and degraded patches of natural forest or plantations means that only a small number of users can become members of CFUGs. This problem is compounded by the ad hoc nature handover of forests to self-selected groups leading to inequity between CFUGs and between CFUGs and non-users. As the majority of the population is excluded from CF, CF's contribution to poverty reduction is significantly decreased. But many more people could be involved in CF if CF expanded into more forest. However, as there is not enough forest for everybody in all districts, and some people live too far away to actively participate, CF can never include everybody. A solution to this problem is to plan and review the allocation of forest to CFUGs in a way that minimises inequities between CFs, perhaps based on area per household, whilst accepting that those excluded will be compensated through other mechanisms. This should be negotiated between stakeholders at district level through the development of District Forest Sector Plans⁴².

The compensation of non-CFUG members could occur through DFPSBs and/or through progressive taxation of timber rents, as well as through variable allocation of funds from general taxation to favour those excluded from CF. DFPSBs could become more effective and accountable by including elected local representatives and CFUG representation in their management boards. However, progressive taxation could be far more effective, because those who benefit from its redistribution have choice how to use the funds, and because markets will distribute forest products more efficiently in terms of cost-effectiveness and setting realistic prices. The largest part of such funds should be targeted to the

⁴¹ The principle that decisions should always be taken at the lowest possible level or closest to where they will have their effect, for example in a local area rather than nationally (Cambridge International Dictionary of English).

⁴² DFSPs have been / are being developed for the districts supported by LFP and BISEP-ST. However, the experience in LFP demonstrates there is still a long way to go before district stakeholders will agree.

poorest members of communities excluded from CF. Another part should be used for broader community development in the same communities.

The current CF taxation system is inappropriate, as a flat rate is levied irrespective of the costs incurred by CFUGs or their own forest management and community development needs, and discriminatory against sales outside CFUGs, disincentivising CFUGs from maximising timber rents through sales on the open market. A new system is therefore required. Some basic principles to be considered when designing a progressive taxation system include: simplicity in terms of calculation, understanding, collection and monitoring; non-discriminatory against sales outside CFUGs; CFUG forest management and community development needs come first.

We therefore suggest that a taxation system graduated according to conservative estimates of productivity per household (as area per household is too crude) and national poverty categorisation standards could be more progressive. Tax exemptions should be applied where negative factors such as inaccessibility occur, and to encourage higher standards of forest management, pro-poor and socially inclusive governance, and poverty reduction initiatives. Rates would generally be low in line with the principle of subsidiarity. The lowest rate could be reduced to zero where CFUGs' own needs equal or outweigh productivity and the CFUG achieves high standards. Nevertheless, such a system would gather higher taxes from CFUGs that manage forests with productivity well in excess of their own needs, whilst still ensuring that motivation to engage in active forest management exists.

Existing CF legislation obliges CFUGs to incur certain management costs, which might not always be necessary, whilst controlling the production from their forests to lower than potential levels and reducing CFUGs ability to maximise the benefits from timber rents. Therefore, changes are needed to the inventory and operational planning rules to give CFUGs more flexibility to determine their management systems and associated costs. Forest Management plans should be developed according to long-term visions for the forest and related to rotation lengths of primary species. Shorter-term plans can then be developed for parts of the forest, when and as necessary. With progressive taxation related to productive potential more active management and increased productivity would be encouraged. Inventory is a useful tool for forest management, but needs should be determined by CFUGs themselves. The MFSC needs to move away from prescriptive guidance for forest management towards standards that should be maintained and can be objectively monitored. Likewise, the MFSC cannot determine the investments that CFUGs need to invest in forest management, but can impose standards that ensure that appropriate processes are adopted while planning such investments so that CFUG executive committees are genuinely accountable to their members. CFUGs should not require additional permission to carry out activities already approved in their OPs. Restrictions on sales outside CFUGs should be removed so that CFUGs, and individuals within them, can freely sell timber how and to whom they wish.

