# The Rotten Institution: Corruption in Natural Resource Management

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# The rotten institution: corruption in natural resource management

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**Abstract**

Despite widespread evidence of bribery and illegal exchange in natural resource management, corruption is largely unexplored and unincorporated in theorizations and descriptions of the political economy of environment/society interactions. This paper offers the outlines of a theory of natural resource corruption, defining it as a special case of extra-legal resource management institutions, exploring the challenge corruption poses for sustainable use of natural systems, and providing an example of corruption in the case of forest management in India. I argue here that corruption is an institutionalized system of nature/society interaction forged from state authority and molded around local social power through systems of social capital formation. I further suggest that corruption though unsustainable, is not environmentally destructive in a general sense, but that it instead puts selective pressure on some elements of a natural system while bypassing others. The argument addresses not only the character of corruption but also the role of institutions in mediating the relationships between the state and civil society, more generally. 

*Keywords:* Common property resources; Corruption; Rajasthan; India

## Introduction

At the fringes of a deciduous forest, on the edge of a savanna plain, a local landlord sits in the shade of his courtyard, sharing an unlabeled bottle of hard liquor with his neighbor, a lower-level guard from the state forest department. The bottle is finished, and later that evening, some eighty or ninety trees are noisily felled by paid

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workers in the adjacent wildlife sanctuary and carted back to the landlord's farm by tractor to be later sold at a dramatic profit on the regional timber market.

Throughout much of the world, cases like this, where extralegal exchanges allow access to natural resources, are the rules not the exceptions. Whether in the cutting of hardwoods in the Philippines (Kummer, 1992), the disposal of medical waste in New York State (Carter, 1997), the contracting of oil and natural gas in Russia (Maurseth, 1997), or the control of city land use permits throughout the US (Gardiner & Lyman, 1978), corruption is quite often the predominant organized system governing the use of nature. Textbooks on environmental management in both developed and underdeveloped contexts are largely silent on the issue except as an afterthought, treating corruption as an exception to the rule, an annoying anomaly, or as an unfortunate case of statistical noise in an overall pattern (Omara-Ojungu, 1992). In development studies, and especially political ecology, with its interest in the environmental effects of power, corruption sometimes does rise to the surface in accounts of environmental change (Bryant & Bailey, 1997). Even so, there has been no organized attempt to establish a theoretical account of corruption in environment/society interactions.

The reasons for this dearth of direct attention are several and legitimate. Transactions in corruption are, by definition, unrecorded in available databases while the empirical observation of corruption puts the researcher and her/his informants at significant risk. For the researcher, access to a study area might be in jeopardy while the informant risks serious economic penalties and, sometimes, far worse. In the only existing comprehensive geography of corruption, Perry (1997) points out that the problem of informant and interviewer risk makes standard social science practice, including the pre-tested questionnaire and statistical sample, for example, difficult, inapplicable, and often impossible. Still, the rising quantity of case material that mentions corruption, however tangentially, suggests that it is an observable phenomenon, amenable to critical research and scholarship.

In this essay, I offer the outlines of a theory of natural resource corruption. In the first section, I provide an institutional definition of corruption as an alternative to the more traditional, state-centered approach. Corruption is here explored as a system of normalized rules, transformed from legal authority, patterned around existing inequalities, and cemented through cooperation and trust. Second, I review the impact of corruption on the sustainable use of natural systems, concluding that corruption is ecologically unsustainable for reasons that might yet be debated. Finally, in a review of case material from India, I demonstrate that corrupt forms of social capital follow existing lines of casted, classed, and gendered power and reproduce persistent elements of local politics. I also suggest that corruption, like other resource institutions, while ecologically unsustainable, is not environmentally destructive in a general or broad-spectrum sense and creates instead selective landscape effects, acting on certain elements of natural systems while bypassing others.

