



## COMMUNITY FORESTRY POLICY AND ITS ECONOMIC IMPLICATIONS: AN EXPERIENCE FROM NEPAL

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### Abstract

*The concept of community forestry is not new anymore, but there is a growing interest among policy makers, donors, and development practitioners to understand the extent to which community forestry contributes on economy of individual households and nation in general. Nepal's community forestry is a unique model of devolution in Asia and has experience of more than two decades. Therefore, it is time to assess the economic implication of community forestry in Nepal, for self learning and scaling up of good practices to other countries. In this backdrop, this paper presents an analytical view of community forestry from economic perspectives, particularly looking on the contribution towards people's livelihood and income generation.*

**Keywords:** *decentralization, livelihoods, forest based income.*

### Introduction

Forests constitute a leading renewable resource which provides a safety net for the poor and vulnerable, products for markets and for value addition and which also sustain biodiversity and environmental health in the context of Nepal and elsewhere. The forested area covers about 39.6 percent of Nepal and is also the major tourist destination. Forests also provide forward and backward linkages to other sectors. Forestry, farming and animal husbandry are intimately related as about 40 percent of livestock feed is derived from forests and trees grown on farms. Organic manure mixed with leaf litter is the major source of fertilizer to replenish the productivity of the agricultural area. A major share of energy is derived from fuelwood. Moreover, non-timber forest products (NTFPs) including medicinal and aromatic plants (MAPs) provide both household and market products. Public and external benefits derived from these forested areas are soil and water conservation (upstream and downstream benefits), carbon sequestration, and biological diversity. These multiple benefits have not been appropriately considered in the

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national accounting system although the forests are of vital importance for the national economy. How these multiple benefits might be supplied in a sustainable way so that Nepali citizens might enjoy them for both broad based economic development activities and livelihood promotion is a main issue in the policy debate regarding forestry sector development.

The objectives of this paper are to analyze the consequences of different policy regimes, the internalization of lessons learned from our experiences, and to identify some of the policy gaps for further research so that forest resources might be optimally managed. After this introductory section, the following two sections of the paper present the key characteristics of forest management, which need to be and are considered in crafting forest policy in Nepal. The fourth section analyses forestry policy in action over time in Nepal. The impact of policy reforms in community forestry, which can be considered as a case study, is presented in the fifth section. The final section presents concluding remarks and identifies some of the topics for further studies in the context of Nepal.

### **Policy at a Glance**

Why should we talk about or discuss policy in forest management? We discuss and analyze it because policy is an important ingredient in making decisions. It provides signals for decision makers or actors. Decision makers at various levels consider it as an input in making their decisions (Mayers & Bass 1999). Policy may permit or hinder actions relevant to actors. If a policy is to be effective, it has to be binding. Otherwise, it merely forms a statement of good intention: the intention may be excellent but the result may be otherwise. To make the policy binding so that the actors follow it through, the implementation capacity of the policy-enforcing organizations should also be strengthened (Kanel 2001, Kanel *et al.* 2003). Therefore, policy is important in reducing uncertainty associated with planning programme and their implementation.

A policy can be defined and assessed in different contexts. Here, we assess it as an enabling mechanism and critically examine its consequences. This recognizes the interdependency between natural and human systems. The interactions between these systems provide the foundation for the formulation of forest policy. The stated vision for forest policy is to enhance and expand its contribution to poverty reduction, environmental security, good governance, social justice and intergenerational equity through sustainable, equitable and effective management and responsible use of the national forest resources. This vision for policy is also mentioned in the interim planning document (2008–2010), and the Master Plan for Forestry Sector (MPFS) development.

Policies can be divided into two types: regulatory and fiscal. Regulatory policy relates to control and command. The fiscal policies relate to taxes or subsidies which affect forest management. These policies are not only relevant to the decentralized units but also to the centralized units. Decentralization of regulatory policy appears to be easier than the fiscal mode of decentralization. In the context of Nepal, communities have the rights of access, withdrawal, management and exclusion but not alienation in the management of their forests (Schlager *et al.* 1992). Fiscal decentralization has occurred with respect to community and leasehold forests. But there is a contentious issue regarding the way revenues from the sale of forest products are shared between the central and local governments, and the community forest user groups.

Policies that originate from the non-forestry sector also affect the way forests are managed at a local level. An oil boom may lead to expansion of economic activities that may lead to conservation of forests due to the reduction of dependency on forest resources (Hyde *et al.* 2000, Wunder 2003). Road construction through forested areas increases the alternate value of the forestland and thus, exerts pressure for forestland use conversion such as the accelerated deforestation in the Terai. Similarly, macro-level monetary and fiscal policies also affect allocation of forest land and the intensity of forest management. Increased poverty at the macro level has induced hill people to migrate to the Terai and encroach upon the forests while looking for alternative employment opportunities.

