



INTERNATIONAL FOOD
POLICY RESEARCH INSTITUTE
sustainable solutions for ending hunger and poverty
Supported by the CGIAR



IFPRI Discussion Paper 00913

November 2009

Community Forestry in Nepal

A Policy Innovation for Local Livelihoods

Hemant Ojha

Lauren Persha

Ashwini Chhatre

2020 Vision Initiative

This paper has been prepared for the project on
Millions Fed: Proven Successes in Agricultural Development
(www.ifpri.org/millionsfed)

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

The International Food Policy Research Institute (IFPRI) was established in 1975. IFPRI is one of 15 agricultural research centers that receive principal funding from governments, private foundations, and international and regional organizations, most of which are members of the Consultative Group on International Agricultural Research (CGIAR).

FINANCIAL CONTRIBUTORS AND PARTNERS

IFPRI's research, capacity strengthening, and communications work is made possible by its financial contributors and partners. IFPRI receives its principal funding from governments, private foundations, and international and regional organizations, most of which are members of the Consultative Group on International Agricultural Research (CGIAR). IFPRI gratefully acknowledges the generous unrestricted funding from Australia, Canada, China, Finland, France, Germany, India, Ireland, Italy, Japan, Netherlands, Norway, South Africa, Sweden, Switzerland, United Kingdom, United States, and World Bank.

MILLIONS FED

“Millions Fed: Proven Successes in Agricultural Development” is a project led by IFPRI and its 2020 Vision Initiative to identify interventions in agricultural development that have substantially reduced hunger and poverty; to document evidence about where, when, and why these interventions succeeded; to learn about the key drivers and factors underlying success; and to share lessons to help inform better policy and investment decisions in the future.

A total of 20 case studies are included in this project, each one based on a synthesis of the peer-reviewed literature, along with other relevant knowledge, that documents an intervention's impact on hunger and malnutrition and the pathways to food security. All these studies were in turn peer reviewed by both the Millions Fed project and IFPRI's independent Publications Review Committee.

AUTHORS

Hemant Ojha, ForestAction Nepal
Natural Resource Governance Specialist
Email: ojhahemant1@gmail.com

Lauren Persha, University of Michigan
Research Fellow, School of Natural Resources and Environment
Email: lpersha@gmail.com

Ashwini Chhatre, University of Illinois at Urbana-Champaign
Assistant Professor, Department of Geography
Email: ashwini.chhatre@gmail.com

Notices

¹ Effective January 2007, the Discussion Paper series within each division and the Director General's Office of IFPRI were merged into one IFPRI-wide Discussion Paper series. The new series begins with number 00689, reflecting the prior publication of 688 discussion papers within the dispersed series. The earlier series are available on IFPRI's website at www.ifpri.org/pubs/otherpubs.htm#dp.

Copyright 2009 International Food Policy Research Institute. All rights reserved. Sections of this document may be reproduced for noncommercial and not-for-profit purposes without the express written permission of, but with acknowledgment to, the International Food Policy Research Institute. For permission to republish, contact ifpri-copyright@cgiar.org.

Contents

Abstract	v
1. Introduction	1
2. The Intervention: History and Evolution of Community Forestry	7
3. Impact of Community Forestry	13
4. Sustainability of Community Forestry in Nepal	20
5. Lessons	26
References	29

List of Tables

Table 1. Summary indicators of community forestry impacts in Nepal	2
Table 2: CFUG rights as per the Forest Act (1993) and Forest Regulation (1995)	8
Table 3. Changes in well-being status for 2,700 households from 26 CFUGs in the Koshi Hills, Nepal (2002-2008)	13
Table 4. Annual employment opportunities in community forestry in the Koshi Hills	14
Table 5. Paid employment generated by FUGs in Midwest areas of Nepal during 2064/65 fiscal year (2007/08 in the European calendar)	15
Table 6. Ongoing CFUG activities in Koshi Hills, 2008/09	15
Table 7. Representation of ethnic people in executive committees of CFUGs	16
Table 8. Increasing trend of women’s representation on CFUG executive committees over time	17
Table 9. An analysis of risks and opportunities related to sustainability of the Nepal Community Forestry Program	21

List of Figures

Figure 1. Community forestry and food security linkage pathways	3
---	---

List of Boxes

Box 1. Examples of pro-poor provisions in CFUG constitutions and operational plans	12
--	----

ABSTRACT

The Community Forestry Program in Nepal is a global innovation in participatory environmental governance that encompasses well-defined policies, institutions, and practices. The program addresses the twin goals of forest conservation and poverty reduction. As more than 70 percent of Nepal's population depends on agriculture for their livelihood, community management of forests has been a critically important intervention. Through legislative developments and operational innovations over three decades, the program has evolved from a protection-oriented, conservation-focused agenda to a much more broad-based strategy for forest use, enterprise development, and livelihood improvement. By April 2009, one-third of Nepal's population was participating in the program, directly managing more than one-fourth of Nepal's forest area.

The immediate livelihood benefits derived by rural households bolster strong collective action wherein local communities actively and sustainably manage forest resources. Community forests also became the source of diversified investment capital and raw material for new market-oriented livelihoods. Community forestry shows traits of political, financial, and ecological sustainability, including emergence of a strong legal and regulatory framework, and robust civil society institutions and networks. However, a continuing challenge is to ensure equitable distribution of benefits to women and marginalized groups. Lessons for replication emphasize experiential learning, establishment of a strong civil society network, flexible regulation to encourage diverse institutional modalities, and responsiveness of government and policymakers to a multistakeholder collaborative learning process.

Keywords: Millions Fed, Food Security, Nepal, Community Forestry, CFUG, Civil Society

1. INTRODUCTION

Community Forestry in Nepal – An Overview

The Community Forestry Program in Nepal encompasses a set of policy and institutional innovations that empower local communities to manage forests for livelihoods, while also enhancing conservation benefits. The program was launched in the mid-1970s as part of an effort to curb the widely perceived crisis of Himalayan forest degradation, when the government of Nepal came to the conclusion that active involvement of local people in forest management was essential for forest conservation in the country. Nepal's Community Forestry Program innovations encompass a well-defined legal and regulatory framework, participatory institutions, benefit sharing mechanisms, community-based forestry enterprises, and biodiversity conservation strategies. The program is considered a global innovation in the field of participatory environmental governance (Kumar 2002), and its history of implementation and program evolution usefully illustrates a path toward meeting the twin goals of conservation and poverty reduction (Pokharel et al. 2007; Kanel and Acharya 2008).

Community forestry is flourishing in Nepal, improving the livelihoods of rural households in thousands of communities, and nurturing democracy at the grassroots despite a prolonged insurgency and political upheavals (Ojha and Pokharel 2005; Bk et al. 2009). Three decades of operational innovations, legislative developments, and evolving practice have clearly demonstrated success in terms of enhancing access to forest products, improving livelihood opportunities for forest-dependent people, strengthening local institutional capacity, and improving ecological conditions of forests (Dev et al. 2003; Ojha and Pokharel 2005; Subedi 2006; Pokharel et al. 2007). Community forestry appears to have stood the test of time, contributing to the welfare of the masses of rural poor in Nepal. By April 2009, about 1.6 million households or one-third of the country's population took part in the Community Forestry Program, directly managing more than 1,000,000 hectares (ha), or more than one-fourth of the country's forest area.¹

In light of these positive effects on welfare and environmental outcomes, community forestry has been one of the few promising aspects of Nepal's post-World War II history. It has often been used as a face-saving instrument by development actors who have been engaged in, if not responsible for, the five decades of "failed development" in Nepal.² Community forestry in Nepal has had a positive image not only in the fields of development and natural resource management, but also more widely from a governance perspective, with the assertion that the local-level institutions for forest management (known as Community Forest User Groups or CFUGs) and their networks provide a model of democratic governance (Ojha and Pokharel 2005).

The program initially received major impetus from international agencies but later was owned and sustained by local actors and institutions. During the early 1980s, Nepal's mountains were widely perceived as the site of a double crisis, affecting both the environment and livelihoods locally and beyond (Eckholm 1976). Around the same time, a global environmental movement was gathering momentum. The Nepal Himalaya became a matter of concern, and technical and financial support began to pour in from international agencies (Gutman 1991), initially to establish forest plantations as a quick fix but later to address policy and institutional drivers of deforestation (Gilmour and Fisher 1991). The first institutional shift occurred in 1978, when a forest regulation³ was enacted that provided local government bodies (Panchayats) with limited rights to manage designated forest areas (Malla 1997). Later, in the early 1990s, a more sweeping devolutionary shift occurred through the promulgation of an entirely new Forest

¹ Current forest cover in Nepal is 5.8 million ha, according to official statistics (DFRS 1999). The results of the National Forest Inventory show that Nepal has 4.2 million ha (29 percent) of forest area and an additional 1.6 million ha (10.6 percent) shrubs. These forests are distributed across the three geographical regions of the country. The middle mountains represent about 48 percent of the forest area, whereas the forest in the plains (Terai) is nearly 25 percent of total forest land. The remaining forest area is distributed across the high mountains of the Himalayas.

² See Shrestha (1998) and Pandey (1999) for an explanation of development failures in Nepal.

³ The regulation was "Panchayat Forest and Panchayat-protected Forest Rules, 1978."

Act 1993, which allowed forest-dependent communities to directly participate in and take control of forest management at the local level.

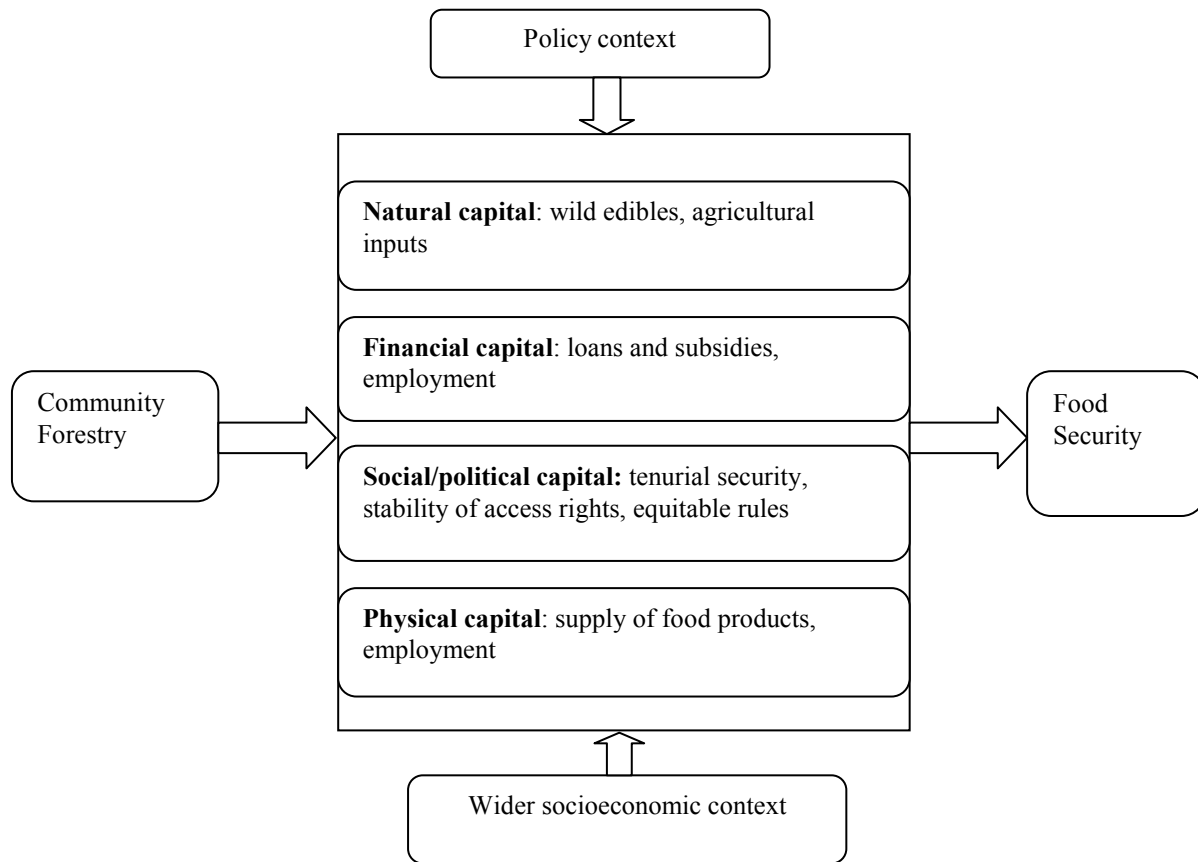
Community forestry has evolved in the context of progressive political change in Nepal, first as the government moved away from the Panchayat system under Nepal’s feudal monarchy (until 1990), then through a multiparty system with a constitutional monarchy (until 2006), and finally to the currently evolving inclusive and republican multiparty polity. With these political changes, local people have increasingly been able to claim rights over forests as active political agents rather than as passive recipients of government service (Paudel, Banjade, and Dahal 2009). Through wider civic movement as well as the expansion of CFUG networks nationally, the traditional top-down state power has been replaced by a strong civil society, and the discourse and practice of community forestry in Nepal is now shared equally by the government and civil society (Luintel 2006). Spaces for and practices of deliberation among diverse actors have expanded, forging collaboration and social learning in support of decentralized and community-based management of forests in Nepal (Ojha, Timsina, and Khanal 2007; McDougall et al. 2008). This depth of local ownership, action, and empowerment in the Community Forestry Program facilitated achievements within local communities that substantially affected household livelihoods (Table 1). The overview summarizes the policy and institutional processes that enabled such depth of ownership to occur at the local level, as well as the impact pathway (Figure 1) from community forestry to improved livelihoods at the household level.

Table 1. Summary indicators of community forestry impacts in Nepal

Indicator	Number	Share	Source
Households directly affected	1,659,775	(32% of total population)	DoF 2009
Number of CFUGs	14,439		DoF 2009
Number of districts with community forestry operations	75	(100% of all districts)	DoF 2009
Area of forest under CFUG management	1,229,669	(25% of total forest area)	DoF 2009

It is worth noting here that the evidence linking community forestry to improvements in food security is still being accumulated. Despite more than 30 years of innovation in participatory environmental governance through community forestry, the depth and breadth of material on impact is still somewhat limited, at least in terms of economic analysis. However, evidence from other disciplines and from a range of observers and stakeholders—from academicians to communities themselves—indicate that community forestry in Nepal is a success in terms of improving natural resource management, rural governance, and institutional reform.

