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COLLECTIVE ACTION, PROPERTY RIGHTS, AND DEVOLUTION  
IN FOREST AND PROTECTED AREA MANAGEMENT

by

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# COLLECTIVE ACTION, PROPERTY RIGHTS, AND DEVOLUTION IN FOREST AND PROTECTED AREA MANAGEMENT

by

Arun Agrawal and Elinor Ostrom

This paper aims to accomplish two tasks: One, it presents a framework to help analyze the devolution of the use, management, and governance of resources. It does so by bringing together several strands of work on institutional analysis and property rights, and building on theories of collective action. These writings are highly relevant to our understanding of governance and devolution, but their relationship to devolution and governance requires closer examination than it has previously received. Two, the paper provides empirical evidence from two cases on devolution of forest use from India and Nepal to illustrate and examine the offered framework. The devolution of forest use in Kumaon in India and efforts to involve local population in the management of protected areas in the Terai of Nepal form the two contrasting studies of the origins and implementation of devolution. Studying these contrasting cases enables us to examine the propositions we advance about the relationships between characteristics of devolutionary initiatives, the likelihood of an initiative being implemented successfully, and resource-related outcomes.

Devolution of resource management is part of a larger conversation about decentralization of authority away from central government offices and officials. Writings on decentralization and its effects have a long pedigree in development studies but they have gained a wider audience in the past two decades in comparison to the years immediately following the Second World War. Indeed, one can argue that this shift, in search for alternatives to the acknowledged failures of state-based solutions to problems of governance, has characterized writings related to development and resource management more generally (Agrawal 1999: 7-21).

A review of writings on devolution reveals two significant lacunae. First, these studies often talk of decentralization/devolution as a gross concept that signifies changes in authority structures but do not further investigate the specific dynamics of devolution, or its relationship to institutions through which it occurs.<sup>1</sup> Advocating for decentralization/devolution as a general aim and ignoring specific details may be appropriate as a rhetorical strategy against the concentration of power. But such a lack of specificity does not provide sufficient guidance when it is necessary to create a policy-relevant plan to put devolution into practice. Existing theories of property rights, suitably enriched by an attention to powers and capacities, can play a constructive role in addressing this gap in writings on devolution. An understanding in terms of devolution of rights and capacities over a set of specific action domains at different levels of social aggregation helps us provide a more precise framework to understand devolution. The two studies of decentralization that we examine illustrate our argument.

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<sup>1</sup>But see Ostrom, Schroeder, Wynne (1993) for a careful examination of different institutional alternatives to organize the provision, production, and maintenance of development infrastructure.

A second gap in studies of devolution relates to the functional orientation of much of the literature. Scholars often try to show that devolution/decentralization is superior to centralized solutions by stressing the efficiency/ equity/ sustainability aspects of its outcomes. Thus, they defend and justify it on the basis of its effects. This rhetorical strategy emphasizes why devolution should be pursued, but provides little insight into the conditions under which proposals for devolution may actually be accomplished successfully. We suggest that insights from writings on collective action form a fertile source to address this void.

The two case studies we present exemplify different origins of the pressures for devolution, and different processes through which devolution is realized. In one case, Kumaon, devolution of authority was set in motion by demands voiced by local residents. In the other, Nepal, a form of devolution/decentralization was initiated as part of the design of an internationally funded project to involve local populations in the management of resources in the buffer zone of a network of protected areas. By paying attention to the politics that shapes how devolutionary initiatives unfold, we gain a more useful understanding of the processes involved.

### The Discourse of Devolution

Two main phases exist in the post-Second World War development writings (Sivaramakrishnan and Agrawal 1998: 4-5). The first phase was one of international Keynesianism and state-mediated capitalism.<sup>2</sup> In this phase, the central state was viewed as playing a pivotal role in planning and industrialization, especially in developing countries that were attempting to emulate the growth patterns of western nation-states. International institutions of development and aid focused on the central state as an important actor in transforming social relations, and most aid was channeled through the state. These earlier years witnessed a growth in the capacities, scope, and activities of the state as the *sine qua non* for economic and social development.

The second phase of development started during the late 1970s as more analysts began to recognize that the state was not necessarily the best agent to pursue development as a universal good, or to deal with the problems of poverty, unemployment, and inflation. The decline of the state as the agent of development took place at the same time as the decline and fall of socialism as a political and economic system. Regimes of the Second World today stand dismantled. Those in the Third World face a set of prescriptions for development that simultaneously follow two courses. On the one hand, privatization, liberalization, export promotion, openness to international markets and capital, and downsizing of the central state are seen as the prerequisites of economic growth. On the other hand, recognizing the limits of these policy innovations to address issues of social equity, advocates of equitable development highlight the significance of communities.

It is somewhat ironic that contemporary prescriptions for development simultaneously highlight two alternatives that are frequently viewed as being against each other—the market and the community. To understand this apparent contradiction, it is important to understand that development has always been a multi-faceted goal, its aspects sometimes in tension. The simultaneous focus on the market and the community seeks the same kind of complementarity in

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<sup>2</sup>Some would argue that this was also an era of "crypto-imperialism" (V. Ostrom, 1988).

development objectives that was expressed in the earlier slogan of "Growth with Equity." The main difference is that in the preceding period development theorists still believed that the state by itself could pursue this two-pronged objective. Today, development scholars have identified two very different modalities — markets and community — through which to accomplish the twin objectives of growth and equity. In the overall discourse about development, the co-existence of strategies that advocate the market and the community as possible agents of development can be seen as the attempt to pursue two conflicting objectives through different institutional instruments.

The new development paradigm that has emerged since the 1980s has found acceptance in a number of venues, including institutions in the United Nations system, and the World Bank (IADB 1991; World Bank 1991). Veltmeyer (1997: 311) summarizes the main features of this paradigm as an emphasis on participation, decentralization of decision making, and targeting of the poor with specific policies related to health, education, and micro-enterprise development, on the one hand, and structural reforms that provide an appropriate institutional framework to reduce state intrusions, on the other hand. This vision of development combines the roles of markets and communities as a substitute for the basic role that the central state had played in the years immediate following the Second World War. The retrenchment of the powers of the central state is supposed to occur through decentralization.

The idea of decentralization in development and resource management has caught and retained the attention of scholars, donors, and governments alike. Research papers on the subject have regularly appeared in major development journals such as *World Development* and *Development and Change* for more than two decades. Multilateral donors such as the World Bank and the United Nations Development Program find decentralization to be a worthwhile goal toward which to strive (Smoke 1993: 901). Similarly important are the efforts of a large number of US and European private and state-supported development-aid organizations who have contributed to local institutional development through their funding strategies. Governments in many countries have also demonstrated at least a rhetorical commitment to establish decentralization programs of different types. Their words and efforts have generated variable results, leading to a range of terms that might adequately describe the complexity and patchiness

of the processes. Deconcentration,<sup>3</sup> delegation,<sup>4</sup> devolution,<sup>5</sup> deregulation,<sup>6</sup> privatization,<sup>7</sup> and denationalization<sup>8</sup> are some of the more common terms that are used to refer to the forms in which decentralization occurs.

Part of the reason why so many different terms are used to describe decentralization is precisely that decentralization can take place along many dimensions, towards multiple levels, and for several types of tasks. Of them all, devolution is typically seen to signify the most extensive form of decentralization. But rather than quibble over definition-related details, we propose to use insights from institutional analysis and property rights theory to analyze devolutionary initiatives. Such a framework for understanding devolution of natural resources, we suggest, can help us gain a more precise view of what devolution is about, how it might be initiated in diverse settings, and its likely impact -- specifically in relation to forests.