## An institutional theory of corruption

The term corruption is a normative one that implies the change of a thing from pristine and "good" to rotten and "bad". Its original meaning (from the Latin corruptus), to destroy or decay, could be as easily applied to apples as to officials (Hoad, 1986; Perry, 1997). It has therefore been argued that corruption is largely a meaningless term insofar as it describes any transaction or exchange that is viewed as normatively "bad" by the observer; the term corruption is value-laden and thus analytically weak or simply vacuous (Leys, 1965). Such a summary treatment must be rejected since certain transactions clearly might fit a more specific definition of corruption and further, because *all* analytical categories are value-laden, though nevertheless analytically viable. Nonetheless, this relativist critique of the term "corruption" does reinforce the notion that corruption may indeed be a special case of a more general set of institutions or transactions.

For the purposes of this discussion, corruption in natural resource management is defined as the use or overuse of community (state, village, city, etc.) natural resources with the consent of a state agent by those not legally entitled. It is the extension of existing non-economic relationships (family, "friendship", and other socially obligating relations) to determine access to these use rights through normative systems of expected exchange. But what characterizes these transactions as corrupt and what explains their persistence?

### *Corruption as the weak state*

Advocates of modernization theory grappling with corruption in the "New States" immediately in the post-colonial period saw corruption as a misplaced allegiance to traditional social ties and gift economies. They suggested that "corruption is essentially a sign of conflicting loyalties" reflecting insufficient national loyalty, which should come with modernization (Wertheim, 1956). In the following years of upheaval and reform, post-colonial states themselves sought to define corruption, similarly in terms of a breach of faith in the national project, in order to purge it. Myrdal's (1968) exploration of corruption, following that of the 1964 Santhanaman Committee Report for the Government of India, explained corruption to be burgeoning as a result of both the institutional weaknesses of Asian states and the discretionary nature of administrative structure in post-independence nations. A final wave of interest and theorization of corruption came in the wake of reform initiatives driven by structural adjustment and the demands of international finance for transparency and futurity in transactions (World Bank, 1995). The attention of the World Bank to corruption and "good governance" was less concerned with "loyalty" than the "use of public office for private gains" (Bardhan, 1996) or "sale by government officials of government property for personal gain" (Shleifer & Vishny, 1993; Goudie & Stasavage, 1998). While divided by important ideological differences, all of these accounts emphasize corruption as *absence* of a strong state and the *lack* of order.

This theoretical orientation, born under modernization theory and reproduced in

more recent accounts, is limiting for a number of reasons. First, it provides no theoretical foothold for describing and explaining the phenomenon. Defining corruption as the lack, absence, or vacuum of state authority, analysts are left to explain why certain rules are not enforced or why certain norms do not take hold. Viewed merely as a ghost haunting the margins of weak states, concrete and complex networks of corruption become difficult to study.

Moreover, an explanation of corruption as state weakness tends to reproduce a colonial account of post-independence development in the global South. Corruption here reflects the anemic set of conditions on the "periphery" that halt the march towards an imagined monolithic Euro-American experience. In such an understanding, the complex reality of the place or system "has meaning only insofar as it can be seen to reflect a particular stage in the development of an earlier history" (Mamdani, 1996, p. 11). This pernicious Eurocentrism weakens any theorization of corruption as state deficiency.

### *An institutional alternative*

An alternative account of corruption is available. By examining corruption not as the absence of rules but instead as the presence of alternative norms, the focus of study falls upon the obligations that support networks of corruption and upon the transformation of legal regulation into corrupt forms. Corruption is not the absence of state institutions, but the presence of differing institutions, which vie for legitimacy and trust amongst diverse players within both the state and civil society. Corruption is understood, following Perry (1997), as systematic "networks of deals among individuals", involving "trust, betrayal, deception, subordination of common to specific interests, secrecy, involvement of several parties, mutual benefits (material or pecuniary)" (Alatas, 1990; Perry, 1997).