Figure 1. Community forestry and food security linkage pathways



In terms of policy processes, the legal rights for communities to participate in forest management were specified in Nepal’s Forest Act of 1993 and further articulated in the state’s Forest Regulations of 1995. The 1993 Forest Act provided CFUGs, which are local institutions comprised of village residents using common forests, the authority to undertake management decisions regarding forest resources (Acharya 2002). A series of Forest Department operational guidelines and directives further enunciated the policy, clarified the rights of various actors, and sought to guide community forestry implementation (Acharya 2002). Forest use is not unrestricted in either the legal framework or in practice. CFUGs are required to pay taxes to the government when they sell any forest products outside the CFUG. Restrictions on certain species are also issued from time to time. The state retains ownership of forests, while communities hold the rights to use the forests and make management decisions.

The Forest Act of 1993 requires that a group of households wishing to constitute a CFUG prepare a constitution under the provisions of the Act and submit it for registration at the local District Forest Office (DFO), which then provides a certificate of registration. The new CFUG then prepares an Operational Plan for forest management, with technical assistance from forest officials and increasingly from nongovernmental organizations (NGOs). The operational plan stipulates management goals, activities to be undertaken, and rules of forest product utilization. In principle, CFUGs can determine which forest products can be harvested (though the harvested amount must be within the limits prescribed by foresters in the CFUG’s Operational Plan), set the price of various products, receive and distribute income, and use revenue for community development activities (Acharya 2002). In practice, they often must seek permission from forest officials, and at times extra-legal instructions are imposed by forest officials against the will of CFUGs (Paudel, Banjade, and Dahal 2009). The hierarchy of regulatory instruments designed to facilitate community forestry processes sometimes constrain the rights of local people, as was experienced with the forest inventory guidelines of 2000 (Ojha 2002). For example,

whereas the Forest Act of 1993 recognizes the CFUG as a perpetually self-governed institution, with rights to independently manage forest products and fix the prices of forest products, the Community Forestry Program directives of 1995 (clause 3c) enable DFOs to set conditions for forest management. Likewise, the inventory guidelines provide forest officials with the authority to decide the types and amounts of forest product to be harvested purely on “scientific basis,” overriding the political autonomy granted by the Forest Act (Paudel and Ojha 2008).

In terms of institutional processes, community forestry in Nepal encompasses the collective action of people across nested levels of organization, from relatively small and directly interacting groups (the CFUGs) to large and formally structured institutions (CFUGs and their networks) at subnational and national levels. The areas of forest and sizes of the CFUGs vary substantially, as there is no set legal limit, and depends on the “willingness and ability” of the community to manage a forest, according to the Forest Act of 1993. Community forests in Nepal range from less than 1 ha to more than 4,000 ha (DOF 2009), and the average size of a forest managed by a CFUG is 79 ha (Kanel and Kandel 2004). Likewise, the number of households in a CFUG ranges from fewer than a dozen to more than 10,000 households,⁴ and the average is 111 households.

A CFUG may include all members of a village, a select subgroup of households, or people from another village or even from another district, irrespective of administrative boundaries. The institution is inclusive rather than exclusive of households in the village, and in practice all households of one or more villages become members of a CFUG, representing diverse interests in forests. Interest-based subgroups (such as fuelwood sellers, landless, and nontimber forest cultivators) are often formed to articulate diverse interests in CFUG decisionmaking processes. Other common modes of citizen participation within CFUGs include a wide array of institutional mechanisms such as *Tole* (hamlet) based decisionmaking, elected executive committees, annual assemblies, and formulation of forest management plans.

Governance arrangements for each CFUG are defined by the constitution and by the forest management operational plan, both registered and approved by the DFO. Each CFUG prepares its own constitution, defining the social arrangements, responsibilities, and rights of the group. These may vary from group to group to adapt local traditions and practices but fall within a standard set of guidelines and norms (as provided by the Community Forestry Guidelines of 2008, which tend to be mechanistically implemented by the forestry staff while forming a CFUG). The operational plan specifies how the forest is managed and utilized and also serves as an agreement between the Forest Department and the CFUG. Each CFUG elects a specified number of members (usually 9 or 11) to an executive committee, for a term ranging from one to three years. The executive committee carries out day-to-day decisions about forest management on behalf of the entire CFUG, and it is potentially susceptible to control by elites within the community if effective mechanisms for downward accountability to the entire CFUG are not in place (Kanel and Kandel 2004). In sum, Nepal’s Community Forestry Program has made great strides in institutionalizing a series of important rights, including decisionmaking, empowerment over forest management and use, and access to forest resources at the community level.

These community forestry policy and institutional innovations contribute to improved welfare and livelihood security in Nepal through two distinct pathways: (1) directly through increased household access to forest food products (natural capital), and (2) indirectly through positive impacts on household incomes, employment and entrepreneurial opportunities, livelihood diversification, and broader community development activities made possible through the Community Forestry Program (financial, social, physical, and political capitals) (Figure 1). The contribution of forestry to overall livelihood security is critically important in Nepal because more than 70 percent of Nepal’s population depends on agricultural livelihoods that encompass complex interactions between agriculture, forestry, and livestock systems. Farmers depend on green fodder from forests to feed their livestock, particularly during the dry

⁴ Larger CFUGs are found in the low-lying Terai area where there is no consistent implementation of community forestry policy, owing to conflicts among communities, political parties, and the government agencies over who should control and manage Terai forest lands. Although larger in area, the CFUGs in the Terai compose only 7.3 percent of the total number of CFUGs in Nepal (Kanel and Kandel 2004).

season when forests are often the only available source of fodder and grass (Dougill et al. 2001). The primary cooking fuel in the country is firewood, with 69 percent of households using firewood as their main source (Pokharel, Dahal, and Byrne 2009).

Forest-derived products generate additional income for households, supply household needs such as fuelwood, and also provide some food sources directly. This is especially the case for poorer households with little or marginal quality land. Such households are often unable to meet annual food requirements through their own agricultural holdings (Pandit and Thapa 2004). A wide range of nontimber forest products (NTFPs) are harvested both for subsistence (such as food, medicines, and utensils) and for sale.⁵

Several studies provide insights into the contribution of NTFPs, although we caution that more rigorous study of the relationship between community forestry activities and household livelihoods is needed. In one study, NTFPs provided households with poor quality land with an additional mean annual income that was equivalent to 46 percent of household earnings from field crops; it augmented the incomes of 81 percent of the 152 households surveyed (Pandit and Thapa 2004). Studies have calculated that NTFP earnings account for 14–25 percent of total household annual income in various districts of Nepal (den Hertog and Wiersum 2000; Pandit and Thapa 2004).

Community forestry has thus contributed to improving and diversifying livelihoods by mobilizing locally available and communally owned natural capital (forests), both directly through the promotion of wild edibles and indirectly by providing financial and social safety nets to the poor. Forest-based incomes account for a substantial portion of overall household income in many rural areas of Nepal, while products extracted and total value often vary by household wealth. Products such as timber require greater up-front cost and are thus more accessible to wealthier households, while poorer households may have greater overall dependency on forest products to meet subsistence household needs. Forest products derived through community forestry accounted for 20–25 percent of mean household income for 50 households surveyed in one middle hill district, regardless of wealth class. That equated to an annual community forestry-based income ranging from Nepal rupees (NRs) 20,496 (US\$265) in the wealthiest households to NRs 11,815, equivalent to US\$152, in the poorest households, where forest products accounted for a 6 percent greater contribution to overall income than earnings from agriculture and livestock (Arun 2004).

CFUGs not only manage forests for direct benefits to household livelihoods but also have emerged as a local agency for community development, social inclusion, and democratic civic engagement (Pokharel et al. 2007), so that household welfare is also impacted through these indirect pathways. CFUGs retain 100 percent of revenues generated from their forest, but they must designate 25 percent of this income for forest development activities as per the Forest Act. Examples of development activities undertaken with CFUG revenues include improving irrigation canals and water distribution, supplementing teacher's salaries, using forest products for school or other public building construction, or providing microfinancing for community members (Dev et al. 2003; Adhikari, Williams, and Lovett 2007). Methods of revenue generation vary widely across the 16,000 CFUGs that are operational in Nepal and include charging members or outsiders a fee for permission to collect various forest products. At times, such a system of charging members has generated debate over whether the system is friendly to the poor, and significant investments are made by community forestry projects to sensitize and facilitate CFUGs to undertake ranking of forest users and to formulate differential (equitable) rules for forest product access and benefit sharing (CIFOR 2007). Annual CFUG incomes vary widely, with CFUGs in the Terai earning the most on average (NRs 90,500 or \$1,169, $n = 916$ CFUGs), followed by those in the middle hills (NRs 9,100 or \$118, $n = 9,353$ CFUGs) and the high hills (NRs 4,100 or \$53, $n = 2,456$ CFUGs) (Kanel and Kandel 2004).

⁵ Nepal has nearly 1,000 plant species of known uses, of which an overwhelming 700 species are medicinal, 440 wild food-yielding species, and more than 100 fodder species. Of these, more than 160 species are used as commercial nontimber forest products (Subedi 2006).

Community forestry innovations appear to demonstrate traits of sustainability on political, financial, and ecological dimensions. Politically, it is supported by a strong legal and regulatory framework and wins the confidence of all major political parties. There are strong networks of civil society and intellectuals supporting and expanding community forestry at local to global levels. Journals such as the *Journal of Forest and Livelihoods* (www.forestation.org) have prominently featured articles on community forestry in Nepal for the past several years and have served as an outlet of information on the program for a wide range of issues. There is a strong sense of awareness on civil rights among CFUGs which have established systems of internal governance. CFUG management of forests also appears to be sustainable financially. Of an estimated average running cost of NRs 119,100 per year for a CFUG, 71 percent is borne by CFUGs themselves, 16 percent from donors and 13 percent from the government (Pokharel et al. 2008). CFUG contributions include primarily labor costs (NRs 76,500, or 64 percent), plus a small proportion of cash (NRs 8,000, or 7 percent) (Pokharel et al. 2008). From an ecological standpoint, anecdotal observations and quantitative studies support the premise that community forestry practices have improved forest condition. A recent study reported that 74 percent of the forest area managed by CFUGs was in “good” condition, compared to 19 percent in “degraded” condition (Kanel and Kandel 2004). Others have reported that CFUGs compare favorably to government forests in terms of change in forest condition (Nagendra et al. 2008).

2. THE INTERVENTION: HISTORY AND EVOLUTION OF COMMUNITY FORESTRY

Forests have historically held a central place in local livelihood practices and national politics in Nepal because of their importance in rural livelihoods and state revenues (Ojha 2008). Analysts have usefully delineated three phases of forestry in Nepal – privatization (until 1957), nationalization (1957 to the late 1970s), and decentralization (from the late 1970s onward) (Hobley 1996). Most forests in rural Nepal were controlled and managed by local communities until the late 1950s, when the state took control. The call for citizen participation began in the late 1970s when the government explicitly admitted that it could not protect the country's forests without the active cooperation of local forest-dependent citizens.

Throughout Nepal's modern history—the past 240 years—the Nepali state has largely been controlled by either the Shaha or Rana families, except for three brief periods of democracy in the 1950s, 1990s, and after 2006. Under the control of these families, the state polity retained a strong feudal character, whereby economic surplus flowed from the peasant farmers to the ruling elites through networks of locally based feudal lords (Regmi 1978), although that control apparatus has gradually declined since 1951. Until the Private Forest Nationalization Act was enforced in 1957, all forests were controlled by state-sponsored local functionaries. As the state moved further into the era of planned development after World War II, national bureaucracies assumed political–economic control of resources in ways that served the interests of the ruling elites (Blaikie, Cameron, and Seddon 2002). A number of laws were enacted to enforce national control over forests, which effectively expanded the forest bureaucracy and excluded local people.⁶ Although it was implicitly assumed that transferring forests from private groups to the state would enhance people's access to forest resources, in reality the state instituted stringent regulations to exclude people from controlling forest resources and created a strong techno-bureaucratic field (Ojha 2008; Malla 2000).

Key Policies for Community Forestry in Nepal

Efforts to share power over forests with local people started in 1978 with the institution of Panchayat (local government) forest regulations, prompted by the central government's realization that the state forest bureaucracy could not protect forests without engaging the local people.⁷ This move was part of the Monarchical Panchayat system's strategy to thwart growing anti-Panchayat resistance, by offering people some economic and symbolic spaces in the local Panchayat. In the meantime, donors were exerting growing pressure on the government to shift away from centralized practices of development toward more decentralized processes.

During the 1970s, the recognition of Himalayan degradation as a serious environmental crisis (Eckholm 1976) increased pressure on international development institutions and donor governments to contribute to the conservation of the Himalayas. This led to a shift in the development discourse away from an emphasis on infrastructure and technology transfer toward environmental issues (Cameron 1998). Moreover, Nepal's strategic geopolitical situation (being located between China and India) and fragile environmental condition attracted donors (Metz 1995) who viewed forestry and the environment as the key elements of integrated conservation and development projects.⁸

Several international agencies assisted the Nepalese government in formulating the Master Plan for the Forestry Sector (MPFS), which recognized the need for local people's participation in the conservation and management of the country's forest resources. In 1989, as the MPFS was being finalized and formally adopted by the government, an ongoing movement against the Panchayat system by the

⁶ Two laws are noteworthy here: the Forest Act of 1961 and the Forest Protection Special Act of 1967. The latter even authorized local forest guards to shoot people who used forests illegally.

⁷ The Panchayat system was headed directly by the king. It has three tiers of elected bodies of Panchayat politicians – Village Panchayat, District Panchayat and National Panchayat. Despite the election of Panchayat members, the real power was derived from the monarchy.