### **A Framework for the Analysis of Devolution**

Over the past several decades, colleagues associated with the Workshop in Political Theory and Policy Analysis at Indiana University have been developing and using a general meta-theoretical framework for analyzing institutional arrangements (see Kiser and E. Ostrom, 1982; Oakerson, 1992; Ostrom, Gardner and Walker, 1994; Ostrom, forthcoming). In addition to the power of this framework for the analysis of specific rule systems in the context of diverse types of

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<sup>3</sup>*Deconcentration* can be defined as “the shifting of workload from central government ministry headquarters to staff located in offices outside of the national capital” (Rondinelli et al., 1989: 76). This is perhaps the most innocuous of the forms of decentralization, requiring the least changes in the forms of exercising power.

<sup>4</sup>*Delegation* differs from deconcentration in the actors to whom authority is transferred. According to Ostrom et al (1993: 166), delegation refers to “transfers of authority to public corporations or special authorities outside the regular bureaucratic structure.”

<sup>5</sup>*Devolution* is the most extensive form of decentralization. It is described as the “increased empowerment of local organizations with no direct government affiliation” (Maniates 1990: 1).

<sup>6</sup>*Deregulation* involves the dismantling of price controls, quotas, and barriers to entry so that market forces determine savings, investment, and consumption decisions of economic actors (Dahal 1996).

<sup>7</sup>*Privatization* denotes “transfers of responsibility for public functions to voluntary organizations or private enterprises (Rondinelli and Nellis 1986: 5, cited in Ostrom et al. 1993).

<sup>8</sup>*Denationalization* refers to the selling to the public or to workers government-owned assets or enterprises meant for the production of goods or services (Dahal 1996: 15).

biophysical environments and cultural endowments, a key distinction is made among levels of action and the rules that affect action situations (see Figure 1).

[Figure 1 about here]

### Levels of Analysis and Outcomes

In the most basic *operational* level situations, individuals interact with one another in such a manner as to affect events in the world directly. The structure of the situation that individuals face is affected by attributes of a physical world, rules-in-use and practices, distribution of power, and attributes of the community of users and officials. When a group of women harvest fire wood from a nearby forest or a local firm fells trees to be sawn into timber, the structure of incentives that participants face is at an operational level of analysis. Given these incentives and the objective and intrinsic preferences of participants, users interact and generate outcomes in the world. Depending on the structure of the situation and interactions among individuals, outcomes can vary dramatically. Forest products may be harvested sustainably. Overharvesting may occur. The forest may even be severely degraded or entirely disappear. Analysts assess outcomes using a variety of evaluative criteria including resource sustainability, economic efficiency, and equity. Individual participants seek a variety of objectives in operational-level situations including achieving higher levels of economic returns and power. The individuals involved evaluate the expected level of net benefits to be achieved and weigh these against the set of costs they will have to bear. These costs and benefits at an operational level are strongly affected by the bundle of property rights possessed by those involved. If the users of a forest do not have an assurance of their right to continue harvesting from a forest, they have no motivation to conserve resources for the future. What they conserve can just as well be harvested by someone else as by themselves.

The rules that are used to structure operational situations are established in one or more *collective choice* arenas. The participants in a collective choice situation may be the same participants who act in the operational situation. If the women of a community have the authority to determine who can use a local forest, when and where they can use it, what tools can be used, and how these rules will be enforced, they can participate in collective choice decisions related to determining the operational rules for their own (and potentially others') use of that forest. They may not be the only collective choice body relevant to a particular forest. A local, regional, or national government may also have authority to determine some of the operational rules for the same forest. A local group may, for example, determine operational rules related to all non-timber forest products, while a national agency has formal authority to determine rules related to timber products. In many cases, local groups have no authority at all to determine any of the operational rules that affect their day-to-day harvesting, planting, thinning, and other forest-related activities. In others, members of a user group or a village may have asserted *de facto* authority to make such rules or may even have been assigned *de jure* authority to do so. Determining the operational rules to be used in future interactions is a fundamental exercise of power in that it results in the allocation of rights and duties to various participants. Thus, authority at the collective choice level enables those who exercise it to establish, modify, or

eliminate the bundles of operational level property rights exercised by specific groups of individuals.

The movement across these analytical levels may not be obvious to the participants, and is frequently not at all clear to outside observers. Discussions about operational rules may occur as members of an "executive committee" are walking to or harvesting from a forest and discussing whether they should close the forest for a specific length of time during the year. Or, these discussions may occur at someone's home. They may or may not then be discussed in a more formal setting where minutes are kept and rules are promulgated through announcement by a local messenger, a written form, or an oral report to all those affected. Although many collective choice decisions about operational rules do occur in formal settings, especially governmental rules and regulations that are determined in formal legislative, administrative or judicial settings, collective choice decisions are also often made in much more informal settings throughout the world.

Collective choice situations are themselves structured by rules determined at a *constitutional choice level*. The decision to allocate authority to the women who live in a community to make collective choices for the community about the operational rules affecting a particular local forest, is a constitutional decision whether or not it was made by the local village itself, made by a formal government, or as part of a project funded by an international donor. Constitutional choice decisions are not just those embedded in some musty document written long ago, but are made frequently by diverse groups, certainly much more frequently than is discussed in the contemporary policy literature.

The analytical distinction between operational level rules, and collective and constitutional choice arenas should not create the impression that these correspond to three actual levels of authority or rules in a political or legislative system. It is quite possible that in the real world, the same political body uses operational rules, creates them by deliberating at the collective choice level, and has powers in the constitutional choice arena as well. Or, there may be a number of levels of authority, corresponding perhaps to the village, district, provincial, and the national where specific rules are created and powers are exercised. What is crucial to understand is that in relation to a particular resource, there are certain rules that affect its day to day use and consumption, others that structure the creation of operational level rules, and still others at a higher constitutional level that affect the making of 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 and not rule makers. In regimes that have undergone forms of deconcentration, the authority to make all three types of rules is still lodged in national government officials even though some of these may work in field offices and therefore know more about local circumstances. Forms of decentralization that go beyond deconcentration usually involve some sharing of responsibilities for making operational level rules. Decentralization policies can involve some sharing of authority to make rules at the collective choice or constitutional choice levels. Part of the confusion in understanding the decentralization literature is that these useful distinctions among levels of decision making are not made and thus, no explanation is conveyed about who can make decisions about what at what level of analysis. When we claim that devolution is the most far-reaching form of decentralization, we are in

essence implying the sharing of authority regarding resources in relation to operational level rules, and in the collective and constitutional choice arenas. Sharing of authority itself signifies not just the responsibility, but also the financial and political wherewithal to legislate and enforce rules in relation to resources.

These distinctions among different levels of action situations are also useful when one wants to understand diverse kinds of property rights that influence how forests are to be used, harvested, managed, and sustained. Thus, let us briefly discuss various types of property rights that are involved in the use of any kind of resource system.

