Indigenous forest management practices in some community forests of Nepal

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Indigenous forest management practice is considered a major activity in community forests. The users fulfill the forestry products by removing dead, dying and diseases trees. The concept of retaining tree per hactare was not fully implimented in community forestry. Contractor system was found to be effective in forest management. Forest product distribution in equity basis incouraged individuals to work effectively for forest management. Whereas equal distribution invited ineffectiveness.

Keywords : Community forestry, Indigeneous forest management practices, equity.

Community forestry programme was officially started in late 1970s in Nepal. Since then a number of projects and programmes have been launched in this field, particularly in the hills. Such efforts have brought positive results in forest resources, and has uplifted the credibility of this programme and out of the country. So far, 0.622 million hectares (18% of the potential community forests) have been handed over to communities for protection, management and utilisation purposes (Pokharel 1998).

Community forestry is a major programme targated for developing and managing forest resources of the country. Through this, the forest policy aimed to supply the basic requirements of forestry products to the communities. And to facilitate the programme, the government promulgated the Forest Act 1993 which has been appreciated even outside the country (Joshi 1997).

The basic forestry products needed by the local people include none other than firewood, fodder, timber, and bedding materials. These are harvested from forests by applying silvicultural practice, which is often called as 'ban godne' in Nepali. This literally means weeding, cleaning and shrub clearing. In fact, it is defined as a practice of cleaning and cutting of undesired tree species for improving the forest condition, thereby increasing the quantity and quality of products.

The main intention of the paper is to report the existing silvicultural practices (i.e. ban godne) in community forests. Furthermore, it also tries to document the existing benefit sharing mechanism, particularly freshly cut firewood distribution patterns in the Forest User Groups (FUGs).

Harvesting practices

Generally, harvesting is carried out once a year in early February, particularly during the agriculturally slack period. Often, less valuable tree, hollow tree, top dying tree and thorny bushes are removed during this practice. The practice is being encouraged in community forests for improving the forest condition, which obviously support to fulfill the firewood and small timber of the community.

This practice in community forests differs from place to place, depending on the field situation (Table 1). In fact, collective system was applied by all FUGs in the initial stage and gradually modified as per the field situation. The system was refined as the FUGs move forward in the management, particularly harvesting the products. There are three kinds of harvesting practices being adopted in community forests. They are: collective; paid labour- and contract.

Collective system

In collective system a group of people work together in a voluntary way. In this approach, all the users are supposed to participate in forest management operations. The users, those gathered in the forest area divide themselves into groups,

Table 1: Indigenous practice in forest user groups

Forest User Group	District	Area (ha)	HH	Indigenous practice
Maspatan	Kaski	16.11	52	Collective system
Sankarnagar	Rupandehi	549	1,889	Labour paid system
Baghmara	Dang	306	700	Contractor system

HH= Household no.

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depending on the number of households and forest size, and carry out the management operation. A leader is selected in each group to monitor the activities.

Maspatan FUG is an example of a collective system for harvesting activity. In this FUG, one person from each household is supposed to participate in the management operation. If someone fails to participate he/she has to pay Rs 50.00 as penalty. An individual who is more than 60 years old or below 16 years does not need to participate.

Labour-paid system

Here an individual is hired to carry out forest management operation. The number of individuals hired depends upon the workload to be carried out in the forest area.

Sankarnagar FUG represents a good example of labour-paid system in harvesting activity. In the FUG, the users do not work on voluntary basis. The users get paid if they work as labour. The Forest User Group Committee (FUGC) through labour does the major works of forest management. The FUGC has also authority to hire labours for the management and development activities. Normally, the members of FUG get priority for working as labour.

Contractor system

In this system, an enforceable agreement is done between an individual and FUGC to carry out harvesting activity in the forest.The lowest bidder is given the contract of management.

Bagmare FUG has been applying contractor system for carrying out forest management operation. A contractor could be an outsider, not necessarily from the users. The FUG has gradually shifted from collective system to labour-paid system and finally to contractor system.

Benefit sharing

Benefit sharing is an important aspect of community forestry. The success of any programme depends on how its benefits are distributed. As no standard criteria for benefit sharing have been set we find variation in benefit sharing mechanism from one FUG to another (Table 2). In fact, the mechanism was developed based on the past experiences and customary practices. Generally, benefits sharing are premised on an equitable basis in community forests.

Generally, the benefits in community forests are shared based on the groups' contribution. The users are invited and further divided into groups to carry out management operation. The group consists of 8-12 persons, depending on the number of users and forest size. The harvested material, particularly green firewood is deposited at one place and distributed equally by applying standard measurement.

In 1998, the Phedipatan FUG had formed four groups to carry out *ban godne* activity. Each group was asked to deposit the harvested material in the respective area and distribute it equally among the group members. More or less an equal quantity of firewood was harvested by each group from the delineated area. In the FUG, the quantity of firewood is requested with the other groups if it is not equal for the group members. In fact, the group members were supposed to distribute the firewood equally from their own area. *Tin haate* rope (± 4.5 ft.) was used to make the bundle of firewood for distribution.

The Bharkesh FUG follows the different pattern of benefit sharing mechanism. The FUG had formed four groups for carrying out *ban godne* activity. After completing the work, each group was asked to make a heap of the harvested materials in the respective area. The group leaders were invited to draw numbers for choosing the heap of firewood. After drawing the number, each leader went to the respective heap of the firewood and distributed it equally among the respective group members.