⁸ The World Bank and the Food and Agriculture Organization of the United Nations (FAO) initially influenced the national government toward the process of devolution of forest governance, followed by a group of bilateral and international actors.

citizenry also culminated in the reinstatement of multiparty democracy in the country. The decisions of subsequent governments further strengthened the regulatory framework of community-based forest management in line with the MPFS.

The most significant regulatory development in support of community forestry was the enactment of the Forest Act in 1993 by the first elected parliament after the 1990 movement for democracy. The 1993 Forest Act guaranteed the rights of local people in forest management (MFSC 1995), as briefly summarized in Table 2. Nepal became the world's first country to enact such radical forest legislation, allowing local communities to take full control of government forest patches under a community forestry program (Malla 1997; Kumar 2002). Meanwhile, international agencies continued to support the process of reorienting government forestry officials to work as facilitators of community-based forest management and away from their traditional policing roles (Gronow and Shrestha 1991).

Table 2: CFUG rights as per the Forest Act (1993) and Forest Regulation (1995)

1. Right to self-governance

- Communities have rights to form a Community Forest User Group (CFUG) as per their willingness, capacity, and customary rights.
- Community forest boundaries will not be restricted to existing administrative or political boundaries.
- Government can dismantle the CFUG if the latter is found to engage in large scale deforestation but it is the duty of the government to reconstitute the CFUG.
- CFUGs can elect, select or change executive committee anytime.
- CFUGs can punish members who break their rules.
- CFUGs can amend or revise their constitution any time.

2. Right to forest management and utilization

- There is no limit to the forest area that can be handed over to communities.
- CFUGs can make optimal use of their forest by growing cash crops together with forest crops.
- CFUGs can mortgage their standing forest products with financial institutions to obtain loans.
- CFUGs can utilize their funds for any purpose (but 25% of income from forest must be spent in forest development)
- CFUGs can freely fix prices and market their forest produce.
- CFUGs can establish enterprises and make profits.
- CFUGs can seek support from any organization.
- CFUGs can raise funds by various forestry and non-forestry means with all income going to group funds with no requirement for sharing financial revenues with government.
- CFUGs can invest in any areas, persons or development activities according to the decision of CFUG assembly.

Sources: Pokharel et al. (2008); Forest Act 1993; Forest Regulation 1995.

Scaling Up: Policy, Institutional, and Methodological Innovations

The Community Forestry Program in Nepal evolved from a primarily protection-oriented, conservation-focused agenda during its initial years of implementation to a much broader-based strategy for forest use, enterprise development, and livelihood improvement. This occurred through an often conflictual process spread out over more than a decade, during which sustained efforts to engage in policy dialogue with a range of community forestry stakeholders helped to clarify issues and develop a common vision. A well-recognized attempt in this regard has been the national workshops held every five years since 1987. Along with the evolution of community forestry in Nepal, the government forestry authority (mainly the Ministry of Forest and Soil Conservation and its Department of Forests) has also reinvented itself as a facilitator of community institutions and away from traditional policing roles (Kanel and Acharya 2008; Niraula 2004a). Evolution occurred across policies, institutions, and implementation modalities, ultimately leading to a much stronger, more sustainable, and effective Community Forestry system (Pokharel et al. 2008). The experience of community forestry has also been adapted and scaled up in different contexts in Nepal, leading to at least five other institutional regimes of forest governance: leasehold forestry, collaborative forest management, community-based watershed management, integrated conservation and development, and protected area buffer zone forestry (Ojha, Timsina, et al. 2008).

One of the keys to the establishment and successful outcome of Nepal's community forestry system was the creation of appropriate institutional structures at local, meso, and national levels that included downward accountability and relatively unrestricted decisionmaking at the local level, and effective cross-scale interactions among these various institutions. At the local level, this included provisions for subcommittees within CFUGs and the establishment of elected hamlet-level representatives to ensure that concerns of various constituencies within the CFUGs were expressed (McDougall et al. 2008). Meso-level institutions performed key facilitation, technical, and information exchange functions between national priorities and local contexts. Such interactions particularly contributed to better exploitation and wider dissemination of market opportunities by CFUGs (Banjade et al. 2007), which in turn had positive impacts on household livelihoods.

Other institutional factors in the successful evolution of community forestry included efforts to improve the inclusion of all social groups (especially after the mid-1990s, when the Maoist movement also gained momentum through the agenda of inclusion), concomitant democratic processes (Pokharel et al. 2007), and provision of adequate time and space for frequent discussion, exchange, adaptation, inclusion, and interaction among stakeholders (Banjade et al. 2006).

Policy innovations that enhanced the successful scaling up of the program included progressive legislation (Forest Act 1993), which also supported strong, autonomous, and self-governed village institutions (CFUGs) and clarification of appropriate property rights arrangements for community members through the provision of an Operational Plan for community forest management. Deconcentration of authority from the centralized state to the district-level bureaucracy, in which district officials were given the authority to constitute CFUGs, also played an important role (Agrawal and Ostrom 2001).

A variety of methodological innovations also helped to improve community forestry implementation, such as participatory action learning (Malla et al. 2002), adaptive collaborative management (McDougall et al. 2008), participatory and self-monitoring approaches (Banjade et al. 2008), and approaches that specifically targeted pro-poor livelihood improvements, linking civil society, governance, and democracy with natural resource management (Luintel, Bhattarai, and Ojha 2006). Such innovations addressed relationships among a wide range of participants in the forest governance arena and have triggered pro-poor forestry practices (Kanel and Subedi 2004). Governance practices that were changed encompass a broad range of activities – learning; planning; decisionmaking; mobilizing the marginalized groups to create pressures on elites; developing clearer vision, indicators, and purpose of the Forest User Groups and related Community Forestry organizations; monitoring; promoting transparency;

re-electing executive committees; creating ownership in the organizational change processes; improving communication; and promoting public hearings and auditing.

As a result of improvement in governance practices, changes in governance outcomes included more equitable benefit sharing; enhanced transparency, participation, and accountability; and improved pro-poor resource management practices (Luintel, Bhattarai, and Ojha 2006; Shrestha et al. 2009). Many of these innovations came in response to the emergence of second generation issues in the mid-1990s, and were facilitated by national NGOs, often with technical support from international organizations and bilateral donor projects.

Since 1990, the process of community forestry has been increasingly promoted and scaled up by an expanding public sphere, often operating outside of government and donor projects (Ojha, Timsina, and Khanal 2007). There are increasing instances of proactive engagement of civil groups in forest governance in recent years in Nepal. Of particular importance has been the establishment of a meso-level umbrella institution of CFUGs that represents the interests of local-level actors and serves as an intermediary between national and local processes. This nationwide network of CFUGs, known as the Federation of Community Forestry Users, Nepal (FECOFUN), has emerged as a key player in forest sector policy debates (Ojha 2002; Ojha and Timsina 2008). These civil society groups have further politicized the practice of forestry and in many respects provided a deliberative bridge between people and the state (Ojha, Timsina, and Khanal 2007). Along with NGO alliances, it has brought civil society perspectives into the policymaking process that used to be dominated by technocrats and bureaucrats. The most important policy issue in which FECOFUN has made significant contributions in the past few years concerns the extension of CFUG rights over forest resources in the hills as well as in the Terai. Through FECOFUN, the legal provisions relating to community forestry were spread to areas where there were no prior donor-driven projects, or where district forest offices (DFOs) were not as enthusiastic about community forestry implementation (in the Terai, for example). In addition, FECOFUN has played the role of CFUG watchdog in national and international policy arenas. FECOFUN's awareness-raising activities have helped to enhance the political capital of CFUGs beyond the traditional patron-client relationship with the Department of Forests.

Successful scaling up of community forestry also required a nationwide overhaul of local and DFOs, with an emphasis on the reorientation of forest officials. This enables DFOs and forest officials to reorient their skills toward co-management, extension, and assistance rather than to their previous role as the dominant authority and decisionmaker in forest management (Acharya 2002).

Lastly, scholars have further enumerated a number of specific conditions and factors that played a significant role in the successful evolution of community forestry in Nepal. These include

- media projection of the crisis of Himalayan degradation and consequent international assistance (Gutman 1991);
- inaccessibility of Nepal's hill and mountain forests for commercial exploitation;
- inability of the Forest Department to manage forests effectively, especially in the middle and high hills (Gilmour and Fisher 1991; Subedi 2006);
- emergence of a multiparty political system in 1990 and consequent expansion of civil society spaces (Ojha 2006);
- willingness of the elected government to legally empower local communities to manage forests (Ojha 2006);
- presence of existing forest-based livelihood systems in rural Nepal and incentives for local people to participate in forest management for a range of forest products and livelihood opportunities (Gilmour and Fisher 1991);
- presence of existing dense social networks and traditional models of collective action around local forest management in Nepal (Fisher 1989; Chhetri and Pandey 1992);

- continued tradition of piloting new approaches and reflection among Community Forest Program stakeholders, including regular nationwide workshops every five years since the 1980s (Pokharel et al. 2007; Ojha and Timsina 2008);
- increased research and scholarly interests in community forestry; and
- breakdown of traditional power relationships through political movements and emergence of “subaltern” groups taking leadership power at the CFUG level (Bhattarai 2007).

Issues Faced During Implementation

A number of challenging issues were encountered during implementation of Nepal’s Community Forestry Program, and some continue today. These include ongoing evolution of extension skills and technical capacity within government institutions to move beyond a blueprint forest protection model toward a livelihood-oriented system and issues related to equitable distribution of community forestry benefits among local CFUG institutions and households.

Management models, operational plans, and related implementation processes initially adhered to blueprint models provided by the Forest Department and focused on forest protection rather than livelihood improvement (Dougill et al. 2001). Over time, management and operational plans gradually evolved to reflect individual CFUG goals and took on a much greater livelihood-oriented emphasis. This was also reflected in the design of forestry programs under a livelihoods framework, such as the UK’s Department for International Development’s Livelihoods and Forestry Program, which began in 2000. This went hand in hand with the adaptation of appropriate extension skills within the Forest Department and DFOs, in order to provide effective technical assistance to CFUGs and to assist with management decisionmaking (Dev et al. 2003).

Forest management also became more technically complex beyond the initial simplistic plans. Initially, CFUGs were required to have only one document containing both constitutional aspects and forest management rules (Ojha, Khanal, and Shrestha 1997). Since 1995, two separate documents have been required – a constitution and a forest management operational plan. Additional technical aspects of community forestry included developing readily usable tables to estimate biomass, timber volume, and annual harvesting yields (Acharya 2002). An inventory guideline was enforced in 2000, which was directed more toward technocratic control than to facilitating democratic forest governance (Ojha 2002). However, stakeholders later came together and developed a common understanding on the format and process of forest inventory, which was incorporated into the revised forest inventory guidelines of 2004 (Paudel and Ojha 2008).

Another set of challenges stemmed from issues related to the distribution of benefits (forest products and income), social exclusion and marginalization of traditionally disadvantaged groups, elite capture of benefits and decisionmaking processes, and transparency in managing CFUG funds (Kanel and Kandel 2004; Chhetri 2006). After these problems were identified, several CFUGs began to include explicit provisions for greater benefits to poorer groups, women, lower caste groups, and other marginalized groups in their operational plans (Bhattarai 2007; Banjade et al. 2008; Kunwar et al. 2009). Bhattarai (2007) identifies interactions and knowledge networks that influenced the perceptions of local elites about themselves and the poor, thereby triggering pro-poor forest management and utilization practices in the CFUG. Pro-poor innovations generally include designating loans, land for cultivation, or areas of the community forest for fodder collection to be explicitly reserved for marginalized groups or the poorest households and setting up women-dominated small business enterprises (Joshi et al. 2006). In several cases, community fund-raising through sale of forest products has also been used to fund rural infrastructure or social development works that address the needs and concerns of the poor and disadvantaged.

Equitable rather than equal distribution of forest products and benefits has been crucial to improving livelihoods, because the poorest households in Nepal are more dependent on forest products and forest-derived sources of livelihoods, since they have little or no land of their own from which they

can obtain such products. An equitable distribution method for forest products, in which the CFUG collectively ranks households on the basis of relative wealth and subsistence needs, has led to greater livelihood security for the most vulnerable households and gone further toward meeting community forestry's poverty alleviation goals (Shrestha and McManus 2008). The Livelihoods and Forestry Program in Nepal has supported a number of CFUGs to provide exclusive management rights to groups of poor households for cultivation of income-generating crops and agroforestry. Although currently few in number, some CFUGs do provide community lands to their landless or near-landless members, so they can earn their living through cultivation of medicinal herbs or other crops. Several CFUGs give preference to poor members or women in locally created jobs, such as processing of handmade paper or working as nursery laborers (Subedi 2006). Other examples are listed in Box 1.

Box 1. Examples of pro-poor provisions in CFUG constitutions and operational plans

- Subsidies in prices of forest products
- Reservation of spots for the poor, women, and Dalits (untouchables) on community forest committees and decision making bodies
- Special provisions for the distribution of forest products to vulnerable groups (for example, charcoal to blacksmiths, products freely distributed to victims of natural disasters, single women, or conflict victims)
- Allocation of CFUG funds and low interest loans for income-generating activities
- Forest resource management with allocation of Community Forestry Program land to poor users
- Scholarships to children from poor families

Source: Bhattarai 2009.

3. IMPACT OF COMMUNITY FORESTRY

Rural Livelihoods and Welfare

Community forestry appears to have had a net positive effect on livelihoods and a range of other development concerns in Nepal, resulting in direct and indirect positive impacts on rural livelihoods and welfare. However, we caution that rigorous studies demonstrating significant increases in household income as a result of Nepal's Community Forestry Program are sparse in the available literature. Studies that attempt to further disentangle complex relationships among community forestry activities, unrelated development interventions, and economic and other aspects of household livelihoods, particularly through rigorous research designs that control for external factors, would contribute importantly to a clearer understanding of community forestry impacts on household income in Nepal.

Evidence of direct improvements to livelihoods include an enhanced supply of wild edibles used by the poor, increased availability of forest products to farmers, and more reliable product supply (Acharya 2002; Dev et al. 2003). Indirect but crucially important improvements to livelihoods occurred through increased employment opportunities and more diversified livelihood portfolios. Community forestry has enabled households to diversify their livelihood strategies to a greater extent than was possible before, including undertaking forest-based income-generating activities like cultivating spices in the forest understory and tapping resin from selected tree species (Dev et al. 2003).

