

## Policy Review

# Limitations of Leasehold Forestry for Poverty Alleviation in Nepal

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*Two leasehold forestry case studies reveal potential limitations in the poverty alleviation potential of Nepal's leasehold forestry program. First, even though the program is targeted toward the poorest, nonpoor households can find opportunities to enter leasehold forest user groups. Second, by not raising the incomes and living standards of all households in a group simultaneously, it is possible for leasehold forestry to simply redistribute poverty. These limitations may be problems of implementation, rather than design. If so, it is important for implementing officials to be cautious when forming leasehold forests.*

**Keywords** collective action, exclusion, leasehold forestry, Nepal, poverty alleviation

Nepal's Hills Leasehold Forestry and Forage Development Project aims to improve rural livelihoods through leasing forestland to small user groups of exceptionally poor households. Objectives are rural-household poverty alleviation and ecological restoration of degraded forests (HLFFDP 1999). The program assumes that forest degradation and associated resource depletion is the major constraint in poverty alleviation. In some cases, devolution of resource management exacerbates existing social inequities (Agarwal 2000), but what happens in situations where everyone is already at the lowest rung? Are the poorest of the poor subject to the creation of new inequities?

In this article we present two case studies of leasehold forestry in Nepal with these questions and two objectives in mind. First, we introduce the reader to

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community and leasehold forestry in Nepal, allowing us to contrast the two programs. Second, to assess the leasehold forestry program as a poverty alleviation strategy, we explore the impacts and institutional outcomes from two distinct leasehold forest user groups, based on data collected using the International Forest Resources and Institutions (IFRI) protocols (for examples of other research using IFRI and an explanation of the methods, please see Gibson et al. 2000).

A brief analysis of our findings then illuminates possible problems with leasehold forestry in Nepal, which we suggest require improvement primarily in the implementation of the program. We conclude that (1) setting up a leasehold forest is not easy and can create conflict, and (2) leasehold forestry has the *potential* to create new inequities. If the problems we identify in these two cases are widespread, which is a remaining empirical question, then the program is not meeting its poverty alleviation goals. Given these limitations, we recommend that local forest officials (1) pay closer attention to how leasehold forestry is implemented, and (2) help enforce and strengthen leasehold forest member rights against nonmembers.

### **Community and Leasehold Forestry in Nepal**

Community forests in Nepal are areas of nationally owned forest entrusted to user groups for community-based protection and utilization. Community forest formation involves identification of users and the creation of a formal forest association called a Community Forest User Group (CFUG), which is then legally responsible for protecting the forest and given rights to generate income from forest products and small, forest-based industries. In theory, all actual users of a given forest are included in the CFUG.

Today, community forestry is the Department of Forests' primary forest conservation program in hill districts. To address the needs of the poorest, however, the Nepal government created the Hills Leasehold Forestry and Forage Development Project (HLFFDP) to coordinate several government and international donor agencies. This project builds on experiences and lessons learned from community forestry, especially in the formation and functioning of local, self-organized user groups. By 2003, the project operated in 26 of Nepal's 75 districts (IFAD 2003).

The leasehold forestry project targets small-scale and marginal farmers. Having little or no cultivated land, and with livestock being their major source of independent sustenance, these farmers are often forced to encroach on and exploit public forestlands for their essential fodder, fuelwood, and leaf-litter requirements. These forests, for lack of user responsibility or other effective institutional arrangements for management, are increasingly degraded. This has serious implications both for the environment and for the future well-being of the poorest. Marginalized people must make a living on increasingly marginal lands.

The HLFFDP focuses on the integration of forestry and horticulture/livestock development by leasing blocks of degraded forestland to groups of poor families. Leasing forestland is meant to allow poor households to develop more reliable supplies of fodder, fuelwood, and other forest products while improving degraded land. This, in turn, should empower the poorest of the poor who are often excluded from community decision making because they lack the land, money, and status needed to assert themselves.

District-based government foresters organize qualifying households into small user groups. The government then leases patches of degraded forest area to those

Leasehold Forest User Groups (LFUG) for 40 years. The two eligibility criteria for identifying potential leasehold user group members are (1) possession of less than 0.5 ha of land, and (2) an annual income of no more than 2500 rupees. However, households with up to 1.0 ha of arable land are also included as exceptions, provided they fall below the poverty line. As of February 2003, 1729 LFUGs were formed, comprised of 11,756 households and 7377 ha of public forestland (IFAD 2003).

