Chapter 13

Understanding Property Rights in Land and Natural Resource Management

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A better understanding of the role of property rights in land and natural resource management requires attention to several basic questions: What are property rights? Where do they come from? What are they good for? Why and how do they change, with what outcomes? This chapter is an attempt to answer these questions.

13.1 What Are Property Rights?

In Chapter 2, property rights were defined as those actions that individuals can take in relation to others regarding some thing. If one individual has a right, someone else has a commensurate duty to observe that right. Although many individuals influenced by Western concepts think of property rights in the narrow sense of ownership—the right to exclusively control and alienate a resource—property rights are better understood as overlapping bundles of rights. Indeed, because of the complex interrelations among these individual rights and rights-holders, they could even be considered as a web of interests (Arnold 2002; Hodgson 2004). There are many combinations of such rights, but they can often be grouped as (Schlager and Ostrom 1992)

- *use rights,* such as the right to access the resource (for example, to walk across a field), withdraw from or consume a resource (pick some wild plants), or exploit a resource for economic benefit (graze cattle on common pastures); and

- *control* or *decisionmaking rights,* such as the rights to management (plant a crop), exclusion (prevent others from accessing the field), and alienation (rent out, sell, bequeath, or give away the rights).

For example, a farmer may have the right to plant a crop on a piece of land, but anyone can cross that land to get water, pastoralists may have the right to graze their herds on that land in the fallow season, family elders may have the right to allocate or reallocate that land, and the state may claim ultimate ownership of the resource. Such multiple, overlapping rights and claims to the same resource are characteristic of African tenure systems (Okoth-Ogendo 1976, 1991; Bruce and Migot-Adholla 1994).

To these use rights may be added the *rights to earn income* from a resource, which Roman legal traditions have referred to as usufruct rights (see also Alchian and Demsetz 1972; Eggertson 1990). Rights to earn income from a resource (even without using it directly) can be separate from use and management of the resource, as when government departments collect revenue from water users or when communities in parts of East and Southern Africa collect a charge from tour operators in their common lands.

Although most discussions of property rights focus on rights over land, the rights over other natural resources must also be examined. Land and water are inextricably linked, but in many cases water and land rights do not coincide, which can complicate such efforts as watershed management programs (Hodgson 2004; Swallow, Onyango, and Meinzen-Dick 2005). Fortmann and Bruce (1988) have even established that tree tenure may be separate from the underlying land itself. Even rights to specific plants or genetic resources, such as medicinal plants, may be distinct. Thus it is important to look at the rights over each resource.

Property-rights regimes are often classified as public (rights held by the state), private (rights held by individuals or legal individuals, such as corporations), or common property (rights held by a defined group).[1] However, because different stakeholders can have different rights over the same resource, these three types of property rights are often not so neat in practice. Individuals and communities frequently have rights of access, use, and sometimes even decisionmaking on land that is officially government (public) land. Individuals similarly have use rights on common property, whereas the state may have some regulatory or decisionmaking rights over it. Even on private property, others may have certain use rights, and the state may claim the right to regulate the resource. The important issue is not to classify resources into one or another rigid category but to be aware of the different types of rights holders (individuals, groups, and the state). Moreover, public, private, and common property stand in contrast with open access—the condition under which no one has clearly

defined rights over the resource, and hence everyone can use it as they like (see Chapter 14 for a fuller analysis of the implications of open access).

Each property-rights structure has a corresponding set of costs and benefits, which are linked to the nature of the resource under investigation or of the technology that determines the use of the resource (Dahlman 1980; Bromley 1991; Kirk 1999; Ostrom 2001). Three types of costs have been identified for common property (Dahlman 1980; Eggertson 1990, 1996; Ostrom 1990): costs of establishment and protection, internal governance costs, and the costs of excluding nonmembers. Governance costs include those of decisionmaking with respect to resource use, of establishing organizations to facilitate production and exchange, and of monitoring use. Governance costs are likely to vary with group size and heterogeneity. They increase when rights holders violate or circumvent collective decisions on resource use (Baland and Platteau 1996; Platteau 2000; Ostrom 2001). Governance costs also increase with population increase. By increasing the number of users, population pressure raises both the likelihood of externalities and their magnitudes (Platteau 1996). In addition, because population pressure enhances the scarcity value of resources, it also induces a corresponding increase in the aggregate losses from collective exploitation (Platteau 2000). Under these circumstances, private, individual property appears to be beneficial, as it internalizes these externalities without involving any governance costs.

