

Collective Action, Property Rights, and Decentralization in Resource Use in India and Nepal

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National governments in almost all developing countries have begun to decentralize policies and decision making related to development, public services, and the environment. Existing research on the subject has enhanced our understanding of the effects of decentralization and thereby has been an effective instrument in the advocacy of decentralization. But most analyses, especially where environmental resources are concerned, have been less attentive to the political coalitions that prompt decentralization and the role of property rights in facilitating the implementation of decentralized decision making. By comparing decentralization in four cases in South Asia—Forest Councils in Kumaon in India, Joint Forest Management in India, the Parks and People Program in Nepal's Terai, and Community Forestry legislation in Nepal—this article provides answers to two questions: When do governments decentralize environmental decision making? and Which types of property rights must be devolved if decentralized decision making is to be effective?

Decentralization has emerged as a major strategy for many nation-states to achieve development goals, provide public services, and undertake environmental conservation. Political leaders and bureaucrats, international donors, and in many places local residents and their leaders have begun to see decentralization as a means to gain political-economic and policy objectives. According to a recent report from the World Bank, "Of seventy-five developing and transitional countries with populations greater than five million, all but twelve claim to be

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embarked on some form of transfer of political power to local units of governments."¹ Indeed, decentralization has periodically been an important objective of state policy.²

This article focuses on decentralization of central state control over natural resources, especially forests. The subject is important for at least three reasons. The lives of millions of households are affected by how governments manage forests and admit local claims.³ Furthermore, the factors that lead to durable decentralization of forests may be relevant in other arenas where decentralization is occurring. And finally, decentralized decision making can be seen as an inherently important concern of democratic life.

Current studies of decentralization, however, suffer from two significant lacunae, especially where natural resources are concerned. They are relatively inattentive to the political question of why states attempt decentralization, and they do not pay sufficient attention to the nature of property rights that states devolve to local actors. Much scholarship on decentralization of natural resources asserts the superiority of decentralized solutions versus centralized solutions on grounds of efficiency, equity, or sustainability.⁴ But such advocacy can only show why decentralization should be pursued, not why political actors choose to pursue it. It remains relatively unclear why central government actors, known for their pursuit of power, should initiate actions to take power away from themselves. Inattention to the nature of property rights that central states devolve means that we do not well understand the relationship of property rights to political authority, or even which forms of authority are necessary for successful decentralization. As a result, we often cannot be sure if a government's claims that it is pursuing thoroughgoing decentralization can be taken at their face value.

In the ensuing discussion, we first focus on the politics of decentralization to identify the actors most likely to initiate decentralization activities. To address our second concern, we draw from the literature on property rights and propose that the extent of decentralization can be assessed by examining the rights and capacities that are transferred to actors at lower levels of political organization. Powers and rights that are devolved to lower levels have important effects on resource management-related outcomes. Our approach leads to a more precise framework to understand the nature of decentralization and its impact.

interviews with more than 200 households in Nepal and India and a careful examination of village and district level records maintained by local forest management councils. We are appreciative of the time and hospitality extended to us repeatedly in the field. This article is a vastly revised version of an earlier draft prepared for the System-Wide Program on Property Rights and Collective Action (CAPRI) unit of the International Food Policy Research Institute. We thank Ruth Meinzen-Dick for inviting us to think more carefully about our ideas on decentralization, property rights, and collective action. We have benefited greatly from the comments of Archon Fung, Clark Gibson, Amy Poteete, Jesse Ribot, and other colleagues at the Workshop in Political Theory and Policy Analysis. We gratefully acknowledge the always-sterling editorial help from Patricia Zielinski and Shaun McMahon. Financial support from a John D. and Catherine T. MacArthur Foundation grant (00-63798-GSS) and a National Science Foundation grant (SBR 9905443) is also thankfully acknowledged.

Comparison of the processes and outcomes of decentralization initiatives regarding forests in South Asia helps us answer the two questions this article addresses: What roles do local populations play in ensuring that property rights and decision making are actually devolved? And what types of property rights must be devolved to local populations for effective decentralization? The four comparative case studies we use are (1) the Forest Councils of Kumaon in India, (2) Joint Forest Management in India, (3) Community Forestry in Nepal, and (4) the Parks and People Program in Nepal. The four cases exemplify different origins of pressures for decentralization of forest governance, different property rights that central governments devolved, and different outcomes.

THE POLITICS OF DECENTRALIZATION

At its most basic, decentralization aims to achieve one of the central aspirations of just political governance: democratization, or the desire that humans should have a say in their own affairs. But decentralization is also synonymous with redistribution of power, resources, and administrative capacities through different territorial units of a government and across local groups.⁵ Thus, decentralization can be seen as a strategy of governance, prompted by external or domestic pressures to facilitate transfers of power closer to those who are most affected by the exercise of power.⁶ This understanding of decentralization implies that it is critical to identify the interests of the major actors involved in pursuing it. Among the most important actors who affect decentralization are international donors, local organizations, and NGOs, and factions within central governments. These three categories of actors are large aggregations, and their decentralization-related interests are likely to remain unpredictable without close attention to the context. This is especially true for central government actors. Consequently, the relationship between central and local governments can be ambiguous because local governments can be viewed by their superiors either as trusted agents or as contestants for power.⁷ To understand why a central government might initiate decentralization reforms and give up control over collective and operational choices in some instances and not in others, it is necessary to examine the political relationship between different local and central actors, the role of international donors and NGOs, and the ways in which decentralization reforms may serve the interests of these actors. An additional question that requires attention is, When is it likely that decentralization reforms will continue after initiation?

To explain why a central government may pursue decentralization and voluntarily give up some of its powers to less powerful local government actors, we suggest that central governments are best seen as congeries of actors who have different and perhaps conflicting objectives as they pursue a diversity of goals including power. Once the center is recognized as being potentially divided, decentralization can be hypothesized to take place when actors at the central level compete for power among themselves and find in decentralization a mechanism to enhance

their access to resources and power in comparison to other political actors at the central level. Such a conceptualization of decentralization is at one level merely a restatement of the tautology that actors undertake those actions that gain them the highest returns. But even this simple statement allows us to suggest that decentralization of power and decision making is likely when some central political actor(s) or a coalition of such actors find(s) that decentralization makes it possible to reduce costs (and/or improve revenues), deflect blame, or extend state reach further into social processes. Without such calculations on the part of some central actors and their support, meaningful decentralization is unlikely to be initiated. In this sense, policy choices about decentralization are no different from policy choices in other domains.

Even if there are effective coalitions in favor of decentralization, and programs are initiated to pursue decentralization, setbacks and retreat may be possible in the process of implementation. Once again, the support of some central state political actor may be essential, but for long-term success, it is as important to examine how local-level politics articulates with decentralization reforms. For effective implementation of decentralization programs that are initiated by central actors, our case studies suggest that local mobilization is critical. Because local political actors are less powerful than international donors or central government actors, their long-term interests are often ignored in decentralization initiatives unless they can form effective lobbying groups through networking or organization. The trick for advocates of decentralization, therefore, is to align the interests of powerful decision makers who make policy choices with organization and mobilization of local actors who can create additional pressures in favor of reforms. With such alignment, more thoroughgoing decentralization of powers and rights would become possible.⁸

PROPERTY RIGHTS AND DECENTRALIZATION

The multidimensionality of decentralization is reflected in the many terms that refer to it: for example, deconcentration, delegation, devolution, deregulation, privatization, and even denationalization.⁹ In the context of the management of natural resources, decentralization can be defined as any act by which a central government cedes rights of decision making over resources to actors and institutions at lower levels in a politico-administrative and territorial hierarchy.¹⁰ Usually, the means through which new actors and institutions come to gain new powers of decision making are different combinations of property rights.¹¹ Property rights, themselves, can be defined as relationships among actors with respect to things such as natural resources.¹² Property rights are always contestable. Contestation attenuates the capacity of right holders to exercise effectively the rights they hold.

Typically, successful decentralization of resource management results in the creation of new commons as central governments delegate rights and powers to

new actors who can make decisions about the disposition of these resources. The creation of new commons is an important development in natural resource policies worldwide.¹³ As governments formulate new rules, they allow district and other lower-level actors greater leeway in deciding the fate of locally situated resources. When decentralization is relatively far-reaching, as in the case of the Forest Councils of Kumaon, or to an extent, in the case of Nepal's Community Forestry, even local residents in village communities and their representatives can gain new powers of decision making and new property rights over local forest resources. Because environmental policy decentralization in developing countries is ostensibly designed to manage resources better by granting rights to communities, the large body of literature on common property theory is especially useful to analyze the extent to which decentralization programs are successful.

Different types of property rights over resources—whether held juridically, exercised authoritatively, or both—can create varying consequences for use and management. Drawing from existing scholarship on the commons, we focus here on four types of property rights that are most relevant for the use of common-pool resources: withdrawal, management, exclusion, and alienation.¹⁴

Withdrawal is the right to enter a defined physical area and obtain resource units or products of a resource system (e.g., cutting firewood or timber, harvesting mushrooms, diverting water).