The policy and legislative constraints on Community Forestry are exacerbated by CFUGs' own policies of forest product distribution within and outside their groups. Timber rents can better contribute to poverty alleviation within CFUGs by developing pro-poor benefit distribution systems: i) giving or selling timber to their poorest members at affordable prices; ii) by reinvesting timber rents into targeted poverty alleviation activities; and iii) by allowing individual CFUG members to share in timber revenues. It is possible that a greater emphasis on maximising the returns to individual households, and giving them individual freedom to decide how best to use rents from Community Forestry, could go further in alleviating poverty. At the same time, perhaps an emphasis on generating only sufficient group funds to cover management costs and contingencies, would enable much more of CF income to remain in individuals' pockets.

Therefore CFUGs should balance internal subsidies and targeted timber sales while maximising income from internal and external sales that will enable them to develop a pro-poor livelihood improvement programme. The guiding principle or priority (for obtaining a balance) would be to first

address 'real' local demands for forest products of the poorest to support their livelihoods. Selling surplus on a commercial basis in order to optimise revenues then requires an open and competitive market without restrictions. The use of such revenues must then be prioritised to the poor, either through CFUG targeted activities, or by redistributing rents amongst individuals.

CFUGs need to carefully balance FP distribution between those who genuinely need them, all users according to quotas and the CFUG as a collective institution. In the first two categories, wealth ranking can be used to determine amounts or prices. For example, the poorest who need FPs could get them free or at a minimum cost. Richer CFUG members could be charged more, but still at lower than market rates. Surplus FPs to needs can then be allocated amongst CFUG members, again with the poorest receiving greater shares. Users should then be allowed to either use such allocations, sell them individually, or combine them for sale together by the CFUG on their behalf. In the latter case, revenues would return to individuals. Finally, the CFUG, as an institution requires funds to cover administrative and forest management costs, and to invest in pro-poor and community development activities such as targeted loans through a revolving fund. Revenues will be greatest through the sale of timber outside CFUGs.

A greater focus on payment to members for participation in CF management activities might raise interest in, and the intensity of, forest management whilst acting as a fairer redistributive mechanism for CF rents, as well as making it easier to determine true costs of CF management.

However, the greatest difficulty with the above recommendations is that both CFUGs and supporting agencies lack appropriate data or tools for analysing what the optimal balance should be. We therefore recommend that far greater attention is paid to economic issues pertaining to Community Forestry, both in terms of internal CFUG economies, as well as how these relate to the broader economy outside CFUGs. CFUGs need to maintain detailed information relating to membership, forest product production and distribution, as well as prices and accounts of sales, other income and expenditure. Practitioners and researchers need to increase their efforts in analysing such data, and in developing tools to assist CFUGs to test some of the ideas presented in this paper.

Acknowledgements: We would like to thank all our colleagues for the stimulation to think about these issues and write this paper. We would also like to thank the researchers from NORMS/ODG for allowing us to present their data, and to the reviewers who made suggestions on how to improve our paper substantively.

REFERENCES

- Acharya, A., Mishra, B., Cammaert, B., Paudyal, D. & Chalise, N.N. (2006) *Review of Revolving Fund in BISEP-ST Districts*. Biodiversity Sector Programme for Siwaliks and Terai (BISEP-ST), Kathmandu.
- Acharya, M.H. & Dulal, K.P. (2003) *A Report on Monitoring of District Forest Encroachment Areas in Terai districts of Nepal*. Submitted to Terai, Chure and Inner Terai Forest Management Task Force, Ministry of Forests and Soil Conservation, Kathmandu.
- Adhikari, J., Dhungana H.P. & Dev O.P. (in press) *State and forest: a historical analysis of policies affecting forest management in Nepal Terai*. Proceedings from Terai Conference, Social Sciences Baha, Himal Organisation, Kathmandu.
- Allison, G., Bampton, J.F.R., Kandel, B.R., Shrestha, M. & Shrestha, N.K. (2004) *Community Forestry and Livelihoods: How can Community Forestry Better Contribute to the Millennium Development Goals?* In Kanel et al. Eds. (2004) *25 Years of Community Forestry: Contributing to Millennium Development Goals*. Community Forestry Division, Department of Forests, Ministry of Forests and Soil Conservation, HMG, Kathmandu.

