

A Theory of Access*

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ABSTRACT The term "access" is frequently used by property and natural resource analysts without adequate definition. In this paper we develop a concept of access and examine a broad set of factors that differentiate access from property. We define access as "the ability to derive benefits from things," broadening from property's classical definition as "the right to benefit from things." Access, following this definition, is more akin to "a bundle of powers" than to property's notion of a "bundle of rights." This formulation includes a wider range of social relationships that constrain or enable benefits from resource use than property relations alone. Using this framing, we suggest a method of access analysis for identifying the constellations of means, relations, and processes that enable various actors to derive benefits from resources. Our intent is to enable scholars, planners, and policy makers to empirically "map" dynamic processes and relationships of access.

Introduction

The notion of access has not been adequately theorized, even though it is used frequently by property analysts and other social theorists.¹ In this paper, we argue that access differs from property in multiple ways that have not been systematically accounted for within the property and access literature. We define access as the ability to benefit from things—including material objects, persons, institutions, and symbols.

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¹The term access is already often used in the literature to include property rights and other means of benefiting from resources. See de Janvry et al. (2001), Newell (2000), Mandani (1996), Mearns (1995), Lund (1994), Agarwal (1994:19), Berry (1989, 1993), Peluso (1992b), Shipton and Coheen (1992), Bruce (1988), Blaikie (1985).

tices and ideas of others (Weber 1978:53; Lukes 1986:3) and second, we see power as emergent from, though not always attached to, people. Power is inherent in certain kinds of relationships and can emerge from or flow through the intended and unintended consequences or effects of social relationships. Disciplining institutions and practices can cause people to act in certain ways without any apparent coercion (Foucault 1978a, 1979).

Access is about *all* possible means by which a person is able to benefit from things. Property generally evokes some kind of *socially acknowledged and supported* claims or rights—whether that acknowledgment is by law, custom, or convention. Rights-holders enjoy a certain kind and degree of social power. The rights associated with law, custom, and convention are not always equivalent. Some actions may be illegal under state law, while maintaining a socially sanctioned base in customary or conventional realms of collective legitimacy, or vice versa. Access may also be enabled indirectly through means that are not intended to impart property rights or that are not socially sanctioned in any domain of law, custom, or convention. Without allocating rights *per se*, ideological and discursive manipulations, as well as relations of production and exchange, profoundly shape patterns of benefit distribution. Likewise, socially and legally forbidden acts can also shape who benefits from things.⁵

The massive and growing literature on common property and resource tenure has shown that law (whether written or oral, formal or customary) can never completely delineate all the modes and pathways of resource access along complex and overlapping webs of power.⁶ Even earlier theorists did not reduce property to matters of law. Locke saw property as the moral claim to rights arising from the mixing of labor with land (MacPherson 1978; Neale 1998:54). This right was then codified in law to be protected by the state. For Marx (1964:78, 136; 1977) property is appropriation. It is the fact or act of obtaining, which he traced back to relations of production based on previous appropriations in an unfolding historical process, that at particular junctures was formalized in law.⁷ Thus, for Marx, the rights that derived from

⁵ Socially and legally forbidden means may include violence (Hunt 1998:3; Peluso 1993), corruption (Bardhan 1980; Gupta 1995), and theft.

⁶ For a small sampling, see Fortmann and Bruce (1988), McCay et al. (1989), Berkes (1989), and Schlager and Ostrom (1992).

⁷ Marx (1964:78,136) equates property to appropriation—the alienation of other's labor embedded in material things (also see Marx 1977). Commodities have value and are objects of appropriation because they embody alienated labor. Going beyond his labor theory of value, Marx (1972:8—italics in original) admits nature as a source of value: "Labor is not the source of all wealth. *Nature* is just as much the source of use values (and it is surely of such that material wealth consists) as labour, which itself is only the manifestation of a force of nature. . . ."

combining labor with land or resource use were superseded by state-backed institutions of property, causing him to regard property as theft, in direct opposition to Locke's idealistic formulations. Further, as property theorists introduce notions of forum shopping—the ability of some actors to select the arena of law, custom, or convention that will favor their objectives—the importance of political-economic and cultural forces beyond the legal sphere becomes more evident in determining who can use law, custom, or convention, when, and for what purposes (Meinzen-Dick and Pradhan 2002; Lund 1994; Griffiths 1986; Moore 1986; von Benda-Beckmann 1995, 1981). Thus, as Bell asserts, "There can hardly be a word more freighted with meaning than 'property'" (Bell 1998:29).