### Types of Property Rights

A property right is an enforceable authority to undertake particular actions in a specific domain (Commons, 1968). Property rights define the actions that one individual can take in relation to other individuals regarding some "thing." If one individual has a right, someone else has a commensurate duty to observe that right. Schlager and Ostrom (1992) identify five property rights that are most relevant for the use of common-pool resources, including access, withdrawal, management, exclusion, and alienation. These are defined as:

- Access: The right to enter a defined physical area and enjoy nonsubtractive benefits (e.g., hiking, canoeing, sitting in the sun).
- Withdrawal: The right to obtain resource units or products of a resource system (e.g., cutting fire wood or timber, harvesting mushrooms, diverting water).
- Management: The right to regulate internal use patterns and transform the resource by making improvements (e.g., planting seedlings and thinning trees)
- Exclusion: The right to determine who will have an access right, and how that right may be transferred.
- Alienation: The right to sell or lease management and exclusion rights.

Private property is frequently defined as a well defined right of alienation. Property-rights systems that do not contain the right of alienation are considered to be ill-defined by many analysts. Further, such systems are presumed to be inefficient since property-rights holders cannot trade their interest in an improved resource system for other resources, nor can someone who has a more efficient use of a resource system purchase a system in whole or in part (Demsetz, 1967). On the other hand, it is assumed that property-rights systems that include the right to alienation will be transferred voluntarily through market exchanges from lower valued uses to their highest valued use. Larson and Bromley (1990) challenge this commonly held view and show that much more information must be known about the specific values of a large number of parameters before judgements can be made concerning the efficiency of a particular type of property right.

### Classes of Property-Right Holders and Outcomes

Instead of focusing on one right, it is more useful to define five classes of property-rights holders as shown in Table 1. In this view, individuals or groups may hold well-defined property rights that include a combination of the rights defined above. This approach separates the



question of whether a particular right is well-defined from the question of the effect of having a particular set of rights. "Authorized entrants" include most recreational users of public parks who may be allowed through purchase or some other means, an operational right to enter and enjoy the natural beauty of the park, but do not have a right to harvest forest products. Those who have both the right to enter and to harvest some forms of products are "authorized users." The presence or absence of constraints upon the timing, technology used, purpose of use, and quantity of resource units harvested are determined by operational rules devised by those holding the collective-choice rights (or authority) of management and exclusion. The operational rights of entry and use may be finely divided into quite specific "tenure niches" (Bruce, 1995) that vary by season, by use, by technology, and by space. Tenure niches may overlap when one set of users owns the right to harvest fruits from trees, another set of users owns the right to the timber in these trees, and the trees may be located on land owned by still others (Bruce, Fortmann, and Nhira, 1993). Operational rules may allow 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 (see Adasiak, 1979, for a description of the rights of authorized users of the Alaskan salmon and herring fisheries).

(Table 1 about here)

"Claimants" possess the operational rights of access and withdrawal plus a collective-choice right of managing a resource that includes decisions concerning the construction and maintenance of facilities and the authority to devise limits on harvesting rights. The net fishers of Jambudwip, India, for example, annually regulate the positioning of nets so as to avoid interference, but do not have the right to determine who may fish along the coast (Raychaudhuri, 1980). Farmers on large-scale government irrigation systems frequently devise rotation schemes for allocating water on branch canals, but do not have authority to determine who has access to water (Tang, 1992). Forest users in some community forests in Nepal, are encouraged to develop their own management plans but do not have the authority to determine who is in or not in a users group (Varughese, 1999).

Having at least the bundle of rights associated with being "claimants" is a crucial step in enabling local users to have an effective voice in some aspects of managing resources sustainably (Schlager and E. Ostrom, 1993). When local users are able to make their own rules concerning how to limit the timing, location, and technology of use, they are able to begin to learn how to devise rules that fit local circumstances (see Design Principles elucidated in Ostrom, 1990). One of the major problems in trying to devise management rules for an entire country from a central governmental office is that the characteristics of diverse ecological systems vary so dramatically from one another in most countries with diverse ecological zones. The effectiveness of diverse management rules depends on a large number of variables such as: when the rainy season begins, how long it is, the impact of different types of harvesting equipment on the local system, the mix of species that grow in a forest and how they depend on one another, how individual villages are located in relationship to a forest, how easy it is to monitor each other's activities, how the growth patterns of highly valued forest products respond to different silvicultural practices, and

the prices of various input factors and of various forest products in nearby as well as distant markets.

The importance of having local knowledge about these kinds of variables has been ignored in much of the forest policy devised for developing countries. Since users were perceived as the source of the problems of overuse and degradation, it was presumed that central authorities could apply scientific knowledge to manage these resources successfully over time by devising uniform policies regarding all forests in a country. Unfortunately, scientific information may not be effectively used without the local knowledge about specific resource attributes that can then help to identify which scientific findings are relevant to a particular location or problem. Further, when national officials are underpaid and understaffed, trying to develop different and effective management plans for a large number of local forests is highly unlikely to be undertaken. Thus, in many cases, the devotion to having a centrally designed, scientifically informed, forest policy has meant in reality that many forests have been entirely open access and degraded over time because local users do not have more than *de facto* user rights with no rights to devise rules limiting use or requiring monitoring and other input resources.

"Proprietors" hold the same rights as claimants with the addition of the right to determine who may access and harvest from a resource. Most of the property systems that are called "common-property" regimes involve participants who are proprietors and have four 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 (see Berkes, 1989; Bromley et al., 1992; K. Martin, 1979; McCay and Acheson, 1987).

Empirical studies have found that some proprietors have sufficient rights to make decisions that promote long-term investment and harvesting from a resource. Place and Hazell (1993) 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. Other studies conducted in Africa (Migot-Adholla et al., 1991; Bruce and Migot-Adholla, 1994) also found little difference in productivity, investment levels, or access to credit. In densely settled regions, however, proprietorship over agricultural land may not be sufficient (Feder et al. 1988; Feder and Feeny, 1991). 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 non-contributors; 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 (Agrawal, 1994; Blomquist, 1992; Schlager, 1994; Tang, 1994; Lam, 1998).

Thus, we would expect that decentralization/devolution programs that actually empowered local users to be proprietors - even without the right to sell these rights to others - would be creating sufficient incentives on the part of local users that one could expect improved outcomes over time. Because of the right to exclude others, those who jointly hold proprietorship rights are able not only to make rules to manage a resource but to keep others who are not willing to contribute to the costs of management from receiving the benefits. A crucial problem to be solved, however, is how local users can gain some confidence that such rights will not be taken away. This is a major problem in countries where all non-agricultural land has been nationalized

in the last century so that local users have lost property rights to use local forests through a sweeping legislative act (Arnold and Campbell, 1986).

"Owners" possess the right of alienation—the right to transfer a good in any way the owner wishes that does not harm the physical attributes or uses of other owners—in addition to the bundle of 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 (Montias, 1976; Dahl and Lindblom, 1963). The rights of owners, however, are never absolute. Even private owners have responsibilities not to generate particular kinds of harms for others (Demsetz, 1967). Some policy recommendations for complete devolution recommend that local users be given full ownership rights, but this would be the strongest form of devolution since then local users could do anything they wanted with the forested land they owned including selling all timber or selling the land itself.