The language of such a definition most closely resembles that used in institutional theory, where transactions, trust, social capital, and the incentive structures of rules and norms all become paramount in explaining patterns of behavior and environmental outcomes (Commons, 1990; Ostrom, 1990). Such an institutional vocabulary serves to clarify the dynamics of social capital relative to resource use, to elucidate the relationship of de jure state structures to de facto systems of localized practice, and to define the role of trust in binding relationships.

Here, the burgeoning literature on common property systems is instructive. Theorists of common property posit that situated between resource users and the natural systems upon which they rely, rest rules of use, norms for access, and laws for management (Berkes, 1996). Rules determine the seasonality of tree harvesting, the rotation of grazing, or the lease rates on oil. Institutions govern not only the timing and spacing of individual extraction behavior relative to the environment, but further define the relationship between individuals. They order the system of redistribution, establish the social obligation for monitoring, determine the role of enforcers, and set the fate of violators (Ostrom, 1990). The "rules in use" described by common property theorists are, at this level, indistinguishable from those which prevail under corruption. Who is allowed to access a resource, to whom must they apply, at what

rate of exchange and under what conditions, are questions all answered under systems of corrupt management.

These institutions, corrupt or otherwise, are bound together in a set of persisting social relationships commonly referred to as *social capital*, the "relations between persons that facilitate action" (Ostrom, 1992, p. 13, following Coleman, 1988, see also Putnam, 1993). Such relations are persistent in so far as they require energy, effort, investment, or other "transaction costs" to create or transform. In the case of traditional resource management systems, social capital represents the set of expectations and obligations between farmers and herders, for example, who can depend on seasonal grazing to fields in exchange for fertilizer. In the case of corrupt resource management, social capital represents the stable relationship of lower-level officials to local producers, for example, who exchange predictable quantities of forest products in exchange for kickbacks. The relationship is not solely economic, since it depends also on social expectations that rules will be enforced in particular ways and that no one will inform to higher authorities. So too, it is not solely a local or "traditional" phenomenon, formed as it is from both state rules and local norms.

Institutional theory here provides a second element for understanding corruption, an explanation of the relationship between state-sponsored laws and informal rule systems. For institutionalists, de jure laws and de facto rules do not exist in isolation from one another. Instead, the formally constituted national and regional rules are understood to merge with informal and local systems to create the actual "operational" rules of use (Ostrom, 1990). Applying this to corruption, we see that corrupt systems do not simply represent the abandonment of state authority in favor of local enforcement and contingent norms. Rather, the de facto rules that govern corrupt exchanges are forged out of the raw materials and social resources supplied by de jure rules, adapted and curved around the contours of local power. Though unequal social power is certainly pre-colonial in Africa, for example, it is the advent of colonial era state-managed offices, now deployed along local lines of authority, which formed the conditions of corruption in the post-colonial state (De Sardan, 1999). But, in moving from de jure to de facto institutions, following Weber, there is a simultaneous move from coercion as the mode of power that cements relations, to "legitimate convention", cooperation, and *trust* (Weber, 1978, pp. 33–34). These phenomena also have specific institutional meanings.

Cooperation is understood here (following Gambetta, 1988, after Binmore & Dasgupta, 1986), as "agents, such as individuals, firms, and governments, agreeing on any set of rules—a "contract"—which… need not be written but can be established as a result of habit, prior successful experience, trial and error, and so on". Cooperation is founded on trust, "the subjective probability" that an agent attributes to the chance that another agent will keep their end of a contract. That probability increases through ongoing mutual reinforcement but is also higher for agents who have prior social and political ties to one another. Both cooperation and trust are thus fundamental to the operation of social capital and are both prerequisite to corruption. In a corrupt system, where agents exchange materials and obligations outside of the state system, legal techniques of monitoring and enforcement are rendered impotent. Officials and illicit resource users must establish trust that contracts will

be honored and that no one will invoke legal restrictions. This trust, either amongst officials or between officials and those who would bribe them, must pass a subjective threshold for mutual action to occur — some point at which both players see a high enough probability of cooperation to act. The state of corruption is achieved when the opportunity for profitable extra-legal exchange presents itself and the threshold of trust in a non-legal exchange relationship is passed. This threshold will be passed sooner and with more stable and predictable effects where existing relationships of power are already strong.