Management is the right to regulate internal use patterns and transform the resource by making improvements (e.g., planting seedlings and thinning trees).

Exclusion is the right to determine who will have right of withdrawal and how that right may be transferred.

Alienation is the right to sell or lease withdrawal, management, and exclusion rights.

The above rights can be exercised at several distinct levels of analysis. The exercise of withdrawal rights corresponds to an operational level of analysis.¹⁵ Management, exclusion, and alienation rights, however, require that the right holders operate at a collective-choice level of analysis that affects future operational decisions. Furthermore, for communities to possess collective choice-making capabilities, some rules at a constitutional level (set locally or by a national government) must give them this authority. The analytical distinction between operational level rules, and collective and constitutional choice arenas should not create the impression that these correspond to three different formal levels of authority in a political or legislative system.¹⁶ A single political body can use operational rules, create them by deliberating at the collective choice level, and may have powers in the constitutional-choice arena as well. Conversely, a number of levels of authority may exist, corresponding perhaps to the village, district, province, and nation, where specific rules are created and powers are exercised. It is crucial to understand that for any resource, some rules affect day-to-day

use and consumption, others structure the creation of operational level rules, and still others at a higher constitutional level affect collective choices.

In a highly centralized regime, almost all authority for making constitutional, collective-choice, and operational-level rules is concentrated in a national government. Local officials and citizens are viewed as rule followers, not as rule makers. In regimes that have undergone forms of deconcentration, the authority to make rules at the three levels is still lodged in national government officials, even if government officials working in field offices are permitted some latitude in implementing rules. Forms of decentralization that go beyond deconcentration usually involve local populations and representatives in creating rules at multiple levels. Our four case studies illustrate what happens when central governments do not relinquish some powers of collective and constitutional level decision making to lower level actors in managing resources. In such cases, activities and outcomes related to forest management do not change.

Classes of Property-Rights Holders and Outcomes

In examining the set of property rights listed above—withdrawal, management, exclusion, and alienation—it is clear that forms of ownership do not hinge on a single type of property right. Private property is frequently defined as a well-defined right of alienation. Then the right to alienate is assumed to be necessary to promote efficient use of resources.¹⁷ It is also often assumed that property rights systems that include the right to alienation permit voluntary transfers of assets through market exchanges from lower valued to highest valued uses.¹⁸ In our analysis, we do not find alienation to be an essential right. We find it more useful to define four classes of property rights holders, as shown in Table 1.

Those who have the right to enter and to harvest some forms of products are “authorized users.” Operational rules (created in collective choice processes) determine whether there are constraints on the timing, technology and purpose of use, and quantity of resource units harvested.¹⁹ “Claimants” possess the operational rights of access and withdrawal plus a collective-choice right of management. The right to manage includes decisions concerning the construction and maintenance of facilities, the authority to devise limits on harvesting rights, and the ability to enforce limits.²⁰ When local users are able to make their own rules concerning how to limit the timing, location, and technology of use, they can begin to devise rules that fit local circumstances.²¹

A major problem in trying to devise management rules for an entire country from a central governmental office is that the characteristics of diverse ecological zones in a country can vary dramatically. The effectiveness of management depends on an enormous number and range of variables that centralized decision making simply cannot take into account. The importance of local knowledge has been ignored in much of the forest policy of developing countries. The scientific

Table 1
Bundles of Rights Associated with Positions

	Owner	Proprietor	Authorized Claimant	Authorized User
Withdrawal	×	×	×	×
Management	×	×	×	
Exclusion	×	×		
Alienation	×			

Source: Adapted from Ostrom and Schlager (1992, 252).

forestry principles on which forestry policies are based are usually ineffective without local knowledge that can help identify the specific scientific findings that are relevant to a location or problem. Furthermore, when national bureaucracies are underpaid and understaffed, developing effective management plans for a large number of local forests becomes even more difficult. In many cases, therefore, the devotion to centrally designed, scientifically informed forest policy has meant open access to forests and degradation over time because local users do not have any powers or interest to devise rules that limit use or require monitoring.

“Proprietors” hold the same rights as claimants with the addition of the right to determine who may harvest from a resource. Most of the property systems that are called *common property* regimes involve participants who are proprietors and have three of the above rights but do not possess the right to sell their management and exclusion rights even though they most frequently have the right to bequeath it to members of their family.²² Empirical studies have repeatedly found that—contrary to the presumption that only those with full ownership rights can efficiently manage resources—the rights proprietors possess can be sufficient to make decisions that promote long-term investment and harvesting from a resource.²³ Existing scholarship thus leads us to expect that decentralization programs empowering local users to be proprietors—even without the right to sell these rights to others—are likely to generate sufficient incentives to improve outcomes over time. Those who jointly hold proprietorship rights can manage a resource and also exclude those who are unwilling to contribute to the costs of management. A crucial problem to be solved, however, is how local users can gain sufficient confidence that the rights they begin to exercise after decentralization will not be taken away.²⁴

“Owners” possess the right of alienation—the right to transfer a good in any way the owner wishes, but without harming the physical attributes or uses of other owners, and also all the rights held by a proprietor. An individual, a private corporation, a government, or a communal group may possess full ownership rights to any kind of good including a common-pool resource.²⁵ The rights of owners, however, are never absolute. Even private owners have responsibilities not to generate

particular kinds of harms for others.²⁶ Some policy recommendations for complete decentralization advocate that local users be given full ownership rights. This would be the strongest form of decentralization because local users could then do anything they wanted with their forests, including selling all the timber or the land itself.

The foregoing discussion is by no means an advocacy of the position that only full ownership rights permit effective exploitation of resources. Nor are we suggesting that the likelihood of solving collective action problems related to resource management increases monotonically as users enjoy greater rights. Indeed, empirical studies have found that even proprietors have sufficient rights to make decisions that promote long-term investment and harvesting from a resource.²⁷ Especially where common-pool resources are concerned, studies of inshore fisheries, self-organized irrigation systems, forest user groups, and groundwater institutions show that proprietors can develop strict boundary rules to exclude noncontributors, establish authority rules to allocate withdrawal rights, devise methods for monitoring conformance, and use graduated sanctions against those who do not conform to rules.²⁸ The outcomes associated with the decentralization of different levels of property rights depend in significant measure on the certainty of users about their rights and the nature of governance arrangements to protect users' rights.

Many decentralization proposals assign no more than the operational-level right of being authorized users to those whom the program is supposed to benefit. All other significant operational and collective choice rights continue to be held by government officials, with all the attendant uncertainties that their opaque decision-making processes can generate for users. Even when government officials work in a local office instead of the nation's capital, they may not have a long-term interest in sustaining the resource. Obtaining at least some rights to continued use encourages local users to perceive long-term interests in a local resource. Yet, such limited property rights do not establish strong incentives for sustainable management. Without the collective choice right to manage a resource, local users cannot consider and decide on various ways of growing and planting seedlings, thinning noncommercial trees for use as firewood, restricting the grazing of cattle in a forest, and so on. Without the collective choice right to exclude others, local users will fear that any effort they make to limit harvesting will benefit others who can then assert a future right to harvest. The absence of constitutional choice rights means that existing rights of local users can be taken away by distant power-holders without consultation. Therefore, decentralization can be said to have occurred only when governments devolve property rights over resources that conform to the collective and constitutional choice levels. Simply granting rights to undertake operational level actions is insufficient to justify claims of decentralization.²⁹

DECENTRALIZATION OF FOREST
CONTROL IN INDIA AND NEPAL

Decentralization of forest resources around the world is occurring for the most part under the general rubric of community-based conservation, where communities and their representatives gain varying degrees of collective control over forests.³⁰ At one end of the continuum, we can distinguish those circumstances whereby national governments relax control sufficiently to allow local users rights corresponding to those of the proprietor or the owner. At another end are initiatives that permit users greater rights of access and use (authorized user) but few claimant or proprietorial rights. In the middle would be a host of other situations in which local residents may be allowed some managerial or decision-making rights but in a highly attenuated fashion.

The following case studies illustrate different coalitions of actors involved in pressing for decentralization policies, variations in forms of decentralization, and differences in outcomes related to forest management. In Kumaon, India, villagers mobilized against the efforts of the British colonial state to appropriate forests and won significant property rights to become proprietors of large areas of forests through community based Forest Councils. The second study shows how, in the 1980s, the central Indian government and many provincial governments initiated a decentralization initiative known widely as the Joint Forest Management Program. Despite much wider reach, the institutional results of Joint Forest Management efforts have lagged far behind what a colonial government achieved (or was forced to undertake) in the 1920s and the 1930s in Kumaon. The third study examines how in Nepal's Middle Hills, widespread devolution of forested areas in the 1990s under the Community Forestry program created thousands of active forest user groups. But in the Terai region of Nepal, where the government has sought to decentralize control over national parks and protected areas by involving residents in the Parks and People Program, the results have fallen far short of what might be called effective decentralization. The four case studies together illustrate the elements we have highlighted as necessary to analyze decentralization. Pressures for decentralization have varying levels of support from central government actors, local users, and international donors. The rights devolved to users range from those of an authorized user to a proprietor. The outcomes range from no change in use patterns and decision making to significant success at the local level. The cases provide an initial indication that decentralization is likely to be implemented more successfully when local users mobilize to support it and when they gain at least proprietorship rights.