However, private, individual property is also not without cost. These include the costs of boundary demarcation, recording and transferring titles, and fencing or excluding others (Bromley 1989). When there are economies of scale that can be realized by maintaining collective ownership but that ownership is instead individualized (as in the Maasai example in Chapter 15), several costs emerge. In the case of hunting or grazing, for instance, owners need to reach a joint decision on keeping the range open and accessible (Dahlman 1980; Platteau 2000). This decision increases transactions costs in two ways. First, it requires considerable interaction among individuals, to either negotiate compensation for mutual use of grazing or for the damage to one another's property. Second, because each individual owns a geographically defined piece of soil, some may acquire a strong bargaining position and threaten withdrawal. Under conditions of economies of scale, collective rights in grazing save on transactions costs.

This review of the benefit–cost structure of different property arrangements demands a more careful reflection on the relationship between biophysical aspects of resources and the property regime. These are issues that have been only incompletely addressed in the property-rights debate (Dahlman 1980; Ostrom 1990, 2001, 2005b; Nugent and Sanchez 1991, 1995, 1998; Bromley 1992). The existence of a wide diversity of property-rights arrangements across space and through time—sometimes

in the same cultural and socioeconomic community—begs questions that are not necessarily answered by a strict consideration of economic calculations alone.

According to Dasgupta (2005, 1612), "privatisation is an alternative system of property rights to communal ownership in those cases where the resource is divisible without productivity loss." However, in addition to potential returns to scale, it is often the case that such resources as water, rangelands, or forests are highly variable over time and space. It is therefore often better for a user to have a share of a larger area that may include land that provides good pasture in the dry and wet seasons, water points, and mineral licks rather than to have an exclusive right to a smaller portion of the resource, which might not have all requisite features.

Studies of property rights under a range of conditions, such as the high mountainous regions of the world, may help illustrate the complexity of factors influencing the choice of property regimes. In Torbel in the Swiss Alps, for example, where population, technology, and political factors remained relatively stable for close to five centuries, the patchiness of high alpine pastures and the labor economies of collective herding necessitated a communal structure to access and management (Netting 1976). In contrast, lower altitude pastures, grain fields, and vineyards (that is, resources of dependable productivity that can be improved in different ways and may be exploited by individual or family labor) were held under individual tenure. A similar situation—in which both communal and private property rights coexist and are practiced by the same people—occurs in the central Andean Alps (Guillet 1981). Joint control, which is strongly correlated with pasture, is found at higher altitudes. Private, individual control is found in lower altitudes, where continuous irrigated agriculture and specialized horticulture take place. The vertical gradient imposes constraints to land intensification, such as the introduction of irrigation and ox-drawn ploughs. Stevenson (1984) cited in Picht (1987), working in the Bernese Alps, similarly finds that areas with better soil, fewer swampy spots, better grass quality, and higher exposure to the sun are more likely to be individual property. But areas with poor precipitation conditions, strong prevailing winds, and poor exposure to the sun discourage individual property. These results are reiterated by Mendes (1988) for the Moroccan Atlas Mountains. This relationship between environmental conditions and institutional choice follows a similar pattern in the arid and semi-arid regions of the tropics, which although culturally distinct, share commonalities in supporting pastoral modes of land use and in which property regimes, at least for land, are more often than not collective in nature (Sandford 1983; Khazanov 1984; Galaty and Johnson 1990).

The examples outlined above seem to indicate that common property might have certain distinct advantages over private, individual property in certain biophysical situations. These advantages are related to minimizing risk in highly variable environments, promoting equitability of variable resources, and minimizing production