Many dimensions of access that we discuss have been explored or included somewhere within the broad definitions used in property studies.⁸ "Property" has tended to be linked in much of the literature and in daily usage to ideas of ownership or title as defined by law, custom, or convention (Singer 2000; Bell 1998; Bromley and Cernia 1989), though this has changed radically over the years. Even the terms "property relations" and "tenure" examine only relations of resource ownership and control sanctioned in some way by some social institutions, even though they are used sometimes to mean more than property rights sanctioned by states in written law.⁹ Our move from concepts of property and tenure to access locates property as one set of factors (nuanced in many ways) in a larger array of institutions, social and political-economic relations, and discursive strategies that shape benefit flows. Some of these are not acknowledged or recognized as legitimate by all or any parts of society; some are residues of earlier legitimating institutions and discourses. Hence, access analysis requires attention to property as well as to illicit actions, relations of production, entitlement relations, and the histories of all of these.¹⁰

We recognize that many property theorists have made a move away from the formal. Tawney (1978:141) began to extend ideas of property to ownership of exchange and market access in the 1920s. Christman

⁸ See Marx (1964:341, 1977:349), Proudhon (1998), Rose (1994), Ghani (1995), Fortmann (1988b), Singer (2000), Geisler and Daneker (2000).

⁹ For some early definitions of property and some reviews, see Maine (1917), MacPherson (1978), Fortmann (1988b). For examples of more recent nuancing of the terms property and property relations, see Agarwal (1994:19), Shipton and Coheen (1992), Berry (1988, 1989, 1998), Blaikie (1985), Bruce (1988), Mearns (1995), Peluso (1992b, 1996), Nugent (1993), Vandergest (1996), Geisler and Daneker (2000).

¹⁰ For discussions of illicit action see Hunt (1998:16), Gupta (1995), Bhagwati (1982), and Krueger (1974). On relations of production see Marx (1977[1858]), and Polanyi (1944). On entitlement relations see Singer (2000), Leach et al. (1999), Ribot (1995), Wats and Bohle (1993), Dréze and Sen (1989), and Sen (1981).

(1994), in talking about “things tangible and intangible,” takes another step away from physical possession or appropriation and the embodiment of value in physical things. Even Henry Maine’s early (1917) notion of “bundles of rights,”¹¹ which disaggregated property into component rights—such as the rights to own, inherit, use, or dispose of—provided a nuanced understanding of the many social relations around things. More recently, Geisler and Daneker’s (2000:xii) theorizing of “bundles of owners” has helped to problematize and blur the distinctions between individual and collective claims to the various strands that make up bundles of rights. Further, the literatures on common property and political ecology have expanded the property rights literature by showing how collectively used or held resources are embedded in larger sets of political-economic and ecological relationships.¹²

Using insights from these property and tenure theorists, we frame access even more broadly. Thus, like property, we see access relations as always changing, depending on an individual’s or group’s position and power within various social relationships. Generally, people have more power in some relationships than in others, or at some historical moments and not others. As Foucault (1978a) pointed out, power has as much to do with positionality and the particular “imbrications of men and things” as with the formal powers that people might hold. Different political-economic circumstances change the terms of access and may therefore change the specific individuals or groups most able to benefit from a set of resources. Ghani (1995:2) has suggested that property should be represented as a bundle of powers—again, a broader view than Maine’s notion mentioned above. Ghani’s bundles of powers in fact represent a whole new concept that can be incorporated into our notion of access. These bundles of powers become nodes in larger webs and, at the same time, can be disaggregated into their constituent strands. Placing this analysis within a political-economic framework helps us identify the circumstances by which some people are able to benefit from particular resources while others are not (see also Bell 1998:29).

The political-economic aspect of our concept becomes evident when we divide social action into access *control* and access *maintenance*. Access *control* is the ability to mediate others’ access. Control “... refers to the checking and direction of action, the function or power of direct-

ing and regulating free action” (Rangan 1997:72).¹³ Maintenance of access requires expending resources or powers to keep a particular sort of resource access open (e.g., Berry 1993). Maintenance and control are complementary. They are social positions that temporarily crystallize around means of access. Both are constitutive of relations among actors in relation to resource appropriation, management, or use. At the same time, the meanings and values of resources are often contested among those who control and those who maintain access. The idea of property being composed of rights and duties can be seen as a parallel distinction in which claiming of rights is a means of access control while the execution of duties is a form of access maintenance aimed at sustaining those rights (Hunt 1998:9). We speak of a third term, *gaining access*, as the more general process by which access is established.

Access control and maintenance parallel some aspects of Marx’s notions of the relations between capital and labor. The relation between actors who own capital and those who labor with others’ capital or means of production parallels the relation between actors who control others’ access and those who must maintain their own access. In both cases, it is in the relation between these two sets of actors that the division of benefits is negotiated. To maintain access, subordinate actors often transfer some benefits to those who control it. They expend resources to cultivate relations or transfer benefits to those who control access in order to derive their own benefit. This kind of analysis can go beyond class analysis, since strands of control and maintenance may reside in the same person or be shared among cooperating or competing actors.¹⁴ One individual may hold a bundle of powers whose strands include various means of controlling and maintaining access. This person will be in a dominant position with respect to some actors and in a subordinate position to others. Because of the fragmented nature of control and maintenance and the webs and bundles of powers that constitute them, people cannot be divided neatly into classes, as in a traditional Marxist frame. Various types of power relations around a given set of benefits and beneficiaries must be analyzed to understand these webs of access.

The strands in our webs and bundles of power, then, are the means,

¹³ This parallels Weber’s (1978:55) notion of domination. Also see Peluso (1992b), Lund (1994), and Berry (1994) for discussions of the notion of access control.