Decentralization and Forests in Kumaon, India

The forest councils of Kumaon were created in 1931 through an act of decentralization by the British colonial state. They constitute perhaps the oldest surviv-

ing examples of formal collaboration between communities and the state to manage resources. Local collective action by villagers and bureaucratic politics within the state were critical in the formation of the forest councils.

Origins, Actors, and Their Interests

Between 1911 and 1917, the British colonial state transferred more than 3,000 sq. km of forests in Kumaon to the Imperial Forest Department (Kumaon Forest Grievances Committee [KFGC] 1921). The government had made a number of inroads between 1865 and 1910 to curtail progressively the area of forests that local communities used. Its incursions at the turn of the century, however, raised the special ire of villagers because the elaborate new rules specified strict limits on grazing rights, restricted use of non-timber forest products, prohibited the extension of cultivation, increased the labor extracted from the villagers, and augmented the number of forest guards. The new laws goaded villagers into widespread protest. The incessant, often violent, protests forced the government to appoint the KFGC to look into the local “disaffection.” Comprising government officials and local political leaders, the KFGC examined more than 5,000 witnesses from all parts of Kumaon. It used the resulting evidence to make two major recommendations: (1) dereserve the larger part of the newly created Reserved Forests and (2) lay the foundations for establishing community forests that would be managed under a broad set of rules framed by the government but for which villagers themselves would craft the specific rules for everyday use.

The government took both recommendations seriously. At first, it reclassified Reserved Forests that had been taken over by the Forest Department between 1911 and 1917 into Class I and Class II forests. Class I Reserved Forests, about half of the total, were all transferred to the Revenue Department and, in time, could come to be controlled by villagers. Class II Reserved Forests remained with the Forest Department. The government also passed the Forest Council Rules of 1931, permitting village residents to create forest councils and to bring under their own control forest lands that had been transferred to the Revenue Department as Class I Reserved Forests and Civil Forests.

The division of forests into two categories—Class I/Civil Forests under the control of the Revenue Department and Class II Forests under the control of the Forest Department—resulted in part from the interdepartmental rivalry that was sparked into being by the creation of the Kumaon Forest Department in 1868, and by the passing of a huge swath of territory under its control in the name of the protection of forests. The increasing revenues from timber auctions soon rivaled and outgrew the tax revenues from land. The transfer of all the Class I forests to the Revenue Department was the outcome of a bureaucratic struggle. Protests by villagers for greater access to and use of their forests fed into this struggle. Villager protests helped the case for the transfer of a significant proportion of territory

back to the Revenue Department, and from the Revenue Department to villagers in the form of forests managed by village level councils.

Degree of Decentralization of Property Rights

Nearly 3,000 forest councils today formally manage and control about a quarter of the forests in the three districts of Kumaon: Nainital, Almora, and Pithoragarh. The Forest Council Rules of 1931, as amended in 1976, specify state-defined limits to local autonomy. Villagers cannot clear fell the forest or impose fines beyond a specified amount. They can raise revenues only through certain limited sources, and they must take recourse to established legal procedures to resolve conflicts. Conflicts over interpretation and application of rules are resolved by district and provincial level revenue or judicial authorities. Collectively, the Forest Council Rules constitute more a framework for the management of forests than a defining straitjacket. Rural residents, through their elected forest councils, possess substantial powers to create concrete restrictions to prevent certain types of forest use and facilitate others. Villagers vote to elect between five and nine council members and the council leader. Councils in many of the villages meet frequently. Their members discuss, craft, and modify specific rules that govern withdrawal of forest products and create monitoring and sanctioning mechanisms in an effort to enforce the Forest Council Rules as well as locally specific rules crafted by councils. Councils select guards, fine rule-breakers, manage finances, and maintain records of their meetings, accounts, and local rule infractions. In many cases, households contribute in cash or kind to pay the council-appointed guards.

The Forest Council Rules also provide support to the councils from the Revenue and the Forest Departments to facilitate rule enforcement and the maintenance of vegetation in the forests. Elections to the forest council are held under the supervision of the forest council inspector, an employee of the Revenue Department. The council is expected to keep records of meetings and maintain accounts. Whereas Revenue Department officials underwrite the enforcement of rules, the Forest Department coordinates the commercial harvest of forest products from community forests and provides technical assistance to develop them. Before the council can sell any of its timber or resin, it must seek approval from the relevant authorities in the Forest Department. Like the interactions with the Revenue Department officials, these can take a long time because of other duties that receive greater priority.

The above description of the rights to forest management in Kumaon shows that the rural residents of Kumaon not only have the rights to access and use local forests but also can exercise claimant and proprietor rights. The forest councils' ability to harvest firewood for commercial purposes and their access to markets for timber are mediated by the Forest Department. But otherwise, the councils control the use of their forests to a large degree.

Outcomes

Existing studies of forest councils' effectiveness in protecting forests show the importance of managerial responsibilities related to exclusion, monitoring, and enforcement.³¹ The forest councils can be seen as locally situated partners in the management of forests, subordinate to the employees of the Forest and the Revenue Departments but with substantial control over local management. Their asymmetric relations with government officials cast the officials into the role of arbiters in case of disputes between villagers and forest council officeholders. Forest users can also question the authority of the councils implicitly by not limiting their harvests of forest resources. They also do so more explicitly by contesting the fines imposed by the councils. In each of these situations, the councils need to invoke the cooperation of government officials, demonstrating their links to the state, their weaker position in this managerial relationship, and their relative autonomy in everyday management.

The condition of vegetation on many council-managed forests compares favorably with the best Reserved Forests in the hills that are under the control of the Forest Department.³² A survey of more than 300 councils in the early 1990s showed that nearly half of the councils had forests that they rated as being in good to very good condition.³³ Such conservation of forests, under conditions of acute scarcity, is especially impressive because council-managed forests supply villagers with anywhere between 25 to 50 percent of their requirements of fodder, firewood, and construction timber, a level that is far higher than what villagers get from Reserved Forests.³⁴ Villagers' lives would be far closer to subsistence levels were they to be denied access to their forests, as was so graphically demonstrated at the beginning of the previous century. The council-managed forests are in far better condition than those managed by the Revenue Department. Overall, the experiment to decentralize forest management in Kumaon seems to have been a significant success.

Joint Forest Management in India

Since the founding of the Forest Department in several states of India in the 1860s and the passage of the Indian Forest Acts in 1878, the Indian state has attempted to define and allocate property rights over forests ever more precisely. The goal of more precise definition has been the generation of higher revenues by asserting and implementing higher levels of control over valuable timber resources. Where attempts to control forests have led to social unrest or protests, however, the Indian state has also shown itself capable of retreating and sharing benefits with new claimants. The forest councils in Kumaon, described above, are a well-researched example, but other instances are available from Bengal, Madhya Pradesh, and Gujarat.³⁵

Origins, Actors, and Their Interests

Joint Forest Management, with its objective of better management of forests through cooperation between the Forest Department and village communities, marks an important shift in the strategy of environmental conservation in India.³⁶ The impetus for a nationwide program that could lead to an altered relationship between the state and village residents has come from several sources. Among these are a sustained critique of national forest policy by environmentalists, examples of successful community-based forest management in the states of West Bengal and Orissa, the increasing difficulty that the Forest Department faced in enforcing coercive forest conservation, efforts of many NGOs and social movement actors to influence government policy toward greater participation, and pressures and monetary inducements from multilateral and bilateral donors like the Ford Foundation, Swedish International Development Cooperation Agency (SIDA), and the World Bank.³⁷ One of the main reasons why the Indian central government has been willing to accept communities into the management process has been the limited success of the Forest Department in protecting forests under its control. For example, in the early 1980s, satellite pictures of vegetation cover revealed that although the forest department controlled about 25 percent of India's land, only about 11 percent had significant cover. The different state governments have had other reasons as well, among them, substantial aid from donors for community-based conservation.

The National Forest Policy of 1988, government orders by many states, and the Government of India policy instructions of 1990 are the formal instruments that have launched Joint Forest Management.³⁸ By 2000, 25 of 28 Indian states had passed resolutions to encourage the setting of village-level forest protection committees.