Many policies involving forestry have been designed to sustainably manage the forests for environmental conservation and economic development. However, the monitoring and enforcement capacity of the administrative arm of the government remains weak. Therefore, there needs to be congruence between policy formulation and enhancement of implementation capacity. The Master Plan for the Forestry Sector has stressed the importance of reorientation of forestry staff and their capacity growth, so that they might play more of a facilitative role in the management of forests

### **Characteristics of Forest Management**

Forests provide goods and services, valued by society for various purposes. The process of producing and using these benefits has some specific characteristics as listed below:

- Forests generate multiple products and services, which can be competitively marketed or undervalued or provided through missing markets. Some products act as safety nets for the most vulnerable social groups such as in the collection and sale of MAPs mainly from the hills and mountains (Scheer *et al.* 2004).
- Goods and services such as timber and fuelwood, or the production of leaf, wood, MAPs and other ecological services are jointly and

simultaneously produced from the same area (Adhikari 2003). The allocation of separate costs among these jointly and simultaneously produced products and services is a very challenging task.

- Many people depend on forests for different purposes so the exclusion is difficult. Similarly, the stock of forest products, which are subtractable, which means if it is used by someone, the same is not available for others to use (Ostrom 1990).
- Forests cover extensive areas and are low in terms of labor use, while the rotation period is long. (The opportunity cost of land and capital locked in trees is high, but flexibility in harvesting is greater than in agriculture).
- Forests also generate joint production of private and public goods, which are related to the issue of investment and externality. These pose the question “who pays and who gains?”. Externalities from forests include: watershed management, biodiversity conservation, and carbon sequestration. But the questions are who captures the values and how we are going to calculate these values?
- Forests in Nepal now mostly constitute residual land use. This leads to the question of property rights and enforcement. If the cost of ownership/management rights exceeds benefits, forests get converted to open access resources. As the value of benefits from forests and the alternative uses of the forestland increases, the institutional regime to manage them has to be changed. Consequently, types of property rights and their enforcement are very important in the sustainable management of forests.
- Production and use of public and private goods and services from the same unit area and management entity lead to government (policy) and market failure. This has led to the policy prescription of centralization and/or privatization in the management of forests.

### **Forest Policy in Action**

Nationalization of the forests in 1957 transferred the ownership of forestland to the state. One of the reasons for nationalization was that these forests were of strategic importance for the national economy, producing not only private goods but also public goods and services (such as watershed value and environmental functions). However, since the state could not enforce its own rules in the management of these forests, forest depletion and deforestation accelerated. This is also a classic example of government policy failure because the state as a landlord (absentee landlord) creates its own problem - principle and agent problem, and moral hazard.

The concept of participatory forest management in Nepal emerged as a result of institutional failure in Nepal which had led to the degradation of

forests in the middle hills. The space for local people in forest management was created in order to mitigate the increasing rate of forest cover loss during the 1970s. The National Forestry Plan of 1976 paved the way to include local people, but through a local government unit known as the '*Panchayat*'. The major emphasis of this policy was to engage local communities in protecting new plantations, but without considering their livelihood needs and without devolving any authority to local people. Hence, the policy of forest management through the *Panchayat* was not sustained in the long term. In 1982, after the enactment of the Decentralization Act, some progressive policies were formed to empower local communities. One such milestone on the way to community empowerment was the provision to form 'forest user groups', which was introduced in 1987.

Several factors already enumerated in section two above also highlight the fact that the market does not operate effectively in the conservation and management of forests. In addition to the above factors, the locals have time and space knowledge of the condition and use of forests. Moreover, monitoring and enforcement costs are non trivial in forest management. Similarly, goods and services jointly produced and used by distant users also create problems of market failure.

Forest policy reforms were initiated in 1978 (through the revision of the forest act) since then a number of reform initiatives have taken place such as: approval of Master Plan for Forestry Sector- MPFS in 1989; new forest act and regulations in 1993); and new forest policy on collaborative forest management and protected forest management in 2000 which focuses on revenue sharing among CFUG and central government.