¹⁴ This links us to Hall’s (1980) famous notion of “Marxism without guarantees” i.e., that we should maintain Marx’s “materialist premise” but understand the material conditions of existence within historically specific analyses, not just abstract or automatic assumptions made based on class analysis.

¹¹ Also see Meek (1988:1), Formann (1988b).

¹² On common property, see footnote 6, and Ostrom 1990. On political ecology, see Blaikie (1985), Bryant (1992), Hecht and Cockburn (1989), Peet and Watts (1996).

processes, and relations by which actors are enabled to gain, control, and maintain access to resources. As shorthand for means, processes, and relations in the rest of this paper, we use the term "mechanisms."¹⁵ We see several different kinds of mechanisms at work. *Rights-based* and *illicit* mechanisms both can be used directly to gain benefits. Other *structural and relational* mechanisms of access include or reinforce access gained directly through configurations of rights-based or illicit access. An example of illicit access could be stolen produce that may only have commercial value if the thief has access to markets. A rights-based example could be when access to labor may complement property rights in land. Controlling both strands—property in land and labor access—makes the land rights more lucrative (de Janvry et al. 2001:5). Someone might have rights to benefit from land but may be unable to do so without access to labor or capital. This would be an instance of having property (the right to benefit) without access (the ability to benefit). Mechanisms of access may operate sequentially, as when access to labor opportunities are contingent on prior membership in a particular organization or having a particular social identity. Labor opportunities may depend on having a certain kind of knowledge and the certification of that knowledge or education by a professional organization or the state (Blaikie 1985).

Locating access in a political-economic framework provides a theoretical model of social change. Social relations and differentiation emerge from cooperation and conflict over benefits (value in Marx's terms) within particular political-economic moments. Laws may be formed from these relations or precede them. Benefits can be redistributed and captured in the course of changing social relations and legal frameworks as new conflicts and cooperative arrangements emerge. Because of the interdependence of some mechanisms of access, an absolute or abstract hierarchy of mechanisms cannot be imposed. The ways various access mechanisms fit into political-economic moments must be determined empirically. Access analysis is, thus, the process of identifying and mapping the mechanisms by which access is gained, maintained, and controlled. Moreover, because access patterns change over time, they must be understood as processes (Berry 1993; Lund 1994:14–15; Peluso 1996).

Given the framework outlined above, access analysis involves 1) iden-

¹⁵ We choose the term "mechanisms" because "means" implies agency, whereas access is not always a matter of agency. The manifestation of mechanisms in power relations between people in other realms of social interaction may have the disciplining effects of controlling someone's access to the resources by favoring the access of others (Foucault 1979; Moore 1999).

tifying and mapping the flow of the particular benefit of interest; 2) identifying the mechanisms by which different actors involved gain, control, and maintain the benefit flow and its distribution; and 3) an analysis of the power relations underlying the mechanisms of access involved in instances where benefits are derived. The analysis of resource access first requires identifying the object of inquiry—a particular benefit coming from a particular resource. Identifying the benefit can be as straightforward as examining the farm-gate profits from a particular crop. It can be as complex as identifying the flow of benefits from that crop throughout its lifetime trajectory—from preparing the fields to final consumption. Benefits from a resource can accrue in production (as in the cultivation of rice fields, maintenance of bee hives, tree planting, guarding forests), extraction (rice harvesting, honey gathering, woodcutting, hunting), product transformation (milling of rice or the carbonizing of wood), exchange, transport, distribution, or consumption. The object of inquiry can be the specific benefit from a single transaction or the whole chain of benefits accruing to multiple (or single) actors during the lifetime of a single hectare of rice.

Once the benefits from these resources are identified, we can proceed with an analysis of the multiple mechanisms by which individuals, groups, or institutions gain, control, or maintain access within particular political and cultural circumstances. These causal relations can be systematically traced out spatially and historically (Blaikie 1985; Watts 1987; cf. Vayda 1983). Although in this article we do not develop a case, in the next section we use empirical examples from various cases to illustrate the broad array of access mechanisms at work.¹⁶

Mechanisms of Access

In this section, we provide a working set of categories and examples to guide efforts to map the mechanisms that shape access processes and relations.¹⁷ The first of these categories is *rights-based access* (that which is sanctioned by law, custom or convention), including *illegal access* (or theft—when benefits are obtained through illegal mechanisms).¹⁸ We

¹⁶ We have applied the basic tenets of this method to specific cases elsewhere. See, for example, Ribot (1990, 1998), and Peluso (1996).

¹⁷ These mechanisms of access can be categorized by: sanctioned (by law, custom, and convention) vs. unsanctioned (by theft or violence); agent-based (as in law) vs. structural (as in relations of production or economic complementarities); direct and indirect mechanisms of access, proximate vs. distant or place based vs. non-place based; properties of things, systems, or persons; alienable vs. non-alienable means; sequential, parallel, complementary, etc. These categories can all be useful.