### **Forest Management Institutions and Impacts**

Bhagawatisthan is comprised of five settlements and is located in Kavrepalanchowk district southeast of Kathmandu in Central Nepal at an elevation slightly above 1000 m. In 1994, the District Forest Office divided a national forest into two parts; one part was handed over as community forest and the other was handed over as leasehold forest. The leasehold forest was further divided into eight different LFUGs. There were 70 households at the site in 1995, 49 of which participated in the HLFDP. As of February 2000, out of a total of 90 households, there were 80 lessee households. All of the site's households depend on forest products for their daily activities, and all households have involved themselves in the leasehold forestry project irrespective of meeting the eligibility requirements.

Leasehold forestry in Bhagawatisthan encountered several problems early in its implementation that led to conflicts and encroachment. First, the group formation process was driven by the government rather than the community. Government foresters formed eight LFUGs in 1994 despite some actual resistance from area residents. As a result, the first four years of leasehold forestry were marred by conflict associated with the formation process, according to members of the LFUGs. Apparently, this is not unusual in the leasehold forestry project (IFAD 2003).

Second, once formed, the leasehold forests contravened preexisting, traditional resource access and use. Legally, a LFUG is given the authority to exclude nonmember users from accessing "their" forest resources. Nonmember households refused to recognize the exclusive use rights given to the LFUGs, even though these households had access to a community forest. As a result, the LFUGs could not carry out forestry development activities because of disturbances from nonmembers exerting their traditional claims to these resources.

Third, excluded, nonmember households claimed that the leasehold groups were not formed properly and that the participation criteria were not appropriate in a community where all households had unmet forest product needs. As a result of these conflicts, nonmember households continued grazing livestock and collecting forest products in the leasehold forests. These nonmember claimants also uprooted seedlings planted by the LFUGs in protest, violating the user group's exclusive use-rights to the forest given by the government under the leasehold forestry program.

Finally, the LFUGs were unable to agree on and enforce use rules for the forests. None of the user groups were strong enough to effectively exclude and punish nonmember encroachers. Internally, none of the user groups were even able to agree on enforcement rules for their own members, which resulted in violations of use rules going unpunished.

As a solution, the eight LFUGs at this site self-organized in March 1999 to create a federation of user groups that they call the Inter-User Group (IUG). The IUG is an 11-member committee comprised of the chairpersons of all the Bhagawatisthan LFUGs and members from neighboring user groups. The IUG committee selects one

member to serve as its chairperson. Along with creation of the IUG, the user groups reorganized. Some member households changed groups and new member households were added to existing groups. At least 120 similar intergroups have formed among the current 1729 LFUGs (IFAD 2003). According to the LFUG members in our study, with the IUG came effective monitoring and enforcement of forest use rules. For example, the IUG developed several rules-in-use to impose fines for livestock grazing and violations of forest product harvesting rules.

Current policy of the IUG is to let any household into a specific user group regardless of meeting official qualifying criteria. This is a radical departure from the letter and intent of the leasehold forestry program rules. Of the 90 households in the 5 settlements of the area, only 10 have elected not to participate in any of the LFUGs.

Despite early conflicts over resource access, all of the individual user groups report that their economic status has improved. With access to forest products, user households saved money that they otherwise would have spent on animal feed (e.g., rice straw), fuelwood, and fodder, as well as animal products that they can now afford to raise themselves (e.g., milk, meat, and eggs). Some livestock-owning households also sell such animal products, while some households without livestock earn money through sale of their share of fodder from leasehold forests.

Six of the eight user groups have established joint savings schemes where individual member households contribute 5 to 8 rupees per month. These funds are deposited at the bank or lent to needy members, ostensibly to be invested in various income-generating activities. However, while a few members have utilized loans for buffalo or goat farming and other income-generating schemes, others have spent loan money on household expenses.

Forest conditions have also improved, as indicated by greater species richness and higher density of both trees and groundcover. This suggests that the forestland was highly disturbed when initially handed over. Improved forest conditions also suggest that with the new, stronger institutional arrangements associated with the IUG, users are effectively protecting the forest.

