Forest Dependence and Inequality: An Empirical Study from Community Forests in Kaski, Nepal

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Abstract: This paper examines the importance of income generated from community forest to the rural poor in Kaski District, Nepal. The results of the study show that on average, households earn 7.4% of their cash income from community forests. Poor households are more reliant on forest activities compared with the better off. They earn 13.6% of their total household income from community forest compared to the rich households who earn only 2.1%. The results of the study also reveal that income from community forest have a stronger equalizing effect on local income distribution. The Gini coefficient was computed as 0.37 when income from community forest was considered and 0.53 when it was ignored. These findings show the importance of community forests to the rural poor and underprivileged households. The findings also suggest that in designing community forestry programs, policy makers should not ignore socio-economic disparity among the forest user households.

Keywords: community forestry, forest user groups, income inequality, poverty, Nepal

1. Introduction

Over the past decades, the dependence on forest for income has become a great concern of the global community, calling for policy discussions. In developing countries, forest resources are important to the quality of life and survival of a large number of rural poor (World Bank, 2001; Nilsson, 1996). There is evidence that rural households use forest resources quite extensively (Godoy et al., 1997; Byron and Arnold, 1999; Mamo et al., 2007; Narain et al., 2008; Babulao et al., 2009; Nielsen et al., 2012; Uberhuaga et al., 2012; Chhetri et al., 2015). Products such as timber, fuelwood, fodder grasses, game, fruits, and herbs are harvested in significant quantities by a large number of rural households - the aggregate value of these products often constitutes 20% or more of total household income (Cavendish, 2000; Fisher, 2004; Mamo et al., 2007; Vedeld et al., 2007; Babulao et al., 2009; Chhetri et al., 2015). Despite the significance of forests to the rural poor, only a few studies have examined the role forests play in maintaining and improving human welfare (McSweeney, 2005; Fisher et al., 2010).

In Nepal, forest management has evolved over several centuries. The latest paradigm shift in forest management is community forestry. This was launched in 1978 (Timsina et al., 2004) to emphasize a participatory approach to forest management (Graner, 1999). The legal authority for community forestry is found in a binding agreement between each community forest user group (hereafter “forest user group” is referred by FUG) and the Nepalese government. Community forestry represents arguably the most advanced and progressive model world-wide for participatory management of natural resources (Pokharel and Nurse, 2004). Community forestry covers 25% of the total forested area (1.1 million ha) which represents 35% of all Nepalese households (1.5 million households) and about 14,000 community FUGs (Blakie and Springate-Baginski, 2007). The success of the program, however, depends primarily on a community’s capacity to manage the local forest resources to benefit the entire community over time (Lachapelle et al., 2004). The main thrust of handing over the national forest to the community is to sustain the local forest users to fulfill their daily forest needs (Malla, 2000).

The dynamics of sustainability of community forestry is complex, though community forests are taken as a means of fulfilling subsistence needs of local people (Blockhus et al., 1995; Chhetri et al., 2013). The program is not free of problems as users are reluctant to take the degraded forestland, but inclined to accept the better and well-stocked forests because of immediate benefits (Malla, 2000). The amount of forest products harvested at present is insufficient to meet the users’ needs (Springate-Baginski et al., 2003). In Nepal, the poor in proportional terms extract more resources from the community forestry due to their greater reliance on natural resources and also

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due to their high individual rate of time preference. The poor attempts to minimize risk by using forest resources to mitigate shortfalls in consumption levels, while the rich or the less poor may be interested in enhancing their earnings by selling these resources, particularly when there are good market opportunities.

Several studies describe the FUGs membership and related benefits favouring groups with economic advantage rather than the poor in society (e.g. Malla, 2000; Graner, 1999). Adhikari et al. (2004) claimed that the benefits derived from community forests are biased toward those who own land and livestock. Their paper shows that ‘less poor’ or relatively better off households have more land and cattle and spend more time gathering tree and grass fodder and bedding materials from the forest than poorer households with little or no land and cattle. He concludes that the relatively better off households benefit more (in terms of quantity harvested) from community forests than relatively poorer households. In an economic analysis of household level benefits Adhikari (2005) also revealed that poorer households benefit less in absolute terms from community forestry than less poor households. In terms of the contribution of forests to total household income, the study results suggest that the poor are actually less dependent on forests than the rich, a finding that is somewhat contradictory to results from other similar studies and this paper.