¹⁸ It is important to recognize that both these sorts of sanctioned and unsanctioned mechanisms are rights-based—in so far as rights define the bounds of illegal activities.

then discuss a number of additional factors under the heading *structural and relational access mechanisms*. These mediate or operate parallel to rights-based and illegal access mechanisms, thus shaping how benefits are gained, controlled, and maintained. They include *technology, capital, markets, labor, knowledge, authority, identities, and social relations*.

We do not cover all of the possible sub-categories and combinations of access mechanisms. The categories could not be comprehensive, nor are they fixed or unique. In various circumstances or times, power operates differently. Thus, because of the nature of power itself, it is sometimes hard to pinpoint the "bundles of powers" we refer to above.

Rights-Based Access

Legal Access

As mentioned above, when the ability to benefit from something derives from rights attributed by law, custom, or convention, contemporary theorists have usually called it "property" (MacPherson 1978). Rights-based means of access imply the involvement of a community (in the broadest sense of this term), state, or government that will enforce a claim. Law-based property rights include access via the holding of titles or deeds of real property as well as permits and licenses (Tawney 1978:141; Nelson 1986, 1995).¹⁹ Customary or conventional access occurs via social acceptance of a given circumstance or practice by which people gain benefits. Custom and convention do not depend on coercive enforcement mechanisms, though sometimes coercion is used for enforcement (Weber 1978:319–20). Property rights holders can assert their sanctioned rights, with the associated enforcement mechanisms, to control access. Others who do not have such rights must come to rights holders to gain or maintain access, perhaps by paying a fee or exchanging a service if they desire to benefit from the resources in question. In such cases, the property rights themselves shape the relations among people with respect to benefit flows.

Ambiguities within laws, customs, and conventions are frequent. It is not uncommon that laws made under a single government within a single historical period contradict each other, allocating rights to the same resource to different parties. For example, in Thailand, the Ministry of Forestry denied migrants rights to settle in forest areas of the

¹⁹ More broadly, laws and policies affecting access include: zoning, licenses, permits, quotas, taxes, anti-trust laws, production seasons, species protections, laws of national domain, dumping laws, and price fixing (Nelson 1986, 1995; Coggins et al. 1998).

North, but the Ministry of the Interior registered groups of migrants in territorial administrative entities and provided them with services such as schools and health clinics (Vandergeest 1996).

Sometimes new policies or laws do not clearly delineate all the powers associated with particular rights; conflict ensues over the resolution of these ambiguities. An example is found in those systems of joint resource management where the boundaries of rights and access are not clear (Sundar 2001; Bavisar 2001). In the name of decentralization or participation, these new co-management approaches claim to bring people into a "participatory" management process but may fail to transfer forest rights to local people. This ambiguity allows state agents greater discretion in the allocation of access (Shiva et al. 1982; Rangan 1997, 2000; Ribot 1999).

Rather than enfranchising local populations with rights over resources, states often manage local people as subjects to whom privileges, rather than rights, are to be delegated (Wong 1975; Hooker 1978; Burns 1999; Mamdani 1996; Ribot 1999). Laws are often written so that decisions or transfers of powers are to be made by executive decree or subject to the approval of a president, a minister, or an appointee or administrator, maintaining ambiguity over who really holds the power to allocate rights of access to particular benefits (e.g., Porter 1967; Hong 1986; Guha 1990). These laws in theory impart access control to these state agencies and leave resource users in the position of having to invest in relations with these agents in order to maintain access (Ribot 1995). Conyers (2000) calls this the "means of transfer" problem. It is a problem because discretionary decisions or transfers establish insecure arrangements or privileges that decision-making agents can change at will, rather than establishing users' rights (Peluso 1992b; Saberwal 1996; Sivaramakrishnan 1999; Ribot 1999).

Ambiguity also plays an important role in overlapping systems of legitimacy, i.e., where a plurality of legal, customary, or conventional notions of rights are used to make claims. However, within formal and informal systems of legal pluralism, a state often remains the ultimate mediator, adjudicator, and power holder. Nevertheless, within this plurality, some actors may be able to enhance their own benefits—to maintain their own access or gain control over others' access by choosing the forum in which to claim their rights, and wherein they seek to have these rights enforced or adjudicated, as mentioned earlier (von Benda-Beckmann 1981; Lund 1994:14). In all these cases, rights defined by law, custom, and convention are mechanisms that shape who controls and who maintains access.

Illegal Access

In a sense, any access gained "illegally" is also rights-based: it is a form of direct access defined against those based on the sanctions of custom, convention, or law.²⁰ Criminality is a matter of perspective, one that depends on the actor's relationship to the law or other form of rules or sanctioned conventional practices (Peluso 1992b; Thompson 1975a; Hay 1975). By definition, then, illegal access refers to the enjoyment of benefits from things in ways that are not socially sanctioned by state and society. Theft (overtly using force or stealthily using deception) can also be a form of direct resource access.

Illegal access operates through coercion (through force or threat of it) and stealth, shaping the relations among those attempting to gain, control, or maintain access. Access can be controlled illegally through these means, and people can illegally maintain access by cultivating relations with or posing counter threats to those who control access. Government officials—particularly those in the military branches or police—may illicitly use the power of their official positions to protect their personal resource access. Meanwhile, their actions may be considered illegitimate or corrupt by other claimants who justify their rights through other laws, customs, or conventions (Thompson 1975a, 1975b; Hecht and Cockburn 1989; Peluso 1992b, 1995).