Degree of Decentralization of Property Rights

The primary mechanisms of decentralization are village-level Forest Protection Committees. They can either be constituted afresh, or Forest Department officials can register existing committees that predate Joint Forest Management. Officials are also empowered to dissolve the committees.³⁹ Because of the substantial powers forest officials have in forming, registering, and dissolving local committees, many villagers perceive the process to be arbitrary and biased. Some communities that organized informally to protect local forests have resisted joining the Joint Forest Management Program because they fear that the standardized approach of Joint Forest Management will not allow them to continue using rules that they found to be successful in their efforts to protect local forests.⁴⁰

Members of forest committees gain nontimber forest products from their village forests and a share of the proceeds from the sale of timber once forests have matured. Villagers do not have the right to harvest timber products by themselves,

unless the wood is dry or has fallen to the ground. In some cases, their share of the proceeds from timber harvests is limited and has been reduced after successful protection. The degree to which villagers can frame their own rules of use and management is significantly shaped by Forest Department officials, and interventions in day-to-day management of village forests are common.⁴¹ Villagers have the responsibility to protect trees and vegetation and the ability to allocate nontimber benefits within the community. But where more significant issues are at stake—such as transfer of power to villagers, formation of forest protection committees, share in timber sales, or negotiation of rule changes—villagers are highly constrained in their ability to act.⁴²

Outcomes

There are no comprehensive assessments of the results of Joint Forest Management across Indian forests.⁴³ According to some recent estimates, nearly 53,000 forest protection committees in India cover approximately 18 percent of the total forest area.⁴⁴ Overall, the condition of Indian forests has improved in the past decade, despite significant population growth, but it is difficult to say how much, if any, of the improvement is a result of the Joint Forest Management initiative. The effects of Joint Forest Management on villager livelihoods is clearer, despite remarkable variations in the available figures. Joint Forest Management has provided millions of villagers more legitimate access to important livelihood resources and has given them a stake in environmental conservation. Significant and well-founded criticisms of Joint Forest Management point to the limited share of rural households in proceeds from sales of forest timber, but even critical evaluations of Joint Forest Management concede that rural residents have gained economically from participating in Joint Forest Management programs.⁴⁵ Thus, at least at the local level, rural poor have benefited from a relaxation of state control over forest resources.

Increased access to nontimber resources has occurred in tandem with continuing efforts by the Forest Department to control silvicultural aspects of forestry and commercial revenues from sale of timber. Within communities, participation and allocation of benefits vary greatly by caste, gender, class, and occupation. For example, because of membership rules that specify a single member from a household to the forest protection committee, women often have little say in the limited rights of management that villagers exercise. Finally, an accurate assessment of the program is difficult because of conflicting objectives of foresters who most often see it as a means to protect forests and of villagers who view it as a solution to problems of shortage of firewood and fodder or as a way to improve income.

Community Forestry in Nepal

Perhaps the first systematic effort to centralize forest management in Nepal took place in 1957 when the government nationalized all forests. This assertion of

control was cemented through a series of measures between 1961 and 1970 when the state tried to curtail even the use rights of rural residents in forests. In the absence of effective monitoring and enforcement systems, however, the new laws had perverse effects. They undermined existing local systems of management and led to widespread deforestation as people came to view forests as state property.⁴⁶ The overwhelming evidence on deforestation showed that the existing policy needed rethinking.

Origins, Actors, and Their Interests

Today Nepal is often seen as a leader among developing countries in setting conservation goals and priorities and in creating progressive programs and legislation related to resource management and conservation.⁴⁷ New steps toward decentralization of forest control began in the late 1970s. The precursors of current community forestry legislation were the Panchayat Forest Rules of 1978 and the Community Forestry program of 1980. The limited conservation objectives of these initiatives were revised when the government realized that deforestation was approaching epidemic proportions. The pace of reforms accelerated with the widespread movement for democratization and the restoration of democracy after 1990. The current framework for community forestry legislation is represented by the Master Plan for the Forestry Sector in 1989, the Forest Act in 1993, and new Forest Regulations of 1995. Under the impact of these new pieces of legislation, the area of forests managed by local user groups and the number of these groups have increased exponentially.

Degree of Decentralization of Property Rights

The major objectives of the new legislation are to provide forests to willing community groups, especially in the hill areas, and establish and promote community plantations in open and degraded areas. Community user group members are identified by the District Forest Officers. These user groups then prepare their own constitutions that govern day-to-day functioning and management. Following the demarcation of a forested area that can be handed over to a community, a five-year operational plan is prepared for the forest. User groups frequently play a direct role in preparing and implementing the plan.⁴⁸ The District Forest Officer can hand over any part of a national forest to a user group in the form of a community forest, entitling it to develop, conserve, use, and manage the forest, and to sell and distribute forest products by independently fixing the price in the market. User groups can thus legally use their forests for subsistence, cultivating nontimber forest products, growing trees, and harvesting forest products for commercial processing and sale. Users are not permitted to clear the forest for agricultural purposes. But control over commercial profits from sale of timber products is already a major departure from forestry policies around the world.

Executive committees of ten to fifteen members are elected by the general membership of the forest user groups. They undertake most of the everyday tasks associated with the management of the community forest. These tasks include protection of the forest (either directly or by a guard the committees appoint), allocation of benefits from the forest, steps to improve the condition of vegetation cover, and sanctioning rule breakers. Rural residents in many areas have begun to generate substantial benefits from their community forests, including cash revenues. Revenues are not taxed, but user groups are required to spend 25 percent of all cash income on collective development activities.⁴⁹

Outcomes

By 1999, the new legislation had led to the formation of 8,500 community forest user groups comprising nearly a million households. These user groups were managing more than 6,200 sq. km of forests. This is about 10 percent of the total forest area of Nepal. Unofficial estimates of these numbers are even higher. New user groups are being formed at the rate of nearly 2,000 a year, and they are now active in seventy-four of seventy-five districts in Nepal. In some areas of Nepal hills, a slow reversal of earlier deforestation can also be witnessed.⁵⁰

The nature of property rights that community forest user groups have received places them in the category of proprietors. They are able to use all the products from their forests, buy and sell in markets, manage how the forest is to be used, and finally, create collective choice level rules that affect the nature of management. At least in the Middle Himalaya in Nepal, where the Community Forestry initiative is the most widespread, rural households have registered significant increases in their reliance on local forests. But a potential problem is the question of succession. At present, most groups, mainly because they have been formed relatively recently, have the same leaders that were selected at the time of their creation. But as the groups grow older, issues of who will lead the group and how transitions will occur will become increasingly important.

An important development in Nepal's community forestry is the emergence of a nationwide federation of community user groups (Federation of Community Forestry Users of Nepal, or FECOFUN), which seeks to lobby the government on behalf of its members and to disseminate information about community forestry more widely.⁵¹ It has already led active protests against government signals that users' rights to commercial profits from forests may not be available in the Terai region of Nepal (because Terai forests are commercially more valuable). Indeed, efforts by the government to limit commercial use of community forest products to only the hill regions of Nepal signify the limits of the willingness of forest departments to devolve control. They also demonstrate that in the absence of influence over constitutional level rights, the property rights of local users can be limited quite easily.

The Parks and People Program in Nepal's Terai

Decentralization of forest rights in Nepal's Terai, especially in the buffer zone of the national parks, is a somewhat different story in comparison to Community Forestry. Beginning in the 1960s with the protection of wildlife in royal hunting reserves, Nepal has created an extensive network of fifteen national parks, wildlife areas, hunting reserves, and conservation areas that cover nearly 15 percent of the country's total area. Of this network of protected areas, five are in the Terai. These five protected areas face the greatest problems related to conservation because each of them is in close proximity to significant human populations.

Origins, Actors, and Their Interests

Nepal's Department of National Parks and Wildlife Conservation came into being in 1980, with authority to administer the protected areas system in Nepal. It is part of the Ministry of Forestry, along with the Department of Forestry. The Parks and People Program was established after negotiations among officials in the Ministry of Forestry and the United Nations Development Program (UNDP). The area covered by the Program is the buffer zone of the five National Parks and Wildlife Reserves in Nepal's Terai, and comprises nearly 2,000 sq. km with a population of more than 600,000 people. An important factor in the launching of the Program is support from the UNDP. Local residents were unhappy with the coercive forms of protection that were used for conservation of wildlife and forest resources in the protected areas. But there have been no systematic efforts at collective protests nor any attempts to pressure the government into changing its protected area-related policies.

Degree of Decentralization of Property Rights

To address the human-nature conflicts in relation to protected areas, the Parks and People Program aims at three objectives: attempts to develop alternatives to the use of park resources for neighboring households, seeks to devise compensation mechanisms for local communities in exchange for their exclusion from resources upon which they relied prior to the formation of the protected area in question, and tries to create incentives for local populations to change their actions in the protected areas. Development of buffer zones that "separate a protected area from direct human or other pressures and provide valued benefits to neighboring rural communities"⁵² is a key element of the conservation strategy in the Parks and People Program.

Parks and People authorities have attempted to create user groups in all the buffer zones of the protected areas. The Warden of a protected area and other officials in the Parks and People Program can constitute user groups in the buffer zone to coordinate the management of fallen trees, firewood, fodder, and other grasses. Members of the user groups can use some forest resources in the buffer zone for

subsistence and commercial benefits. For specified times during the year, buffer zone residents are permitted to enter the protected area itself and to harvest products such as thatch grass and firewood and, in some cases, to graze their animals. Typically, the period for which they can harvest thatch grass, used for roofing, varies between ten and fifteen days in a year. Rules about harvesting firewood and grazing animals are strict.