This example of self-organized cooperation stands in stark contrast to the Chitrepani case, where members chose to follow individual strategies. Chitrepani is located in Makawanpur district south of Kathmandu in Central Nepal. Its elevation is slightly above 1000 m, and it is comprised of 4 settlements. In 1994 the District Forest Office initiated the hand-over of degraded national forestland to form the Chitrepani LFUG. The same nine households that originally formed the LFUG remain the only member households. Two of these lessee households are headed by women. All of the user-group member households meet the official qualifications for participating in the leasehold forestry project, with 8 members owning less than 0.5 ha of private land and 1 member being landless.

On the initiative of the District Forest Office and with its help, nine households formed the LFUG in 1994. Members of the user group decided to divide management of the forest by forest blocks, distributing the blocks by lottery. In effect, this gave each of the nine member households its own forestland to manage and harvest.

Because there is no coordination between the members of the user group, the legally collective forest is de facto individually managed. This is a case of "collective inaction," where forest institutions are almost absent. While the LFUG did create a forest management plan and rules governing forest use, there is no real enforcement and thus only nominal rule compliance. However, each member household is

generally successful at excluding others from using its allocated forest block, and thus encroachment is not an issue.

When the user group members at the Chitrepani site allocated smaller forest blocks with a lottery, the health and species richness of the entire forest patch varied greatly. Through the passage of time and differences in management practice, vegetative cover continues to vary greatly by forest block, such that some blocks, and one in particular, are now densely covered with vegetation while the others remain degraded and sparsely covered. In addition, the type of vegetative cover is not uniform, in that while one particular patch is rich in fodder, others are either rich in trees or shrubs or remain barren. As a result, a member household whose block is relatively rich in a certain forest product is likely to enjoy more benefits than one with fewer or no forest products.

In 1999, for example, 2 households made over 2300 rupees through the sale of fodder and seeds, 2 made between 1200 and 1700 rupees, 3 made between 200 and 400 rupees in sales, and 2 households generated no income from their plots. In addition to the sale of grass fodder and seeds, some members earn money through the sale of goats raised on fodder from their forest blocks. Some forest users are able to save some money that otherwise would be spent buying fuelwood, fodder, and fodder seeds. In terms of reducing poverty, the Chitrepani leasehold forest appears to be helping some but not others.

## **Discussion**

Although we do not claim that the results from our two case studies can be generalized to the whole leasehold forestry program throughout Nepal, we think that we have identified two potential problems with the approach, or at least its implementation. Whether these problems are widespread or unique is an empirical question requiring additional research. First, those excluded from leasehold forests may resist their exclusion, thus excluding other claimants is difficult for small, poor groups. Second, the division of a leasehold forest among households can create winners and losers, which might lead to new inequities. These issues present opportunities for improving leasehold forestry, and suggest cautionary lessons for those implementing leasehold forestry in Nepal or similar projects elsewhere.

As the Bhagawatisthan case suggests, exclusion is contentious in small communities (see also Thoms et al. 2003). Among a suite of other conditions, a sense of ownership and social investment is usually a prerequisite for successful collective action (for a more thorough discussion of various requirements for successful collective action, see Agrawal and Ostrom 2001; Libecap 1995), which suggests that government-imposed or encouraged participation can be problematic. Ascribing use and access rights to a limited group can cause conflict when people outside that group perceive that their traditional rights are ignored or violated.

Leasehold forestry limits forest use and access rights to a targeted group of people and legally excludes other people in the same community. Because leasehold forests are carved out of government forests, which are typically *de facto* open access, those who do not qualify for leasehold forestry likely will resist sacrificing benefits that they traditionally received from the local forest. In practice, excluded households were not ready to accept their legal exclusion nor to recognize the use rights granted to lessee households. In this way nonmember users did not accept the rules created by the LFUGs.

Given the low status and therefore weak bargaining positions of those who qualify for leasehold forestry, there is the potential for those who are relatively better off to work their way into LFUGs, as happened in Bhagawatisthan. There, nonqualifying users were able to successfully press a claim to long-standing traditional access rights. To protect their forest plots the user groups expanded their membership to include households that did not meet the official qualifying requirements. Success at exclusion in this case required greater inclusion.