Legal means, therefore, are not the only rights-based way of gaining, controlling, or maintaining benefits from resources. Violence and theft must also be considered as rights-denied mechanisms of access.

Structural and Relational Mechanisms of Access

The ability to benefit from resources is mediated by constraints established by the specific political-economic and cultural frames within which access to resources is sought. This brings into play a number of what we call "structural and relational access mechanisms." We were inspired to develop this notion by Blaikie's discussion of "access qualifications" (Blaikie 1985). He explains that capital and social identity in-

²⁰ The distinction between rights-based "property" approaches and illegal forms of access based on violence or theft is predicated on notions of morality and legitimacy. What one group calls theft can be considered moral or legitimate by others—an individual or a gang or a neighboring community. The distinction is constructed within various spheres or communities of legitimacy. Legitimacy, in turn, is linked to a set of moral judgments about what is right and what constitutes a right or an entitlement. To distinguish between property and theft we must query the construction of spheres or communities of legitimacy. Because both Marx (1964 [1844]) and Proudhon (1993) believed ideology (including any notion of legitimacy of property) to be a product of material relations of production, they argued that the legitimacy of property was false and that all property was appropriation or theft.

fluence who has resource access priority. In this subsection, we nuance and extend Blaikie's discussion by exploring how technology, capital, markets, knowledge, authority, social identities, and social relations can shape or influence access.

Access to technology mediates resource access in a number of ways (Bunker 1985; Barham et al. 1994). A fence is a simple technology of access control both because it physically keeps some people away from a resource and it symbolizes or communicates intent to restrict access (Rose 1994; Fortmann 1995). Many resources cannot be extracted without the use of tools or technology; more advanced technology benefits those who have access to them. Bunker (1985) calls these different technologies and their associated networks of institutions and relations "modes of extraction."

Less direct are the technologies that increase or facilitate the ability to physically reach a resource. Access to tube-wells, pumps, and electricity can determine who can benefit from groundwater pumped from ever-greater distances below the surface (Dubash 2002). A road alters the number of people and the types of vehicles able to reach remote localities, changing the nature of physical access (Potter 1987; Schmink and Wood 1992; Peluso 1992a; Geisler and Silberling 1992). Weapons are also technologies that can facilitate the upholding of rights-based and illicit access. When woodfuel merchants wanted to cut wood in the forests of Makacoulbantang in Eastern Senegal, one local authority exercised his *control* over forest access by threatening to shoot anyone who cut trees anywhere near his village (Ribot 2000).

Access to capital is clearly a factor shaping who is able to benefit from resources by controlling or maintaining access to them (Blaikie 1985; Shipton and Goheen 1992; Berry 1993; de Janvry et al. 2001:4–5). Access to capital is generally thought of as access to wealth in the form of finances and equipment (also discussed under technology) that can be put into the service of extraction, production, conversion, labor mobilization, and other processes associated with deriving benefits from things and people. Access to capital can be used for resource access *control* through the purchase of rights. It can be used to *maintain* resource access when used to pay rents, formal access fees, or to buy influence over people who control resources. These can also be seen as rights-based means of gaining resource access, through legal, sanctioned, or informal processes. Access to capital in the form of credit is a means of maintaining resource access.

The claim to have increased the value of a resource by selling access to it may be used to gain social recognition of property rights. Reminiscent of the notion of "landesque capital," such investments can be

are not always within the control of identifiable actors. When price affects how an individual can profit from selling his or her product or by redistributing access to it, access analysis must query the origins of that price whether it was fixed by the state, set individually or collusively by merchants, or produced at the intersection of broader patterns of supply (perhaps a function of production) and demand (perhaps a function of need, disposable income, wealth, etc.). This is one method of empirically locating a specific instance of access in a larger political economic and historical context.

Access to labor and labor opportunities also shape who can benefit from resources. Those who control access to labor can benefit from a resource at any stage where labor is required throughout the life of that resource or along the path taken by the commodities derived from it (Appadurai 1986). Control of labor opportunities (that is, jobs) can also be used to benefit from resources. Those who control labor opportunities can allocate them for favors as part of patronage relations (Hart 1986; Peluso 1992b). They can use their control to bargain down wages when such opportunities are scarce (Shiva et al. 1982; Fortmann 1988a, 1988b; Carney and Watts 1990). Labor scarcities and surpluses can affect the relative portion of resource benefits enjoyed by those who control labor, those who control access to labor opportunities, and those who desire to maintain their access to these opportunities.