Corrupt institutional arrangements for resource management, organized in de facto rule systems and based on structures of trust, in this way mirror other forms of successful, non-corrupt, traditional resource management systems, which are so often vaunted by observers of traditional societies. Corruption, as defined institutionally, shares a great deal with tree tenure in East Africa, sacred pasture in India, or rubber-tapping in Brazil. Advocates of legal pluralism have made Herculean efforts, however, to see to it that locally legitimate systems of extraction and exchange like these are *not* labeled corruption by a state that misunderstands them (Llosa, 1989; Ostrom, 1990; Hanna, Folke & Maler, 1996). When local people harvest tree fodder in a sustainable way by enforcing restrictions that do not exist in Forest Department codes, for example, they defy de jure rules in favor of more sustainable and equitable de facto relations. This would not, and should not be, considered corruption. What distinguishes corruption then? It is the *equity* of this common property arrangement (as well as its *sustainability*, as we shall see) that separates it. The important difference is that such extralegal and informal institutions are enforced for the benefit of the community at large, rather than that of a social and economic elite minority. Corruption is the bending of explicitly equitable state institutions around structures of regional and local social capital to create unequal distributive outcomes. Corruption may mirror other "extra-legal" systems of institutionalized control and exchange, but its structured inequity sets it apart.

In summary, we here understand corruption to be a special case of resource management institutions (Fig. 1). Where existing or emergent patterns of social power are strong, idealized state legal institutions for resource management are adapted into binding relationships whose de facto rules differ from those outlined in de jure obligations. These state-defined common property rules, founded on principles of equity, are fashioned into inequitable de facto rules, cemented in local social capital and trust. Corruption is common property management gone bad.

### *Four characteristics of corrupt institutions*

With this understanding of corruption, we can further suggest four institutional tendencies that build the foundations of predictable patterns for corruption in natural resource management.

First, corruption is not the absence of state activity in the management of natural resources, but is instead a *result* of state-apparatus building (De Sardan, 1999). New techniques of authority and systems of responsibility for nature are introduced by the state into extant relationships to create the conditions of corruption. Village kin

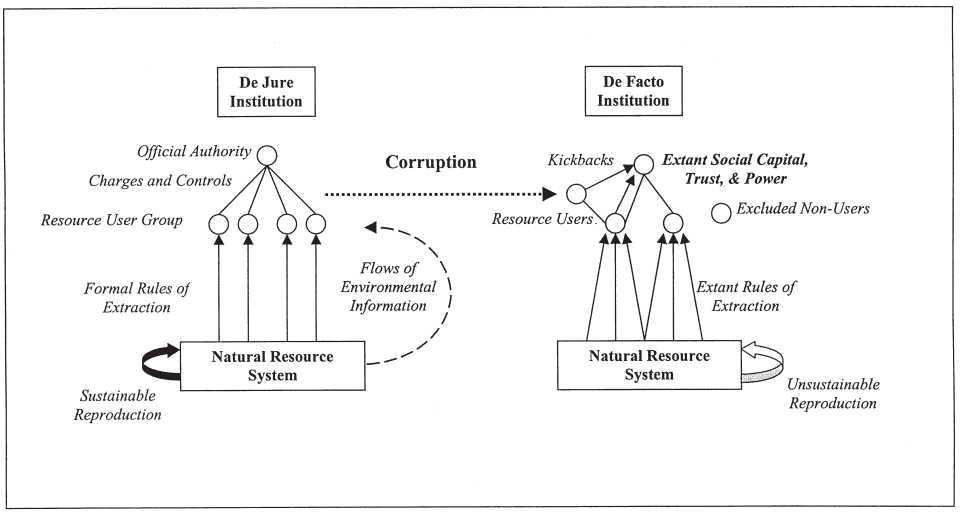


Fig. 1. Natural resource corruption as a function of social institutions and normative power.

systems may determine the redistribution of certain traditional goods, for example, but only after the state has introduced a bureaucracy of guards and rangers do these relationships extend into the management of a vast forest. By ordering institutional controls over nature, the state can create the conditions of corruption.