Individual user groups found that they were not capable of crafting and enforcing rules on their own. The solution was to form a coordinating committee for all of the eight user groups at the Bhagawatisthan site. It was only with the formation of the IUG that rules became enforceable and transgressions could be penalized. Rule making and rule enforcement required cooperation and coordination. Individual LFUGs make coordination and collective action decisions for management, while the IUG determines penalties for rule breakers and facilitates coordination between the LFUGs.

It appears that conflicts were resolved and rules enforced only after the relatively better off households (i.e., those not meeting the official qualifying criteria) were included. Could it be that these households were strong enough to resist restrictions on their own behavior and are strong enough to shape rules and penalties within a collective action arena? In other words, do the poorest of the poor lack the power and therefore the capacity to effectively exclude others from a resource system, even when given the authority to do so? We suspect that there is a coalition of interests at work here, wherein the poorest need the help and acceptance of the more powerful while the more powerful need the poorest in order to initiate the forest hand-over to begin with. Unfortunately, given the nature of this study, we simply do not know. This does raise important questions warranting future research, however.

Based on what we do know, two points for improving leasehold forestry emerge from the preceding discussion. First, higher institutional levels need to strengthen and lend legitimacy to weak user groups. Leasehold forestry creates a problematic need to balance the interests of right holders (included user group members) versus duty holders (excluded nonmembers). Given their usually weak bargaining positions, leasehold forestry target groups need more support from the forestry staff and officials in their district to assert their rights against the legal obligations of others. This may require creation of a grievance procedure and additional enforcement by district rangers. However, use of such measures could serve to engender more resentment toward LFUG members on the part of nonmembers, so they must be carefully crafted.

Second, leasehold forestry may not be the best mechanism for supplying basic forest products. With the self-organization of the eight LFUGs at Bhagawatisthan into an Inter-User Group, *de jure* leasehold forest tenure became *de facto* community forestry. Because access to forest resources is so important for almost all households in rural Nepal, creating a new situation where only certain people's forest use and access is considered legitimate may be untenable. Creating such situations is precisely what leasehold forestry does, however, thus creating the potential for conflict (see also Nagendra et al. 2005). In terms of improving leasehold forestry, our concern suggests that LFUGs should be made as inclusive as possible when formed, and/or more clearly "marketed" as strictly for the very poorest households when implemented in a relatively wealth-homogeneous community.

Given its stark differences, the Chitrepani case illustrates different limitations of the leasehold forestry program. With the division of the Chitrepani leasehold forest into individually managed forest blocks, a *de facto* situation of private, individual

property was created. This situation worked out well for those lucky enough to be assigned the forest plots that were richest in valuable vegetation. Certainly improvements could be made to the land, but only to a point. The quality of the vegetation is limited by natural, physiographic constraints, and the capacity to improve the land is further limited by capital constraints. The management of individual blocks and the variation in the blocks provided opportunities for some but not for others.

Two issues emerge from consideration of Chitrepani. One is that managing individual, private land blocks can be an effective strategy for some, but likely not for everyone. Given the potential for the sort of variation found in the forest blocks at Chitrepani, it may not be prudent to allow division of leasehold land into individually managed blocks. The luck of the draw can make some lessees winners and others relative losers. Again, this is a cautionary lesson for implementation.

Second, if the current trend of income disparity continues at the Chitrepani site, there is the risk that a new layer of stratification may form amongst the poorest of the poor. It is interesting and somewhat disheartening to find that a program specifically designed to address the needs of the poorest of the poor and alleviate poverty might create new disparity. That is not to say that new poverty is created, only that new relationships can emerge in which some are better off than others, which eventually may or may not translate into new relationships of power and exploitation within the community. In a sense, relative poverty is increased, though not absolute poverty.

In broader terms of poverty alleviation, in our two leasehold forests the major mechanism was saving money, not income generation. Although both of the LFUGs developed joint savings schemes, this money was not being fully invested in income generation. In evaluating leasehold forestry's poverty alleviation potential, it is important to note that these savings schemes, of themselves, do not require nor are they inherent to leasehold forest arrangements. More important than the saving plans, households are able to decrease their expenditures because they have access to forest products that they would otherwise need to purchase. They are able to directly secure necessary forest products through their own labor on land to which they have legitimate rights. However, a common priority of poor farmers is to cultivate crops to feed their families, but the forestry regulations do not allow cereals to be cultivated on leasehold forest land. As a result, the permitted uses do not solve poor households' immediate problems of food deficiency.