A longitudinal study of 2,700 households from 26 CFUGs in the Koshi Hills may illustrate the large-scale impacts of community forestry on poverty alleviation and livelihood security (Tables 3 and 4), though issues of research design limit certainty over the outcomes. In that study, a well-being ranking conducted in the sampled CFUGs during two time periods across five years showed that 46 percent of poor users (very poor and poor) moved into higher well-being categories, facilitated in part through their participation in CFUGs that directly supported livelihood improvement and capacity-building activities (Chapagain and Banjade 2009). A separate study found that the average annual household income of forest user members increased by 113 percent over a period from 2003 to 2008, from NRs 54,995 in 2003 to NRs 117,075 in 2008 (\$710 to \$1,512) (Chapagain, Subedi, and Rana 2009). This represented a 61 percent increase after adjusting for inflation and should be seen in the light of Bhattarai and Dhungana's (2008) claim that CFUGs have harnessed less than 40 percent of the revenue potential of their community forests. Chapagain, Subedi, and Rana (2009) found a difference of NRs 16,153 (\$208) between household incomes, with and without income-generating activities supported by CFUGs, signifying the importance of user group support. But, research design limitations in these studies unfortunately preclude the attribution of these positive income changes solely to the Community Forestry Program, because control groups were not employed in the longitudinal comparisons of household income, nor were changes in non-CFUG sources of income controlled for over the period of the study.

Table 3. Changes in well-being status for 2,700 households from 26 CFUGs in the Koshi Hills, Nepal (2002-2008)

Caste	No change			Change (+)			Change (-)		
	VP-VP	P-P	Oth-Oth	VP-P	VP-Oth	P-Oth	P-VP	Oth-P	Oth-VP
Dalit	58%	43%	100%	29%	13%	51%	6%	0%	0%
Ethnic minorities	53%	67%	100%	36%	11%	32%	1%	0%	0%
Advantaged castes	55%	59%	100%	36%	7%	39%	1%	0%	0%
Total	56%	61%	100%	35%	9%	37%	1%	0%	0%

Note: VP=Very poor, P=Poor, Oth=Others.

Source: Chapagain and Banjade 2009.

Table 4. Annual employment opportunities in community forestry in the Koshi Hills

Area	Number of CFUGs generating employment	Total population	Employment: Person days per CFUG per year
Forest management	510	63,888	125.19
Community development	340	9,411	27.66
Office management/ office secretary	161	9,153	56.97
Teachers	172	39,137	226.92
Enterprises	95	15,937	168.64
Total	1,278	137,526	605.38

Source: Adapted from Chapagain and Banjade 2009.

One recent study that did employ control groups found that economic benefits from Community Forestry occurred, but tended to accrue at the CFUG level rather than household level (Maharjan et al 2009). Conducted in eight Community Forestry villages and two control villages across four districts of Nepal, the study did not find evidence for an increase in household-level income as a result of Community Forestry activities. However, the study emphasized positive and substantial welfare impacts in terms of improved physical infrastructure, skills development for potential employment, net-working and other forms of social capital, and political representation, often made possible through CFUG funding or other Community Forestry activities (Maharjan et al 2009).

Indirect contributions to household incomes appear to also be realized through revenue-generating activities undertaken by CFUGs, such as the sale of forest products, that are then used for a range of community development initiatives (Dhakal, Bigsby, and Cullen 2005; 2007). One study of 23 CFUGs in the middle hills, in which quantitative surveys about FUG finances and management were administered to FUG members and government employees, found that successfully managed community forests (defined by the authors on the basis of comparatively higher revenue returns per hectare of forest managed, among other significant factors included in a hierarchical cluster analysis) generated a mean annual revenue of \$18.50 per hectare of forest and spent a greater proportion of their revenue on community development (57 percent) and forest management (32 percent) activities, compared to CFUGs with lower per-hectare revenue returns (Dongol, Hughey, and Bigsby 2002). CFUG-based enterprises provide income and employment for community members, and in many cases members of poorer households, who are typically more vulnerable to food shortages because of their socioeconomic status, are given priority for jobs (Dev et al. 2003). For example, 617 CFUGs from five districts in Nepal's Midwestern region provided 825,988 person/days of employment over a one year period (2007–08), and 90 percent of that employment went to people from poor and very poor households (LFP 2008, cited in Bhattarai 2009) (Table 5). Employment opportunities may include work as a forest watcher or wage laborer during various silvicultural operations, and CFUGs often prioritize jobs as timber workers, nursery technicians, fuelwood sellers, and resin collectors for poorer members (Bhattarai 2009).

Table 5. Paid employment generated by FUGs in Midwest areas of Nepal during 2064/65 fiscal year (2007/08 in the European calendar)

Types of work	#of CFUGs	Paid employment/person days				Very poor & poor	Other	Total
		Dalit	Janajati	Minority	Other			
Forest management	370	117,921	290,028	11,025	164,242	549,260	33,956	583,216
Nursery management	87	3,375	44,411	261	8,364	53,930	2,471	56,411
Others	160	57,623	60,452	0	68,286	138,892	30,994	186,361
Total	617	178,919	394,891	11,286	240,892	742,082	67,421	825,988

Source: LFP 2008.

Pro-poor mechanisms for the distribution of forest products have also had positive effects on household ability to meet livelihood needs. Forest products may be distributed at subsidized rates to poor households and at no cost to women-headed and extremely poor families (Bhatterai 2009). For instance, Mahila CFUG of Kalimati Rampur has moved from an equal distribution of forest products among all members to an equitable distribution system that provides forest products at subsidized rates to more vulnerable members of the CFUG. Timber is sold at either 65 or 50 percent of actual price to users from designated poorer households and freely distributed at no cost to homeless users. Such subsidies provide a more reliable and lucrative source of income for the poorest households than was previously available, as members may buy forest products such as fuelwood at a low rate and then sell them at market for a substantially higher price (Bhatterai 2009).

Community forestry funds have been used for wide-ranging infrastructure and community development projects that have improved market accessibility for remote villages (Table 6). Infrastructure projects supported by CFUGs include building or blacktopping of roads and construction of bridges, small-scale irrigation systems, drinking water systems, training centers, and guest houses. Many CFUGs in Nepal have used their funds to support the education infrastructure by providing funds for teachers' salaries, school construction, furniture, scholarships, nutritional enhancement, forest excursions, and cultural programs.

Table 6. Ongoing CFUG activities in Koshi Hills, 2008/09

Activity	No. of CFUGs	No. of households benefitting
Income-generating activities (IGAs):		
Revolving Fund	426	8,029
Community Forestry land allocation	67	767
Other IGAs	26	319
Health and sanitation activities		
Improved cooking stove construction and distribution	26	177 (82% are poor households)
Drinking water schemes	167	12,480 (68% are poor households)
Irrigation canal construction and maintenance	41	7,217 (65% are poor households)
Trail / road maintenance to improve market access	297	NA
Support to school teacher remuneration	67	NA
Electrification projects	10	907 (52% are poor households)
Wooden bridge construction	5	NA
Office building construction	30	NA
Tourism-related activities	5	NA

Source: Chapagain and Banjade 2009.

Savings, credit, and microenterprise schemes developed by CFUGs have also made substantial contributions to household livelihoods in some districts in the country, and these are often targeted to benefit the poorest households. Among the most innovative cases are those that provide housing services to the poorest landless households. Although microfinance is currently a relatively uncommon use of CFUG funds, it may be one of the most promising options for future livelihood improvements stemming from community forestry (Dev et al. 2003; McDougall et al. 2008). For example, 312 CFUGs in Parbat District implemented savings and credit activities through which they mobilized more than NRs 5,800,000 (\$74,935 or \$240 per CFUG) and supported more than 2,100 poor, marginalized, Dalit,⁹ and conflict-affected households (Luintel, Ojha, and Rana 2009). A total of 14,213 households in the Rapti region benefited from microenterprises developed through community forestry, and 94 percent of those households were from a poor or marginalized group (Luintel, Ojha, and Rana 2009).

In LFP areas, 4,500 CFUGs from 15 of the 75 districts of Nepal raised more than NRs 120 million (\$1,521,227, or an average of about \$345 per CFUG) from forest and nonforest resources and spent about 70 percent of that income on activities to enhance local livelihoods: 27 percent on forest management, 34 percent on social development activities, 18 percent on pro-poor provisions and 21 percent on institutional development of the groups (Chapagain, Subedi, and Rana 2009). They estimate that CFUGs spent about NRs 14.4 million on poverty- focused actions during one year in the 15 districts. During 2007–08, these CFUGs generated paid local employment equivalent to NRs 180 million (1.5 million person days). Out of the total employment, 19 percent was for Dalits and 31 percent for women. Overall, 85 percent of employees were from poor households.

Data from the Livelihoods and Forestry Programme of Nepal shows that Dalit representation in forest user group executive committees was about 6 percent until 2003, increasing to almost 15 percent by the end of 2007, on par with the overall percentage of Dalits in the 15 program districts of the LFP (Table 7) (Chapagain, Subedi, and Rana 2009). Similarly, the representation of disadvantaged ethnic minorities has also increased from 32 percent in 2003 to 44 percent in 2008. The representation of the economically poor in CFUG decisionmaking committees during the period has also increased from 31 percent to 52 percent.

Table 7. Representation of ethnic people in executive committees of CFUGs

Caste/ethnicity	% of national population	CFUG representation in 2003	CFUG representation in 2008
Dalits	12.3 ^a	6%	12%
Ethnic minorities	29.9 ^b	32%	44%
Muslims	3.6	0%	1%
Women		21%	36%
Poor		31%	52%

Sources: Chapagain, Subedi, and Rana 2009; ^a Gurung 1996; ^b CBS 2002.

Gender-Specific Dimensions

Women comprise about 25 percent of executive committee positions within CFUGs (Kanel and Kandel 2004) but are still struggling to rise to decisionmaking positions in the community forestry sphere (Nightingale 2002; Timsina 2002). One strategy toward balancing gender distribution has been to form women-only CFUGs. Luintel and Timsina (2008) report that women-only CFUGs are generally provided with relatively small and marginal land as community forests. These CFUGs have access to forest only half the size per household of mixed CFUGs (0.34 ha for women-only CFUGs, compared with 0.73 ha for mixed CFUGs) (Rai-Paudyal and Buchy 2004). Another initiative for balancing gender has been to

⁹ Dalits are considered “untouchables;” they are not allowed to touch food, water, and religious areas in many rural parts of Nepal.

include the names of women in the CFUG member list, instead of the earlier practice of including only the male household head. Although gender concerns have long been ignored in community forestry (Buchy and Subba 2003), Luintel and Timsina (2008) suggest a rising trend of women's participation in community forestry. An analysis of minutes of assemblies and meetings of 11 CFUGs that they studied shows that representation by women, including Dalits, has increased over time (Table 8).

Table 8. Increasing trend of women's representation on CFUG executive committees over time

CFUG	Executive Committee composition at time of formation		Composition between first and current Executive Committee		Current composition	
	Women	Men	Women	Men	Women	Men
Dangsera	4	6	11	2	5	6
Tham	0	9	2	9	2	9
Byangdhunga	NA	NA	1	5	5	6
Mathillo Patle	0	8	1	10	2	9
Pandey	NA	NA	NA	NA	2	5
Kagbeni FMSC	0	9	0	9	0	9
Kalo Ban FMSC	NA	NA	NA	NA	1	6
Sarbodaya	0	11	5	9	5	6
Nashawa	4	11	4	11	5	10
Kamalpur	5	14	0	15	11	4
Chautari	2	9	0	10	5	8
Total	15	77	24	80	43	78

Note: NA is not available.

Source: Luintel and Timsina 2008.

Women's presence in CFUG meetings and assemblies is often constrained by their sociocultural roles in society as well as their limited prior deliberative experience (Luintel and Timsina 2008; Nightingale 2002). However, in recent years, greater participation of women—both in quantity and quality—has been observed in areas where women's ability to make choices is relatively independent at the household level. Many women-only CFUGs are operating successfully, and Community Forestry Program actors clearly prioritize gender-related goals. Moreover, when women have greater access to financial assets through various activities, such as income generation and savings and credit, the family benefits from women's participation in the public domain.

Controversial or Unintended Negative Aspects

Livelihoods have benefited from community forestry in Nepal, although some controversial aspects serve as the basis for ongoing research, critique, and innovation to further strengthen and adapt the program. Controversial aspects include insufficient quantitative evidence of an improvement in the income component of livelihoods, particularly for the poorest households and marginalized groups; divergent viewpoints over long-term community forestry management goals; a too-tenuous policy and enabling environment for pro-poor management; land tenure insecurity, especially for the poorest and marginalized groups; and difficulties in implementing community forestry in the timber-rich Terai region of the country.

First, perhaps the most prominent of these aspects is evidence that the poorest households, who are the primary focus of pro-poor development interests, appear to benefit less from community forestry than wealthier households in a community. Some studies have found that wealthier households not only tend to control forest management decisions, but also may make access to forest products

disproportionately more difficult for poorer households by making management decisions that act in their own interests. Examples include focusing management efforts on timber production, restricting the amount of NTFP collection, introducing fee-based collection systems, and reducing access to CFUG funds by other members of the group (Pokharel and Nurse 2004; Dhakal, Bigsby, and Cullen 2005).

Other studies show quantitatively that the poorest households in the communities studied, who do not have enough land to support their basic subsistence needs and are thus more reliant on forest products than other community members, receive disproportionately smaller livelihood benefits from community forestry than the wealthier households (Malla 2000; Adhikari, DiFalco, and Lovett 2004; Dhakal, Bigsby, and Cullen 2007). Certain forest products, such as timber, are too expensive for nonwealthy households to afford, even with subsidies. One suggestion for overcoming this “hidden subsidy” (Iversen et al. 2006) is to shift primary management priorities in community forests away from timber production, while increasing the emphasis on fodder production and agroforestry (Dhakal, Bigsby, and Cullen 2005, 2007). Since timber permits and harvesting fees are out of reach for many of the poorer households in a community, another suggestion is to increase the focus on NTFPs as sources of revenue (Kanel and Kandel 2004). Other studies of community forestry situations report a decline in the availability of fuelwood and fodder, no evidence of enhanced employment opportunities, little overall increase in household incomes or livestock resources, or a lack of livelihood improvement for the poorest households in a community (Dougill et al. 2001; Timsina 2003; Dhakal, Bigsby, and Cullen 2007; Shrestha and McManus 2008; Maharjan et al. 2009).