Access to labor opportunities includes the ability to labor for oneself and to maintain access to employment with others. Even though someone may have no access to a resource through property rights and may not have the capital to buy technology or to engage in commercial transactions giving her or him rights to a resource, she or he may gain resource access by entering into a working relationship with the resource access controller, the holder of a permit, or other market-based access mechanism. Workers may subsequently have to invest in social relations with resource owners or managers in order to maintain access to both labor opportunities and the resources themselves (Berry 1993). Throughout Africa, Latin America, and Asia, patron-client relations have been an important means of both controlling and gaining access to resources and labor opportunities. As political economies have changed, so have the forms of these relations and the relative share of benefits enjoyed by patrons and clients (see Scott 1972, 1976; Deere and de Janvry 1984; Watts 1988; Dauvergne 1995; Vandergest and Peluso 1995). Through labor, clients are able to acquire some of the benefits of exploiting a resource in the form of either cash payment for their labor or a percentage of the harvested resource in kind.

used for staking claims or facilitating the conditions of access to resources" (Blaikie 1985; also see Mayer 1996). In this vein, tree planting can serve to claim property rights in land (Fortmann 1988a, 1988b). Wealth or capital also affects other types of access since wealth, social identity (discussed below), and power are mutually constituted (Moore 1986; Shipton and Goheen 1992; Berry 1993). In other words, because of the status and power that wealth affords, those with wealth may also have privileged access to production and exchange, opportunities, forms of knowledge, realms of authority, and so forth.

Access to markets affects the ability to benefit from resources in many ways. The ability to commercially benefit from a resource can depend more on whether its owner has access to markets than whether someone has rights to it (Tawney 1978; Ribot 1998, 2000; de Janvry et al. 2001:5). The Kayapo and other native groups who collect rainforest products and sell them directly to Cultural Survival, Conservation International, and retailers such as The Body Shop acquired preferred market access, increasing their share of the profits from extracting rainforest products (Schwartzman and Nepstad 1992). Market access is controlled through a multitude of structures and processes (Harriss 1984; Ribot 1998). These may include access to capital (both equipment and credit), structures of monopsony, exclusionary practices, and forms of collusion among market actors, or support by state policies delimiting the acquisition of professional licenses and access fees (Polanyi 1944; Hecht and Cockburn 1989; Shipton and Goheen 1992; Nelson 1995; Feder 1996:1).

We generally think of market access as the ability of individuals or groups to gain, control, or maintain entry into exchange relations. Markets also shape access to benefits from things at different scales and in much more subtle and indirect ways. Resource values may vary when resources are commodified or when national or international merchants or state agents begin to extract resources, in turn affecting property rights (Appadurai 1986; Watts 1988; Runge et al. 2000). Candelnut trees grew wild in West Kalimantan in secondary forests but were rarely claimed or used by local villagers. When more Javanese and Madurese migrated into the region, a market for them arose because candelnut is an ingredient in much of their cuisine. Villagers subsequently began to restrict others' access to the trees in their swidden fallows. In other words, they created property rights in a new resource because of their emergent commodity status.

Broader market forces of supply, demand, and their influence on prices also shape the distribution of profits from things. These forces

Those who control physical access to resources may influence who gets to work in extraction or production. But sometimes those holding rights need to offer a share of the benefits to attract laborers. Under conditions of scarce labor, some resources may not be extracted even if the direct controller is willing to provide labor opportunities under favorable terms (Scott 1976; Adas 1981). As labor supply conditions change, the distribution of the resource between those who control access and those seeking to gain or maintain labor access may also change. Thus rubber tappers in West Kalimantan, Indonesia, may receive a 70 percent share of a smallholder's latex product when they have access to many alternative labor opportunities. When work for rubber tappers is scarce, however, the tappers may receive as little as a 30 percent share (Dove 1983; Peluso 1996). Cultural factors, such as kinship relations, may also affect the relative shares received by owners and workers.

Control of market access (discussed earlier) can affect control of labor opportunities and, hence, the distribution of benefits. This is most clear under oligopsony conditions where producers are obligated—if they want to sell their product—to work for and sell to one buyer; and there are a limited number of buyers. Such market control places the control of the terms of trade and most of the profits from both products and labor with the oligopsonist—even when the laborers or others have rights or market-based access (Bunker 1985; Schmink and Wood 1987; Hecht and Cockburn 1989; Magagna 1991; Ribot 1990, 1998). In this case, those who control markets can allocate labor and selling opportunities. Similarly, control of credit (mentioned above) can also affect labor control and the distribution of benefits from a resource. When laborers require credit, such as a subsistence advance to collect produce in the forest for extended periods of time or capital to purchase a boat, money lenders can control both labor supply and labor opportunities (Bardhan 1980; Padoch 1982; Peluso 1983).

Access to knowledge is important in shaping who can benefit from resources. Beliefs, ideological controls and discursive practices, as well as negotiated systems of meaning, shape all forms of access (Shipton and Goheen 1992; Peters 1994). For some resources, access might be driven by more than economics or moral claims to subsistence rights; it serves social, political, and ritual purposes as well, representing kinship, power relations, or ritual harmony (Peluso 1996). For example, in some parts of Borneo, durian fruits have both use and exchange value to the inheritors of the trees—often a bundle of owners who are siblings or cousins descended from the tree planters—but are claimed in other ways by members of the communities where the trees are located. Villagers remember histor-

ical events by naming these trees; the long-living trees are also markers of where previous longhouses stood. Cutting a durian tree requires rituals acknowledging the claims of both the ancestors and the contemporary villagers (Appell n.d.; Sather 1993; Peluso and Padoch 1996). An ethic of access also applies to peasants' claims on benefits deriving from market and labor access. In Senegal and Burkina Faso, for example, forest villagers and firewood producers express a sense of entitlement to profits made by outside merchants on purchasing, transporting, and reselling firewood the villagers cut (Ribot 1998; Delnooz 1999).²¹