and transactions costs (Dahlman 1980; Sandford 1983; Galaty and Johnson 1990; Niamir-Fuller 1995, 1998, 1999; Scoones 1995). In the African rangelands, where rainfall is low and variable and productivity marginal, the costs of privatization may far exceed the benefits (Ostrom 1990; Bromley 1989, 1991; Behnke, Scoones, and Kerven 1993). Collective rights to land and land resources are a more equitable way of distributing variable resources and minimizing risk. In these regions common property arrangements spread these risks and serve as an insurance against individuals incurring frequent financial expenses to mitigate the consequences of environmental variability. In addition, not only does common property allow a more equitable distribution of a variable, though critical, resource for herders, it is also associated with considerable savings on transactions and production costs. Economies of scale in herding and infrastructure are also important. In addition, where a well-defined community of users exists, they will be able to exclude outsiders, and the costs of establishing and protecting their collective rights are much lower than those of establishing rights for a large number of individually owned parcels. In the latter situation, each individual would have to find and transact with every other individual owner for every issue that arises. Furthermore, compensation may need to be considered when resources and facilities are unevenly distributed. In addition, even when individual owners may cooperate, there remains the possibility that some individuals may follow a hold-out strategy and try to appropriate gains by withdrawing from joint obligations.

It is worth pointing out that private joint ventures, in which group members surrender resource control to an expert manager but retain benefit and voting rights, may have similar advantages to common property arrangements. In this case risk minimization and scale advantages are achieved through an organizational structure that is horizontally integrated (for an example, see Box 14.1 in Chapter 14).

13.2 Where Do Property Rights Come From?

There are multiple sources of property rights, including

- international treaties and law;
- state (or statutory) law;
- religious law and accepted religious practices;
- customary law, which may be formalized (written) custom or living interpretations of custom;

- project (or donor) law, including project or program regulations;
- organizational law, such as rules made by user or nonuser groups; and
- the marketplace.

In Africa for example, state and customary institutions have been principal mechanisms for the creation and allocation of rights in society. In promoting their policy objectives in agriculture, political stabilization, political control, resource management, and land redistribution, the African states in Ethiopia, Burkina Faso, Mali, Nigeria, Senegal, Tanzania, and even South Africa have at various points in their histories attempted to extinguish or suppress private property to pave the way for collectivization or national ownership. Similarly, to encourage agricultural production, colonial Kenya privatized parts of the settler-occupied highlands that were under indigenous tenure systems. The end of the colonial era saw the same state encouraging land privatization in the African Reserves to defuse escalating political tensions stemming from landlessness. Thus, apart from supplying enforcement, registration, survey, and titles in a market-based framework where individuals can buy, sell, or contract for rights, the state actively influences property assignment.

The market and the state are just part of a diverse complex of systems for the creation of rights and access to land. In many parts of Africa indigenous forms of rights to land still persist. Land under customary tenure currently comprises about 60 percent of Africa's land (Bruce 1989, 1998). Having evolved in particular environments among specific ethnic or linguistic groups, such systems accordingly exhibit great diversity. Nonetheless, certain commonalities exist. Such attributes as ethnic identity and kinship, in concert with status, gender, seniority, and residence, feature prominently in the determination of access and use rights (Berry 1989, 1993, 2002; Bruce and Migot-Adholla 1994). Group control over land is fairly common. The group may be an extended family, lineage, clan, village, or tribe; it can be defined by common descent, common residence, or both. Membership in the group often determines the nature and strength of the rights. Rights over land are allocated for the relatively exclusive use of individuals or families in the group; such rights are not dissimilar to private ownership. The rights are allocated and administered by a local, indigenous authority, such as lineage elders, tribal chiefs, or land priests. Rights are held in trust for future generations by the local authorities, and the only rights possible are use rights; land transfers are rarely allowed. Rights may be allocated to nonmembers if they are affiliated to the group through residence or marriage and are granted temporary use rights subject to relatively strict controls. Thus the rights of use, transfer, allocation, control, and administration lie in different hands (Downs

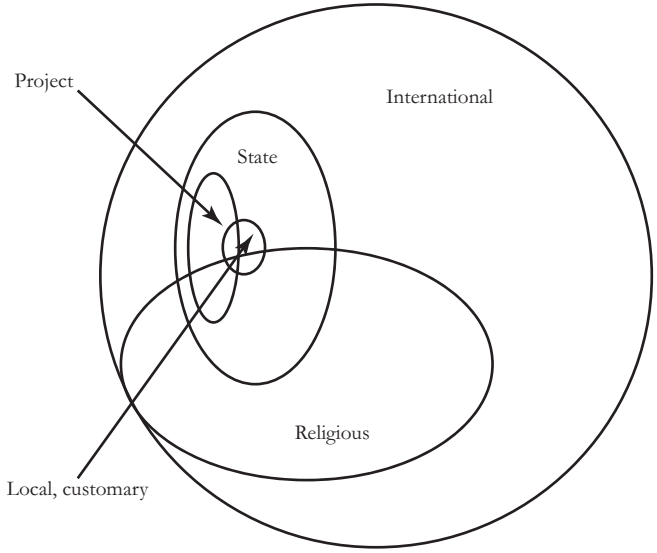
and Reyna 1989). More importantly, Berry (1993) documents how the negotiability of social identities introduces fluidity in the nature of indigenous land-rights systems that may at times result in insecure rights.