The Chetanajagriti FUG has different system in distributing firewood among the users. The FUG invites the users to work together in a group for *ban*

Table 2. Benefit sharing mechanism in the Forest User Groups, 1999

Forest User Group	District	Forest area (hectare)	Forest blocks (divided into)	No. of households	Distribution of green firewood based on
Phedipatan	Kaski	90	5	85	Group contribution
Bharkesh	Palpa	108	8	270	Group contribution with lottery system
Chetanajagrit	Surkhet	180	5	148	Individual contribution

godne activity and distributes the firewood based on the individual contribution. In fact, the work is shared in a group but the benefit is distributed based on the contribution made by an individual. An individual can take the firewood as much as he/she harvests in the allocated area.

Discussions

Technically, thinning is done in immature stand for improving the growth and form of the remaining trees. Ingles (1993) stated that for a fully stocked area in the Mid-hills of Nepal it requires 10,000 plants/ha for shrub land and as few as 300 trees/ha for a matured forest. In the above listed FUGs such concept has not yet been implemented. They just started to utilize the forest by selective logging of the dead, diseased, moribund and deformed trees, which is known as *ban godne*, an important activity for improving the forest condition.

The users are attracted towards *ban godne* activity because of the forest products, particularly firewood which firewood is a major source of energy in the rural areas. The firewood is used economically in many places since the received quantity is not enough to meet their yearly requirement. As a result, kerosene, bio-gas, agricultural residues, etc. have been used as alternative source of energy.

It is noticed that the collective approach in harvesting activity is difficult where other job opportunity is available. Moreover, it is also difficult to embrace all users where a large number of households exist. In such situation, the tendency of the users is only to participate in the activity for fulfilling the obligations as to maintain their status of user. This caused difficulty in carrying-out forest management operation effectively. The Sankarnagar and Bagmara FUGs had experienced ineffectiveness in the work by applying collective approach in *ban godne* activity. The collective approach may not last for long if the users do not see any opportunity for economic incentives. Pokharel *et al* (1999) reported that the collective work was replaced by the centralized system due to low economic incentives in the work.

Sankarnagar FUG has adopted labour-paid system in management operation, which was shifted from collective work as to provide economic incentive to the users. The labour-paid system seems to be easier than the collective system since it has a large number of people as users. The Bagmare FUG with long experience has adopted contractor system for management operation. The collective approach, particularly in matured forest invited dispute among the users in timber harvesting. The dispute appeared due to cost variation in timber from user to user. Generally, the users are asked to collect the distributed timber lying in different distance. This causes differences in transporting cost and such variation may cause feeling of disappointment to the users.

The FUG introduced labour-paid system and finally contractor system to avoid the conflict, particularly maintaining same price of the products within the users. The contractor system has supported the FUG to save some money and also more efficient in harvesting products, particularly timber and firewood. Once the forest gets matured and at harvestable stage the collective management operation may not work in an effective way, which is also supported by Sakurai *et al* 1998. Furthermore, the labour-paid and contractor systems are seen in use where the forests are matured.

Benefit sharing mechanism is one of the major factors for sustaining community forestry. Forest products, particularly firewood is distributed more or less equally among the users. Families, whether large or small receive the same quantity of firewood. Those who have large family face relative scarcity of firewood, while those families will have surplus. This has caused conflicts in FUG.

The lottery system was introduced to control over exploitation of forest resources and also to minimize conflicts among the users. In Bharkesh FUG, the firewood is distributed within the group members (ten persons) whatever the group has harvested. The group does not share the firewood with other groups like in Phedipatan FUG. Such system may encourage the group to harvest more firewood for their own benefit, which creates differences in getting the share among the users. Keeping this in view, the FUG has introduced a lottery system in firewood distribution. In this system, the group does not know which one is their share unless they draw the number. There is an equal opportunity to get the share of firewood either as harvested by them or to get the share as harvested by other groups. This sort of system has facilitated the group to harvest the forest accordingly, neither go for over exploitation nor slow-moving in the work.

The Chetanajagriti FUG feels that the equal distribution of firewood may invite ineffectiveness in the harvesting activity. Therefore, the FUG has introduced different system, particularly in benefit sharing mechanism. The benefit sharing mechanism is based on the individual contribution, which means an individual gets the share whatever he/she has harvested. In the system, if an individual has

harvested 25 *bhari* (one bhari= ± 25 kg) of firewood the quantity of firewood is given to him/her without making any share with others. The FUG feels that the system has motivated individuals to work effectively in the harvesting activity. In fact, this is the new system in community forestry for sharing the benefit.

Conclusions

Initiation of *ban godne* activity in community forests seems to be a good start for improving the forest condition. *Ban godne* is a new concept in community forest, which has brought proper use of dead, dying and diseased trees. On the one hand, it has supported to meet the requirement of the users and on the other hand contributed to improve the forest condition. The concept of *ban godne* was started only after handing over the forest. After handing over, the forest technician is supposed to monitor the activity and also provide technical support to the users. Such provision has encouraged the users to carry out the activity related to forest improvement. The policy of handing over is one of the major factors for motivating people towards community forestry.

The preliminary observation indicates that the collective approach in *ban godne* may not last for long time once the forest gets mature and harvestable stage, particularly timber. Timber harvesting is considered as a risky work. The users do not show their interest to involve in the risky work unless they see clear economic incentives. Emerging of the labour-paid and contractor systems in community forests is an indication of ineffectiveness of collective system.

Equity is a big issue in community forestry. Emerging of new systems such as group contribution through lottery system and individual contribution in benefit sharing is an indication of the need of equity in community forestry. The equity in benefit sharing encourages the individual to work effectively in the management operation. Therefore, equity is essential for sustaining the system in community forests.

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