Second, some reviews have called for a stronger enabling policy framework to promote pro-poor forest management in Nepal (Acharya, Adhikari, and Khanal 2008; Bhattarai 2009). One strategy for this could be to lease out parts of community forest land to the poorest groups for short-term cash crop cultivation or agroforestry, but community forestry legislation does not allow the planting of annual crops on community forest land.¹⁰ Poor users are encouraged by DFO staff to plant forest or wild crops that are not always preferred by the poor or compatible with their requirements. Studies such as Bhattarai (2009) and Paudel, Banjade, and Dahal (2009) report a widespread perception among community forest users that the government retains overall forest management authority while simply shedding the responsibility for day-to-day management of forests to local communities.

Third, as the LFP experience demonstrates (Bhattarai 2009; Kunwar, Neil, Paudyal and Subedi 2009), land tenure security remains a critical issue in relation to providing sustained incentives to the poor to invest in the forest land allocated to them. In the land allocation schemes, tenure is currently defined through an agreement between a poor household (or group of households) and the CFUG committee, but there is no regulatory provision to facilitate and provide legal security to such pro-poor transactions. Given that there is high demand for forest land among households of all wealth categories, Bhattarai (2009) fears that community-level agreements with poor and excluded groups may easily revert back under local pressures and politics. We agree that pro-poor innovation is sustainable over the long run only when there are strong institutional mechanisms built in favor of the poor at village and higher levels. The current political transition is full of inclusion and restructuring agendas, and some of the deeper structural issues of exclusion around forest and natural resource management are being articulated in the national politics and the constitutional debate (Himal 2009).

Lastly, there has also been much controversy over the implementation of community forestry in the Terai region of Nepal and conflict with another competing program called Collaborative Forest Management (Bampton, Banjade, and Ebregt 2008). The commercial value of forests in the Terai greatly exceeds that of the middle hills, because Terai forests are dominated by hardwood timber tree species. Terai forests therefore have the potential to generate much greater revenues for CFUGs than middle hills forests, but they are also a much higher potential source of revenue for the state. The presence of products of high commercial value in Terai forests creates greater conflict over forest resource access, benefits distribution, and overall Community Forestry Program implementation. It also prompts concerns that the

¹⁰ Section 49 under article 11 of the Forest Act clearly states that no person shall attempt to deforest, plough, dig, or cultivate the land in a forest area.

institutional model for community forestry in the middle hills may need to be substantially altered if it is to succeed in avoiding elite capture or state appropriation of benefits in the Terai (Iversen et al. 2006).

4. SUSTAINABILITY OF COMMUNITY FORESTRY IN NEPAL

As mentioned earlier, community forestry in Nepal is not entirely an external intervention. It is indeed a negotiated process of forest governance between local communities and the state, with additional developmental inputs from donor-funded programs and advisory and advocacy inputs from NGOs. Thus, when we refer to "community forestry," we do not merely mean a government program but a complex set of social-ecological interactions, involving local communities and their institutions, government policies and programs, and associated technical, institutional, and political processes at multiple levels, that affect forest management choices and actions of local people (Ojha, Agrawal, and Cameron 2009). From this perspective we argue that the question of sustainability should not be focused on external intervention but should concentrate on local processes and then move up the scale to examine the effects of wider contextual drivers. Likewise, sustainability analysis should not be confined to sustainability of the government program inputs. Sustainability is not understood merely as net present value of a stream of economic benefits but also as a sense of place and belonging to a community, social identity and power relations, social capital and civic engagement, and local worldviews and knowledge. Seen from these perspectives, community forestry in Nepal largely appears to be moving along a sustainable trajectory.

As we outlined in section 2, community forestry processes have continuously expanded over the past three decades – in terms of the number of CFUGs formed, area of forest handed over to community management, and the number of households/families involved. During this period, the level of involvement of donors and government organizations has shrunk, while the involvement of NGOs and CFUG networks has expanded. The space for decentralization and community participation in natural resource management has partly been strengthened by the parallel processes of political mobilization and growing consciousness of people in Nepal about self-governance and democratization. Above all, the immediate livelihood benefits derived by rural households—as an input to agriculture, food security, and cash incomes—are the keys to strong collective action within local communities, allowing them to actively manage their forest resources.

Community forestry is sustained by a legally defined tenurial structure that is well accepted by local communities and wider Community Forestry Program stakeholders. Radical community rights activists do not demand change in the legal system, unlike many other contexts, but monitor changes in the existing legal framework that may impinge on community rights. While issues of tenure and power sharing between local communities and the government are legalized and provide secure tenure rights to local communities, there are sometimes tensions between local communities and the government in defining, interpreting, and enacting these formally agreed rights (Shrestha 2001; Ojha 2006). This tension sometimes overflows in street protests or intense negotiations, cultivating a feeling of instability and confusion over tenurial security even as it strengthens the claims of local communities. The recurrent issue is the extent to which processes of policymaking, program planning, and implementation provide opportunities to local community groups and civil society networks to influence forest governance. The debate is not so much about principles or legal arrangements, but at the level of everyday practice, where actors seek to defend or maximize their self-interests. This is particularly serious when it comes to registering CFUGs, planning forest management, and harvesting and marketing forest products from community forests. Table 9 summarizes key risks and opportunities related to the long-term sustainability of the Community Forestry Program in Nepal. It lists some real risks but also identifies numerous opportunities that are available to community forestry actors to deepen the sustainability of community forestry in Nepal.

Table 9. An analysis of risks and opportunities related to sustainability of the Nepal Community Forestry Program

	Risks	Opportunities for
Financial	<ul style="list-style-type: none"> • Market for NTFPs lower than anticipated due to global financial crisis and other market uncertainties • Financial dependency of CFUG networks on external donors • Nontransparent financial transactions in timber marketing • Diversion of forest incomes to community development activities and limited investment in forest development • Overreliance of government Community Forestry Program on donors 	<ul style="list-style-type: none"> • enhancing enterprise management and marketing skills of CFUGs • combining multiple CFUGs at the landscape level to realize the economy of scale in forest products marketing • mobilizing CFUG paid levies to sustain network activities and reduce dependency on donors • enhancing cash benefits through the cultivation of cash crops in degraded parts of forest land • CFUGs becoming financially self-sustainable and having the potential to cover government expenses through tax (if a political decision can be made through consensus)
Environmental	<ul style="list-style-type: none"> • Impact of climate change – species range shift, forest fire, etc. • Increased forest fire and wildlife damage to human life and property may reduce the incentives for forest management • Preference for certain species while undertaking forestry operations may lead to unsustainable species composition and loss of biodiversity • Growing economic opportunity for nonforestry use of the forest land may prompt CFUGs to convert forests into unsustainable land use practices (such as construction of buildings, roads, etc.) 	<ul style="list-style-type: none"> • added incentives through carbon markets may reinforce forest conservation • accounting of ecosystem services of community forests may reinforce forest conservation through added recognition and incentives • CFUGs to increasingly recognize the biodiversity outcomes of forest management • community participation to enhance forest condition and biodiversity, compared to government management of forests
Socio-political	<ul style="list-style-type: none"> • CFUGs may face disincentives if there is continued domination by techno-bureaucrats • Decisionmaking within CFUGs may continue to be dominated by local elites • Federation and CFUG networks that enhance the agenda of local communities at national and international level are heavily donor dependent • Political parties may seek to influence CFUGs and their networks through non-transparent and undemocratic manner • Changes in political system may minimize the role of civil society and local communities • Conflict with alternative models of community-based forest management such as leasehold forestry and collaborative forest management 	<ul style="list-style-type: none"> • a growing number of government foresters to support the principle of community participation in forest management • emergence of a strong network of CFUGs influencing policies at national and international levels • A strong network of NGOs and professional knowledge producers to promote participatory forestry • strong support to and recognition of community forestry by political parties • extensive network of community forestry activists throughout the country. • International Labor Organization Convention number 169 empowering the indigenous and local forest communities to claim greater rights over forest

Economic/Financial Sustainability

Nepal's Community Forestry Program is still largely a part of its subsistence livelihood system, with nonmonetary transactions dominating forest management. Due to the absence of any rapid expansion of capitalist production in rural areas of Nepal (Blaikie, Cameron, and Seddon 2002), the opportunity cost of

labor is low, which makes it possible to generate the substantial voluntary contributions needed to undertake forest management. Local actors choose to contribute their time and labor largely because forests represent a sociopolitical arena for them to engage in cultural and political exchanges, allowing them to further shape the collective identity of a community. In recent years, local forest-dependent people are becoming increasingly conscious of civil, political, and economic rights, and marginalized groups such as Dalits and indigenous groups are seeking pro-active involvement in different spheres of forest governance. Clearly, participating in forest management is not only driven by economic benefits but by a variety of cultural, symbolic, and political benefits that are gained through collective action in the forest governance arena (Ojha, Agrawal, and Cameron 2009).

We summarize anecdotal indications of the emerging economic sustainability of the program here, in the absence of a reliable cost-benefit analysis of the community forestry intervention, noting an increasing expectation of cash benefits from market transactions, such as through the sale of timber and nontimber forest products, to meet the growing livelihood needs of forest-dependent communities (Banjade and Paudel 2009). Depending on the location of a community forest, timber and several high value nontimber forest products have good local and international markets. Timber in the low-lying Terai and medicinal plants of the higher Himalaya are well known. These products have emerged as a source of cash incentives to local communities. In recent years, there are attempts to increase the capacity of CFUGs to promote enterprise-oriented use of forests (Subedi 2006). Despite growing evidence of the positive role of economic incentives in forest conservation, through small-scale forestry enterprises, the policy environment is still too restrictive to support and encourage enterprise-oriented management of community forests (Banjade and Paudel 2009; Kunwar et al. 2009).

The nature of household dependence on forests is also changing, and the direction of change varies across different contexts. In areas where out-migration is common, people's dependence on forests has decreased for two reasons: increased access to cash income from distant nonfarm sources and a decline in the supply of active human resources. This may lead to reduced pressure on forests. In other contexts such as the Terai, where the land is fertile and there is still a large area of de jure government forest under de facto open access, forest in-migration has continued. This has created added pressure on forest land. There are instances of squatters organizing as a CFUG and managing forests in a sustainable way (Pokharel 2000), as well as incidents of squatters confronting a CFUG over land for settlements. Such conflicts are highly politicized, and CFUGs and their federations have had to face tremendous pressure from political interests. CFUGs have also organized themselves to protect forests and community forestry.

In the emerging context of climate change, once again, the perceived value of forest land is growing compared with competing land uses. The government of Nepal and other stakeholders are conducting pilot programs exploring the possibilities of forest carbon marketing from community forestry. A separate government unit has been established within Nepal's Ministry of Forest and Soil Conservation to deal with the issues of forest and climate change. Given that the global forest sector contributes to one-fifth of global greenhouse emissions through deforestation and degradation (Stern 2006), there is a possibility that carbon revenue may provide added incentives for community participation in forest management (LFP 2009). But there are also fears that the emergence of carbon forestry may trigger a reversal of forest tenure reform, potentially undermining the rights of local communities under community forestry (Dahal and Banskota 2009).

After three decades in place, studies indicate that community forestry may be more effective than government management from a financial point of view. Kanel (2004) argues that, based on a study conducted in 2002, the annual income of the Department of Forests, which controls 75 percent of Nepal's forest area, is about NRs 680 million, while the income of CFUGs, which control 25 percent of the forest area, is NRs 740 million per year. CFUGs are still found to be earning less than they could under a sustainable use approach to forest management, with estimated earnings far less than expected from an economic perspective (Niraula 2004b). This resonates with the widely held view that community forests are protection-oriented and underutilized (Pokharel et al. 2008).

Despite apparently greater efficiency than government management, community forestry in its own right has yet to be managed effectively. Since per capita forest area in the middle hills is relatively low (for example, 0.5 ha per household in Ramechhap and Dolakha districts), management and utilization need to be brought to the highest sustainable level (Nurse et al. 2004). The current harvesting level is less than 1 percent of the growing stock (Pokharel et al. 2008). This is again related mainly to techno-bureaucratic control over forest management planning and the lack of a service delivery system that is independent of bureaucratic control.

In the initial stage, and to some extent up until the present, community forestry has been largely a donor-funded process, and some argue that it is somewhat unclear how financial support for the program will continue as donor funds are scaled back (Acharya 2002; Pokharel et al. 2008). Donor support for the Community Forestry Program, which covers up to 16 percent of CFUG costs, is currently unsustainable, even after 30 years of implementation. But we argue that this is indeed a governance problem and not a financial constraint, mainly because the local community forestry processes have built sufficient momentum in Nepal, demonstrating the willingness of local communities to make the investments necessary to establish and operate CFUGs. Moreover, the CFUGs have been able to generate a substantial amount of funds even under a protectionist approach to forest management, indicating a potential for meeting overhead costs more fully through increased production-based community forestry. If CFUGs believe in the credibility of the Community Forestry Program and own it, and if the government's role is limited to regulation and technical support, so that private and nongovernmental service providers are allowed to work directly with CFUGs in other areas of service delivery, then the cost of the Community Forestry Program will be low enough to be covered by a levy on community forestry production itself. But to date, CFUGs and their networks are opposed to paying any extra tax to the government, and this should be seen in the context of the limited credibility and legitimacy of the government.

Another set of evidence for financial sustainability of community forestry in Nepal is that in several districts, community forestry has become functional and perhaps more effective in areas where there has been little or no donor program support. This is the case in Terai districts in general (Dhungana and Bhattarai 2005) and several hill districts outside of bilateral project areas. CFUGs are also becoming part of subnational, national, and international networks, gaining greater access to information and institutional development services. After the mid-1990s, civil society groups have taken much of the responsibility for expanding community forestry.