The influence of religion on defining property rights is seen particularly in the designation of sacred groves, such as the Malshegu sacred groves in Ghana. Traditional forms of tenure in Islamic countries represent another variation in this range (Payne 2001). For example, *Waqf* land is land "held for God," whereas state-controlled land carries *tassruf* or usufruct rights to resources. *Musha* are communal lands, where resources are jointly shared and managed.

The coexistence and interaction of multiple types of law is referred to as legal pluralism. Claims to property rights are only as strong as the institution that stands behind them. Thus the different types of law may be regarded as overlapping "force fields," as illustrated in Figure 13.1: each type of law exerts a different level of influence, which can vary over space and time (Meinzen-Dick and Pradhan 2002). For example, in a diverse migrant community near the capital city or in areas of high-value agriculture, statutory law may be strong and customary law weak, but in remote areas customary law might be much stronger than state law. Not only the rules but also their enforcement mechanisms need to be considered when examining property rights. That property rights must be enforced to be meaningful is illustrated by forest management and sustainability in the Mpigi District of southwestern Uganda (Banana and Gombya-Ssembajjwe 2000). An investigation into the relationship between forest disturbance and property regime (state, individual, and common property) across a sample of 16 forests found that some forests in all three property regimes are overused whereas others are sustainably managed. The distinguishing feature between overharvested and sustainably managed forests is not the property regime but rather the ability to monitor the forest and sanction rule breakers (that is, enforcement). A broader, global study across almost 200 forests reiterates this finding—that regular monitoring and sanctioning results in better forest conditions (Gibson, Williams, and Ostrom 2005).

Security of tenure[2] is generally associated with several components, including excludability (the ability to exclude those without rights), duration (temporal extent of one's rights), assurance (an institutional framework capable of enforcing an individual's rights), and robustness (the number and strength of the bundle of rights an individual possesses; Roth, Wiebe, and Lawry 1993). Although extensive academic and policy work has been done to create titles and registries, particularly in Africa, customary law regarding property rights can provide just as much tenure security for agriculture (Place and Hazell 1993; Bruce and Migot-Adholla 1994). In some cases, titling and formalization of tenure can strengthen property rights, particularly against outside threats, but in many cases the experience has been that registration

Figure 13.1 Coexisting multiple legal orders (legal pluralism)



Source: Meinzen-Dick and Pradhan (2002).

and titling processes have created opportunities for elite capture and a loss of customary use rights by marginalized groups, particularly women (Lastarria-Cornhiel 1997; Toulmin and Quan 2000). In addition, formalization may lead to conflicting claims, particularly where customary rights are strong, creating uncertainty and reducing tenure security. Nevertheless, title is meaningless without the full backing of the state, implying that the state stands ready to protect assets defined by that title. Thus it is important to look beyond simplistic notions of property rights to understand rights as they exist in practice.

13.3 What Are Property Rights Good For?

The rationale for attention to property rights can be summarized in terms of the "four Es": efficiency, environment, equity, and empowerment. In terms of efficiency, arguments are often made that secure property rights are needed to provide incentives to invest in a resource. In the case of agricultural land in particular, scholars have elaborated demand-side (incentives to farmers) and supply-side (incentives to lenders) aspects of tenure security (Place, Roth, and Hazell 1994). Because tenure security increases the likelihood that a farmer will capture her investment returns

and reduce the incidence of disputes, an enhancement of tenure security is expected to raise the demand for investments in land improvements over the longer term and ultimately increase yields. On the supply side, increased tenure security is expected to enhance the land's collateral value. Moreover, both rental and sales markets are facilitated by tenure security, as potential buyers are assured that the seller is indeed the holder of the rights.