Finally, one question raised by looking at these two cases side by side is, why is the implementation of leasehold forestry so different? Granted, the two sites are quite different from each other—Bhagawatisthan is much smaller than Chitrepani (population 600 vs. 3161), less ethnically diverse, and is, overall, poorer. However, in terms of implementing the HLFFDP program, we would expect to find more institutional consistency from site to site. We believe the combination of total community size and user group size explains the differences.

When the leasehold forests were formed in 1994, Bhagawatisthan had 97 households in 5 settlements, 49 of which from only three settlements became LFUG members. In Chitrepani, however, only 9 out of a total 439 households became LFUG members. In an area where almost every household has pressing resource and land needs, giving exclusive rights to 49 of 97 households in 3 of 5 settlements is quite noticeable and may appear unfair. In contrast, in an area like Chitrepani of 439 households and where only 1 of 4 settlements has food sufficiency problems, giving exclusive rights to a small patch of land to 9 particularly poor households of the poorest settlement appears not only fair but proper.

The large number of leasehold forest member households in the small Bhagawatisthan community explains the amount of conflict there. This numerical relationship also explains why the emergent solution was to include and expand. As for why the LFUG in Chitrepani chose exclusion at an even smaller, individual household scale versus collective action, we can only conclude that the member households, perhaps knowing their neighbors well, saw cooperation and collective action as more demanding, difficult, or otherwise costly than the alternative.

## Conclusions

These two leasehold forestry cases demonstrate potential limitations of the leasehold forestry approach, or at least possible implementation problems. The preceding analysis of our findings leads us to conclude that (1) setting up a successful and equitable leasehold forest is not easy and can create conflict, and (2) leasehold forestry has the potential to create new inequities. The corollary to conclusion one is that by virtue of excluding the “nonpoor,” leasehold forestry is less participatory in terms of membership than community forestry. This may well raise the costs of organizing and sustaining collective action by creating resentment in the excluded, relatively more powerful households at a given site. Expanding on our second conclusion, we see that, if not implemented as a collective action, leased forestland might redistribute rather than alleviate poverty. This outcome can hardly be considered a desirable achievement.

A more fundamental concern is that the project is not being implemented as designed, at least in these two cases. The question is, why? Is the project flawed, or does the government lack the capacity to effectively implement the project as designed? It may well be both. We consider this an empirical question requiring further research on two fronts: (1) Do the problems we find exist in other cases, and (2) if so, what is the source of these problems? Given Nepal’s widespread poverty and recent advocacy of user group-based leasehold forestry within Nepal, these questions should be answered before placing too much faith, and too many resources, into leasehold forestry.

## References

- Agarwal, B. 2000. Conceptualizing environmental collective action: Why gender matters. *Cambridge J. Econ.* 24(3):283–310.
- Agrawal, A. and E. Ostrom. 2001. Collective action, property rights, and decentralization in resource use in India and Nepal. *Polit. Society* 29(4):485–514.
- Gibson, C. C., M. A. McKean, and E. Ostrom, eds. 2000. *People and forests: Communities, institutions, and governance, politics, science, and the environment*. Cambridge, MA: MIT Press.
- Hills Leasehold Forestry and Forage Development Project. 1999. *Annual progress report*. Kathmandu, Nepal: HLFDFP.
- International Fund for Agricultural Development. 2003. *Kingdom of Nepal Hills Leasehold Forestry and Forage Development Project interim evaluation*. Report no. 1431-NP. Rome, Italy: International Fund for Agricultural Development.
- Libecap, G. D. 1995. The conditions for successful collective action. In *Local commons and global interdependence, heterogeneity and cooperations in two domains*, eds. R. Keohane and E. Ostrom, 161–190. London: Sage.
- Nagendra, H., B. Karna, and M. Karmacharya. 2005. Examining institutional change: Social conflict in Nepal’s leasehold forestry programme. *Conser. Society* 3:72–91.
- Thoms, C. A., M. Karmacharya, and B. Karna. 2003. Exclusion isn’t easy: Lessons from a leasehold forest. *J. For. Livelihood* 2(2):48–54.