What should be obvious by now is that the world of property rights is far more complex than simply government, private and common property. These terms better reflect the status and organization of the holder of a particular right than the bundle of property rights held. All of the above bundles of rights (entry, harvesting, management, exclusion, and alienation) held by a single individual or by groups organized in diverse manners. Some communal fishing systems grant their members all five of the above rights, including the right of alienation (Miller, 1989). Members in these communal fishing systems have full ownership rights. Similarly, farmer-managed irrigation systems in Nepal, the Philippines, and Spain have established transferable shares to the systems. Access, withdrawal, voting, and maintenance responsibilities are allocated by the amount of shares owned (E. Martin and Yoder, 1983abc; E. Martin, 1986; Siy, 1982; Maass and Anderson, 1986).

Many devolutionary proposals assign no more than the operational-level right of being authorized users to those whom the program is supposed to benefit, while all other significant operational and collective choice rights continue to be held by government officials. Sometimes these officials work in a local office instead of in the nation's capital, but they do not themselves have a long-term interest in sustaining the resource. Obtaining at least some rights to the continued use of a resource may encourage local users to perceive long-term interests in a local resource, but such limited property rights do not establish strong incentives to manage such resources sustainably. Without the operational level right to manage a resource, local users cannot consider various ways of growing and planting seedlings, thinning non-commercial trees for use as firewood, and restricting the grazing of cattle in a forest. Without the collective-choice right to exclude others, a local user can still fear that any effort made to limit harvesting will benefit others who also assert a future right to harvest. And, even with these rights, the absence of constitutional choice rights may mean that existing rights of local users can be taken away by distant powerholders without consultation. Finally, even with all these rights, not all groups will self-organize themselves to manage local forests in a sustainable manner because the question of self-organization is not just a matter of rights, but also of political dynamics. The question of self-organization and politics brings us to the second important lacuna in the literature on devolution: lack of attention to the politics that imbues all efforts to devolve power and authority.

### The Politics of Decentralization

Since most proposals for devolution involve the transfer or at least some rights from officials at a central governmental office to field officers, or in some cases, to local users, this involves a shift in the power of some over the actions of others. In all its variants, decentralization is about a renegotiation of the institutions and social arrangements through which power is exercised in different forms. It is concerned with the distribution of power, resources, and administrative capacities through different territorial units of a government or local groups. Therefore, the most important element in understanding devolution and whether it is likely to occur is attention to the politics that surrounds it. However, existing arguments about devolution elaborate upon a large number of reasons why it should occur, but pay less attention to whether and when it might occur.

At its most basic, devolution 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. In this sense, devolution is 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. If the experience of development and conservation has made one fact abundantly clear it is that centralized solutions to environment and development related problems have not worked. At the same time, social movements and a range of organizational actors with an interest in development issues, among them grassroots and international NGOs, have shown that approaches that take people's aspirations more seriously can sometimes enjoy at least modest, local success (Evans 1992; Mawhood 1983; 1987; and Wunsch and Olowu 1990).

When devolution is seen as a strategy that makes the achievement of various social aspirations more efficient (Clark 1995: 593), the argument usually hinges on more effective use of information and skills. By shifting decision-making powers at an operational or collective choice level closer to those who are influenced by these decisions, it is hoped, information asymmetries can be reduced so as to produce more efficient decisions: better information will lead to better decisions. Greater efficiency in decision-making and implementation of projects can alleviate budgetary pressures on central governments, and therefore they may see decentralization as a useful strategy as well. Such hopes can sometimes be unfounded, especially in circumstances where only partial devolution has taken place and essential elements in the power to make decisions have been retained by central level actors.

Administrative factors in favor of devolution include the belief that it increases effectiveness of coordination and flexibility among agencies, and that it can increase popular participation in development planning and implementation. Greater participation is also a prerequisite for popular democracy. Another political reason that might impel devolution is that it can enable reductions in regional or ethnic inequalities. The listed arguments for decentralization have often been voiced by state actors themselves. But analysts who use a more structural perspective, highlight other, more latent, less often acknowledged reasons in addition, that move analysis toward a politics, but one that is still not actor or strategy centered and which takes states as monolithic formations. Some other analysts focus on how states can use decentralization to gain legitimacy (Mawhood, 1983; Rakodi, 1986). Although decentralization structures are publicly proclaimed as a means of promoting communication from the bottom upward, local bodies connected to the top are used typically to facilitate the flow of information and ideas downward. This may be one of the reasons

why elected representatives and officials appointed by the central government are often combined in local administrative structures, diluting the impact of ideas emerging from local populations.

The above understanding of devolution hinges on a crucial underlying assumption: the interests of local agents, whether they be arms of the state or other actors, necessarily diverge from those of the central state. This portrayal of the state as having a horizontal cleavage that divides state actors into hierarchically arrayed entities with opposed interests is a useful move. It recognizes that there may be internal divisions within the state. It also suggests that it is important to attend to the differences in the motivations, objectives, and strategies of the different parts of a state. If this view of why decentralization occurs attends to one set of cleavages within the state, it ignores another.

As a number of commentators have pointed out, the relationship between central and local governments can be an ambiguous one where local governments can be both agents of and obstacles to central government (Goodwin et al., 1996; Rhodes, 1988). If the relationship between local and central states is complementary rather than competitive, it is unhelpful to assume that central authorities are interested only in controlling local officials, and localities in wresting power from center (Booth, 1995: 90). Such an assumption leads into an important logical difficulty. It raises the problem of explaining why a more powerful actor (the central state) would willingly give up power to a weaker actor (local agencies), but then brushes this important question aside.

The arguments adduced in favor of the hypothesis that central political actors willingly give up power to those at the local level run into three kinds of difficulties. One, they confuse the normative with the positive. That is to say, many of the cited reasons are claims about the efficiency of devolution: participation and decentralization can improve information flow, and make decision-making more efficient. But it is not clear why such advantages would motivate central state actors to give up power. Two, the difficulties in finding empirical evidence in favor of devolution prompt many scholars to provide reasons about why devolution fails. But these explanations are usually *ad hoc*. It is common thus to find work that argues on the one hand that decentralization is more efficient, and goes on to suggest that central actors did not decentralize because of a political desire to hold on to power. Finally, existing arguments in favor of devolution have only limited power to differentiate between success and failure of devolutionary programs. Thus, many analysts advocate devolution on the basis of its greater efficiency or because it leads to meaningful democratic participation. But seldom do they indicate the conditions under which devolution would not produce these outcomes and might therefore fail. Nor do accounts that cite lack of political will as the reason for failure say much about when exactly one might expect not to find sufficient levels of political will that would prevent devolutionary success. It becomes difficult, therefore, to understand which factors are operating in which instances with what force.

In view of existing debates about the adoption of devolutionary policies and their failure, the question that needs more insistent attention is why central political actors should be willing to give up control over some forms of collective choices or operational choices to local actors and institutions in some instances but not in others. The follow up question would be how it might be possible to ensure that after being initiated, devolution continues. What we need is a more persuasive political-economic explanation that can differentiate, without resorting to post facto

justifications, between those instances where decentralization takes place and those where it doesn't.