Lastly, a key issue for financial sustainability at the CFUG level is equity in sharing forest products and related pricing mechanisms. Recognizing the hidden subsidy (Iversen et al. 2006) accruing to local elites, many CFUGs have begun to adopt differential rates for households with different wealth statuses. Still, wealthier households may make more effective use of benefit quotas that poor households cannot capitalize on, for instance timber benefits. The issue is whether forest products should gradually be sold at market prices, either within or outside the group, to maximize financial revenue that is then used to support the livelihoods of the poor in ways that really suit their needs.

Environmental Sustainability

No comprehensive studies are available to assess the environmental outcomes of community forestry, but both case studies and general observations suggest improvement in forest conditions (for example, lower incidence of fire and illegal harvesting of various forest products, better controlled grazing, higher tree density in formerly degraded forests, increased species diversity, and regeneration of important species (Dougill et al. 2001; Dongol, Hughey, and Bigsby 2002; Acharya 2002; Dev et al. 2003; Yadav et al. 2003).

Amidst growing concern about the negative environmental impacts of development activities, the government of Nepal has also developed Environment Impact Assessment (EIA) / Initial Environmental Examination (IEE) guidelines. A similar instrument developed by the Ministry of Forest and Soil Conservation outlines EIA procedures for transferring forests to the Community Forestry Program and for undertaking forestry operations. However, this instrument was developed with limited participation or

inputs by the CFUGs federations and has been opposed by CFUGs and their organizations. Given the dissatisfaction on the part of CFUGs, such instruments of sustainability may ironically have negative effects, if imposed without involvement of the intended targets.

At the level of CFUG management, the issue of forest ecological sustainability is strongly addressed. Forests are generally put under a protectionist regime immediately after a CFUG is formed, and harvesting is generally done on the basis of block-based management and in combination with an inventory and assessment of mean annual increment. Community forest users also often patrol forests in groups both day and night to protect forests from external free riders.

Several studies suggest that there have been improvements in forest conditions, forest land uses, and biodiversity following community management. Branney and Yadav (1998) assess the change in condition of community forests between 1994 and 1998 in four districts of the Koshi Hills. They find that the number of stems increased by 51 percent and basal area increased by 29 percent, whereas grazing intensity declined from 94 to 74 percent, compared with public forest. Karna, Gyawali, and Karmacharya (2004) analyze the condition of five community forests at five-year intervals during 1993–2003 and find that several parameters of forest condition such as tree and sapling density and sapling diameter increased with the subsequent measurements.

Gautam et al. (2003) analyze changes in land use in a watershed covering an area of 153 square kilometres (km²), by comparing satellite imagery from 1976, 1989, and 2000. They find that the number of forest patches declined over time (from 395 in 1976 to 323 in 1989 and to 175 in 2000), while the average patch area increased over the same periods. This is attributed to the merger of previously isolated small forest patches, as previously degraded areas regenerated or came under forest plantation under community forestry. They also find that although 22.5 percent of forest area was converted to other land use during 1976–2000, 37.4 percent of land under other uses came under forestry during the same time period, resulting in a net increase of 14.9 percent in forest area in the watershed. A land use change study in two central districts, using aerial photographs from 1978 and 1992 along with rapid field assessment, finds that the area of forest land increased from 7,677 ha to 9,679 ha (37.5 percent) over the period assessed (Jackson et al. 1998). The authors attribute the increase primarily to forest plantation establishment as well as some increase in the area of mixed natural forest.

Nagendra et al. (2008) use Landsat imagery from 1989 and 2000 to analyze changes in land cover in three management zones (government control, buffer zone around protected area, and community forestry), using landscape ecology metrics and proportional distribution of land cover categories. The results show significant differences in terms of land cover dynamics and landscape spatial patterns between these land ownership classes and suggest greater improvement of forests managed under community-based institutions. Another study compiles data from 55 forests from the middle hills and Terai plains of Nepal to examine factors associated with forest clearing or regeneration. Results affirm the central importance of tenure regimes and local monitoring, including participation of forest users in the management processes (Nagendra 2007).

At both the subnational and national levels, a continuing issue is a lack of comprehensive monitoring. The Community Forestry Division of the Department of Forests does have a National Community Forestry Database, but it contains insufficient biodiversity information and is not updated with sufficient frequency. Data generated by donor projects are specific to project areas, and the ability to collate similar information across projects is limited because each project collects data that are most relevant to their particular interests. More recently, schemes of forest certification have been introduced by adapting global lessons and methodologies (NFA 2007). But these are popular among CFUGs, partly because certification is not yet linked to enhanced commercial benefits. Some analysis suggests that biodiversity and community governance are related: if diverse views and preferences regarding forest management are accommodated in the CFUG decisionmaking, there is a greater likelihood of favorable biodiversity outcomes (Banjade 2008).

Social and Political Sustainability

At the wider level, community forestry has been heralded as a success, though issues of inclusion and management effectiveness remain important challenges, even though they have improved since the early years of implementation. Emergence of strong civil society institutions to promote community forestry has politically deepened the community forestry process, beyond the technical and largely apolitical approach adopted by government extension agents. CFUGs have organized themselves into strong networks such as FECOFUN and have shown themselves in the national arena to be politically mobilized actors, even participating in street protests defying the King's takeover of power in 2006, in which many FECOFUN activists were detained by the royal regime (G. Pandey, personal communication 8 July 2009). Today, CFUG networks are part of every policy debate that affects local forests and people. Because of this social and political mobilization, political parties strongly support community forestry in particular and decentralization of natural resource management in general. For this reason, community forestry appears to be a viable institution even during periods of conflict (Banjade and Timisina 2005; Pokharel, Ojha, and Paudel 2005). Nevertheless, political interests can overwhelm local dynamics, as when political parties seek to influence elections of CFUG federations (Ojha et al. 2008).

At the level of discourse and knowledge, the mobilization around community forestry has challenged the traditional hegemony of a techno-bureaucratic ideology. Scholars from multiple disciplines have taken a keen interest in community forestry as it relates to biodiversity, livelihoods, and policy. Such scholarship has contributed to deliberative engagement between multiple stakeholders. Noted international scholars in the social and environmental sciences have undertaken case studies of Nepal, thus promoting the discourse of devolution globally. This is considered parallel with the culture of collaborative policymaking (such as national workshops every five years and regular multistakeholder policy deliberation groups) on the part of government officials. Lessons from the successful CFUGs are being scaled up in other sectors.

A critical issue affecting the political sustainability of community forestry is how the relationship between CFUGs and the Forest Department is structured and transformed. Despite some changes in attitude and behavior of the forest officials toward working with local communities, largely as a result of the community forestry movement in the hills, the orthodox image of forest bureaucrats has not changed much (Ojha 2006; Pokharel, Ojha, and Paudel 2005). Power differentials between local people and foresters continue to be large, and ordinary citizens and forest bureaucrats still have problems of mutual mistrust, with limited opportunities of direct deliberative engagement. The majority of foresters still attach great value to what can only be labeled as techno-bureaucratic approaches.

Overall, the strong interest of local communities in forest governance and their adoption of a sustainable approach to forest management are the key foundations of sustainability of community forestry in Nepal. CFUG networks and civil society actors have challenged the top-down approach of government. Community forestry is well respected by political parties, despite some strategic influences by politicians, for instance over CFUG elections. CFUGs have become durable institutions supported by an active and vibrant network of CFUG federations, all contributing to the sociopolitical sustainability of community forestry in Nepal.

5. LESSONS

The Community Forestry Program in Nepal demonstrates an innovation in citizen participation in forest governance from community-level forest management to national-level policymaking, as well as a range of cross-sectoral development institutions. It is characterized by a legally specified tenurial arrangement for community groups to manage and utilize forests, whereby well-established networks of civil society, social movements, researchers, and government agencies pursue diverse agendas within community forestry, often with conflicting objectives. The emergence of such a complex, multiscale system of governance was triggered in the late 1970s when key forest policymakers and government officials realized that it was not possible for the government to protect forests through the old fashioned, top-down, and state-centric approaches, without the active support of local people. At the same time, the perceived crisis of Himalayan degradation invited an international response in terms of technical expertise and financing that initially emphasized technical quick fixes, such as plantation establishment, but later allowed room for experimentation with different strategies, eventually reinforcing community-based forest management. Pilot studies and experimentation were critical aspects of the evolution of community forestry institutions and policy. The devolution of governance through community forestry has yielded both procedural and substantive gains. Procedural gains include democratic deliberation, civic engagement, capacity building, and institutional development. Substantive gains include creation of livelihood opportunities and contributions to forest ecological regeneration. By reviving the socioecological system of forest and rural landscapes, community forestry in Nepal has significantly improved livelihood systems. It has augmented not only natural capital flows but also nurtured a variety of livelihood capitals such as social, political, financial, and physical, through which local people have been better able to derive food and overall livelihood security.

However, the case also demonstrates that the devolution policy does not guarantee participation of all. While participation of elite members of society has improved forest governance when compared with the state management of forests, the continuing challenge is to understand how marginalized members of society can have equitable access to benefits from community forestry. This is indeed a structural issue of Nepalese society that is characterized by multiple axes of hierarchy—caste, gender, ethnicity, class, and geographic isolation. More recently, community forestry in Nepal has been greatly mediated by swift political transitions in which marginalized groups are making historic claims of identity and participating in political change. A significant aspect of democratization and tenurial security is related to the interaction between local communities and forest bureaucracy, which has yet to fully transform itself from its colonial legacy of centralized forest management. The changing livelihood context is also affecting community forestry in various directions, including a shift toward commercial use of forest products.

Below we identify various specific lessons in relation to implementation of the program, particularly as they relate to improved livelihoods and welfare. We also outline issues related to generating impact and present lessons for wider replications outside of Nepal.

Key Lessons Learned in Implementing the Intervention

Security of tenure played an important role in the success of community forestry in Nepal. CFUGs had clear standing under the 1993 law, which provided them with legal identity and a high degree of autonomy from arbitrary bureaucratic actions. This stands in stark contrast to similar initiatives in other countries, such as India, where community forestry groups are not protected by the law (Behera and Engel 2006). This legal protection allowed CFUGs to continue to function through some very tough times, as during the decade-long Maoist insurgency in some parts of the country, as well as to sustain themselves in situations where the government was not responsive or even absent. Moreover, CFUG's independent legal status has enabled them to seek out collaboration with any civil society or private-sector organization of their choice, rather than relying solely on the government forest department for diverse services.

During implementation, donors invested simultaneously in creating secondary-level federations of CFUGs and in capacity building of local and national NGOs. As a career in mainstream politics lost credence in the eyes of mid-career political activists, they entered the emerging civil society domain where they retained a political outlook and an activist orientation. Because of donor support, as well as endogenous civic renaissance, community forestry became a platform for all kinds of critical actors – researchers, activists, reformist government officials, and expatriates. This investment paid rich dividends over time, as when CFUGs were able to intervene directly in national policy debates through FECOFUN, their national network. Besides facilitating horizontal learning and sharing, CFUG networks and NGOs were also instrumental in the expansion of community forestry to districts that were not targeted by donor projects, thus expanding the reach of the program and multiplying the benefits in terms of livelihoods improvement.

Key Issues Related to Generating Impact through the Intervention

Although the legal identity of CFUGs was enshrined in the 1993 law, there was a great deal of flexibility in the choice of institutional structure for each case. This made it possible to tailor the institutional modalities of community forestry in practice to suit the heterogeneity of local contexts across Nepal. At the national level, this allowed for the evolution of differences in the structure of CFUGs across the high hills, middle hills, and the Terai, for example. When it became clear that the institutional model of CFUGs that worked well in the middle hills was inappropriate for the Terai, there was enough flexibility to experiment with alternative institutional forms. Although the current modality for power-sharing between government and local communities remains contested, there is now enough experience with diverse modalities—including community, government, and some form of joint management—to inform better formulation of policy for the Terai as well.

Even within local contexts, the law provided a great deal of autonomy for CFUGs to experiment with different institutional arrangements pertaining to a range of issues, including silvicultural practices, access to forest products, benefit sharing, and income generation. Coupled with the horizontal information sharing facilitated by secondary organizations and NGOs, CFUGs were able to learn from a wider base of experience and adapt innovative ideas to their needs, including those that enhanced their income-generating opportunities and enabled greater contributions to household livelihoods.

Through these processes, community forestry in Nepal moved beyond subsistence—fuelwood and fodder for domestic needs—to incorporate forests as a major source of household incomes. Forests not only contributed directly to rural livelihoods, but also became the source of investment capital and raw material for new market-oriented livelihoods. This diversification, enabled by CFUG incomes from improved forest management, increased household resilience to external shocks. After the initial period of consolidation, toward the end of the 1990s, community forestry also moved beyond forestry to focus on other “second” and “third” generation issues (Britt 1998; Ojha et al. 2008). While forest management remained central to their identity, CFUGs chose to invest an increasing proportion of their incomes in social and physical infrastructure, thus providing public goods critical for livelihoods in particular and human development in general. In the context of widespread poverty and poor infrastructure, CFUG investments in education, health, and microcredit, besides roads, buildings, and small-scale irrigation, has created the basis for future improvements in rural livelihoods across large areas of Nepal.

Lessons for Replication

Learning through experience is the key to success. Community forestry has evolved into a complex institutional network that requires actors to work collectively in a learning mode. Even when there is an absence of political consensus or a well-defined legal framework, collaborative learning has been able to find a way forward.

Development of a strong civil society network is a critical part of community forestry success. Civil society influence over community forestry has remained critical in the post- 1990 political environment (following the advent of multiparty democracy), especially to safeguard community rights and ensure autonomy of community action from regressive government actions and intrusive private interests. Emergence of community federations at national and subnational levels has nurtured and promoted civic engagement in forest policymaking, defying the traditional top-down approaches. There is also significant empowerment of local citizens to participate in democratic governance.