Of the total income earned through sales of forest products, 30 to 50 percent can be used for community development in consultation with local agencies and community members. Parks and People Program officials had created approximately 400 community user groups in the buffer zones of the protected areas by the end of 1999. Although these groups have limited rights of access and use in the forests, they have little control over how forest resources in the protected area are allocated. Most rules continue to be crafted by protected area officials without the involvement of local residents. Thus, villagers in the buffer zone do not possess any rights of collective or constitutional choice to create rules at the operational level, nor are they involved in the enforcement of rules.

Outcomes

The most visible outcome of the Parks and People Program has been an increase in the types and density of authorities that try to affect how users living in the buffer zone will live their lives. More forest department officials, development offices, projects, and formal user groups are now present and interact with each other more often. The politics and procedures that have produced these changes have primarily been born within the offices of the Nepali government, and foreign aid agency programs, rather than being prompted by local demands. Government and park officials and aid agency personnel have counted local interactions with residents living near protected areas as relevant mainly because they believe that consumption pressures generated by the poor have the potential to adversely affect protection of natural resources. As a result, the focus in this decentralization effort has been on strategies that would shift consumption pressures away from the protected areas. Officials have paid less attention to involving residents in the management of the protected areas, let alone transferring property rights corresponding to those of proprietors or owners.

Decentralization through the Parks and People Program has mainly affected users at the operational level. They can now enter the parks and use some park resources such as fodder legally for a few weeks during the year. But they have little influence on management or conservation outcomes. Conflicts between residents and Park officials occur regularly and are unlikely to diminish without substantial change in existing institutional arrangements or reallocation of the property rights that residents currently exercise. Although buffer zone residents have now become authorized entrants and users from being illegal users, the actual effect of the Parks and People Program on rural livelihoods has been lim-

ited. The condition of forests and wildlife inside the protected areas has remained the same. Indeed, in some areas, consumption pressures on protected areas may have increased because the economic projects of the Parks and People Program have facilitated agricultural intensification and may have encouraged rural residents to increase grazing and fodder harvests.⁵³ According to the most recent evaluation of the Parks and People Program, those residing close to the boundaries of the protected areas continue to use local resources despite the efforts of officials to shift harvesting pressures elsewhere.⁵⁴

COMPARING DECENTRALIZATION OF FOREST USE IN INDIA AND NEPAL

The nature of decentralization varies greatly in the four cases in terms of origins, actors involved, the extent to which subnational actors have come to exercise new property rights, and outcomes related to forests. Overall, the greatest levels of decentralization seem to have occurred in Kumaon. The Community Forestry program in Nepal is relatively recent in origin, but the formal aspects of the program—and many of the effective examples of its operation—involve substantial levels of decentralization. The Parks and People Program in Nepal, despite claiming participatory decentralization, has devolved such limited property rights that it can scarcely be classified as a case of decentralization. Joint Forest Management in India is spread over the largest area of the four cases and has highly variable outcomes, but overall, the Forest Department continues to exercise significant managerial control over local actors. Unlike the case of Community Forestry in Nepal, participants in Joint Forest Management have little control over how commercial forest products such as timber will be sold or how the proceeds will be allocated. We can infer that the decentralization of property rights in this case falls somewhere between the case of Community Forestry in Nepal and of the Parks and People Program in Nepal's Terai. Table 2 summarizes the discussion of the four cases and highlights their differences.

The extent of decentralization in these four cases is closely tied to their origins. High levels of local collective mobilization meshed with interdepartmental rivalries within the British colonial state to facilitate the birth of the forest councils in Kumaon. Protests by hill residents helped the Revenue Department gain control over a significant proportion of forestland. By creating new officials to supervise the forest councils, the Revenue Department also gained a measure of control over local activities. In the case of community forestry in Nepal and Joint Forest Management in India, there were no significant local pressures for decentralization, but effective national lobbying groups existed. Furthermore, the existing government policy generated clear evidence that the Forest Department had to change its orientation drastically if environmental conservation was to be successful. In Nepal's Terai, government officials were able to launch the Parks and People Pro-

Table 2
Comparing Decentralization of Forest Control in India and Nepal

Axes of Comparison	Forest Councils, Kumaon	Joint Forest Management	Community Forestry, Nepal	Parks and People Program, Nepal
Nature of macrolevel politics around decentralization	No donor pressures; high interest among state actors in decentralization	High donor pressures; some interest in decentralization among state actors	High donor pressures; some interest in decentralization among state actors	High donor pressure to create the program; no interdepartmental rivalries
Nature of local level collective action and its relationship with macrolevel politics	High levels of local mobilization; resonates with Land Revenue Department actors in government	Donor pressures match some interests of state government; low levels of local collective action match the interest of some central government actors	Donor pressures and limited collective action locally matches some central government interests; emergence of new factions against decentralization	No collective action at local level; little connection with higher levels of politics
Property rights				
Rights to withdrawal	Granted to local groups, some limits	Granted to local groups, some limits	Granted to local groups, but future uncertain	Granted to local groups, very limited
Rights to manage	Granted to local groups, some limits; limited supervision by Forest Department	Granted to local groups, significant limits in practice; active Forest Department intervention	Granted to local groups, some limits	Not available to local groups
Rights to exclude	Granted to local groups	Granted to local groups, some limits	Granted to local groups, some limits	Not available to local groups
Rights to transfer	Not available to local groups	Limited rights granted to local groups	Limited rights granted to local groups	Not available to local groups
Outcomes				
Participation and decentralization	High levels of decentralization and participation	Middling levels of decentralization and participation	High levels of decentralization and participation	Almost no decentralization; limited participation
Resource use patterns	Decentralization limits resource use and improves resource condition	Decentralization limits resource use and improves resource condition in some cases	Decentralization limits resource use and improves resource condition in some cases	Institutionalization is limited, and local use patterns remain same

gram in the name of decentralization. The chief motivation behind this program, however, seems to be that funds were available from an international donor. Local protests or evidence of drastic failure had little role in the initiation of the program.

The counterintuitive comparative lesson from the four case studies about the origins of decentralization seems to be that local demands are not critical in the launching of a decentralization initiative. Such demands were present only in Kumaon, but decentralization programs were initiated in all the cases. Continued local pressures and lobbying from actors outside the state machinery, however, seem to be very important if decentralization of property rights is to continue and be effective over time. The one case in which local demands for decentralization are virtually absent—the Parks and People Program in Nepal's Terai—is also the case in which local users have found their status as resource users to have changed the least. The absence of initial and continuing demands for more control over resources and the lack of government officials who would gain from greater decentralization of control has meant that powerful officials have found it easy not to give up managerial control over resources in protected areas.

It is also not surprising that Kumaon villagers and members of community forestry user groups in Nepal have gained significantly wider latitude in the property rights they exercise over forests in comparison to the rights exercised by villagers in the buffer zones of Nepal's Terai. In Kumaon, villagers have clear rights to access and use forest products and almost complete control over management of their forests. The state has placed some limits on managerial discretion, such as prohibiting clear felling or requiring the involvement of the Forest Department in commercial sales, but in daily management, villagers have a free hand. They are entitled to exclude others from their forests and can even buy, sell, and bequeath to others the use and access rights they hold. In addition, the presence of government officials such as the forest council inspector, and the numerous other existing officials to whom they can appeal, also helps in the effective implementation of their rights over forests.⁵⁵

The Community Forestry initiative in Nepal formally grants to villagers even more far-reaching property rights. In addition to all the rights that forest councils of Kumaon enjoy, Nepalese villagers can also buy and sell timber and retain the revenues for themselves. They are not required to involve the Forest Department or any other government officials in market transactions. But the initiative suffers from two limitations. Existing rules are unclear about selection of local leadership and succession. Over time, existing leaders can entrench their positions. Two, forest policies can change in Nepal without much notice because the government has not devolved constitutional level rights. Thus, a recent announcement that taxes will be imposed on revenue from forest products has raised genuine concerns about the nature of decentralization that Community Forestry embodies.

Joint Forest Management in India grants to villagers the property rights of access and use, and management, but in actual functioning of the forest protection committees, Forest Department officials intervene pervasively. In addition, no security of tenure exists for the committees since they must be registered by Forest Department officials who also possess the power to dissolve a committee. Because of these limitations, the degree of decentralization of property rights in Joint Forest Management conforms only to that of claimants.

User groups in the buffer zones of the protected areas in Nepal can only claim to have somewhat attenuated use and access rights. They have almost no managerial discretion and few powers of exclusion or alienation. Collective and constitutional choice authority has been retained by the Department of National Parks and Wildlife and the Parks and People Program officials.