Contrary to research findings that favour groups with economic advantage, other scholars have put forward an argument that shows that compared with the non-poor, the poor may depend more on common pool resources such as community forests in “relative terms”, but in absolute terms their dependency is lower (Dasgupta, 1993). Others have shown that forest income actually reduces both household income inequality and poverty. Fonta et al. (2011) examined the distributional implications of forest income on poverty and income inequality in rural Nigeria using Gini and poverty decomposable techniques. The study finds that forest income reduces both income inequality and poverty in rural Nigeria.

Although empirical findings suggest the importance of forest resources to rural livelihoods (e.g. Varughese and Ostrom, 2001; Gunatilake, 1998), there still remain a lot of unanswered questions in this subject area. While researchers such as Adhikari have shown that poorer households benefit less in absolute terms from community forest than less poor households, others such as Fonta et al. (2011) have put forth the opposite view. There are still those who think the impact of common property on poverty alleviation is ambiguous (Chakraborty, 2001). There is therefore no clear answer as to the extent to which poorer households benefit from community forests in Nepal.

This paper extends the literature on Adhikari’s work in 2004, and complements the work by increasing our understanding on the dependence of rural poor on forests managed by local communities. The study uses Gini and poverty decomposition techniques, which are different from the approach used in Adhikari et al. (2004) but similar to the methodology used in Fisher (2004). Since computation of the poverty indices is out of our analysis conducted here, we did not deal with them. Although the poor may benefit less in absolute terms, our findings, which are similar to Dasgupta (1993) and Fonta et al. (2011), show that poorer households are more reliant on forests compared with the better off. As we will show later in this paper, the poor earn 13.6% of their total household income from community forests compared to the rich households who earn only 2.1%. The results presented in this study show that policies can be crafted around the use of forests in alleviating poverty in rural Nepal.

In this paper we use empirical data from randomly selected households from five community FUGs in Kaski District. We demonstrate later in this paper how income from community forests influence the overall income distribution of households that use forests. We show the extent to which income from community forests serve to reduce local income inequality. This paper is organized into the following broad sections. It begins with an introductory section which is followed by a section on materials and methods, then a section on results and discussions, and ends with conclusions and policy implications.

2. Materials and Methods

2.1. Study sites, sampling procedure and data collection

The study was carried out in Kaski district, one of the mid-mountain regions of Nepal where community forestry has been practiced for more than 25 years. About 65% of the total area of the district is virgin, of which 45% is forest and 20% shrub land. Agricultural land covers 24%,
and 11% of the area is under human settlements (CBS 2003). The major tree species found in community forests are *Castanopsis indica*, *Schima wallichii*, and *Shorea robusta*. According to the District Forest Office (DFO) Kaski, (December 2004), there are 401 community forests handed over to the local communities, covering 14.43% (13,962 ha) of the potential community forest area, and 34,113 households are involved in community forestry activities.

In the study area, the members of FUGs are the households who have been managing and utilizing the forest resources. Fuelwood is the only cooking material for the poor households whereas some of the *Brahmin*, *Chhetri* and *Newar* communities use kerosene and biogas plants in combination with fuelwood. Agriculture is the main occupation of the community. Paddy, wheat, maize, and millet are grown in order of economic importance. Communities keep cows, buffaloes, and goats for protein like milk and meat, draft power, and manure for soil fertility maintenance.

A field study was carried out in October and November 2004. From the list of all community forests, prepared by DFO Kaski, only forests which were handed over in the last five years were considered. Considering the socio-economic criteria, caste/ethnicity representation, accessibility, age and size of the FUG, resource status etc., five FUGs (Pachabaiya, Kapase, Lewade, Bastolaparipakha and Thotnekhola) were purposively selected. The total area of the selected community forests comprise of 375.5 ha ranging from 235.2 to 13.8 ha. The selected FUGs being diverse in terms of the area covered and the forest condition, are expected to capture the variations found in the FUGs of the district.

We started with group discussions with the FUG committee members and other knowledgeable villagers in each of the selected FUGs to understand the extent to which the forest resources are used by the households. This was then followed by the selection process; that is, within each of the five selected FUGs, the list of all user households was used to select respondents by random sampling. Respondents were generally heads of households.