Some of the salient features of these policy measures are outlined below:

- Polycentricity: both national and private forest ownership include the involvement of other overlapping organizations (CFUGs, leasehold forest groups, District and Village Development Committees, and other coordinating institutions such as District Forest and Village Development Coordination Committees). Non-Government Service Providers are also increasingly involved in providing services to forest users as well as to the government.
- Decentralization: power has been decentralized to the District Forest Offices (DFOs); forest management power has been devolved to CFUGs, leasehold forest groups, and a revenue sharing mechanism exists between government and District Development Committees (DDCs).
- Participatory decision-making: rights, responsibilities, risk and rewards are differentiated among CFUGs, DFO, DDCs/VDCs (in community and collaborative forest management).

- Decentralization and livelihoods: decentralized and robust organizations are important in the sustainable management of the forests. Similarly, forest management activities are now linked with livelihood promotion in the rural areas.
- Budget in forestry: the annual budget of the forestry sector stands at NRs 2.3 billion or 1.37 percent of the total budget, with an allocation of about 35 percent of the total development budget in CF. The forestry sector enjoys only limited international loans, while other sectors relying on loans are considered as priority sectors. This is a dilemma in prioritizing the sector's development in Nepal.

### **Experiences from Nepal's Community Forests**

The experiences of community forestry gained over the last 25 years show some positive impacts in terms of enrichment of greenery and growing stock. On the other hand, forests under government management systems are not only depleting, but also degrading. Some basic facts on community forests indicate that Community Forest User Groups are also generating financial resources, which are used mainly in better forest management and community development activities.

The forested area (forests and shrubs) covers about 39.6 percent of land area or 5.8 million hectares. Out of this total forested area, about 18 percent is under the community forestry scheme. Since about ten percent of the forested area is estimated to be under protected areas, it can be estimated that 25 % of National Forests (forested areas outside protected areas) are under community forests. More than 14,000 CFUGs or 35 % of the total population officially manages these forests. The CFUGs charge a nominal price for the forest products used by the users themselves. Only the surplus products are sold at a competitive price.

The Community Forest Division undertook a rapid appraisal of 1,788 CFUGs during 2004. We extrapolated the income and expenditure pattern from these sampled CFUGs to the total CFUGs of Nepal. The result shows that annual income from the community forests to the CFUGs is about Nepali Rupees<sup>2</sup> (NRs) 747 million, but if we add other income (fines, fee and grants etc), the total income accruing to CFUGs amounts to about NRs 913 million. In comparison, the total revenue of the Department of Forests for the last fiscal year was only NRs 450 million (Kanel *et al.* 2003). Some highlights of this financial appraisal are presented in Box 1.

Analysis of the expenditure pattern shows that users groups spend about 50 percent of their income, and retain the other half in their accounts. The data shows that the CFUGs spend about 28 percent on forest protection and

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<sup>2</sup> One NRs is equivalent to 63 US Dollar

management. Another 36 percent is spent on community development activities. Moreover, they also spent about 17 percent on miscellaneous items. Only about three percent of the total income is spent on operational cost.

**Box 1: Highlights of Financial Appraisal of Community Forest**

- The Terai (plain region lying south and adjacent to India) has less than 10 percent of community forests, but generates more than 26 percent of this income.
- Household income from this community forest is NRs 1,173 in the Terai but only NRs 512 in the hills/mountains.
- The main source (82%) of income is from the sale of forest products. The share is 90 % for the hills/mountains but is only 59% for the Terai.
- If we value the forest products harvested from the community forest at a market price, it is worth about two billion NRs.

The groups are also creating and using other capital assets, physical, human and social, including the natural and physical ones just described. The creation of physical assets comes under the rubric of community development activities such as drinking water and school construction at the local level. Imparting of training (skills, knowledge and informal education) has helped to strengthen the human capital of the users. Legitimization of the CFUG as an incorporated body and the process of democratization at the CFUG have strengthened the social capital of the users. In addition, saving and micro-credit arrangements initiated at the CFUG level have reduced the vulnerability of the poor, although on a small scale. The initiatives and innovation in community forests have been extended in the management of micro-watersheds. Now, Community Development Groups (CDGs) initiate watershed management activities in the field and government officials facilitate the social mobilization process. The case of the management of Buffer Zones around National Parks and Reserves is similar to this process.

Although community forestry is successful in decentralizing forest management activities, and creating greenery and financial capital through CFUGs, the time has come to tackle second-generation issues in community forestry. Related to these issues is also the question of recognizing the role of forests in broad-based development and linking it to poverty reduction in the rural areas of Nepal.

The following are some of the important issues that need to be resolved as community forestry moves ahead in the 21<sup>st</sup> century as set out below.

- The second-generation issues focus on livelihood/equity, good governance, enterprise development and marketing of forest products, and sustainable forest management. The elected committee

members, and rural elites capture most of the benefits from the forests and their funds.