Diverse institutional modalities in practice should be allowed to emerge through flexible regulatory arrangements. Although conceived as a unified program of community forestry, diverse modalities have emerged in practice. CFUGs vary from a dozen households to several thousand, and the group structure varies from informal sharing and coordination mechanisms to highly formalized multitiered organizations. This is an adaptive response to the diversity of contexts.

A technocratic and “interventionist” approach has given way to a collaborative learning process. The development of community forestry was in part triggered by the open and responsive attitude of government officials, and was followed by gradual development and institutionalization of a multistakeholder process of collaboration. Community forestry is no longer a government program alone or a foreign aid-driven activity, but a complex governance regime for a forest-dependent social-ecological system. Over time, community forestry has grown complex in terms of the range of actors involved, scale of resources mobilized, diversity of processes involving conflicts and collaboration, and policy and practical issues encountered. It has covered most of the middle hills of Nepal (one-third of the country’s population) and parts of the low-lying Terai and high hills. It stood resilient to the conflicts that plagued Nepal during 1996–2006.

As some local specialists note, the Community Forestry Program of Nepal is *...a now much enlarged sector compared with that which was originally envisaged, involving decentralised bodies (including district administrations), professional associations, the private sector, and the non-government sector as well as the original actors of government, donors and communities. Whereas previously projects and their government partners tended to pre-dominate the sector, nowadays many functions are taken on by other civil society actors with this trend continuing to the present. Community forestry in Nepal is now no longer limited by being a project or government supported programme. It has become an extensive system* (Pokharel et al. 2008).

REFERENCES

- Acharya, K. P. 2002. Twenty-four years of community forestry in Nepal. *International Forestry Review* 4: 149–156.
- Acharya, K. P., J. Adhikari, and D. R. Khanal. 2008. Forest tenure regimes and their impact on livelihoods in Nepal. *Journal of Forest and Livelihood* 7: 6–18.
- Adhikari, B., S. DiFalco, and J. C. Lovett. 2004. Household characteristics and forest dependency: Evidence from common property forest management in Nepal. *Ecological Economics* 48: 245–257.
- Adhikari, B., F. Williams, and J. C. Lovett. 2007. Local benefits from community forests in the middle hills of Nepal. *Forest Policy and Economics* 9: 464–478.
- Agrawal, A., and E. Ostrom. 2001. Collective action, property rights, and decentralization in resource use in India and Nepal. *Politics and Society* 29: 485–514.
- Arun, K. C. 2004. Extraction of NTFPs from the community forest: Analysis of benefit distribution pattern in household level. *Journal of Forest and Livelihood* 4: 38–43.
- Bampton, J. F. R., M. R. Banjade, and A. Ebregt. 2008. Collaborative forest management in Nepal's Terai: Policy, practice, and contestations. In *Communities, forests and governance: Policy and institutional innovations from Nepal*, ed. H. Ojha, N. Timsina, C. Kumar, B. Belcher, and M. Banjade. New Delhi: Adroit.
- Banjade, M., and N. Timsina. 2005. Impact of armed conflict in community forestry of Nepal. *European Tropical Forest Research Network News* 43–44: 81–83.
- Banjade, M. R. 2008. Community forestry and biodiversity conservation in Nepal: A critical analysis (in Nepali). In *Biodiversity and livelihoods* (in Nepali), ed. H. Dhungana and J. Adhikari. Chautari, Kathmandu, Nepal: Martin Chautari.
- Banjade, M. R., and N. S. Paudel. 2009. Economic potential of non-timber forest products in Nepal: Myth or potential. *Journal of Forest and Livelihood* 7 (1): 36–48.
- Banjade, M. R., H. Luintel, and H. R. Neupane. 2008. Action research experience on democratising knowledge in community forestry in Nepal. In *Knowledge systems and natural resources*, ed. H. Ojha, N. Timsina, R. Chhetri, and K. Paudel. New Delhi: Cambridge University Press/Foundation Books.
- Banjade, M. R., N. S. Paudel, H. Ojha, C. McDougall, and R. Prabhu. 2007. Conceptualising meso-level governance in the management of commons: Lessons from Nepal's community forestry. *Journal of Forest and Livelihood* 6: 48–58.
- Banjade, M. R., N. P. Timsina, H. R. Neupane, K. Bhandari, T. Bhattarai, and S. K. Rana. 2006. Transforming agency and structure for facilitating pro-poor governance in community forestry. *Journal of Forest and Livelihood* 5: 22–33.
- Behera, B., and S. Engel. 2006. Institutional analysis of evolution of joint forest management in India: A new institutional economics approach. *Forest Policy and Economics* 8: 350–362.
- Bhattarai, B. 2007. What makes local elites work for the poor? A case of community forestry user group, Nepal. Paper prepared for an International Conference on Poverty Reduction and Forests: Tenure, Market, and Policy Reforms. Regional Community Forestry Training Center, Bangkok, Thailand.
- Bhattarai, S. 2009. Towards pro-poor institutions: Exclusive rights to the poor groups in community forest management. Discussion paper. ForestAction Nepal and Livelihoods and Forestry Program, Kathmandu, Nepal.
- Bhattarai, R. C., and S. P. Dhungana. 2008. Economic and market trends in forestry sector in Nepal. Thematic paper, ForestAction Nepal, Kathmandu, Nepal. Photocopy.
- Bk, N., R. K. Shrestha, S. Acharya, and A. S. Ansari. 2009. Maoist conflict, community forestry and livelihoods: Pro-poor innovations in forest management in Nepal. ForestAction Nepal, Kathmandu, Nepal.
- Blaikie, P., J. Cameron, and D. Seddon. 2002. Understanding 20 years of change in west-central Nepal: Continuity and change in lives and ideas. *World Development* 30 (7): 1255–1270.

- Branney, P., and K. P. Yadav. 1998. Changes in community forestry condition and management 1994–1998: Analysis of information from the forest resource assessment study and socio-economic study in the Koshi Hills, Nepal. Nepal UK Community Forestry Project, Kathmandu, Nepal.
- Britt, C. 1998. Community forestry comes of age: Forest-user networking and federation-building experiences from Nepal. Paper presented at the biannual conference of the International Association for the Study of Common Property, Vancouver, Canada.
- Buchy, M., and S. Subba. 2003. Why is community forestry a social- and gender-blind technology? The case of Nepal. *Gender, Technology and Development* 3: 313–332.
- Cameron, J. 1998. Development thought and discourse analysis: A case study of Nepal. In *New perspectives on India-Nepal relations*, ed. K. Bahadur and M. L. Lama. New Delhi: Har-Anand Publications.
- CBS (Central Bureau of Statistics). 2002. *Statistical pocket book Nepal*. Kathmandu, Nepal: Ramshah Path.
- Chapagain, B., R. Subedi, and B. Rana. 2009. Beyond elite capture: Community forestry contributes to pro-poor livelihoods in Nepal. Discussion paper. Livelihoods and Forestry Program, Kathmandu, Nepal. Photocopy.
- Chapagain, N., and M. R. Banjade. 2009. *Community forestry as an effective institutional platform for local development: Experiences from the Koshi Hills*. Kathmandu, Nepal: ForestAction Nepal and Livelihoods and Forestry Program (LFP).
- Chhetri, R. B. 2006. From protection to poverty reduction: A review of forestry policies and practices in Nepal. *Journal of Forest and Livelihood* 5: 66–77.
- Chhetri, R. B., and T. R. Pandey. 1992. User group forestry in the far-western region of Nepal: Case studies from Baitadi and Accham districts. International Centre for Integrated Mountain Development, Kathmandu.
- CIFOR (Center for International Forestry Research). 2007. Improving livelihoods and equity in community forestry: The role of adaptive collaborative management. Final technical report submitted to the International Development Research Center, Ottawa, Canada.
- DoF (Department of Forests). 2009. Community forestry database. Kathmandu, Nepal: DoF.
- Dahal, N., and K. Banskota. 2009. Cultivating REDD in Nepal's community forestry: A discourse for capitalizing potential? *Journal of Forest and Livelihood* 8 (1): 41–50.
- den Hertog, W. H., and K. F. Wiersum. 2000. Timur (*Zanthoxylum armatum*) production in Nepal: Dynamics in nontimber forest resource management. *Mountain Research and Development* 20: 136–145.
- Dev, O. P., N. P. Yadav, O. Springate-Baginski, and J. Soussan. 2003. Impacts of community forestry on livelihoods in the middle hills of Nepal. *Journal of Forest and Livelihood* 3: 64–77.
- DFRS (Department of Forest Resources and Survey). 1999. *The forest resources of Nepal*. Kathmandu, Nepal: DFRS.
- Dhakal, B., H. Bigsby, and R. Cullen. 2005. Impacts of community forestry development on livestock-based livelihood in Nepal. *Journal of Forest and Livelihood* 4: 43–49.
- _____. 2007. The link between community forestry policies and poverty and unemployment in rural Nepal. *Mountain Research and Development* 27: 32–39.
- Dongol, C. M., K. F. D. Hughey, and H. R. Bigsby. 2002. Capital formation and sustainable community forestry in Nepal. *Mountain Research and Development* 22: 70–77.
- Dougill, A. J., J. G. Soussan, E. Kiff, O. Springate-Baginski, N. P. Yadav, O. P. Dev, and A. P. Hurford. 2001. Impacts of community forestry on farming system sustainability in the Middle Hills of Nepal. *Land Degradation and Development* 12: 261–276.
- Eckholm, E. P. 1976. *Losing ground: Environmental stress and world food prospects*. New York: W. W. Norton.
- Fisher, R. J. 1989. *Indigenous systems of common property forest management in Nepal*. Honolulu, Hawaii, U.S.A.: Environment and Policy Institute.

- Gautam, A. P., E. L. Webb, G. P. Shivakoti, and M. A. Zoebisch. 2003. Land use dynamics and landscape change pattern in a mountain watershed in Nepal. *Agriculture, Ecosystems and Environment* 99 (1–3): 83.
- Gilmour, D. A., and R. J. Fisher. 1991. *Villagers, forests, and foresters: The philosophy, process, and practice of community forestry in Nepal*. Kathmandu, Nepal: Sahayogi Press.
- Gronow, J., and N. K. Shrestha. 1991. From mistrust to participation—The creation of participatory environment for community forestry in Nepal. Overseas Development Institute Social Forestry Network Paper 12b. London, U.K.: ODI.
- Gurung, H. 1996. Ethnic demography of Nepal. Paper presented at the Nepal Foundation for Advanced Studies Conference, 10 January 1996, Kathmandu, Nepal.
- Gutman, J. 1991. Representing crisis: The theory of Himalayan degradation and the project of development in Post-Rana Nepal. *Development and Change* (28): 45–89.
- Hobley, M. 1996. Participatory forestry: The process of change in India and Nepal. Rural Development Forestry Network, Overseas Development Institute, London.
- Himal*. 2009. Hima News Magazine, May 31, 2009.
- Iversen, V., B. Chhetry, P. Francis, M. Gurung, G. Kafle, A. Pain, and J. Seeley. 2006. High-value forests, hidden economies, and elite capture: Evidence from forest user groups in Nepal's Terai. *Ecological Economics* 58: 93–107.
- Jackson, W. J., R. M. Tamrakar, S. Hunt, and K. R. Shepherd. 1998. Land-use changes in two Middle Hills districts of Nepal. *Mountain Research and Development* 18 (3): 193.
- Joshi, M., L. Dhakal, G. Paudel, R. Shrestha, A. Paudel, P. B. Chand, and N. P. Timsina. 2006. The livelihood improvement process: An inclusive and pro-poor approach to community forestry—Experiences from Kabhrepalanchok and Sindhupalchok districts of Nepal. *Journal of Forest and Livelihood* 5: 46–52.
- Kanel, B. R., and R. Subedi. 2004. Pro-poor community forestry: Some initiatives from the field. In *Twenty-five years of community forestry*, ed. K. Kanel, P. Mathema, B. R. Kandel, D. R. Niraula, A. Sharma, and M. Gautam. Proceedings of the Fourth National Workshop on Community Forestry. Kathmandu, Nepal: Department of Forests.
- Kanel, K. R. 2004. Twenty-five years of community forestry: Contributions to Millennium development goals. In *Twenty-five years of community forestry*, ed. K. Kanel, P. Mathema, B. R. Kandel, D. R. Niraula, A. Sharma, and M. Gautam. Proceedings of the Fourth National Workshop on Community Forestry. Kathmandu, Nepal: Department of Forests.
- Kanel, K. R., and D. Acharya. 2008. Re-inventing forestry agencies: Institutional innovation to support community forestry in Nepal. In *Reinventing forestry agencies: Experiences of institutional restructuring in Asia and the Pacific*, ed. P. Durst, C. Brown, J. Broadhead, R. Suzuki, R. Leslie, and A. Inoguchi. Bangkok: Food and Agriculture Organization of the United Nations (FAO).
- Kanel, K. R., and B. R. Kandel. 2004. Community forestry in Nepal: Achievements and challenges. *Journal of Forest and Livelihood* 4: 55–63.
- Karna, B. K., S. Gyawali, and M. Karmacharya. 2004. Forest condition change: Evidence from five revisited community forests. Paper prepared for the Fourth National Community Forestry Workshop, Department of Forests, Kathmandu, Nepal.
- Kumar, N. 2002. The challenges of community participation in forest development in Nepal. Operations Evaluation Department Working Paper No. 27931. Washington, D.C.: The World Bank.
- Kunwar, M., P. Neil, B. R. Paudyal, and R. Subedi. 2009. Securing rights to livelihoods through public land management: Opportunities and challenges. *Journal of Forest and Livelihood* 7 (1): 70–86.
- Kunwar, S. C., A. S. Ansari, and H. Luintel. 2009. Non-timber forest products enterprise development: Regulatory challenges experienced in the Koshi Hills of Nepal. Discussion paper. ForestAction Nepal and Livelihood and Forestry Program, Kathmandu, Nepal.