To pursue this explanation we need to understand governments as a set of actors who have different and perhaps conflicting objectives as they pursue a diversity of goals including gaining power. But the relevant axes along which political actors struggle for greater power are not just horizontal—between local and state level actors, but also vertical—among ministries, departments, and parties at the center, each with branches and offices at lower levels. Once the center itself is seen as divided, decentralization can be hypothesized to take place when actors at the central level compete for power among themselves and find in the process of decentralization a mechanism to enhance their access to resources and power in comparison to other political actors at the central level. The exact form of decentralization is likely to vary depending, among other factors, on the number of actors involved; the extent to which they perceive their interests being met by directing power and resources to the local level, the demands from local level for control over resources and whether these demands find supporters at the central level, the degree to which central level departments and ministries control their line offices at lower levels, whether the political system is unitary or federal, and whether there are provincial administrative centers that mediate between the center, and districts and villages. In a unitary political system, for example, a central ministry that has offices at the district or other lower levels might pursue policies to divert resources toward the local level if it can use its offices at the local level to gain control over the way in which these resources are subsequently expended. In a federal system, central political actors might wish to direct resources toward the lowest levels of administration in an effort to undermine the importance of regional/provincial level political actors, especially if a different political party is in power at the provincial level.

Such a conceptualization of devolution allows the beginnings of a more political answer to, "why should powerful political actors at the level of a central authority willingly devolve authority, power, and resources to less powerful political actors at regional or local levels?" It is not that a more powerful political actor is willingly giving up power. Rather, political actors at the central level use devolution as one of the means to gain a greater share of available resources. We should expect to see devolution of power and decision-making responsibilities when some central political actor(s) or a coalition of such actors find(s) that devolution makes it possible to pursue their own goals more effectively. Without a powerful political actor pursuing devolution, (and such a political actor is most likely to be a central level ministry, department, or political party, but in some instances could also be regional/provincial actor(s) or international donors), and using such policies to successfully secure higher access to resources, it is unlikely that meaningful devolution can occur. Local actors by themselves seldom have the requisite resources or capacities to push for devolution.

If the initiation of devolutionary policies is a highly political affair, so is their maintenance. 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 connects with devolution, and the extent to which the political power of a privileged few at the local level can be neutralized by pursuing devolution. Not only must local actors become mobilized to participate in devolution, and thereby give it real meaning, their organization into larger level federated organizations

capable of maintaining pressure on governments to prevent the undermining of devolution is also necessary.

Of course, a political framing of devolutionary policies cannot ignore the fact that without appropriate use of information, and effective production and provision of services and public goods of various sorts, devolution is unlikely to be a success. One may say that politics drives whether devolution will be initiated and implemented, but if devolution is to be successful, it will need to secure the participation of beneficiaries and move information to the appropriate levels of decision making. The trick for advocates of devolution therefore, is to align the private interests of powerful decision-makers who are responsible for making collective choices about forestry policies with the attempt to facilitate self-organization so that local residents are involved in operational level activities and collective and constitutional decision-making.

Since the question of when groups will self-organize to effectively manage their own forests is a very large question in and of itself, we do not address it within the context of this paper. We do, however, append a paper entitled "Self-Governance and Forest Resources," recently published by CIFOR, which presents a set of theoretical propositions concerning the conditions that are most conducive to successful self-organization. The paper addresses the variety of condition that affect whether users will actually create new rules to manage their resources more effectively. A specific set of propositions in the paper makes it clear that not all groups in all settings will self-organize. Instead of thinking that devolving responsibility to govern and manage forest resources to local users is a panacea, it is better to assume that under the right circumstances local users can manage their forests more sustainably than if they relied on government officials to devise effective rules, implement them, and monitor their performance.

To conclude this section, we have talked about two important questions. One, why would devolution occur at all. Our answer to this question is that one can only expect it to occur when an effective "coalition" of central level actors sees itself benefiting from the change. Our second question is: What conditions surrounding devolution and its longer-term implementation are most likely to lead to its success at the local level? Here our answer is that the reform needs to assign the local users significant property rights and that the users themselves need to be involved in the design of rules. The processes whereby reforms are initiated are also important, and devolutionary initiatives are more likely to be successful where there is at least some collective action by local residents to secure property rights over resources. It is not necessary that local users win full alienation rights as is sometimes recommended. Even if local populations, through institutional changes possess the bundles associated with Claimant or with Proprietorship it is likely that they will begin to face incentives that will encourage them to take long-term benefits (as well as short term costs) into account when making decisions.

### **The Forest Councils of Kumaon and the Parks and People Project in Nepal**

Devolution of control and management of forest resources around the world takes a number of forms in relation to the framework we have described. For the most part it occurs under the general rubric of community-based conservation. Current attempts to generate collective action that would lead to self organization of local groups mark a shift from earlier policies of forest conservation that sought exclusionist control through a forest department. These earlier policies

were based on principles of scientific forestry that limited activities of local users in forests, whether these activities related to fodder and firewood collection, grazing, or use of fire to promote fodder production. Scientific forestry tried to maximize forest revenues for the state, typically by focusing on a single product, timber.

At one end of the continuum of devolution in relation to forests, we can distinguish those circumstances where national governments, in response to a variety of political forces, relax their control sufficiently to allow local users institutional rights corresponding to those of the proprietor. At another end, are initiatives that permit users greater rights of access and use (authorized entrant and 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, or rights to determine whether others can access or use forests.

The following two case studies illustrate the two end points of the continuum of devolution. In Kumaon, India, villagers have won the rights over forests that conform with those of the proprietor. This was the result of a long period of struggle by villagers at the turn of the previous century. In Nepal's Terai, buffer zone residents of four national parks are involved in a management program, the Parks and People Program. This program seeks to reduce their dependence of park resources, especially fodder and firewood that they collect from within park boundaries.

The two case studies together illustrate the elements that we have highlighted in our framework of devolution. They also provide some indication of when devolution is likely to be more successful. The study of the forest councils of Kumaon shows that a widespread social movement in Kumaon fed into departmental rivalries between the Forest and the Revenue Departments of the British colonial state. The demands of social movement actors resonated with the interests of the Revenue Department. The resulting devolutionary policies allowed villagers significant latitude in designing collective choice and operational rules. Over time, however, the ability of villagers to exercise rights over forests has changed in response to legislative changes introduced by the government of Uttar Pradesh (the state in which Kumaon is located). The results of these changes have also found reflection in the use and management of forests.

In Nepal, the Parks and People Program (PPP) is an outcome of the collaboration between the United Nations Development Program and the Department of National Parks and Wildlife Conservation in His Majesty's Government of Nepal. Initiated in 1994, it can be seen as the outcome of negotiations between actors at the central level to implement an increasingly widely held belief in conservation circles: if protected area management is to be successful, local residents must be involved in management of resources. The PPP seeks to create user groups of residents in the buffer zones of the protected areas. Members of user groups participate in a number of programs designed to change their patterns of use of forests in the protected areas, increase their income and skill levels, and manage forests in the buffer zone. However, a limited understanding of participation and of the relationship between poverty and forest use has led to strict constraints on the nature of devolution in the PPP and the possibilities of success in managing forests in the buffer zone. A comparative analysis of the Parks and People Program with the forest councils of Kumaon in light of the framework proposed in this paper reinforces our arguments about the conditions necessary for devolution to take place and bear a successful impact on forest management.



### Devolution and Forests in Kumaon

The landscape of devolution of forest management in Kumaon can be traced back to the beginning of this century when the activities of the British colonial state sparked off the processes that led to the formation of village-level forest councils in the region. Between 1911 and 1917, the British transferred more than 3,000 sq. miles of forests to the Imperial Forest Department (KFGC 1921) in greater Kumaon (which included the districts of Garhwal). Of this land, nearly 1,000 sq. miles were located in the three present day districts of Kumaon: Nainital, Almora, and Pithoragarh. The colonial state had made a number of inroads between 1815 and 1910 to curtail progressively the area of forests under the control of local communities and use forests to extract timber for revenue. But its latest incursions raised the special ire of the villagers. Their grievances were particularly acute because of the elaborate new rules that specified strict restrictions on lopping and grazing rights, restricted use of non-timber forest products, prohibited the extension of cultivation, enhanced the labor extracted from the villagers, and increased the number of forest guards.