Second, we can predict that institutions of natural resource corruption will be most common in configurations where officials have monopoly over environmental goods or the control of externalities (Goudie & Stasavage, 1998; Ostrom, Schroeder & Wynne, 1993). If relatively few officers control a bulk of forestland or have exclusive rights to issue waste dumping permits, we might predict preferential licensing and bribe demands. By institutionally controlling entrance to the extra-legal market, corruption perpetuates itself.

Third, systems of corruption, like other common property institutions, can be predicted to be most stable where there is frequent monitoring between participants and where breaches of trust and cooperation would be noticed (Ostrom, 1990). If an official becomes known for keeping bribe money and not returning pilfered forest products or dumping permits, thereby violating the terms of trust built into the institution, his business would drop off or the system would break down more generally. Where scrupulous participants act in defiance of the corrupt system, on the other hand, they might be excluded or punished.

Fourth, corrupt institutions, seen from *within* their social and cultural context, may not appear as corruption per se, but may instead be seen as legitimate resource management institutions (De Sardan, 1999). This is because institutional configurations shape the expectations of their participants, naturalizing particular ways of thinking (Douglas, 1986). The establishment of a "culture" of corruption prevents conflicts with conflicting ethics or rationalities.

But what is particularly pernicious about corruption? Its most notable "flaw" is

its grievous inequity, reinforcing as it does, the power schisms that already plague access to natural resources while extending them into common goods legally established to be shared by all. It is further possible to argue that corruption is ecologically unsustainable under any conditions and so earns a special place in ecological, institutional, and development theory.

## Corruption and sustainability

That corruption leads to ecologically unsustainable resource use is a widely accepted notion. In my own conversations with foresters, herders, and farmers in rural India, all concluded that ongoing corruption would lead to a destruction of forests. Whether rich or poor, men or women, this conclusion was uniform, even amongst those who actively participated in the corrupt system. But when asked to explain why that would be so, people reached different conclusions. Some maintained that corruption made resources, like reserved forest products, too easy to access, and so encouraged overuse. Others argued that corruption made it impossible to control the rapaciousness of the elite, who were interested in use of the forest to the exclusion of group needs, and disinterested in the maintenance of the resource base. Curiously these two differing accounts of corruption mirror the theoretical terrain of sustainability seen in academic literature. Both Marxian and neo-classical accounts of natural resource economics lead to the conclusion that corruption is unsustainable, but for very different reasons.

### *Free markets, corruption, and environment*

The conclusion that corruption is environmentally unsustainable can be reached through the use of neo-classical economic theory. Corruption's flaw, from this perspective, is that the closed, extra-legal market for resources in corruption does not set prices in accordance to the wider market, instead, setting differential prices based on non-economic affiliations between exchangers. Creating monopolies and non-attenuated property rights, corruption creates the conditions for market failure (Randall, 1983). This complaint is long-standing; both during colonial rule and more recently in the era of the World Trade Organization, there has been a sustained interest in smoothing the path for foreign investment through the reform of differential pricing, access, and property rights (Shleifer, 1994; Galanter, 1997). The frustration of investors and states with corruption centers on the way the participants are gathered into small and exclusionary markets (Rose-Ackerman, 1997).