In their absence other members of the household were interviewed. In all, there was a total of 766 member households in the five FUGs, of which 176 were sampled, ranging from a minimum of 17 in the smallest FUG to a maximum of 77 in the largest one.

In this study, we carried out face-to-face household interviews using a household survey questionnaire to elicit information from the respondents. Pre-testing of the questionnaire was undertaken in one non-sample FUG. Questions included demographic characteristics, land and livestock ownership, direct cash income, and subsistence production from different sources including forest products. The survey was carried out with the help of three forestry graduate research assistants and the first author.

### 2.2. Variable definition and data analysis

For the purpose of the study, household income is regarded as the absolute income accrued to the household through subsistence production and cash throughout the year. It was measured as net total income obtained by deducting the input costs from the gross value (Cavendish, 2002). Household income sources are summarized under cash income, agricultural income, community forest income, and other forest income. Cash income of a household includes the income from small retailing shops, employment, pension, remittances, daily wages, and from the sale of livestock and livestock products. The other three categories include only subsistence production of items for household consumption.

Agricultural and forest incomes were computed as the gross value of production for each household minus the cash costs such as hired labour costs, direct cash payment to FUG for various forest products, and FUG membership fees. Agricultural crops were valued by using comparative prices from the nearest village market without taking into account seasonal variations in market price. As most of the products are traded on the village market, households' own reported farm gate prices were primarily used in estimating the value of each of the products (see Rayamajhi and Olsen, 2008). In the case of forest income, fuelwood was also valued using comparative market prices of fuelwood sold in the nearest village market, whereas tree fodder, grass, and leaf litter were valued using willingness to pay based on the opportunity cost of time in collecting the products. Tree fodder, grass, and leaf litter are not sold in the open market. These types of products are not generally traded in Nepal, hence, the willingness-to-pay method. We would like our readers to take note that there is the possibility that some households may use tree fodder, grass and leaf litter to feed their livestock, which was not accounted for in estimating household income. We were unable
to distinguish between self-consumption and market sales in the case of tree fodder, grass, and leaf litter, which we see as a limitation in this study. We did not view this as a problem in accounting for household income in poorer households because they generally have little or no livestock; therefore, the amount of fodder, grass, or leaf litter used for raising animals can be ignored. With respect to the middle or rich households, there is the possibility that income is double counted or overestimated since they may have more livestock that depend on these products and therefore there is the need to adjust the total household income, which we could not as a result of lack of data. Finally, we would also like our readers to know that selected community forests are not restricted by regulations to sell any forest product inside the village market.

Taking into account of the national official statistics and also with the discussions with some knowledgeable persons in the village, households with annual income less than 50,000 rupees (USD 667) were considered as ‘poor’, those with annual income from 50,000 to 150,000 rupees (USD 2000) were considered as ‘middle’, and those households with more than 150,000 rupees were referred to as ‘rich’. This facilitate to analyse the income differences among the households falling into different income category.

The total community forest income (TCFI) is an income obtained from the consumption of forest products harvested from the community forest by a household minus the associated costs such as harvesting and processing costs. Consumption of fuelwood, fodder, grass, and leaf litter and a very small amount of timber and bedding materials are the sources of community forest income investigated in this study. It must be noted that community forest and other forest income does not include income from sale of livestock and livestock product. The relative community forest income (RCFI), the proxy for the community forest resource dependence, is the share of community forest income within the total household income.

Descriptive statistics were employed in analyzing the data. One-way analysis of variance (ANOVA) was used to test the significance of differences in community forest income, relative community forest income, and the other forest income according to income groups, sex of the household head, caste, and education of the respondent.

Using a Gini ($G$) decomposition approach developed by Lerman and Yitzaki (1985), the paper examined how changes in particular income component affect the overall income inequality. This approach allows calculation of each income source’s contribution to the Gini coefficient and calculation of the marginal effect of each income source on total income inequality. The aggregate Gini coefficient, $G$, for total income inequality, (where income is derived from K different income sources), is given by:

$$ G = \sum_{k=1}^{K} S_k D_k R_k $$

where $S_k$ is the share of income source $k$ in total income ($S_k = I_k / \sum I_k$), $D_k$ denotes the disaggregated Gini coefficient for income source $k$, and $R_k$ measures the Gini correlation between income source $k$ and the cumulative distribution of total income, and income source $k$ is $I_k$. The marginal effect of percentage changes in income source $k(I_k)$ on aggregate Gini coefficient (Gini elasticity or income elasticity of $G$), $\varepsilon_k$, was calculated by (see Lerman and Yitzaki, 1985):

$$ \varepsilon_k = \frac{I_k \partial G}{G \partial I_k} = \frac{S_k G_k R_k}{G} - S_k $$