Environmental arguments are closely related: property rights provide incentives to protect the resource, and without property rights that are enforced, resources often become degraded. Equity relates to the distribution of the resource and can be defined in terms of equality of access, particularly for meeting basic needs, of distribution of rights in proportion to investment that people make, or some combination thereof. The way in which rights are defined determines whether people are included or excluded in the control of a vital resource for their lives. Holding property rights is thus empowering to individuals or groups, particularly control rights that recognize authority over the management of the resource.

But how do these theoretical justifications for property rights hold up empirically? Do property rights, and in particular private, individual property, increase efficiency, sustainability, equity, or empowerment? Empirical outcomes are mixed. Migot-Adholla et al. (1991) and Bruce and Migot-Adholla (1994) demonstrate that the presence of titles does not automatically result in increased land productivity in cultivated regions of Ghana, Kenya, Rwanda, and Uganda. However, in Ghana, Goldstein and Udry (2005) found that those with higher status and better political connections have greater tenure security compared to those of lower status (including women). The greater security allows those men to leave more land fallow, and reap higher productivity when they do farm, but at the expense of denying land to others. In Uganda, Deininger and All (2007) found that overlapping land rights between land owners and tenants was a significant source of insecurity and limited tenants' investments in the land. In Ethiopia, Deininger et al. (2007) found that a cost-effective land certification program had preliminary positive effects, although the overall evidence of links between land tenure and investments in natural resource management is mixed (see Pender, Place, and Ehui 2006). In Thailand, a comparison of the performance of squatters on state land (who lack titles to their farms) with that of titled farmers demonstrated that the latter had greater investment, higher likelihood of land improvements, more intensive use of variable inputs, and higher output per unit of land (Feder and Feeny 1991). As Roth et al. (1989) note, in this case, title was a proxy for tenure security (which is not always the case), and much of the impact of title ownership stemmed from the fact that titles increased farmers' access to formal credit. Private-property systems in land are most likely to make a difference in productivity gains when there is a somewhat dense population, so that competi-

tion for use is present, as well as improvements in infrastructure, marketing, credit institutions, input supply, and extension services (Migot-Adholla et al. 1991).

In pastoral areas, where systematic studies are few, privatization programs have neither resulted in substantial increases in pastoral (livestock) productivity nor in decreased land degradation in different parts of East, Southern, and West Africa (de Carvalho 1974; Njoka 1979; Evangelou 1984; Rutten 1992). In fact, privatization programs have resulted in considerable inequity, as women and youths are excluded in emerging land titles, whereas individuals and groups with better connections to politicians, land administration, and court systems often end up acquiring larger parcels of land at the expense of those with fewer connections. The case study in Chapter 15 demonstrates the equity implications of privatization processes.

13.4 Complexity and Dynamics of Property Rights

Although the security of property rights has been identified as a key constraint to the adoption of long-term investments in agriculture and natural resource management, the relationship is not always unidirectional, because of the complex and dynamic nature of property-rights institutions. Agroforestry provides a clear illustration of some of these complexities.

Planting trees on a plot is a long-term investment; hence those with insecure tenure would be less likely to plant trees, either because they do not have the incentive or they are not authorized to do so. Indeed, the right to manage a resource—to change it in some way, including by planting a tree—is an important component in the bundle of property rights. Studies in Cameroon, Kenya, Mali, Uganda, and Zambia have found that tenants without long-term land rights are restricted in their rights to plant or harvest from trees because of insecurity of tenure (Place 1994).

Differences in tenure security can even be significant within the household. In communal areas of Zimbabwe, Fortmann, Antinori, and Nabane (1997) found that the potential for loss of land and trees following widowhood or divorce was a significant source of insecurity for women that limited tree planting on household land: women and men were equally likely to plant trees on community woodlots, because rights over those trees derived from community membership and investment, not marital status, and hence there were fewer gender differences in tenure security. However, differences in the socioeconomic status of households were a bigger factor than gender differences alone in explaining tree-planting behavior overall: the poorest households had least ability to plant and tended to focus on trees for subsistence needs rather than for commercialization—a useful reminder that institutions are not always the biggest constraint on improving agriculture.