Further, by creating these monopolies and perverse incentives, corruption is environmentally unsustainable. Because the seller of use rights to public goods in these reduced markets, generally a local official, is not its owner, they stand to lose no value in the exchange, and accrue no benefit from preserving the natural capital asset. As a result, they tend to undervalue the product and disregard its scarcity in setting prices. Corrupt officials charge less than the value of sold timber, for example, and pay little attention to the degradation of the resource or the need to replant.

The property right is not sufficiently individuated to create correct incentives for environmental protection, short-term speculation and sales prevail over sustained yields (Rees, 1990). This assumes, of course, that the configuration of property rights are most efficient and environmentally sound when they are individuated and that an evaluation of the impact of institutions should be based on efficiency and not equity.

*Surplus value, corruption, and environment*

Marxian approaches to natural resource management obviously depart from these assumptions. A Marxian political ecology approach to corruption, however, must also conclude that corrupt institutions lead to unsustainable use. Such extralegal institutions were known to Marx who, describing the "primitive accumulation" for example, is explicit that communal property was "fraudulently appropriated" and accumulated "without the slightest observation of legal etiquette", even if legal private property rights were established for these resources after the fact (Marx, 1967, pp. 723–724). Further, by accumulating the forces of production, originally a public good, ecological Marxists conclude that the public is dispossessed and that nature is capitalized such that long-term conservation, conceivable under communal production, is rendered impossible. Individuated for accumulation, these goods from nature must be degraded in the pursuit of surplus (O'Conner, 1994). Corruption then, is capital accumulation by other means, an illegal extension of capital's control of nature through the state, and a recipe for resource degradation.

Both neo-classical or Marxian views of corruption and sustainability pass logical internal tests but the differences portend deep divisions in what constitutes legitimate control over nature. For those who view corruption from the point of view of critical economy, it is the individuation of group tenure that allows and reinforces overextraction and overproduction. For those adhering to a neo-classical economic vision of resource use, the problem is not that corruption individuates group tenure. Rather, it is simply that it does so at the *wrong price*, devaluing scarce resources, which allows over-exploitation. The resulting policy reforms for natural resource management differ equally dramatically. From a neo-classical economic perspective, the solution to corruption is the increased individuation of property rights to natural resources, whether those are water, timber, or wild animals (Copeland, 1990). For Marxists, it is this very privatization of those resources that is ecologically problematic (O'Conner, 1996). Both of these views adhere to a largely instrumental view of nature, it should be pointed out, and similarly, both views understand ecology to be self-evidently about economic relations.

*Institutional ecology and corruption*

Examined from an institutional perspective and through an inquiry into the relationship between social capital and natural capital, corruption also appears unsustainable but again for differing reasons. The form of the institution lends itself to sustained practices or to over-exploitation. We can predict that sustainable resource use will be facilitated by institutional configurations that respond to changes in the

state of the resource, that are flexible, and that are built from diverse practices and capable of self-renewal, mimicking the conditions of ecosystem resilience (Holling, 1986; Berkes, 1996). If natural capital degrades, fish stocks fail to reproduce or soil becomes less productive for example, institutions that facilitate the communication of information between resource users can respond to change. If certain extraction techniques, fine-mesh fish netting or clear-cutting for example, appear to lead to over-harvesting, the rules must allow a change of strategy or use.

In terms of these characteristics of sustainable institutions, corrupt resource management is weak on all counts. Because of the inordinate influence of social elites and the exclusion of some knowledgeable resource users in corrupt exchange, the flow of information from the resource base, through the user group and into the institutional form is constricted or broken. The absence of any form of collective choice arrangements advocated by institutional scholars, moreover, forces the structure of rules under corruption to be generally inflexible (Ostrom, 1992Ostrom et al., 1993). Feedback information about ecosystem response is thereby impaired, flexibility is minimized, and change is made largely impossible. It is thus the very inequity of the institution under corruption, which hinders flexibility and information flow and disables ecological sustainability.