In addition, Lorenz curve (see Figure 2), a graphical representation of income distribution, was used in this study to show the variation in total income inequality while including and excluding the income from community forests. On the graph, a straight diagonal line represents perfect equality and the curve beneath it shows the reality of income distribution. The difference between the straight line and the curved line measures the amount of inequality.
3. Results and Discussion

3.1. Household characteristics

The major castes/ethnic groups in the study area are Brahmin, Chhetri, Newars, Gurungs, Damai, Kami, and Sarki. The household size varied from one to fourteen members, with an average of 5.26, which is slightly less than the country’s average of 5.4 members per household (CBS, 2003). Among the sample respondents 35% were illiterate.

Households were grouped into income class, sex of the household head, caste, and educational status of the respondents. The number of households, food sufficiency, and the average land and livestock holdings by household categories are presented in Table 1.

Table 1. Number of households, food sufficiency from own farm production, average land and livestock holdings by household categories (n = 176).

| Household categories         | Number of households | Food sufficiency from own farm production, months per year | Land holding, ropani* | Livestock units** |
|------------------------------|----------------------|-----------------------------------------------------------|-----------------------|------------------|
| Poor                         | 44                   | 5.1                                                       | 6.8                   | 1.4              |
| Middle                       | 99                   | 7.9                                                       | 12.1                  | 2.4              |
| Rich                         | 33                   | 8.4                                                       | 13.9                  | 2.3              |
| Male headed household        | 155                  | 7.6                                                       | 11.2                  | 2.2              |
| Female headed household      | 21                   | 6.8                                                       | 10.7                  | 1.9              |
| Upper caste****              | 146                  | 7.9                                                       | 11.8                  | 2.2              |
| Untouchable caste            | 30                   | 4.1                                                       | 7.8                   | 1.6              |
| Literate****                 | 115                  | 7.6                                                       | 11.5                  | 1.8              |
| Illiterate                   | 61                   | 7.3                                                       | 10.5                  | 2.4              |

*20 ropani = 1 hectare
**All the livestock is converted into livestock units (LSU) using, 1 LSU = 1 buffalo = 1.2 cow = 4 goats = 5 sheep = 2 calves (cf. Thapa and Poudel, 2000).
****For the purpose of analysis, castes other than untouchables were referred to as upper caste.
******Those who received some years of formal schooling.

The average land per household was 11.1 ropani (0.55 ha.), which is close to the average land holding of 11.4 ropani (0.57 ha.) per household in the district (DDC, 2002). Almost all households owned livestock regardless of their land ownership. The average number of livestock units per household was 2.1. Households belonging to the upper caste and middle or rich income groups were better endowed than others in terms of land and livestock ownership. The average food sufficiency from their own production was 7.4 months, which shows that the majority of the households were not able to produce enough food from their own agricultural activities.

3.2. The importance of income from community forest

The household income in the study area included cash income as well as subsistence income from agriculture, community forests, and other forests. The average annual income per household among those surveyed was about 102,000 rupees (USD 1,360), ranging from 3,600 rupees (USD 48) to 419,000 rupees (USD 5,587). Average community forest income, other forest income, the total household income, the contribution of community forest income to the total forest income, and total household income are presented by household categories in Table 2. Overall, community forest and other forest incomes make up about 7.4% and 5.9% of total annual mean household income, respectively (Table 2). The results are consistent with two different studies from the mid-hills regions of Nepal (Adhikari et al., 2004; Chhetri et al., 2015). However, because of the restricted access to forest resources and limited market opportunities, the relative total forest (community forest and other forest) income is relatively lower than found in several case studies from Africa and Latin
America (see Cavendish, 2000; Godoy et al., 2002; Fisher, 2004; Vedeld et al., 2007; Mamo et al., 2007; Narain et al., 2008; Babulao et al., 2009; Nielsen et al., 2012; Uberhuaga et al., 2012).