- One challenge for equity and sustaining livelihoods is to design an inclusive process of decision-making and benefit-sharing so that the poor, women and disadvantaged group members may benefit from the forests and the funds of the CFUGs. Income generation through MAP intercropping, the establishment of enterprises and the marketing of forest products are also very important in livelihood promotion.
- The second issue is related to good governance in the operation of CFUGs and the relationship with the DFO. The transaction cost of CFUG formation and their operation is substantial and another challenge is how to reduce this cost. The components in good governance are rule of law (the same rule applies to the ruler and the ruled), transparency in decision-making, accountability and responsiveness.
- The third is sustainable forest management. Since many of these forests are still protection oriented, the task is to enhance productivity of the forests and at the same time retain biodiversity conservation.
- How might the genuine users become involved in the management of Terai forests when they are marginalized by forest encroachers or legally settled migrants? The forests of the Terai are commercially valuable and also a major source of government revenue. If these forests are handed over to the CFUGs, what should be the appropriate revenue sharing process and mechanism to be set up between the government and the CFUGs? Presently, the government collects 15 percent of the revenue from the sale of surplus Sal and Khair timber obtained from the community forests. Should this be collected by the local political bodies?
- The mountain region has low density of population, and an extensive area of forests and rangeland. The community forestry model developed and practised in the hills with high density and scarce land is not really suitable for the management of mountain forests and rangeland. What type of institutional arrangement could be designed to ensure that the resources are sustainably managed and products equitably used is a major question.
- Commercial harvest and transit permits for the forest products are issued by the forest officials. The transaction cost of the permit regime is substantial. How might this cost be reduced?
- Technology of production and processing of Non Timber Forest Products (NTFP) and MAPs is not easily available or has not been

innovated and non-tariff barriers to market access to the raw or the processed products are getting tighter.

- Global warming is an international challenge. Forests conserve carbon, and hence help in reducing global warming. How to link the relationship between Clean Development Mechanism (CDM) and forest management should be one important feature in development dialogues in Nepal.
- There are different perspectives on how the forests should be managed and who should get the benefits at what cost. For example, CFUGs consider that they should capture the product benefits or the total revenue; local level political bodies consider that they should own the forest, and thus share some of the financial revenue. Politicians at the center and the forest officials working with the government think that the government should allocate some part of forests to the communities and the government should also get some revenue from these forests. Conservationists consider that larger areas should be locked up as national parks or reserves. Donors and the Finance Ministry consider that the sectors currently receiving loans should be the priority areas for development. How can these different perspectives be reconciled by the Ministry of Forests and Soil Conservation? Theoretically, this debate should be carried out through the political process. But if the process is as muddly as at present, then how can the government officials execute coherent programmes with conflicting or unclear policies?

## Conclusions

Property rights over forests are very important in the management of forests. As the resources become scarce, property rights have to evolve. This induced innovation has to be facilitated by government policy. In other words, enabling policy regimes have to be designed so that the objectives set out in the policy are achieved through the actions of relevant stakeholders. Policies and institutions create incentives so that the behavior of decision makers is streamlined to attain the objectives of the policy. The role of government is as important as that of people's organizations in forest management. Case studies from China suggest that regulatory reform provides substantial incentives for better management (Hyde *et al.* 2003). If it could be matched with fiscal measures, the forest could be further promoted in the landscape.

Forests create externalities and environmental services to distance users. Devising a mechanism of capturing the external benefits for the producers of these beneficial externalities and public services would further enhance forest

management. Development of simple and useful valuation techniques to measure these services is a must before asking for payment for these services.

Forests provide opportunities for conservation, and broad-based economic growth compatible with livelihood promotion. If the higher-level decision makers recognize this relationship, forests and forestry should get priority in national development. An example of the community forestry program from Nepal indicates that community mobilization is essential for forest management and sustainable utilization, as well as for community development. It also raises many serious questions and challenges: How to link this development to the livelihood promotion of the poorer households? How to ensure that the substantial fund generated from the community forests is canalized towards pro-poor programs? What about the role of enterprise development and marketing of the products so that the poor can be the proprietors and managers of these commercial and viable enterprises?

Forest policies have been developed and stated in many documents over the recent decades. It is observed that forest policies and other policies coming from other sectors have influence on the way forests are managed at the local level. How to harmonize these multiple policies and to increase the capacity of these polycentric organizations is also a major challenge in policy design. Mere inflation of policies does not necessarily lead to good implementation and successful results. Therefore, this paper argues that more attention should be given to the enhancement of the implementation capacity of decision makers.

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