The differing levels of decentralization in the four cases have had clear results in terms of the ability of local residents to use and manage local resources. Members of the Kumaon forest councils in Kumaon and Community Forestry user groups in Nepal have witnessed the greatest change in their ability to use and manage forest resources. Like them, villagers who participate in Joint Forest Management can also manage their forests, exclude other users, and determine how their forests will be used. But the Joint Forest Management initiative gives rural residents fewer rights over the commercial exploitation of forests in comparison to Forest Council Rules or the Community Forestry Program in Nepal.

The evidence on outcomes related to changes in forest conditions is preliminary. But the existing evidence suggests that the cases in which there has been more effective decentralization of property rights are also the ones in which forest conditions have improved more. Recall that in Kumaon, the Forest Department had kept the best land to itself as Class II forests. It transferred only the somewhat more fragmented and often more degraded patches of forests to the Revenue Department for eventual management by forest councils. Yet, today, the condition of forests on land held by the forest councils compares favorably with that of Forest Department-managed lands.⁵⁶ In the Nepal hills, where only two decades ago many scholars were raising an alarm about the degradation of forests,⁵⁷ improvement in the condition of vegetation is already apparent. The Parks and People Program has been in existence only for five years, and therefore, it is harder to judge whether it has made a significant difference in forest cover. In the case of Joint Forest Management, although there have been significant improvements in some areas, the sheer scale of the initiative makes it harder to make general statements about its vegetation-related outcomes in the absence of systematic large scale studies.

The exercise of property rights that resource users have come to hold depends, in significant measure, on the larger context of governance arrangements within which their rights are located. Thus, governments can easily launch decentralization initiatives that promise to give users wide latitude in using and managing

resources. On the other hand, the same governments can pull the teeth of these initiatives by not providing administrative and enforcement support that users need to exercise rights effectively. For example, users may have the *de jure* right to protect forests. These rights would have no meaning, however, if the users are poor, have no resources to hire guards, have no authority to raise revenues by selling forest products, and existing mechanisms to resolve disputes are expensive and cumbersome. These conditions are all present in the Parks and People Program. By contrast, the Kumaon forest councils also face the problem of a cumbersome legal system but can raise revenues locally and can appeal to forest council inspectors and officers that the colonial state appointed specifically to supervise the working of the councils. In the case of the Community Forestry Program in Nepal, and the Joint Forest Management initiative, Forest Department officials are supposed to help local forestry organizations when problems arise. Such help is especially crucial when conflicts arise between groups. But in neither case do the existing policies make provisions for how intergroup disputes at various levels are to be addressed. The effectiveness with which local organizations exercise their property rights depends then on how much support they receive from forestry officials empowered to interpret and enforce their rights.

CONCLUSION

This article began by posing two questions: What role do local populations play in ensuring devolution of different categories of property rights? and What types of property rights must be devolved to local populations for effective decentralization?

The evidence we have on the first question is somewhat mixed. In one of our cases—forest councils of Kumaon—the effective mobilization of local actors was instrumental in the initiation of decentralization. In the case of the Parks and People Program, there were no local demands, and there was no effective decentralization. But in the other two cases—Community Forestry in Nepal and Joint Forest Management in India—we witness significant decentralization without local actors mounting a widespread social movement or nationwide agitation. We must conclude that active participation of local actors is not a prerequisite for decentralization programs to be launched. However, local groups do actively have to pursue opportunities opened up by decentralization reforms, or else they are likely to find that decentralization has been retracted (as in the case of Community Forestry in Nepal) or discover that their rights are greatly limited by active interventions of more powerful officials (as in the case of Joint Forest Management). It is noteworthy that in the case of the Parks and People Program, pressures for decentralization were generated from outside the government, through the intervention of an international donor agency. In the case of both Joint Forest Management in India and Community Forestry in Nepal, there were sufficient numbers of actors within

the government who were active in pursuing decentralization, even if no clear pressures from local populations were visible. In both cases, international NGOs have also provided extensive financial assistance for decentralization of forest management.

However, it is a different story when we come to maintenance of decentralized property regimes. For continued existence of decentralized control over resources, active participation of local actors seems to be quite necessary. Nepal's Community Forestry Program has seen the emergence of a national-level networking organization, FECOFUN, that is prepared to voice protests against efforts of the Ministry of Forestry to limit the territorial expansion of existing decentralization reforms. Neither the forest councils of Kumaon nor the protection committees formed via the efforts of Joint Forest Management in India have found a similar organization or representation. The emergence of such macrolevel networks and organizations is likely crucial to ensure that decentralization processes, once initiated, are not retracted.

The evidence on the second question is more conclusive. The case studies confirm that it is necessary for local users and their representative institutions to possess property rights that transform them into claimants and proprietors to achieve effective decentralization. The delegation of only the operational-level rights of access and use of forests and forest products does not produce much change in either the condition of vegetation or the relationships between state and community actors. The decentralization of control over forests in Kumaon has meant that local residents in the region have come to interact in very different ways with local and government officials as compared to the past. There is significant enforcement of locally crafted rules. Variations in the conditions of forests are primarily a result of microlevel differences in institutional and bio-physical factors. A similar story can also be told for Nepal's Community Forestry Program. As rural residents have begun to manage their forests actively, the nature of their relationships with government officials has changed. In the case of Joint Forest Management, the results are sufficiently variable that a blanket assertion of improvement would be hasty at best. In Nepal's Terai, villager participation in the Parks and People Program, and their ability to make decisions about the use and management of forests, are overshadowed by state officials.

The findings of our empirical study, thus, match the theoretical expectation that when local users do not exercise significant control over collective and constitutional-level choices related to rule design, management, and enforcement, the impact of decentralization is limited. To create an impact, governments need to allow local users and their representatives at least the rights to manage resources and make decisions about resource use and exclusion. At the same time, effective implementation of decentralization reforms and enforcement of local property rights depend, at least in part, on the governance arrangements within which specific decentralization reforms are located. The effective enforcement of decentral-

ization in Kumaon is attributable in no small measure to the ability of forest council members to appeal to Revenue and Forest Department officials when conflicts arise. Such appeals for help and avenues of enforcement are not available to users living in the buffer zone of protected areas in Nepal's Terai. It is worth pointing out in passing that the conclusions of our comparative analysis do not change if we restrain analytical focus to a single country. The findings of the study may, therefore, be more widely applicable in other South Asian countries as well.

To conclude, decentralization reforms imply changes in property rights over resources that gain local users' rights and capacities to make operational rules. As important, decentralization initiatives should allow users to make collective and constitutional choices. Successful decentralization initiatives related to forests are difficult to accomplish without the existence of state actors who see some of their interests being fulfilled by decentralization processes. Furthermore, the likelihood of success is enhanced by promoting the conditions that generate self-organization among local groups. As the examples of the Kumaon forest councils and Community Forestry in Nepal make clear, only with some level of organization and pressure from local groups are decentralization processes likely to move beyond the control of elite actors.

NOTES

1. William Dillinger, *Decentralization and Its Implications for Urban Service Delivery*. Urban Management Program Discussion Paper No. 16 (Washington, DC: The World Bank, 1994), 8.

2. The global pursuit of decentralization, even if it appears novel, has had several precursors. Beginning in 1917, four waves of decentralization can be discerned in Francophone West Africa according to Jesse Ribot, "Decentralization, Participation, and Accountability in Sahelian Forestry: Legal Instruments of Political-Administrative Control," *Africa*, 69 (August 1999): 23-65. Arun Agrawal and Jesse Ribot, "Accountability in Decentralization: A Framework with South Asian and West African Cases," *Journal of Developing Areas*, 33 (summer 1999): 495 identify at least three waves of decentralization in south Asia since the mid-1800s.

3. There is a close relationship between the willingness of governments to decentralize powers to lower level decision makers in a polity and the ability of citizens to influence decision making by participating more intensively in governance, even if the relationship is hard to specify precisely. The ability of governments to foster participation has been termed "state-fostered civic organizing" by Rebecca Abers, "From Clientalism to Cooperation: Local Government, Participatory Policy, and Civic Organizing in Porto Alegre, Brazil," *Politics and Society*, 26, no. 4 (December 1998): 511.

4. See the essays in Tariq Banuri and Frederique Apffel Marglin, eds., *Who Will Save the Forests? Knowledge, Power, and Environmental Destruction* (London: Zed Books, 1993); and Michael Kaufman and Haroldo Dilla Alfonso, eds., *Community Power and Grassroots Democracy: The Transformation of Social Life* (London: Zed Books, 1997). A number of scholars have also made similar arguments about development in book-length studies. See Julie Fisher, *Non Governments: NGOs and the Political Development of the Third World* (West Hartford, CT: Kumarian Press, 1998); and Richard C. Crook and James

Manor, *Democracy and Decentralisation in South Asia and West Africa: Participation, Accountability and Performance* (Cambridge, UK: Cambridge University Press, 1998). William Ascher, *Why Governments Waste Natural Resources: Policy Failures in Developing Countries* (Baltimore, MD: The Johns Hopkins University Press, 1999), 269-71 reviews the natural resource management policies of a host of governments, and recommends decentralization to private and communal actors.