The results presented in Table 3 shows that fuelwood, leaflitter, ground grass and fodder are the major sources of income from community forests. The other sources income (not shown in Table 3) includes green and dry bending materials, and timber for agricultural implements. Almost all of the FUGs under our study have introduced the controlled and limited extraction of forest products and the charge for the extraction rights for some of the products, on which the poor people depend on. As a consequence, the access of poor traditional users in community forests seems to be reduced. On average, the income from community forest for middle income households appears much higher than those for the poor and the rich households (Table 2). Similar to this finding, Richards et al. (2003) reported that the middle income households have the highest level of community forest use. In absolute terms, the male-headed households receive more income from forest products than the female-headed households (Table 2). This is because the majority of household level income in community forestry comes from animal fodder products, so that the middle income and the male headed households keep more livestock (Table 1) for more income from the community forest than the others. On the other hand, the untouchables caste and illiterate people, respectively, received 69% and 66% of their forest income from community forest (Table 2). In contrast, literate richer households received a greater share of their forest products from other national forests and private plantations. The plausible reason is that the literate, upper caste and richer households own more private trees.

Table 2. Annual average community forest income and other forest income per household, and contribution of community forest income to total household economy by household categories (n = 176).

| Household categories | Community forest income (rupees) | Other forest income (rupees) | Household income (rupees) | Share of community forest income in total household income (%) | Share of community forest income in total household income (%)** |
|----------------------|----------------------------------|-----------------------------|---------------------------|-------------------------------------------------------------|-----------------------------------------------------------------|
| Poor                 | 4637                             | 4076                        | 34892                     | 53.2                                                        | 13.6                                                            |
| Middle               | 9821                             | 6277                        | 91080                     | 61.0                                                        | 10.8                                                            |
| Rich                 | 4656                             | 7765                        | 224996                    | 37.5                                                        | 2.1                                                             |
| Male headed household| 7623                             | 6309                        | 103018                    | 54.7                                                        | 7.4                                                             |
| Female headed household| 7066                           | 3767                        | 93712                     | 65.2                                                        | 7.5                                                             |
| Upper caste          | 7673                             | 6587                        | 106837                    | 53.8                                                        | 7.2                                                             |
| Untouchable caste    | 6990                             | 3177                        | 77917                     | 68.8                                                        | 9.0                                                             |
| Literate             | 6430                             | 6532                        | 108854                    | 49.6                                                        | 5.9                                                             |
| Illiterate           | 9680                             | 5014                        | 88812                     | 65.9                                                        | 10.9                                                            |

**Total community forest income (TCFI)
**Relative community forest income (RCFI)

Table 3. Average community forest income per household by the types of forest product and income group (rupees)*.

| Income class | Number of household | Fuelwood collection | Fodder collection | Ground grass collection | Leaflitter collection |
|--------------|---------------------|---------------------|-------------------|-------------------------|-----------------------|
| Poor         | 44                  | 1804                | (258)**           | 156 (87)                | 701 (183)             | 1145 (314)           |
| Middle       | 93                  | 1804                | (144)             | 335 (84)                | 1438 (250)            | 1546 (264)           |
| Rich         | 33                  | 1804                | (164)             | 248 (106)               | 885 (271)             | 1415 (448)           |

*Figures do not add up to that of average community forests income in Table 2 because some of the households were also found to have income from timber and bending materials.

**Standard error in parentheses
Table 4. Significance of differences in community forest income, relative community forest income and other forest income by categorical variables.

| Categorical variables | Community forest income | Relative community forest income | Other forest income |
|-----------------------|--------------------------|----------------------------------|--------------------|
| Income class          | 2.22                     | 17.73*                           | 5.02*              |
|                       | (0.111)**                | (0.000)                          | (0.008)            |
| Sex of the household head | 0.86                    | 0.42                            | 4.29*              |
|                       | (0.35)                   | (0.517)                          | (0.04)             |
| Caste                 | 18.71*                   | 13.75*                           | 10.73*             |
|                       | (0.000)                  | (0.000)                          | (0.001)            |
| Education             | 7.44*                    | 12.44*                           | 3.27               |
|                       | (0.007)**                | (0.001)                          | (0.07)             |

* Significant at 5%
**p-values in parentheses

The percentage of community forest income in the total household income for the poor households was 13.6%, which is much greater than the 2.1% for rich households (Table 2). It is also clear that community forest income is more important to untouchables and illiterate people than other categories of households. Though the contribution of community forest income to the total household income seems small, it is important to the poor families.