The new laws goaded villagers into widespread protest. The best efforts of government officials failed to convince the villagers that the forests belonged to the government. The officers who had designed the new land settlement had hoped that the residents of the hills "would gradually become accustomed to the rules as gazetted and that control may be tightened as years go on" (KFGC 1921: 2). But hill dwellers dashed these sanguine hopes.

The incessant, often violent, protests forced the government to appoint the Kumaon Forest Grievances Committee to look into the local "disaffection." Comprising government officials and local political leaders,<sup>9</sup> the Committee 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 between 1911 and 1917, and 2) lay the foundations for creating 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 to fit local conditions. The government took both these 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 were all transferred to the revenue department and, in time, could come to be controlled by villagers by following a specific procedure as described in the 1931 Forest Panchayat Rules. Class II Reserved Forests were retained under the control of the Forest Department.

The government also passed the Forest Council Rules of 1931. These rules permitted village residents to create forest councils and bring under their own control forest lands that had been transferred to the Revenue Department as Class I Reserved Forests and Civil Forests. This step can be seen, in some cases, as the formalization of institutions called *Lattha Panchayats* that had

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<sup>9</sup>Initially, the Committee had three members: The District Commissioner of Kumaon, the Member of the Legislative Council from Garhwal, and a Conservator from the Forest Service. An additional member, the chairman of the Municipal Board from Almora, was also appointed as a representative of the region (KFGC 1921).

influenced the use of many forests in the Kumaon Hills before 1910.<sup>10</sup> Where these informal local institutions had existed, they had been critical in influencing how villagers used forests. Institutional limits on harvesting from the forest were enforced without much help from the state, by villagers themselves. The Forest Council Rules have been modified twice since their formation, once in 1971, and more comprehensively in 1976. The provisions of the Rules are currently under consideration for revision.

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—should be interpreted to signify the outcome of two processes. The first is the departmental rivalry that was sparked into being by the creation of the Imperial Forest Department in 1878, and by the passing of a huge swathe of territory under its control in the name of the protection of forests.<sup>11</sup> The increasing control of the Forest Department on vast stretches of land, and the revenues it generated by auctioning timber from the lands under its control rivaled and outgrew the revenues from land. The transfer of all the Class I forests to the Revenue Department was the outcome of a bureaucratic struggle that was in part resolved against the interests of the Forest Department. It was only partially a victory for the Revenue Department because the Forest Department still kept the more densely wooded tracts under its own purview as Class II Reserved Forests. The protests by villagers for greater access to and use of their forests were related to the attempts by the Forest Department to take over a huge area of forests. These protests fed into the interactions between the Revenue and the Forest Departments, and helped the case for the transferral of a significant proportion of territory back to the Revenue Department. The control the villagers would exercise over their community forests in the coming decades would be mediated by the officials and rules of the Revenue Department.

The second aspect of the redefinition of land rights is that over time a significant proportion of the forested land in Kumaon has come to be managed by villagers, but in ways closely resembling what state officials would have wanted. The passing of managerial control into the hands of village residents has had a number of related effects. Many of the types of regulations that the colonial state had wanted to enforce are now crafted and implemented by villagers. This new way of administering forest regulations is not only far more effective, but has also simultaneously been responsible for far lower expenses on forest protection than would be incurred were the Forest Department responsible for the enforcement of forest laws in all Kumaon forests.

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 broad parameters that define the formal management practices of the forest councils are laid out in the Forest Council Rules of 1931, as amended in 1976. These Rules form the state-defined limits to local autonomy.

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<sup>10</sup>There is some evidence that these institutions continue to exist in some hill villages (Somanathan 1991). *Lattha* means "stick" and the name refers to the power the local community holds over members.

<sup>11</sup>The history of this struggle in Kumaon is yet to be written, but an examination of such conflicts in neighboring Himachal Pradesh (Saberwal 1997) and in the more distant Bengal (Sivaramakrishnan 1996) is available.

Villagers cannot clear fell the forest, they cannot 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. Where conflicts over interpretation and application of rules spill over into formal channels of dispute resolution underwritten by the Indian state (district and provincial level revenue/judicial authorities), serious losses become unavoidable. For example, if parties to a dispute take their quarrel to district or state courts, the case may drag on for decades without being resolved.

But collectively the Rules constitute more a framework for the management of forests rather 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 5 and 9 council members and the council leader. The council in many of the villages meets frequently, its members discuss, craft, and modify specific rules that will govern withdrawal of forest products, and creates monitoring and sanctioning mechanisms in an effort to enforce the rules it has crafted as well as the Forest Council Rules framed by the government. The council selects guards, fines rule breakers, manages finances, and maintains a record of its meetings, accounts, and local rule infractions. In many of the cases, the guard selected by the council is paid by contributions from the village households. The council has other sources of income as well, and usually deploys its net earnings toward public activities such as construction of school buildings, religious celebrations, or purchase of collectively used utensils. There is thus substantial leeway that councils enjoy in defining how they will manage local forests.

The Forest Council Rules also provide for support to the councils from the revenue and the forest departments to facilitate rule enforcement and the maintenance of vegetation in the forests. Over the past sixty years the relationship that has evolved between village uses and the forest and the revenue departments has been one in which villagers and their councils have increasingly come to depend on government departments for activities related to the management of their forests. This, in one sense, can also be seen as a consequence of the lack of any sustained collective action on the part of villagers to protect their right to govern local forests.

The formation of the forest councils requires the presence of government officials from the Revenue Department, and the formal transfer of land management rights to the village council. The forest over which rights and capacities to manage are to be transferred is mapped and registered with the patwari, the village level revenue department official. Elections to the forest council are held under the supervision of the forest council inspector. The council is expected to meet regularly, keep records of meetings and maintain accounts. The forest council inspector, who is under the control of the office of the District Magistrate, is empowered to inspect all records maintained by the councils under his control.

Whereas the 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. The Civil & Soyam, and the Soil Conservation Wings of the forest department have undertaken some plantation on forest council land. Further, 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 which receive greater priority. A request to cut

even a few trees from the council forest can take up to two years before it is finally processed in the forest department and the Revenue Department offices.

The above description of the devolution of 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 they can also exercise claimant and proprietor rights. Studies of forest councils' effectiveness in protecting forests show the significance of attention they devote to managerial responsibilities related to exclusion, monitoring, and enforcement. A survey of 279 councils in 1993 showed that the factor that most significantly explained the ability of villagers to protect forests was whether and for how many months in a year they hired a guard. Councils that employed a guard year round had forests whose condition was most likely to be assessed as "good" (Agrawal and Yadama 1997).

The forest councils thus can be seen as locally situated partners in the management of forests, subordinate to the employees of the forest and the revenue department, 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 office holders. 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, simultaneously demonstrating their links to the state, their weaker position in this managerial relationship, and their relative autonomy in everyday management.