Discourse and the ability to shape discursive terms deeply influence entire frameworks of resource access. By speaking of a "global commons," for example, powerful international NGOs and other actors create universalizing categories and naturalize their interventions around the world in the name of environmental protection. Resource access is in this way shaped by the power to produce categories of knowledge (Foucault 1978b). Similarly, expert status acquired through access to privileged information, higher education, and specialized training or apprenticeship, or even from the ability to employ the signifiers of such status (degrees, titles, etc.), can give people privileged access to labor opportunities, group or network membership, or privileged physical access to resources. Expert status also carries authority that may allow individuals to manipulate others' beliefs or the categories of resource access and use.

"Scientific" narratives linking human activities to ecological changes often serve to justify state control over resources (Peluso 1992b; Rangan 1997; Sivaramakrishnan 1999). Fairhead and Leach (1998:175) argue that asking forestry administrations to abandon narratives of decline and crisis would require them to undermine their resource access-control claims.

Control over knowledge and information also has direct benefits. Merchants may lie to producers about the urban or international prices of their products in order to leverage producer prices downward. Information about technologies may be withheld to prevent dependent producers from becoming independent of their patrons (Bardhan 1980; Ribot 1993, 1995). The holders of specialized technical information can use this information to maintain their access to labor opportunities or income when they have skills or specialized knowledge that is in demand, e.g., the geographic knowledge of local guides.

²¹ Such moral claims resonate with the Lockean notion that ownership—as in the right to benefits—is established by the mixing of labor with resources (Locke 1978).

Access to authority shapes an individual's ability to benefit from resources.²² As shown earlier, law partially shapes access to resources, capital, markets, and labor. Privileged access to the individuals or institutions with the authority to make and implement laws can strongly influence who benefits from the resource in question (e.g., see Thompson 1975a; Weber 1978; West 1982; Watts 1983; Thongchai 1994). The mobilization of this kind of access can be done through legal channels, as in making an application for a permit or lobbying through official channels.

Both legal and illegal access to state and other authorities tends to be selective along a number of economic and social lines (Ribot 1993, 1995; Robbins 2000; Sturgeon 2000; Doolittle 2000). Economic selectivity, for example, means that those without money may not be able to afford even the cost of communication with agents and officials of the state—they may not be able to take a day off to bike 60 kilometers to a state representative's office, thus restricting their access (Blaikie 1985).

Legal, customary, and conventional authorities may also compete or conflict in the sense of having overlapping jurisdictions of authority. Such overlaps allow individuals to take advantage of different social identities to acquire or accumulate resources using different notions of legitimate or authoritative access (as in the forum shopping mentioned above). For example, a government official may have privileged access to information about land availability and also have access to land within some customary manner of allocation. There may even be limits to resource accumulation within each of these fora of legitimate access. But when taken together, all the resources available to well-positioned individuals may exceed the limits on any one of them taken alone (Moore 1986; Geschiere 1995; Fischer 1996).

Access to authority is an important juncture in the web of powers that enables people to benefit from things. In effect, authorities are nodes of direct or indirect forms of access control where multiple access mechanisms or strands are bundled together in one person or institution. People and groups gain and maintain access to other factors of production and exchange through them.

Access through social identity profoundly affects the distribution of benefits from things. Access is often mediated by social identity or membership in a community or group, including groupings by age, gender,

²² Authority could be categorized as a kind of social identity, and access to authority as a kind of social relation, but because of the importance of socially sanctioned powers or "authorities" who make and enforce rules and decisions concerning resources, we treat authority separately in resource access.

ethnicity, religion, status, profession, place of birth, common education, or other attributes that constitute social identity (Moore 1986; Bullard 1990; Shipton and Goheen 1992; Berry 1989, 1993; Foster 1993; Young 1993; Pulido 1994; Agarwal 1994; Li 2000; Peluso and Vandergeest 2001). Some persons are subject to the law, while others may be exempted by dint of their status or membership in some identity-based social grouping. During most periods of commons enclosure, for example, or in the transformation of land use from one type of production or protection to another, who is included/excluded in the flows of benefits and duties from the transformation is frequently dependent on identity (Menziés 1988; Thompson 1991). Non-state authorities, such as community leaders, religious leaders, or village chiefs, can also control resources and allocate access selectively along identity lines.

Access to specific resources, such as fishing, hunting, and gathering rights in the U.S. was negotiated with Native American groups by early treaties—and by the exclusion of some groups from the treaty process in the nineteenth century (see, e.g., Huntsinger and McCaffrey 1995). All over the world today, the discourse on "tribes" and "native" groups has become a tactic for both inclusionary and exclusionary strategies. Some groups strategically constitute themselves as "indigenous people," their practices as "customary law," or their land as "tribal land," and by doing so gain access to international and national NGOs with interests in those resources (Hale 1994; Tsing 1999; Li 1999, 2000). Competing identity discourses and the resurrection, invention, or telling and retelling of history can also be a discursive means of controlling or maintaining access (Hobsbawm and Ranger 1983; Fortmann and Fairfax 1985; Ives 1988; Peluso 1993; Ferguson 1994; Escobar 1995; Moore 1993).