The relationship between the total household income and the relative community forest income using a non-linear regression model is presented in Figure 1. As expected the relationship is negative. In other words, relative community forest income decreases as income increases; so the poorer are more dependent on community forest than the richer households. Other studies (e.g. Escobal and Aldana, 2003; Reddy and Chakravarty, 1999) also confirm that poor households derive a relatively large share of their income from forests compared to the better-off households in the same community.

Figure 1. Relationship between total household income and relative community forest income.
One way analysis of variance was used to test the significance of difference in the community forest income, relative community forest income and other forest income according to the different income groups, sex of the household heads, caste, and education (Table 4). The one way ANOVA test shows that the community forest income differed significantly with respect to the level of caste and education. The relative community forest income, in addition to these variables, showed significant difference with income class. That clearly indicates different levels of contribution of community forest income to the households of different income levels.

3.3. Income decomposition and inequality measures

Figure 2 shows the Lorenz curve for the households when the community forest income is included and excluded in the total household income. The Gini decomposition by income source is presented in Table 5. The results show that community forest income is fairly modest at 7.4% of the total income, which is far less than cash and agricultural income, and only slightly more than the other forest income. The data show that income diversification contributes to reduced inequality across the household as the Dk values are generally higher than the aggregate Gini value (Table 5). The contribution of community forest income to total income inequality is 1.32% which is smaller than its contribution to total income (7.4%), indicating that community forest income has an equalizing effect on total income distribution. The aggregate Gini coefficient decreases by a marginal change in agriculture, other forest and community forest incomes while it increases from changes in cash income (Table 5).

The Lorenz curve of the household income without including the community forest income is more deviated from the line of equality than the Lorenz curve of the total household income (Figure 2). The Gini-coefficient for the total household income was 0.37, but increased to 0.53 when the community forest income was excluded from the calculation. These values of Gini-coefficient or the departure of Lorenz curves from the line of equality clearly indicate that the community forest income reduces the income inequalities between the sampled households. The finding supports the argument of Byron and Arnold (1999) suggesting that the forest products are often very important as an economic buffer and safety net for poor households. If denied access, the forest dependent poor become poorer), thus protecting their access has crucial welfare implications.
Table 5. Gini decomposition by income source.

| Source          | $S_k$  | $D_k$  | $R_k$  | Share* | % Change** |
|-----------------|--------|--------|--------|--------|------------|
| Cash            | 0.6279 | 0.5459 | 0.8893 | 0.8210 | 0.1931     |
| Agriculture     | 0.2389 | 0.5012 | 0.4402 | 0.1420 | -0.0970    |
| Community forest| 0.0742 | 0.5095 | 0.1312 | 0.0134 | -0.0608    |
| Other forest    | 0.0589 | 0.4936 | 0.3021 | 0.0237 | -0.0353    |
| Total income    | 0.3713 |        |        |        |            |

*The contribution of the income source to overall income inequality computed as:

$$Share = \frac{S_k \times D_k \times R_k}{G},$$

where $G = 0.3713$

**Measures the impact of 1% change in income on overall income inequality

4. Conclusions and Policy Implications

This research has shown that although the overall income from community forests in the study area is much less than income from cash earning and agriculture, and only slightly higher than income from other forests, community forest income is particularly important for poor households, the untouchable caste, and illiterate people, i.e. the marginalized and underprivileged groups of the society. Further, the research has shown that community forests have a strong equalizing effect on local income distribution. Also, it has been shown that the level of forest income increases with decreasing access to other income sources. From a policy point of view, these findings suggest that the community forestry program in Nepal that intends for conservation and management of forests also has a socio-economic reality, especially the existing apparent socio-economic disparity among the forest user households. The study clearly indicates that community forests do contribute in fulfilling the basic subsistence needs of the forest user households. As the economic outcomes of community forests to a large degree depend on local-level structures and institutions characterized by exploitation of, exclusion from and restricted access to resources, there is a need to favour poor in the community forestry policy processes in Nepal. Policy and decision makers should recognize that any effort to conserve Nepal’s forests, such as restricted access, might lead to reduced welfare among the poor and a careful balance is required in crafting any policy. Finally, community forests in Nepal do contribute in fulfilling the basic subsistence needs of the forest user households.

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