But a closer examination of the links between tree planting and tenure security illustrates some of the complexities involved in examining such institutions as property rights: they are dynamic, so that relationships are not always one-way. For example, Otsuka and Place (2001) found that in many places the planting of trees strengthens individual land rights.[3] Indeed, it is to prevent such enhanced claims on the land that tenants and women are often prohibited from planting trees. Thus not only do property rights affect adoption, but adoption of tree planting can also affect one's property rights. These same processes are seen at larger scales: many devolution programs grant communities stronger rights over forest resources when they have planted trees or made other improvements to the resource base.

On an even broader scale, adoption of new farming practices can change property-rights regimes. For example, Quisumbing and Otsuka (2001) describe how customary systems of acquiring land in western Ghana by clearing forests came under pressure from the increasing population. As a result, agroforestry—particularly cocoa production—became more profitable than shifting cultivation, which created local pressure to individualize land tenure. Though individualization of tenure frequently led to women losing their customary access to land (Lastarria-Cornhiel 1997), in this case the introduction of cocoa increased the demand for women's labor. Men needed to provide incentives for their wives to work in the cocoa fields. Although land was customarily held only by men, women acquired use rights through their relationships with men, and traditional "gifting" ceremonies, witnessed by the community, were adapted so that husbands could transfer individual land rights to their wives in exchange for labor on the cocoa fields. Thus, with the introduction of cocoa, customary practices were used to adapt the land tenure and give women relatively secure rights to land and trees.[4]

Property rights affect access to credit when banks or other lenders require land as collateral for loans. This link is often cited as a major reason for land titling programs (for example, De Soto 2000). However, having land as collateral does not guarantee that credit will be available, unless there are banks accessible to rural areas and willing to lend to farmers (Toulmin and Quan 2000). Other mechanisms are available for securing credit, including using the crop itself as collateral or using social capital through microfinance groups. Hence, transferable land titles are not always a necessary or sufficient condition for access to credit.

13.5 Why and How Do Property Rights Change?

The development of exclusive property rights over land and related natural resources is an increasingly common trajectory in the development of agricultural systems in

Africa. The shift toward more exclusive property rights is triggered by changes in the economy, such as technological innovation, changes in relative factor scarcities, and the creation of new markets (Demsetz 1967; North and Thomas 1973). These changes in the external economy cause the benefits of claiming rights in the new and privatized situation to exceed the costs of negotiating and enforcing those rights (Demsetz 1967). Individuals thus seek to adjust property rights to capture these new opportunities.

In a study of the introduction of private ownership of beavers among Indian hunters in Eastern Canada, Demsetz (1967) demonstrates that, because of the development of the commercial fur trade, the hunting of beavers increased. Consequently, to foster sustainable use and an increase in community wealth, individual hunters introduced exclusive rights. North and Thomas (1973) and North (1981) provide a historical account of changing property rights in the Middle Ages. They show that plentiful land and scarce labor during the ninth century led to the feudal manorial system, which institutionalized property rights over labor services. By the twelfth century, a growing population led to a change in the relative factor scarcities, resulting in a shift of property rights toward land instead of labor. The result was the beginning of the enclosure movement. Similar tendencies toward sharper articulation of individual interests with technological change have been documented for Africa. The introduction of tree crops, enclosures, and innovations involving large capital investments (such as grade cattle in the 1950s) resulted in a strengthening of individual rights among agricultural communities in parts of East, Southern, and West Africa (Uchendu 1970).

Demsetz and colleagues have also defined the incentive structures that emerge with privatization (Alchian and Demsetz 1972). The ability to exclude others encourages individuals to invest in the quality of the resource, because the person who bears the costs also reaps the rewards. In addition, the transferability of rights under private-property arrangements creates an opportunity cost that drives resources to the most effective users. Privatization is thus expected to increase land or agricultural productivity and the wise use and conservation of resources.

These arguments crystallize around the notion of efficiency. Private, individual property rights to land are considered to be efficient, and rights are assumed to evolve toward greater efficiency. Property regimes other than private property for land are considered by many economists to be inefficient and prone to overuse. The model of property change outlined here also ignores the collective-action problem. It assumes that simply because economic conditions for change are present and new arrangements are demanded, individuals will automatically organize to effect change and that the change required will be executed. In reality, for change to occur, the interests of individuals must be aggregated in some way and there must be a capability and