#### The Parks and People Project in Nepalese Terai

Devolution of forest rights in Nepal's Terai, especially in the buffer zone of the national parks is a somewhat different story. Nepal is often seen as among the leaders in developing countries in setting conservation goals and priorities, and creating programs and legislation (Heinen and Kattel, 1992). The origins of protection can be traced back to efforts made by the monarchy to protect small patches of the forest in the Terai. These efforts were primarily aimed at protecting large mammals such as wild rhinoceros from poachers and preventing villager encroachment. But serious preservation efforts began from 1973 when His Majesty's Government/Nepal (HMG/N) passed the National Parks and Wildlife Conservation Act and established the Royal Chitwan National Park in central Terai as Nepal's first protected area (Basnet, 1992).

From that beginning, Nepal has created an extensive network of national parks, wildlife areas, hunting reserves, and conservation areas that cover nearly 15% of the country's total area. Not only are the parks and wildlife reserves significant for the protection of biodiversity, they also have an economic significance since they encourage tourism and provide products such as grass, fodder, and fuelwood to communities along their boundaries. These two different arenas of their significance, environmental and economic, create some tensions. On the one hand, managers of protected areas seek to preserve biodiversity, and protection from humans is seen to be necessary for preserving it. On the other hand, given the indifferent record of coercive exclusionary tactics in preserving wildlife and biodiversity, the involvement of local populations around protected areas is now seen as crucial in protection.

The 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 Royal Nepal Army and the Ministry of Tourism are

other important institutional actors whose activities influence the management of the protected areas. The presence of several agencies, who coordinate with each other only to a limited extent, and who have differing objectives, also creates obstacles to effective protected areas management. Efforts to find the best management strategy are further complicated by the fact that recent legislative proposals and amendments have sought to alter the initial objectives of management and involve local users and communities more closely in protecting biodiversity and wildlife.

Government legislation continues to be the dominant means to practice protected areas management, but through the creation of buffer zones and the involvement of user groups in the settlements located close to or within protected area boundaries. Buffer zones are widely regarded as one of the most suitable strategies to resolve existing and potential conflicts caused by firewood, fodder, and grazing pressures. An area of controlled land use, a buffer zone, as the name suggests, "separates a protected area from direct human or other pressures and provides valued benefits to neighboring rural communities" (Nepal and Weber, 1994: 333, Ishwaran and Erdelen, 1990).

The legal definition of buffer zones is areas "set aside around a national park or reserve... for granting opportunities to local people to use forest products on a regular basis" (HMG/UNDP, 1994: 3). The 1993 amendment to the National Parks and Wildlife Conservation Act empowered the government to declare areas surrounding a park or a wildlife reserve as buffer zone. The warden of a protected area can constitute user groups to coordinate the management of fallen trees, firewood, fodder, and other grasses. Of the income earned in a national park, reserve, or conservation area, 30% to 50% can be used for community development in consultation with local agencies and communities.

The Parks and People Program identified the main problem in the management of Nepal's protected areas to be conflicts between people and park management authorities that were rooted in local poverty and consequent subsistence practices. Because protected areas in the Terai have open boundaries and no effective barriers, wildlife within parks has easy access to cultivated fields, and domestic animals access to grazing within park boundaries. At the same time, the formation of the protected areas reduced the grazing land and forest products that villagers could earlier access and use. The two main areas of conflict that heightened tensions between the local populations and the officials supposed to protect resources related thus to poaching and encroachment on park resources by the people, and crop damage and human casualties by park animals.

To address these conflicts, the PPP aims at three objectives. One, it attempts to develop alternatives to the use of park resources for neighboring households; two, it 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 three, it tries to create incentives for local populations to change their actions in relation to the protected areas. Development of the buffer zones is a key component in the PPP strategy. Community user groups, created by park officials in collaboration with the PPP office personnel, play a significant role in the overall strategy.

The total area of the buffer zone of the five National Parks and Wildlife Reserves in Nepal's Terai is nearly 2,000 sq kms with a population of more than 600,000 people. The Five National Parks and Wildlife Reserves that PPP included in its first stage of implementation are: The Royal

Suklaphanta Wildlife Reserve, the Royal Kosi Tappu Wildlife Reserve, the Royal Bardia National Park, and the Royal Chitwan National Park, and the Parsa Wildlife Reserve. In the buffer zones of these protected areas, PPP officials have created approximately 400 community user groups that are analogous to the forest councils of Kumaon. These local institutional actors are the units through which forest-related devolutionary initiatives in the buffer zones unfold. However, to date, the devolution that has taken place is quite limited.

The activities of the PPP officials take place through two sets of programs. The Buffer Zone Support Unit (BSU) aims at management of activities in the buffer zone. This unit is headed by the Buffer Zone Development Officer. The Park Management Unit (PMU) coordinates enforcement and protection activities within the protected area. The Chief Warden of the Park has the overall responsibility for both these units and is assisted by the Buffer Zone Development Officer.

The forest-related activities of the user groups in each buffer zone are coordinated by a Forest Advisory Committee. This Committee comprises the Chief Warden of the protected area, the district forest officer, and representatives from the Department of National Parks, from the PPP, and from the enforcement units stationed in the protected areas. This Committee is responsible for advising on the type of uses that local residents can make of buffer zone forests and afforestation programs within the buffer zone. Its recommendations are subject to approval by the Central Program Management Committee. In some of the buffer zones, the Forest Advisory Committee has helped in the creation of community forests from which local residents can harvest fodder and firewood.

The main areas in which devolution has occurred as a result of the Parks and People Program is entry into and use of park resources. For specified times during the year, zone residents are permitted to enter the protected area and harvest products such as thatch grass, graze animals, and collect firewood. Typically, the period for which they can harvest thatch grass, used for roofing, varies between ten and fifteen days in a year. Rules related to harvesting of firewood and grazing of animals are even more strict. Most of these rules continue to be crafted by protected area officials, without the involvement of local residents. Nor are local populations involved in the enforcement of the rules. In this sense, the main change in the status of the buffer zone residents as a result of the implementation of the PPP has been to make them into authorized entrants and users.

The nature of devolution in Nepal's Terai is quite different from that in Kumaon. Whereas villagers in Kumaon can claim the status of proprietorship over forests, Nepali villagers can only claim to have somewhat attenuated use and access rights in the forest in the protected areas.<sup>12</sup> The primary activities that the PPP has implemented in the buffer zone through the user groups

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<sup>12</sup>We should note here that in two of the protected area buffer zones (Chitwan and Bardia), villagers have some access to community forests created by the Forest Department in Nepal. In these community forests, which are a result of a different initiative of HMG/N, villagers do have rights to operate in the collective choice arenas in designing use and access rules, and also some of the management rules for these forests. In Suklaphanta as well, there is a small plot of forest that is treated as a community forest, but it is so small that at present it does not supply any of the needs of local residents.

aim at improving the incomes of members. These income related programs are based on the provision of productive assets, and are carried out in the hope that with higher asset ownership, local residents can increase their incomes and use forest products from the park to a lesser extent. However, these activities have done little to change the existing incentive structure of buffer zone residents.

Unlike the situation in Kumaon, where real decision-making powers about forests devolved on the village-level forest councils, Nepali Terai residents continue to have a similar relationship with their forest resources and state officials. The results of a survey in four of the protected areas in the Terai indicate that there are no appreciable differences in the extent of dependence of households on forest resources in the protected areas whether the households are members of the user groups initiated by the PPP. Forests on the boundaries of the parks show visible signs of use by local residents. Further, those households that have a higher level of asset ownership, use park resources to a greater extent (Agrawal et al. 1999). The findings of our empirical study match the theoretical expectation that only some types of devolutionary initiatives are likely to have an impact on forest use and conditions. More specifically, unless devolution leads to local users having at least the rights to manage resources and make decisions about resource use and the exclusion of others from the use of resources, the effects of devolution in other arenas are likely to be limited.