5. For a careful political study of decentralization that highlights the territorial aspects of the exercise of power, see Brian C. Smith, *Decentralization: The Territorial Dimension of the State* (London: George Allen and Unwin, 1985), especially pp. 1-6.

6. Peter Evans, "A Virtuous Cycle Model of Rural-Urban Development: Evidence from a Kenyan Small Town and its Hinterland," *Journal of Development Studies*, 28, no. 4 (April 1992): 135-53; Philip Mawhood, *Local Government in the Third World: The Experience of Tropical Africa* (Chichester, UK: Wiley, 1983); and James S. Wunsch and Dele Olowu, *The Failure of the Centralized State: Institutions and Self-Governance in Africa* (Boulder, CO: Westview, 1990).

7. M. Goodwin, S. Duncan, and S. Halford, "Regulation Theory, the Local State, and the Transition of Urban Politics," *Environment and Planning D: Society and Space*, 11, no. 1 (February 1993): 67-88; and R. Rhodes, *Beyond Westminster and Whitehall: The Sub-Central Governments of Britain* (London: Unwin Hyman, 1988).

8. This article brackets the question of when local groups will self-organize. For a careful analysis of this question, see Elinor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (New York: Cambridge University Press, 1990), chap. 6; and Elinor Ostrom, "Reformulating the Commons," In J. Burger, E. Ostrom, R. B. Norgaard, D. Policansky, and B. D. Goldstein, eds., *Protecting the Commons: A Framework for Resource Management in the Americas* (Washington, DC: Island Press, 2001), 17-41.

9. For definitions of these terms and their relationship to decentralization, see Dennis Rondinelli, James McCullough, and Ronald Johnson, "Analyzing Decentralization Policies in Developing Countries: A Political-Economic Approach," *Development and Change*, 20, no. 1 (January 1989): 76; Elinor Ostrom, Larry Schroeder, and Susan Wynne, *Institutional Incentives and Sustainable Development: Infrastructure Policies in Perspective* (Boulder, CO: Westview, 1993), 164-68; Michael Maniates, "Organizational Designs for Achieving Sustainability: The Opportunities, Limitations, and Dangers of State-local Collaboration for Common Property Management," (presented at the First Annual Meeting of the International Association for the Study of Common Property, Durham, NC, 27-30 September 1990), 1; Devraj Dahal, *The Challenge of Good Governance: Decentralization and Development in Nepal* (Kathmandu, Nepal: Center for Governance and Development Studies, 1996), 15; and Paul Smoke, "Local Government Fiscal Reform in Developing Countries: Lessons from Kenya," *World Development*, 21, no. 6 (June 1993): 901-3. It is clear that a very large literature elaborates the meanings of decentralization.

10. Mawhood, *Local Government*; Smith, *Decentralization*, 1-3.

11. As John R. Commons, *Legal Foundations of Capitalism* (Madison: University of Wisconsin Press, 1968) has observed, a property right is an enforceable authority to undertake particular actions in a specific domain.

12. Daniel Bromley et al., eds., *Making the Commons Work: Theory, Practice and Policy* (San Francisco: Institute for Contemporary Studies Press, 1992).

13. According to a survey of Forest Departments by the Food and Agriculture Organization, more than 50 countries claim to be moving toward involving user communities in some form in the management of forest resources. See Food and Agriculture Organization,

“Status and Progress in the Implementation of National Forest Programmes: Outcomes of an FAO Worldwide Survey,” mimeo (Rome, Italy: FAO, 1999).

14. For a detailed discussion of these different types of rights, see Edella Schlager and Elinor Ostrom, “Property Rights Regimes and Natural Resources: A Conceptual Analysis,” *Land Economics*, 68, no. 3 (August 1992): 249-62. In response to referees’ requests to keep this analysis as simple as possible, we do not discuss a fifth right identified in the above article—the right of access. A decentralization policy gives local users effective access rights when they receive some rights of harvest. But access as a separable right is important if one is analyzing parks and other institutional arrangements where access alone is granted to some actors.

15. Elinor Ostrom, Roy Gardner, and James Walker, *Rules, Games, and Common-Pool Resources* (Ann Arbor: University of Michigan Press, 1994), chap. 2.

16. Analysis of decisions as occurring at nested levels is developed at greater length in James Buchanan and Gordon Tullock, *The Calculus of Consent: Logical Foundations of Constitutional Democracy* (Ann Arbor: University of Michigan Press, 1962); George Brennan and James Buchanan, *The Reason of Rules* (Cambridge, UK: Cambridge University Press, 1985); and Larry Kiser and Elinor Ostrom, “The Three Worlds of Action: A Metatheoretical Synthesis of Institutional Approaches,” in Elinor Ostrom, ed., *Strategies of Political Inquiry* (Beverly Hills, CA: Sage, 1982), 179-222. A concise treatment is available in Ostrom, *Governing the Commons*, 50-55.

17. See Harold Demsetz, “Toward a Theory of Property Rights,” *American Economic Review*, 57 (May 1967): 347-59.

18. Not all scholars agree. Bruce Larson and Daniel Bromley, “Property Rights, Externalities, and Resource Degradation: Locating the Tragedy,” *Journal of Development Economics*, 32, no. 2 (October 1990): 235-62, show that much more information about the specific values of a large number of ownership parameters is necessary before judgments can be made concerning the efficiency of a property right.

19. Operational rights may be finely divided into quite specific and, sometimes, overlapping “tenure niches” that vary by season, by use, by technology, and by space as discussed by John Bruce, Louise Fortmann, and Calvin Nhira, “Tenures in Transition, Tenures in Conflict: Examples from the Zimbabwe Social Forest,” *Rural Sociology*, 58, no. 4 (1993): 626-42. Operational rules can permit authorized users to transfer access and withdrawal rights either temporarily through a rental agreement, or permanently when these rights are assigned or sold to others.

20. For studies of how collective management-related rights are exercised in relation to fisheries, see Bikash Raychaudhuri, *The Moon and the Net: Study of a Transient Community of Fishermen at Jambudwip* (Calcutta: Anthropological Survey of India, Government of India Press, 1980); for irrigation, see Shui Yan Tang, *Institutions and Collective Action: Self-Governance in Irrigation* (San Francisco: Institute for Contemporary Studies Press, 1992); and for forestry, see George Varughese and Elinor Ostrom, “The Contested Role of Heterogeneity in Collective Action: Some Evidence from Community Forestry in Nepal,” *World Development*, 29, no. 5 (May 2001); George Varughese, “Villagers, Bureaucrats, and Forests in Nepal: Designing Governance for a Complex Resource,” Unpublished Ph.D. Dissertation, Department of Political Science, Indiana University, Bloomington, 1999.

21. See Ostrom, *Governing the Commons*, 204-5; Ostrom, Schroeder, and Wynne, *Institutional Incentives*, 51-54.

22. The essays in several collected volumes show the importance of institutional regulation of common property at the local level. See Daniel Bromley, David Feeny, Margaret McKean, Pauline Peters, Jere Gilles, Ronald Oakerson, Carlisle Ford Runge, and James

Thompson, eds., *Making the Commons Work: Theory, Practice, and Policy* (San Francisco: Institute for Contemporary Studies Press, 1992); and Bonnie J. McCay and James Acheson, eds., *The Question of the Commons: The Culture and Ecology of Communal Resources* (Tucson: University of Arizona Press, 1987).

23. In a series of studies of inshore fisheries, self-organized irrigation systems, forest user groups, and groundwater institutions, proprietors tended to develop strict boundary rules to exclude noncontributors, established authority rules to allocate withdrawal rights, devised methods for monitoring conformance, and used graduated sanctions against those who do not conform to these rules. See the empirical essays in Ostrom, Gardner, and Walker, *Rules, Games, and Common-Pool Resources*, 219-300.

24. J. Arnold and Gabriel Campbell, "Collective Management of Hill Forests in Nepal: The Community Forestry Development Project," in *Proceedings of the Conference on Common Property Resource Management* (Washington, DC: National Research Council, National Academy Press, 1986): 425-54, point to the effect uncertainties of tenure produce among agricultural producers.

25. Robert A. Dahl and Charles E. Lindblom, *Politics, Economics, and Welfare: Planning and Politico-Economic Systems Resolved into Basic Social Processes* (New York: Harper, 1963).