- LFP (Livelihood and Forestry Program). 2008. Synthesis of LFP's SFM activities. Kathmandu, Nepal. Photocopy.
- _____. 2009. Can forest carbon financing benefit Nepal? A review of potential, challenges, and options. Kathmandu, Nepal: LFP.
- Luintel, H. 2006. Do civil society organizations promote equity in community forestry? A reflection from Nepal's experiences. In *Hanging on the balance: Equity in community-based natural resource management in Asia*, ed. S. Mahanth, J. Fox, M. Nurse, and L. McLees. Bangkok, Thailand: East-West Centre and RECOFTC.
- Luintel, H., and N. Timsina. 2008. Is forestry decentralization effective in empowering women's agency? ForestAction, Kathmandu, Nepal.
- Luintel, H., B. Bhattarai, and H. Ojha. 2006. Internal group governance in the context of community based forest management: A review of recent innovations and an analytical framework. ForestAction Nepal and Regional Community Forestry Training Center (RECOFTC), Kathmandu, Nepal.
- Luintel, H., H. R. Ojha, and B. Rana. 2009. Community forestry in Nepal: A synthesis of innovative practices. ForestAction Nepal and Livelihood Forestry Program, Kathmandu, Nepal.
- Maharjan, M. R., T. R. Dhakal, S. K. Thapa, K. Schreckenber, and C. Luttrell. 2009. Improving the benefits to the poor from community forestry in the Churia region of Nepal. *International Forestry Review* 11 (2): 254–267.
- Malla, Y. B. 1997. Sustainable use of communal forests in Nepal. *Journal of World Forest Resource Management* 8 (1): 51.
- _____. 2000. Impact of community forestry policy on rural livelihoods and food security in Nepal. *Unasylya* 51 (202): 37–45.
- Malla, Y. B., R. Barnes, K. Paudel, A. Lawrence, H. Ojha, and K. Green. 2002. *Common property forest resource management in Nepal: Developing monitoring systems for use at the local level*. Kathmandu, Nepal, and Reading, U.K.: ForestAction and The University of Reading.
- McDougall, C., H. Ojha, M. R. Banjade, B. H. Pandit, T. Bhattarai, M. Maharjan, and S. Rana. 2008. Forests of learning: Experiences from research on an adaptive collaborative approach to community forestry in Nepal. Center for International Forestry Research, Bogor, Indonesia.
- Metz, J. J. 1995. Development in Nepal: Investment in the status quo. *Geographical Journal* 35 (2): 175–184.
- MFSC (Ministry of Forest and Soil Conservation). 1995. *Forest Act 993 and Forest rules and regulations 1995*. Kathmandu, Nepal: Government of Nepal.
- Nagendra, H. 2007. Drivers of reforestation in human-dominated forests. *Proceedings of the National Academy of Sciences* 104 (39): 15218–15223.
- Nagendra, H., S. Pareeth, B. Sharma, C. M. Schweik, and K. R. Adhikari. 2008. Forest fragmentation and regrowth in an institutional mosaic of community, government and private ownership in Nepal. *Landscape Ecology* 23 (1): 41–54.
- NFA (Nepal Foresters' Association). 2007. Forest certification in Nepal: Practices and experience. Kathmandu, Nepal: NFA.
- Nightingale, A. J. 2002. Participating or just sitting in? The dynamics of gender and caste in community forestry. *Journal of Forest and Livelihood* 2: 17–24.
- Niraula, D. 2004a. Current status of recommendations made by the Third National Community Forestry Workshop. 25 Years of Community Forestry, Department of Forests, Kathmandu, Nepal.
- _____. 2004b. Integrating total economic value for enhancing sustainable management of community forests: A forward looking approach. Proceedings of the Fourth National Workshop on Community Forestry, Community Forestry Division, Department of Forests, Kathmandu, Nepal.
- Nurse, M., H. Tembe, D. Paudel, and U. Dahal. 2004. From passive management to health and wealth creation from Nepal's community forest. Proceedings of the Fourth National Workshop on Community Forestry, Community Forestry Division, Department of Forests, Kathmandu, Nepal.

- Ojha, H. 2002. *A critical assessment of scientific and political aspects of the issue of community forest inventory in Nepal*. Kathmandu, Nepal: ForestAction.
- _____. 2006. Techno-bureaucratic doxa and the challenges of deliberative governance—The case of community forestry policy and practice in Nepal. *Policy and Society* 25 (2): 131–175.
- _____. 2008. Reframing governance: Understanding deliberative politics in Nepal's Terai forestry. New Delhi: Adroit.
- Ojha, H., and B. Pokharel. 2005. Democratic innovations in community forestry—What can politicians learn? *Participation* 7 (7): 22–25.
- Ojha, H., and N. Timsina. 2008. From grassroots to policy deliberation—The case of Federation of Forest User Groups in Nepal. In *Knowledge systems and natural resources: Management, policy and institutions in Nepal*, ed. H. Ojha, N. Timsina, R. Chhetri, and K. Paudel. New Delhi: Cambridge University Press India and International Development Research Center.
- Ojha, H., C. Agrawal, and J. Cameron. 2009. Deliberation or symbolic violence? The governance of community forestry in Nepal. *Forest Policy and Economics* 11 (5–6): 365–374.
- Ojha, H., M. Khanal, and B. Shrestha. 1997. The process of handing over community forestry: The potential role of I / NGOs. National Workshop on Community Forestry for Rural Development, ActionAid Nepal, Kathmandu, Nepal.
- Ojha, H., K. Paudel, and J. Cameron. 2007. Autonomy or deliberative governance? Insights from Bourdieu, Habermas, and Dewey. In *Autonomy beyond Kant and Hermeneutics*, ed. P. Banarjee and S. K. Das. London, New Delhi, and New York: Anthem Books.
- Ojha, H., N. P. Timsina, and D. Khanal. 2007. How are forest policy decisions made in Nepal? *Journal of Forest and Livelihood* 6 (1): 1–16.
- Ojha, H. R., B. Subedi, H. Dhungana, and D. Paudel. 2008. Citizen participation in forest governance: Insights from community forestry in Nepal. Paper presented at the Conference on “Environmental Governance and Democracy,” May 10–11, 2008, Yale University, New Haven, Connecticut, U.S.A.
- Pandey, D. R. 1999. *Nepal's failed development: Reflections on the mission and maladies*. Kathmandu, Nepal: South Asia Centre.
- Pandit, B. H., and G. B. Thapa. 2004. Poverty and resource degradation in Nepal. *Society and Natural Resources* 17: 1–16.
- Paudel, K. P., and H. R. Ojha. 2008. Contested knowledge and reconciliation in Nepal's community forestry: A case of forest inventory policy. In *Knowledge systems and natural resources: Management, policy, and institutions in Nepal*, ed. H. R. Ojha, N. P. Timsina, R. B. Chhetri, and K. P. Paudel. New Delhi: Cambridge University Press India and International Development Research Center.
- Paudel, K., K. Green, H. Ojha, and R. Barnes. 2007. Challenges to participation: Lessons from participatory action research with community forest user groups in Nepal. *Journal of Forest and Livelihood* 6: 70–78.
- Paudel, N. S., M. R. Banjade, and G. R. Dahal. 2008. Impacts of forest tenure reform on livelihoods: Experiences from Nepal. Paper presented at the International Association for the Study of the Commons annual conference, July 14–18 2008, Cheltenham, U.K.
- _____. 2009. Handover of community forestry: A political decision or a technical process? *Journal of Forest and Livelihoods* 7 (1): 27–35
- Pokharel, B. K., and M. Nurse. 2004. Forests and people's livelihood: Benefiting the poor from community forestry. *Journal of Forest and Livelihood* 4: 19–29.
- Pokharel, B. K., H. R. Ojha, and D. Paudel. 2005. Assessing development space and outcomes in conflict situation: A reflection from Nepal Swiss Community Forestry Project. Nepal Swiss Community Forestry Project, Kathmandu, Nepal.

- Pokharel, B. K., P. Branney, M. Nurse, and Y. B. Malla. 2007. Community forestry: Conserving forests, sustaining livelihoods and strengthening democracy. *Journal of Forest and Livelihood* 6: 8–19.
- _____. 2008. Community forestry: Conserving forests, sustaining livelihoods, strengthening democracy. In *Communities, forests, and governance: policy and institutional innovations from Nepal*, ed. H. Ojha, N. Timsina, C. Kumar, B. Belcher, and M. Banjade. New Delhi: Adroit.
- Pokharel, B. K., G. R. Dahal, and S. Byrne. 2009. Nepal country report on forest governance and climate change. Swiss Intercooperation, Kathmandu, Nepal.
- Pokharel, R. 2000. From practice to policy—Squatters as forest protectors in Nepal: An experience from Shrijana Forest User Group. *Forests, Trees, and People Newsletter* (42): 31–35.
- Rai-Paudyal, B., and M. Buchy. 2004. Institutional exclusion of women in community forestry: Is women-only strategy a right answer? In *Proceedings of the Fourth National Workshop on Community Forestry*. Kathmandu, Nepal: Community Forestry Division, Department of Forests.
- Regmi, M. C. 1978. *Land tenure and taxation in Nepal*. New Delhi: Adroit.
- Shrestha, K. K., and P. McManus. 2008. The politics of community participation in natural resource management: Lessons from community forestry in Nepal. *Australian Forestry* 71: 135–146.
- Shrestha, N. K. 2001. The backlash: Recent policy changes undermine user control of community forests in Nepal. *Forest, Trees, and People Newsletter* (44): 62–65.
- Shrestha, N. R. 1998. *In the name of development: A reflection on Nepal*. Kathmandu, Nepal: Educational Enterprises, Ltd.
- Shrestha, R., S. L. Shrestha, S. G. Acharya, and S. Adhikari. 2009. *Improving community level governance: Adaptive learning and action in community forest user groups*. Kathmandu, Nepal: ForestAction Nepal and Livelihoods and Forestry Program.
- Stern, N. 2006. The Stern review: The economics of climate change, 2006. London: Government of the United Kingdom.
- Subedi, B. P. 2006. *Linking plant-based enterprises and local communities to biodiversity conservation in Nepal Himalaya*. New Delhi: Adroit Publishers.
- Timsina, N. 2002. Empowerment or marginalization: A debate in community forestry in Nepal. *Journal of Forest and Livelihood* 2: 27–33.
- Timsina, N. P. 2003. Promoting social justice and conserving montane forest environments: A case study of Nepal's community forestry programme. *Geographical Journal* 169: 236–242.
- Yadav, N. P., O. P. Dev, O. Springate-Baginski, and J. Soussan. 2003. Forest management and utilization under community forestry. *Journal of Forest and Livelihood* 3: 37–50.

IFPRI DISCUSSION PAPERS
Prepared for the “Millions Fed: Proven Successes in Agricultural Development”

910. *Combating stem and leaf rust of wheat: Historical perspective, impacts, and lessons learned.* H. J. Dubin and John P. Brennan, 2009.
911. *The Asian Green Revolution.* Peter B. R. Hazell, 2009.
912. *Controlling cassava mosaic virus and cassava mealybug in Sub-Saharan Africa.* Felix Nweke, 2009.
913. *Community forestry in Nepal: A policy innovation for local livelihoods.* Hemant Ojha, Lauren Persha, and Ashwini Chhatre, 2009.
914. *Agro-environmental transformation in the Sahel: Another kind of “Green Revolution.”* Chris Reij, Gray Tappan, and Melinda Smale, 2009.
915. *The case of zero-tillage technology in Argentina.* Eduardo Trigo, Eugenio Cap, Valeria Malach, and Federico Villarreal, 2009.
916. *Zero tillage in the rice-wheat systems of the Indo-Gangetic plains: A review of impacts and sustainability implications.* Olaf Erenstein, 2009.
917. *The impact of shallow tubewells and boro rice on food security in Bangladesh.* Mahabub Hossain, 2009.
918. *Hybrid rice technology development: Ensuring China’s food security.* Jiming Li, Yeyun Xin, and Longping Yuan, 2009.
919. *Pearl millet and sorghum improvement in India.* Carl E. Pray and Latha Nagarajan, 2009.
920. *Institutional reform in the Burkina Faso cotton sector and its impacts on incomes and food security: 1996–2006.* Jonathan Kaminski, Derek Headey, and Tanguy Bernard, 2009.
921. *Private sector responses to public investments and policy reforms: The case of fertilizer and maize market development in Kenya.* Joshua Ariga and T. S. Jayne, 2009.
922. *The mungbean transformation: Diversifying crops, defeating malnutrition.* Subramanyan Shanmugasundaram, J. D. H. Keatinge, and Jacqueline d’Arros Hughes, 2009.
923. *The global effort to eradicate rinderpest.* Peter Roeder and Karl Rich, 2009.
924. *Rural and urban linkages: Operation Flood’s role in India’s dairy development.* Kenda Cunningham, 2009.
925. *Rich food for poor people: Genetically improved tilapia in the Philippines.* Sivan Yosef, 2009.
926. *“Crossing the river while feeling the rocks:” Incremental land reform and its impact on rural welfare in China.* John W. Bruce and Zongmin Li, 2009.
927. *Land-tenure policy reforms: Decollectivization and the Doi Moi System in Vietnam.* Michael Kirk and Tuan Nguyen, 2009.
928. *Improving diet quality and micronutrient nutrition: Homestead food production in Bangladesh.* Lora Iannotti, Kenda Cunningham, and Marie Ruel, 2009.
929. *Improving the proof: Evolution of and emerging trends in impact assessment methods and approaches in agricultural development.* Mywish K. Maredia, 2009.

For all discussion papers, please go to www.ifpri.org/pubs/pubs.htm#dp.
All discussion papers can be downloaded free of charge.

**INTERNATIONAL FOOD POLICY
RESEARCH INSTITUTE**

www.ifpri.org

IFPRI HEADQUARTERS

2033 K Street, NW
Washington, DC 20006-1002 USA
Tel.: +1-202-862-5600
Fax: +1-202-467-4439
Email: ifpri@cgiar.org

IFPRI ADDIS ABABA

P. O. Box 5689
Addis Ababa, Ethiopia
Tel.: +251 11 6463215
Fax: +251 11 6462927
Email: ifpri-addisababa@cgiar.org

IFPRI NEW DELHI

CG Block, NASC Complex, PUSA
New Delhi 110-012 India
Tel.: 91 11 2584-6565
Fax: 91 11 2584-8008 / 2584-6572
Email: ifpri-newdelhi@cgiar.org