- Angelsen, A. & Wunder, S. (2003) *Exploring the Forest-Poverty Link: Key Concepts, Issues and Research Implications*. CIFOR Occasional Paper no. 40, Centre for International Forestry Research, Bogor, Indonesia.
- Bampton, J.F.R., Vickers, B., Rana, B. & Statz, J. (2004) *Community Forestry in the Terai Region of Nepal*. In Kanel et al. Eds. (2004) 25 Years of Community Forestry: Contributing to Millennium Development Goals. Community Forestry Division, Department of Forests, Ministry of Forests and Soil Conservation, HMGN, Kathmandu.
- Bampton, J.F.R., Ebregt, A. & Banjade, M. (in press) *(Controversial) Collaborative Forest Management - (C)CFM*. Chapter for CIFOR/ForestAction book on participatory forestry modalities in Nepal.
- Bampton, J.F.R., & Shrestha, R.B. (in press) *Terai Community Forestry – How is now?* Paper to be presented at the Terai Forestry Workshop, Nepal Foresters' Association, Kathmandu. (Dates unknown due to civil unrest)
- Baral, J.C. & Subedi, B.R. (1999) *Is Community Forestry of Nepal's Terai in Right Direction?* **Banko Jankari** Vol. 9(2). Presented in the National Workshop on the Management of the Tarai and Inner Tarai Forests, NFA, Feb 11-12, 2000, Kathmandu.
- Baral, J.C. (2002) *Depleting forests, silent spectators: Who should manage Nepal's Terai forest?* **Journal of Forest & Livelihood**, Vol. 2(1) 345-40. ForestAction, Kathmandu.
- Bhatta, B. (1998) *Constraints of the Community Forestry Program in the Terai Region of Nepal*. in *Proceedings of the National Workshop on Community Participatory Forestry Development Experience in the Terai Region of Nepal*. Eds. Mahat, T.B.S. & Upadhyaya, 8-10 Nov 1997, IoF, Pokhara.
- Bhattarai, B. (2006) *Widening the gap between Terai and hill farmers in Nepal? The implications of the new Forest Policy 2000*. In Mahanty, S., Fox, J., Nurse, M., Stephen, P. & McLees, L. (2006) Eds. *Hanging in the balance: Equity in Community Based Natural Resource management in Asia*. RECOFTC / East-West Center.
- CBS (2005) *Statistical Year Book, Nepal*. Central Bureau of Statistics, Kathmandu.
- Chand P.B. & Ghimire K. (2006) *Unlocking the Value of the Pine Forests for Sustainable Livelihoods: A Case Study from Hile Jaljale "Ka" Community Forest of Kabhre Palanchok District of Nepal*. Paper presented at the International Conference on Managing Forests For Poverty Reduction: Capturing opportunities in forest harvesting and wood processing for the benefit of the poor. Ho Chi Minh City, Viet Nam, 3-7 October 2006.
- Chhetry, B., Francis, P., Gurung, M., Iverson, V., Kafle, G., Pain, A. & Seeley, J. (2004) *Increasing opportunities for the poor to access benefits from Common Pool Resources: the case of Community Forestry in the Terai of Nepal*. In Kanel et al. Eds. (2004) 25 Years of Community Forestry: Contributing to Millennium Development Goals. Community Forestry Division, Department of Forests, Ministry of Forests and Soil Conservation, HMGN, Kathmandu.
- DFRS (1999) *Forest Resources of Nepal (1987 – 1998)*. HMGN, Department of Forest Research and Survey, Ministry of Forests and Soil Conservation, HMGN, Kathmandu.
- DoF (2000) *Community Forest Inventory Guidelines*. Department of Forests, Ministry of Forests and Soil Conservation, HMGN, Kathmandu.
- DoF (2004) *Community Forest Inventory Guidelines*. 2nd Edition. Department of Forests, Ministry of Forests and Soil Conservation, HMGN, Kathmandu.
- DoF (2005) *Forest Cover Change Analysis of the Terai districts, 1990/91 – 2000/01*. Department of Forests, Ministry of Forests and Soil Conservation, Kathmandu.
- ENPHO (2006) *Pre Mid-Term Review Study of LFP Sustainable Forest Management Activities*. Report submitted to DFID-Nepal, Kathmandu.
- Fisher, R.J. (2000) *Poverty Alleviation and Forests: Experiences from Asia*. Paper prepared for workshop 'Forest Ecospaces, biodiversity and environmental security' 5 October 2000, Amman, Jordan. Pre-congress workshop for IUCN World Conservation Congress 2000.
- Fisher, R.J. (2003) *Innovations, persistence and change: reflections on the state of community forestry*. Chapter in: *Community Forestry: Current innovations and experiences*. RECOFTC and FAO, CD-Rom, Bangkok.