### Conclusion

A large literature on devolution has defined it in a variety of ways. This paper advances the theoretical understanding of devolution by providing a framework through which insights from writings on property rights, and collective action can be related to deepen the understanding of devolution. We suggest that devolution of forest management and control always implies the transference of some types of rights to resources away from central governments, toward more locally-based organizations. Depending on precisely which types of rights over forests are gained by local populations, devolutionary initiatives can be classified into types. Particular types of devolution are likely to have quite specific chances of succeeding.

But the chances of success of devolutionary initiatives are also related to the role played by collective action. Thus, it matters whether local institutions self-organize, or whether they are mainly the result of administrative fiat. Further, the chances of success of devolution also depend on the relationship between central actors who pursue devolutionary change and the interests of local actors. It is primarily when the interests and activities of actors at different levels of a political system match that we should anticipate successful devolutionary reforms. In contrast to much existing work on devolution, thus, we bring political reasoning center stage to analyze devolution.

The two case studies we provide illustrate these insights from the theoretical discussion. In Kumaon, we find that the British colonial state undertook devolutionary policies only after villages protested vociferously against its attempts to take over forests. The protests of the villagers strengthened the hands of the Revenue Department in its efforts to gain control over greater territories. As a result of these politics, the forests managed by the local communities in Kumaon are under the overall control of the Revenue rather than the Forest Department. The strength of collective action by the villagers also ensured that the devolution of control over

forests gained them real decision-making authority in collective and constitutional choice arenas. Although these powers are exercised within the ambit of the Forest Council Rules passed by the state government of Uttar Pradesh, village level forest councils are able to shape the contours of local forest use to a significant degree. The performance of the forest councils in safeguarding their forests depends to a great extent on how much attention they devote to monitoring and enforcement of rules they have created.

In Nepal's Terai, the Parks and People Program, funded by the United Nations Development Program, has led to a different devolutionary initiative. Residents of the buffer zones of the protected areas in the Terai have gained rights to enter and use protected area forests. But they have no other rights of management, exclusion, or enforcement. How forests will be used, distribution of forest products, and ownership of forests rests entirely with HMG/N. Nor have villagers undertaken concerted collective action either to demand additional rights, or to self-organize into locally-based institutions. The Parks and People Program, it will be fair to say, is mainly a result of negotiations and decisions within the top echelons of the Nepali Government. In consequence, few incentives of users at the local level have changed in response to this devolutionary initiatives. Nor do we find much change in their activities related to park forests.

Successful devolutionary initiatives on forests, we can infer, should be accompanied by changes in property rights over resources that gain local users rights and capacities to make operational rules. Additionally, such initiatives should allow users to make some collective and constitutional choices. Further, the likelihood of success is enhanced by promoting the conditions that generate self-organization among local groups.



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Table 1

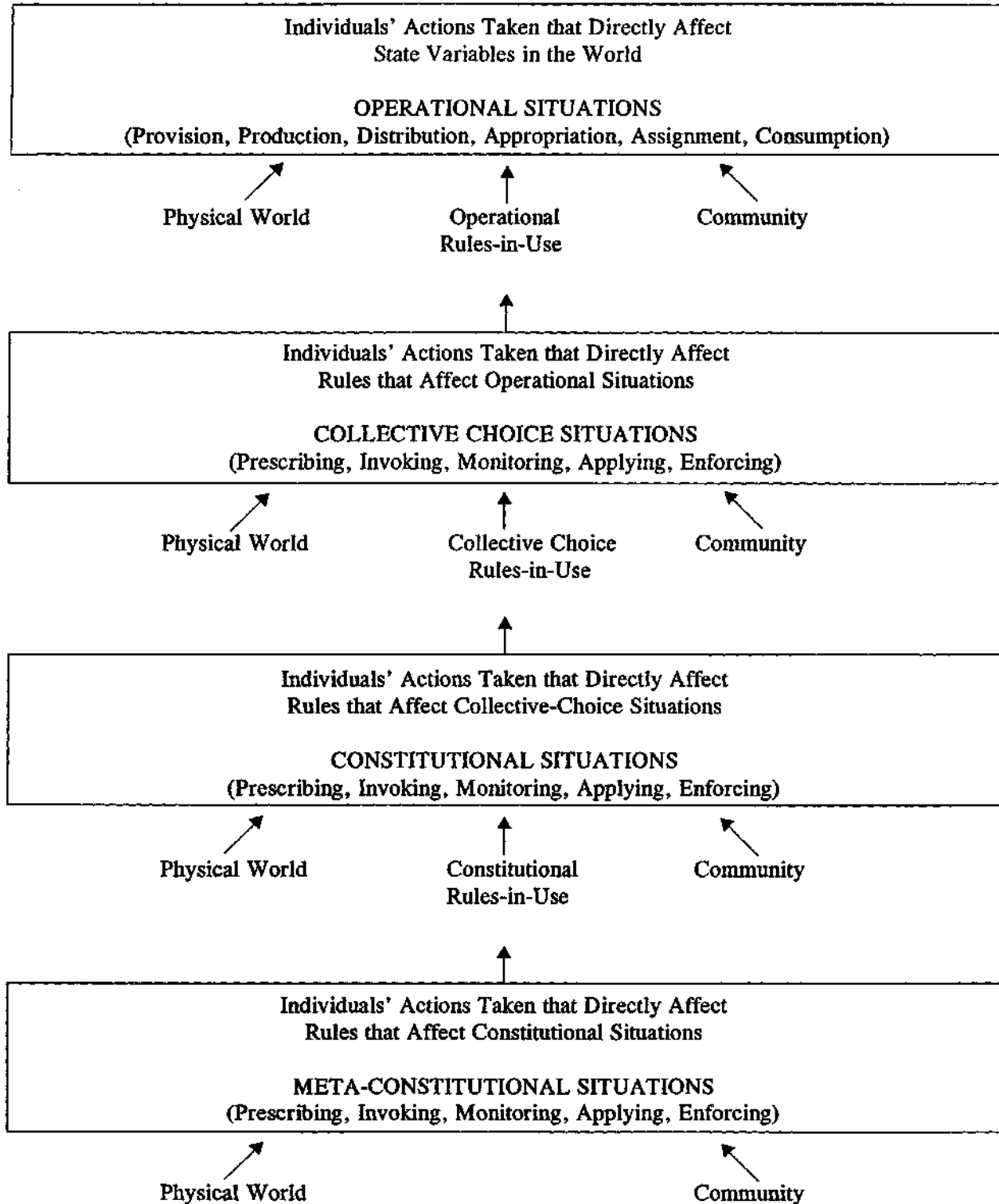
Bundles of Rights Associated with Positions

	Owner	Proprietor	Authorized Claimant	Authorized User	Authorized Entrant
Access	X	X	X	X	X
Withdrawal	X	X	X	X	
Management	X	X	X		
Exclusion	X	X			
Alienation	X				

Source: E. Ostrom and Schlager (1996: 133).

FIGURE 1

LEVELS OF ANALYSIS AND OUTCOMES



Source: E. Ostrom (forthcoming).