26. See Demsetz, "Toward a Theory," 350-52.

27. Frank Place and Peter Hazell, "Productivity Effects of Indigenous Land Tenure Systems in Sub-Saharan Africa," *American Journal of Agricultural Economics*, 75 (1993): 10-19 conducted surveys in Ghana, Kenya, and Rwanda to ascertain if indigenous land-right systems were a constraint on agricultural productivity. They found that having the rights of a proprietor as contrasted to an owner in these settings did not affect investment decisions and productivity. Some other studies from Africa have also found little difference in productivity, investment levels, or access to credit purely as a result of more rights. See Shem E. Migot-Adholla, Peter Hazell, Benoit Blarel, and Frank Place, "Indigenous Land Rights Systems in Sub-Saharan Africa: A Constraint on Productivity?" *World Bank Economic Review*, 5, no. 1 (1991): 155-75; John W. Bruce and Shem E. Migot-Adholla, eds., *Searching for Land Tenure Security in Africa* (Dubuque, IA: Kendall/Hunt, 1994). In densely settled regions, however, proprietorship over agricultural land may not be sufficient for efficient exploitation as argued by Gershon Feder and David Feeny, "Land Tenure and Property Rights: Theory and Implications for Development Policy," *World Bank Economic Review*, 5, no. 1 (1991): 135-53; and Gershon Feder, T. Onchan, Y. Chalamwong, and C. Hangladoran, *Land Policies and Farm Productivity in Thailand* (Baltimore, MD: Johns Hopkins University Press, 1988).

28. See Arun Agrawal, "Rules, Rule Making, and Rule Breaking: Examining the Fit between Rule Systems and Resource Use," in Elinor Ostrom, Roy Gardner, and James M. Walker, eds., *Rules, Games, and Common-Pool Resources* (Ann Arbor: University of Michigan Press, 1994), 267-82; William Blomquist, *Dividing the Waters: Governing Groundwater in Southern California* (San Francisco: ICS Press, 1992); Edella Schlager, "Fishers' Institutional Responses to Common-Pool Resource Dilemmas," in Elinor Ostrom, Roy Gardner, and James M. Walker, eds., *Rules, Games, and Common-Pool Resources* (Ann Arbor: University of Michigan Press, 1994), 247-65; Shui Yan Tang, "Building Community Organizations: Credible Commitment and the New Institutional Economics," *Human Systems Management*, 13 (1994): 221-32; and Wai Fung Lam, *Governing Irrigation Systems in Nepal: Institutions, Infrastructure, and Collective Action* (Oakland, CA: ICS Press, 1994).

29. We can point out in passing that decentralization of all the rights—use (or withdrawal), management, exclusion, and alienation—only facilitates self-organization. Not

all local groups will self-organize to manage local forests sustainably just because central governments are willing to devolve authority. Self-organization by users requires overcoming local barriers to collective action as well.

30. For a comprehensive review, see Arun Agrawal and Clark Gibson, "Community and Conservation: Beyond Enchantment and Disenchantment," *World Development*, 27, no. 4 (1999): 629-49.

31. See Arun Agrawal and Gautam Yadama, "How do Local Institutions Mediate Market and Population Pressures on Resources? Forest *Panchayats* in Kumaon, India," *Development and Change*, 28, no. 3 (July 1997): 435-66.

32. E. Somanathan, "Deforestation, Property Rights, and Incentives in Central Himalaya," *Economic and Political Weekly*, 26 (1991): 37-46.

33. Agrawal and Yadama, "How do Local Institutions," 447.

34. See Arun Agrawal, "State Formation in Community Spaces? Decentralization of Control over Forests in the Kumaon Himalaya, India," *Journal of Asian Studies*, 60, no. 1 (February 2001): 1-32.

35. For a discussion of changing colonial forestry policies in Bengal, see K. Sivaramakrishnan, *Modern Forests: Statemaking and Environmental Change in Colonial Eastern India* (Stanford, CA: Stanford University Press, 1999). Careful studies of forest history in Gujarat and Madhya Pradesh are available respectively in Ajay Skaria, *Hybrid Histories: Forests, Frontiers, and Wilderness in Western India* (Delhi: Oxford University Press, 1999); and Nandini Sundar, *Subalterns and Sovereigns: An Anthropological History of Bastar, 1854-1996* (Delhi: Oxford University Press, 1998).

36. Shashi Kolavalli, "Joint Forest Management: Superior Property Rights?" *Economic and Political Weekly*, 30 (29 July 1995): 1933-38; and Ajit Krishnaswamy, "Sustainable Development and Community Forest Management in Bihar, India," *Society and Natural Resources*, 8 (1995): 339-50.

37. Nandini Sundar, "Unpacking the 'Joint' in Joint Forest Management," *Development and Change*, 31, no. 1 (January 2000): 255-60.

38. Dolly Arora, "From State Regulation to People's Participation: Case of Forest Management in India," *Economic and Political Weekly*, 29 (19 March 1994): 691-98.

39. Mark Poffenberger and Chhatrapati Singh, "Communities and the State: Reestablishing the Balance in Indian Forest Policy," in Mark Poffenberger and Betsy McGean, eds., *Village Voices, Forest Choices* (Delhi: Oxford University Press, 1996), 58-59.

40. Rucha Ghate, "The Role of Autonomy in Self-Organizing Processes: A Case Study of Local Forest Management in India," mimeo (Bloomington: Indiana University, Workshop in Political Theory and Policy Analysis, 2000), 10.

41. Richard Mahapatra, "Community Forest Management: The Nepalese Experience," *Down to Earth*, 8, no. 9 (September 2000): 1-10; See also the essays in Roger Jeffery and Nandini Sundar, eds., *A New Moral Economy for India's Forests? Discourses of Community and Participation* (Sage: New Delhi, 1999).

42. Neeraj Kumar, "All is Not Green with Joint Forest Management in India," *Forests, Trees, and People Newsletter*, 42 (2000): 46-50; Sundar, "Unpacking the 'Joint,'" 275-77.

43. Several case studies available in Mark Poffenberger and Betsy McGean, eds., *Village Voices, Forest Choices* (Delhi: Oxford University Press, 1996), provide local assessments. See also the recent study by Arvind Khare, Madhu Sarin, N. C. Saxena, Subhabrata Palit, Seema Bathla, Farhad Vania, and M. Satyanarayana, *Joint Forest Management: Policy, Practice and Prospects* (London: International Institute for Environment and Development, 2000) for a more recent, general account.

44. "State Forestry Action Programme," Public speech by Inspector General of Forests, Indian Institute of Forest Management, Bhopal, Madhya Pradesh, 21 January 2000.

45. Khare et al., *Joint Forest Management*, 2-8; Kumar, "All is not Green," 48-50.
46. Arnold and Campbell, "Collective Management," 440-44.
47. Joel Heinen and B. Kattel, "A Review of Conservation Legislation in Nepal: Past Progress and Future Needs," *Environmental Management*, 16 (1992): 723-33.
48. As with any policy of this kind, the manner of implementation of the law is sometimes more arbitrary and less participatory than it is at other times. A 1995 study of 419 "chairpersons" of forest committees uncovered that "most of them did not know if they were members of a forest committee, or what they were expected to do." Charla Britt, "Forestry and Forest Policies," Working paper (Bloomington: Indiana University, Workshop in Political Theory and Policy Analysis, 2000), 22.
49. There is an initiative currently under consideration to tax the revenue that user groups obtain under this program; see Mahapatra, "Community Forest Management," 7-8.
50. Mahapatra, "Community Forest Management," 8; see also George Varughese, "Population and Forest Dynamics in the Hills of Nepal: Institutional Remedies by Rural Communities," in Clark Gibson, Margaret A. McKean, and Elinor Ostrom, eds., *People and Forests: Communities, Institutions, and Governance* (Cambridge, MA: MIT Press, 2000), 193-227.
51. Britt, "Forestry and Forest Policies," 27.
52. Sanjay Nepal and K. Weber, "A Buffer Zone for Biodiversity Conservation: Viability of the Concept in Nepal's Royal Chitwan National Park," *Environmental Conservation*, 21 (1994): 333. See also N. Iswharan and W. Erdelen, "Conserving Sunharaja: An Experiment in Sustainable Development in Sri Lanka," *Ambio*, 12 (1990): 237-44.
53. See Arun Agrawal, Shree Govind Shah, Mukunda Karmacharya, and Birendra Karna, "Conservation with Communities: The Parks and People Program in Nepal," Evaluation Report of the Parks and People Program, UNDP (Kathmandu, Nepal: International Forest Resources and Institutions Program, Nepal, 1999).
54. *Ibid.*, 42-47. See also "Terai's Forest-Challenge for Management," *Spotlight: The National News Magazine*, 20, no. 35 (March 16-22, 2001), for a critical review of the level of illegal harvesting occurring in the Terai of Nepal, where the People and Parks Program is located.
55. That the forest councils of Kumaon have existed the longest and were created by a colonial government also sets them apart from the other cases in our set. However, these two distinguishing factors seem to us less important in explaining their success. The British colonial state had also initiated programs of environmental decentralization in Madras and Burma. In both these places, the effort at decentralized management of forests was launched before it was in Kumaon. However, the programs in Burma and Madras were scrapped in favor of centralized management within four decades. The determining factors in the success of the councils seem to be the match between local mobilization and support within the Revenue Department and the institutional measures that this congruence of interests provoked.
56. Somanathan, "Deforestation, Property Rights," pp. 42-45.
57. For a review of alarmist arguments in the 1970s and early 1980s, see Jack Ives and Bruno Messerli, *The Himalayan Dilemma: Reconciling Development and Conservation* (London: Routledge, 1989).