Ghimire, S. (2004) *Bhote / Majhi access to resources in Community Forestry: a case study of benefit distribution and decision-making process*. In *Case studies on equity and poverty in the management of common property resources in Nepal*. Proceedings of the National Workshop on Management of common property resources and equity: exploring lessons from Nepal (May 28 2003). Forest Action, Kathmandu.

Gaurev Integrated Development Associates (2003) *A Synthesized Study on Encroachment of the Terai, Chure and Inner Terai*. Submitted to Terai, Chure and Inner Terai Forest Management Task Force, Ministry of Forests and Soil Conservation. Kathmandu.

Hill, I. (1999) *Forest management in Nepal, Economics and ecology*. Technical Paper 445, World Bank, Washington DC, USA.

HMGN (2003) *10th Plan*. Kathmandu.

Hurtig, E. (1997) *Balanced Overview*. **Forests, Trees and People Newsletter** No. 32/33, 31-33

Iverson, V., Chhetry, B., Francis, P., Gurung, M., Kafle, G., Pain, A. & Seeley, J. (2005) *High value forests, hidden economies and elite capture: Evidence from forest user groups in Nepal's Terai*. **Ecological Economics** 58(1): 93-107, Elsevier.

Joshi, A. L. (1997) *Community Forestry in Nepal: 1978 to 2010*. Chief Planning Officer, Ministry of Forests and Soil Conservation. Nepal.

Kanel, K. R., and Acharya, D. P., (2006) *Re-inventing Forestry Agencies: Institutional Innovation to Support Community Forestry in Nepal*. Paper presented in the expert consultation on Reinventing Forestry Agencies and Establishing an Asia-Pacific Forest Policy Network, 28 February – 3 March 2006, Manila, Philippines.

Kanel, K. & Niraula, D. (2004) *Can rural livelihoods be improved in Nepal through Community Forestry?* **Banko Janakari** Vol. 14(1): 19-26.

Kayastha, B. P. (2002) *Timber, Fodder, Fruit, Medicinal, Ornamental, Religious – A Handbook of Trees of Nepal*. Lalgurans Printing Press, Kathmandu.

Laubmeier, P. & Warth, H. (2004) *restoring balances – Milestones of the Churia Forest Development Project in Eastern Nepal*. Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH, Eschborn, Germany.

LFP (2004a) *Innovations for Pro-Poor Forestry: Community Forest Land Allocation*. LFP Good Practice Series, Livelihoods and Forestry Programme, Kathmandu.

LFP (2004b) *Pro-poor and Social Inclusion Strategy*. Livelihoods and Forestry Programme, Kathmandu.

Malla, Y.B. (2000) *Impacts of Community Forestry Policy on Rural Livelihood and Food Security in Nepal*. **Unasylya** Vol. 53 – no. 202 - Forests, food security and sustainable livelihoods.

Malla, Y.B., Neupane, H.R., & Branney, P. (2003) *Why aren't poor people benefiting more from Community Forestry?* **Journal of Forest and Livelihoods**, Vol. 3(1) 78 – 90. ForestAction, Kathmandu.

Maharjan, M.R. (1998) *The flow and distribution of costs and benefits in the Chuliban Community Forest, Dhankuta district, Nepal*. **Rural Development Forestry Network Paper** 23e, 1-11. Overseas Development Institute. UK.

MSFC (2000) *Revised Forestry Sector Policy 2000*. Ministry of Forests and Soil Conservation, HMGN, Kathmandu.

MSFC (2002) *Buffer Zone Management Guidelines*. Ministry of Forests and Soil Conservation, Kathmandu.

MSFC (2003) *Collaborative Forest Management Guidelines*. Ministry of Forests and Soil Conservation, Kathmandu.

MFSC (2005) *District Forest Co-Ordination Committee Establishment and Operational Directive*. Ministry of Forests and Soil Conservation, HMGN, Kathmandu.