willingness of the political order to provide new arrangements—the supply side of institutions. In Thailand, for example, when government officials anticipated benefits from public investments, they met the demands for exclusive rights, yet declined to do so when institutional interventions would have been harmful to the interests of influential officials. Such rulers as the paramount chief of Akyem Abuakwa of Ghana have also manipulated political institutions to meet their own objectives (Firmin-Sellers 1995, 1996). The case study in Chapter 16 indicates that not until tribal chiefs in South Africa credibly committed to uphold written lease agreements did rental markets for land begin to function. But economic gains on their own are not necessary or sufficient to induce the implementation of alternative property-rights arrangements. Instead, distributional conflicts and, as discussed earlier in this chapter, political intervention are crucial determinants of how property rights change (Libecap 1989, 2003; Eggertson 1990; North 1990; Platteau 1998, 2000; Greif 2006). Property rights may sometimes be created to serve specialized interests, particularly those who have the power to devise new rules (North 1990). Distribution refers to how wealth and political power are assigned among individuals in society because of a change in property rights (Libecap 1989, 2003). How property rights change depends on the nature of conflicts over distribution, who the winners and losers are, and how conflicts between the winners and losers are resolved (Libecap 1989, 2003; Knight 1992; Firmin-Sellers 1996). Conflict over distribution is shaped by the formula used to allocate assets during privatization (Libecap 1989, 2003), which often depends on social norms of equity and fairness that prevail in a community (Ensminger 1996).

Because different allocation mechanisms distribute assets in different ways, actors attempt to influence the process of property-rights change in ways that accord them maximum advantages. Those likely to be disadvantaged organize to oppose change. Those likely to benefit under the new arrangement support it. Actors engage those institutions, both formal-legal and customary, that they perceive will be responsive to and best articulate their claims. Conflict is reduced and change more likely when the anticipated aggregate benefits are large, interests are more homogenous, and the distribution of wealth under the proposed change is equalized (Libecap 1989, 2003). Change may be slowed and even blocked when the distribution of benefits is concentrated.

To end distributional conflict and realize new property arrangements, some actors may call on the authority of the state (Firmin-Sellers 1996). Alternatively, powerful actors with a relative bargaining advantage may constrain others to comply with new institutional rules (Knight 1992). Because of their resources, powerful actors can make credible commitments during bargaining and may even threaten retaliation. Weaker parties may thus be pressured to accept a less preferred property-rights alternative.

The addition of distributional issues greatly enriches the analysis of property-rights change. By acknowledging and extending the notion of individual benefit–cost calculus, distributional arguments capture the heterogeneity of societal actors, their differential endowments, their competition for scarce resources, and the processes through which they resolve conflict.

Many analysts of property rights focus on the importance of scarcity of the resource as a driving force toward clearer definition and enforcement of property rights, particularly private property (Demsetz 1967). Scarcity arises from a conjunction of physical conditions (limitations of the resource itself) and its demand, which in turn depends on population growth rates and the livelihood strategies of the users, market integration, prices, and the like. Although there is certainly evidence of growing privatization of property rights under customary systems as well as state titling systems (Otsuka and Place 2001), the establishment and enforcement of property rights—whether public, private, or common—entails substantial transaction costs that depend, in turn, on the nature of the resource and the technology used. Moreover, institutional history and cultural norms play a major role in shaping both the nature and distribution of property rights. The concept of path dependence (see Chapter 2) is particularly relevant: property-rights systems brought in from one context will not operate in the same way in another context, as seen, for example, in Kenya's experience with privatization and land-titling programs in the colonial and postcolonial eras.

Much has been debated about the notion of replacement as opposed to adaptation with regard to African land tenure systems (Bruce and Migot-Adholla 1994). Replacement arguments were based on now-discredited assumptions that African indigenous or customary tenures did not provide sufficient security to enable individual investment, but customary inheritance practices also resulted in fragmentation of land holdings. Replacement of these tenure systems with individualization, titling, and registration programs would provide the tenure security necessary for investment in agriculture. Following this argument, state-led privatization schemes were implemented in different parts of Africa, often with the support of donors. However, the dismal performance of titling schemes has been reviewed by various scholars (Okoth-Ogendo 1976, 1991; Coldham 1978; Haugerud 1983; Barrows and Roth 1990; Platteau 1992, 1996; Shipton and Goheen 1992; Ensminger 1997). In contrast, adaptation arguments draw from a wide range of studies in Africa (Migot-Adholla et al. 1991; Place and Hazell 1993; Platteau 2000) and suggest that under conditions of high population pressure, customary tenures spontaneously evolve toward exclusive, Western-style property rights characterized by ownership. State-led programs to induce privatization are thus not necessary; the state should instead focus on providing support services, such as administration and registration, where such processes are under way or when demanded by individuals and/or groups.