Another example of identity-based access is when rights or claims are attached to or explicitly detached from particular localities or professions. Local users are often completely excluded from nature reserves, particularly if they intend to extract resources (Ribot 1995; Neumann 1998), although conservation and development activists often expect local people to protect endangered wildlife and habitats (Agrawal 2001). Scientists, on the other hand, most of whom tend not to be "local" in the sense of villagers, often have privileged access to the resources in a reserve and may even extract or modify those resources for the purposes of their work. This kind of access translates into or derives from access to capital (grant money) and authority (government permission) and results in salary increases, prestige, and power—including sometimes greater resource access—for the scientists in question. Scientists' forms of knowledge production and practice also

have greater legitimacy in policy circles than do those of "local resource users" and thus influence their relative abilities to maintain access and control the access of others.

Identity-based access mechanisms also affect and are affected by market and labor access mechanisms as well as rights-based access (Watts 1989; Wilmsen 1989; Hart 1992; Ribot 1993; Leach 1994). Those persons whose identities enable them to have access to markets may be different than those who have forest access. Markets, for example, may be controlled by one ethnic group and property rights in forests, fisheries, or land by others, as is often the case in Southeast Asia, Africa, and South America (Padoch 1982; Debeer and McDermott 1993; Ribot 1993; Berry 1994).

Access via the negotiation of other social relations of friendship, trust, reciprocity, patronage, dependence, and obligation form critical strands in access webs. Like identity, social relations are central to virtually all other elements of access. Here we want to illustrate a few additional ways that access to multiple forms of social relations shapes resource access.

Sara Berry's (1989, 1993) work on access is central to this part of our argument, in particular, her notions of investment in social relations in order to gain access to resources. In her research in West Africa, she explains: "... since access to resources depended, in part, on the ability to negotiate successfully, people tended to invest in the means of negotiation as well as the means of production per se" (1993:15). Berry's analysis stresses the importance of the development of economically based ties, in addition to other identity-based relationships, as a means of being included or excluded from certain kinds of benefits.

A shift in the broader political economy can make some kinds of access obsolete by creating new types of social relations that need to be developed in order to gain, maintain, or control access to resources. A switch from a local to a national level of resource management, for example, might require the cultivation of new relationships with nationally appointed local resource managers (Moore 1986). Or the creation of new bureaucratic forms of management might result in some people trying to have their kin or neighbors gain employment in that agency in order to facilitate their connections in new ways (Berry 1993). In sum, all of the mechanisms of access we have discussed above are forms of social relations. Understanding the multiplicity of ways that these work is key to understanding the complexities of resource access.

Summary and Conclusion

This article has argued that property relations constitute only one set of mechanisms amongst many by which people gain, control, and

maintain resource access. Our analysis expands beyond the "bundle of rights" notion of property to a "bundle of powers" approach to access and has advocated for locating these "powers" within the social and political-economic contexts that shape people's abilities to benefit from resources. The categories we used to illustrate the kinds of power relations that can affect rights-based mechanisms of access were: access to technology, capital, markets, labor, knowledge, authority, identity, and social relations.

These categories are heuristic; none is distinct or complete. Each form of access may enable, conflict with, or complement other access mechanisms and result in complex social patterns of benefit distribution. Where and how these analytic categories fit together depends on the web of access relations in which each is embedded.

Regardless of how we categorize them, the various mechanisms of resource access form the constitutive strands of bundles of power from which resource benefits are gained over a lifetime of resource production, transformation, and end use. Some actors in these webs of social relations control and maintain access by controlling single strands or bundles of powers. Some actors pool their powers, forming bundles of owners, workers, or beneficiaries acting in concert to assert greater control or to maintain their resource access.

The access framework we have presented here can be used to analyze specific resource conflicts to understand how those conflicts can become the very means by which different actors gain or lose the benefits from tangible and intangible resources. In mapping patterns of resource access from which benefits are derived, we expect to find that those who control some forms of access may cooperate or conflict with others—or do both at different moments or along different dimensions. Those who maintain access through some kind of gatekeeper may also shift between forming alliances and clashing with each other. In using a model such as ours to guide empirically grounded analysis, it is important to concurrently examine the larger contexts of such political economic relations. Policies, markets, technologies, knowledge, and even identities, constitute and are constituted by these broader social forces.

Access analysis can be focused on the policy environments that enable and disable different actors to gain, maintain, or control resource access or the micro-dynamics of who benefits from resources and how. Access analysis puts property in place among the many other mechanisms that shape the distribution of benefits, the landscape of incentives, and the efficiency and equity of resource use. In doing so, it serves as a tool for identifying the larger range of policy mechanisms—beyond property and other forms of rights—that can affect