- Neupane, H.R. (2003) *Contested impact of community forestry on equity: some evidences from Nepal*. **Journal of Forest and livelihood**, Vol. 2 (2) 55-61. ForestAction, Kathmandu.
- NORMS/ODG (2003) *Social Structure, Livelihoods & the Management of Common Pool Resources in Nepal*. A study commissioned by Overseas Development Group (ODG) for DFID's Renewable Resources Knowledge Strategy Natural Resource Systems Programme. Kathmandu.
- NORMS (2006) *Pre Mid-Term Review Study of LFP Quick Impact Activities*. Report submitted to DFID-Nepal, Kathmandu.
- Paudel, S.K. & Pokharel, B.K. (2001) *Looking at the Prospects of Community Forestry in the Terai Region of Nepal*. **Banko Janakari** Vol. 11(2): 27-33.
- Pesonen, P. (1994) *The Potential of the Natural Forests of the Terai and the New Principles of Forest Management*. FMUDP Working Paper 15, Forest Management and Utilization Development Project, HMGN / FINNIDA, Kathmandu.
- Pesonen, P., & Rautiainen, O. (1995) *A Strategy for Managing Tarai National Forest*. **Banko Jankari** Vol. 5(2): 59-63.
- Pokharel, B.K. & Amatya (2000) *Community Forestry Management Issues in the Terai*. Issue Paper 9, Joint Technical Review Committee on Community Forestry. MFSC, Kathmandu.
- Pokharel, B.K., and Nurse, M. (2004) *Forests and People's Livelihoods: Benefiting the poor from Community Forestry*. **Journal of Forest and Livelihoods**, Vol. 4 (1) 19-29. ForestAction, Kathmandu.
- Pokharel, R.K. (1999) *An Overview of Participatory Forestry in Nepal's Tarai*. **Banko Janakari** Vol. 9(1): 15-19.
- Pokharel, R.K. (2000) *From Practice to Policy: Squatters as Forest Protectors in Nepal – an Experience from Shrijana Forest User Group*. **Forests, Trees and People Newsletter** No. 42.
- Rautiainen, O. (1995) *Growth and yield models for uniform sal (Shorea robusta Gaertn. F.) forests in the Bhabar –Terai in Nepal*. FMUDP Technical Report No. 17. Forest Management and Utilisation Development Project, Kathmandu. pp. 15.
- Sah, R.N., Paudyal, D., Thapa, Y.B., Siwakoti, R.S. & Ebregt, A. (in press) *Collaborative Forest Management in Nepal (Challenges and Prospects)*. To be presented at the 'Terai Forestry Workshop, Nepal Foresters' Association, Kathmandu.
- Sharma, S., Koponen, J., Gyawali, D. & Dixit, A. (2004) *Aid under stress – water, forests and Finnish support in Nepal*. Institute of Development Studies, University of Helsinki. Published by Himal Books, Lalitpur.
- Shrestha, N.K. & Britt, C. (1997) Another 'Balanced Overview'. **Forests, Trees and People Newsletter** No. 32/33, 34-37
- Sigdel, H., Shah, R. & Khanel, K. (2005) *Terai forest management: Why and how?*. **Hamro Ban** Vol. 3(2), ForestAction, Kathmandu. (original in Nepali, but unofficial English translation made)
- Singh KC, H. (2005) *Collaborative approach in Terai forestry*. **Hamro Ban Sampada** Vol. 3(1) pp 3-8, ForestAction, Kathmandu. (original in Nepali, but unofficial English translation made)
- Statz, J. & Tumbahangphe, N. (2004) *Balancing Costs and Benefits: Economic Impact of Community Forestry in Siraha, Saptari and Udayapur Districts*. Churia Forest Development Project, GOPA/AGEG, Lahan.
- Sunderlin, W.D. (2006) *Poverty alleviation through community forestry in Cambodia, Laos and Vietnam: An assessment of the potential*. **Forest Policy and Economics** vol. 8(4) 386-396.
- Timsina, N. (2002) *Empowerment or Marginalization: a debate in community forestry in Nepal*. **Journal of Forest and Livelihoods**, Vol. 2 (1) 27-33. ForestAction, Kathmandu.
- Van Schoubroeck, F.H.J., Sah, R.N. & Sigdel, H. (2004) *Linking the forestry sector financial system with local government institutions*. **Banko Janakari** Vol. 14(1): 3-12.