Both the replacement and adaptation arguments favor Western-style private, individual property rights, yet studies from both sides indicate that titling programs cannot be unambiguously associated with tenure security in Africa. The implications of privatization in the context of multiple, sequential rights over resources have been outlined in earlier sections of this chapter. It is more useful to focus on how farmers and administrators have modified various titling programs to satisfy their needs for tenure security, and what their actions mean for customary tenure and for policy more generally (Firmin-Sellers and Sellers 1999). Following the imposition of the 1974 Lands Ordinance in Cameroon, for example, farmers used the ordinance to receive concrete boundary markers, rather than formal title. Although the boundary markers grant no legal right or protection and do not give access to credit, community members recognized the markers as symbols of effective land occupation. At the same time, administrators modified the ordinance to protect customary tenure by selectively registering underdeveloped and undeveloped lands, because custom obligates family heads to preserve land for family members' future use (Firmin-Sellers and Sellers 1999). Thus state law cannot eliminate or replace customary law, because community norms remain important, even after custom begins to evolve. Nowhere is this more evident than in Kenya, where customary law is applied under the Land Disputes Tribunal Act of 1991 even for the lands where rights have been adjudicated and are now governed by the Registered Land Act of 1962 (McAuslan 1998). Thus the adaptation–replacement debate should be reframed to consider whether titles meet the needs of a wide range of resource users (including farming and nonfarming communities), why or why not, how, and with what consequences.

13.6 Conclusions

Property rights exist as multiple bundles of rights that are claimed by individuals, extended families, villages, and the state, not as some neat variable for "ownership" of resources. Instead of rights that derive from state law only, many different types of law and rule systems provide the basis for property-rights claims. Instead of clearly defined rights, there are usually ambiguity and negotiation over rights. And instead of rights that are defined once and for all, property rights are dynamic, changing over time.

How can such complexity be addressed? Rather than avoiding analysis of these institutions, or simplifying them to some "ideal" (often Western) system of property rights, there is a need to come to grips with complexity. To go beyond the limitations of many conventional treatments of property rights, it is useful to turn the analysis upside down. Instead of beginning with statutory law and regarding all behavior as either following or deviating from those regulations, it is more useful to start from

the perspective of people's experience with access and control, in which individuals draw on a range of strategies for claiming and obtaining resources (Von Benda-Beckmann, Von Benda-Beckmann, and Spiertz 1997). From this vantage point the interplay of legal frameworks becomes visible, as does the manner in which the institutions themselves—the shared understandings among people—evolve. When a new state law is passed, it is interpreted at the local level, and it is ultimately this (varying) local interpretation that goes into practice. At the same time, when local people discuss new state laws or appeal to them, local custom is also likely to change. Finally, no one property regime is suitable in all situations. The costs and benefits of establishing, adapting, and enforcing a property arrangement vary both with the physical nature of a resource and the characteristics of communities appropriating the resource.

Notes

1. Some authors add communal property as a fourth category of tenure regime, which may be defined as "primary forests and uncultivated woodlands are owned communally and controlled by an authority such as a village chief, whereas exclusive use rights of cultivated land are assigned to individual households of the community, and its ownership rights are held traditionally by the extended family" (Otsuka and Place 2001, 12) However, this system can also be analyzed as different parties (individuals and families) holding different bundles of rights—that is, individual use and some decisionmaking rights—while the group or extended family holds the alienation rights.

2. Security of tenure refers to the ability of an individual to appropriate resources on a continuous basis, free from imposition, dispute, or approbation from outside sources, as well as the ability to claim returns from investment in the resource (Migot-Adholla et al. 1991).

3. Conversely, in heavily forested areas, clearing of trees to make agricultural fields gives one a claim over the land. In either case, it is the investment in "improving" the land that strengthens property rights.

4. Although this trend represents a significant advance in women's rights to land, it does not represent full equality. Women had to plant 40–50 percent of the land to cocoa before receiving rights to it, whereas men had to plant only 20–25 percent of the land before receiving their rights.

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