Thus, whether viewed as a special form of resource management institution, as a form of market exchange, or as a technique of surplus value extraction, corruption is clearly unsustainable. As suggested in Fig. 1, then, de jure rule systems for sustainable management of the environment, written with however much care for sustainable extraction of renewable resources, become unsustainable through the loss of information flows and collective controls in the transformation to corruption. A more difficult question is suggested by such a conclusion, however. If by all accounts corruption is unsustainable, how is it specifically produced and reproduced and to what specific ecological effect. The following account of a corrupt resource management institution in India is offered as a first step in answering those questions and illustrating an institutional approach to corruption.

## An institutional ecology of corruption in India

Using the case of an Indian wildlife sanctuary and its adjacent community, I will illuminate the generalized institutional model of corruption proposed above. This example underlines that corruption is established within existing social regimes, not outside of them, and that while unsustainable, corruption creates particular landscapes through incentives and actions on the ground (Robbins, 1998).

### *De jure management at Latwara*

For reasons of informant anonymity, the location of the research site and names of informants are withheld here. The data used come from a set of villages around an Indian town in the state of Rajasthan, here called Latwara, adjacent to a state wildlife sanctuary, managed by the Forest Department. The information reflects 162

interviews with producers and foresters over several months during 1998 and several longer oral histories of bribery, especially with older producers and retired foresters.

Though the forest is set aside for the preservation of wild fauna, including and especially wolf, panther, and sloth bear, the Rajasthan Forest Act stipulates that the extant use rights of local people, established at the time of reservation in 1955, are maintained. Local producers have rights to collect fallen dry wood, fodder leaves, grasses, fruits, and other Minor Forest Products. "Traditional forest users" hold these rights, according to the law, but they are extended, in practice, to anyone living in and around the reserve. These users are entitled to limited quantities of these products in exchange for a nominal fee, usually on the order of a fraction of a rupee per headload of materials. The extraction rules bar the cutting of green trees and the poaching of game. Together, these constitute the relatively equitable institutional arrangements of the de jure resource management system.

The forest users represent a variety of caste groups from around the area, across a range of class strata from elite landholding castes through middle-caste communities of farmers and herders, to scheduled caste groups and communities of landless laborers and forest dwelling *Adivasi* tribals.

Enforcement of the rules falls upon the fifty Forest Department officers including the Warden of the reserve, four Range Officers, nine Foresters, and a varying complement of around thirty-five Assistant Foresters and "Cattle Guards". These officials patrol an area of more than 500 square kilometers, subdivided into ten ranges of around forty square kilometers each. Their job is to enforce the rules against cutting and poaching and to facilitate plantation of enclosed nurseries. They are also given the job of monitoring the forest and transmitting information about the condition and status of the ecology back to the Forest Department in order to create and adapt management policies. These officials are drawn primarily from the surrounding community and are almost always members of elite rajput families. This caste, traditionally landowners, warriors, and administrators by trade, have come to occupy important positions in government, policing, and forestry in the post-independence period. Lower-level Cattle Guards come from a wider mix of caste backgrounds. This pattern of understaffing and forester background is typical of wildlife preservation systems elsewhere in India (Sekhar, 1998).

### *De jure law becomes de facto corruption*

The de jure institution described above has, over the period since independence, been transformed into a set of stabilized extra-legal exchange rules, rooted in local systems of power. Specifically at Latwara, corruption takes the form of people paying for materials to which they are not entitled by law. These materials most often include green timber and hunted game but often also include other minor forest products extracted in quantities beyond the maximum quota per household established by law. People arrange weekly or monthly extraction of key resources by paying a lower-level forest officer, typically a Forester or Cattle Guard. Most transactions are arranged in advance and locals report that the price of the commodity depends on which forester is on duty at the guard station (choki). If a local producer

extracts materials from the forest without such an arrangement, they are liable to a fine and the normal enforcement of the rules. The fine is itself a flexible and discretionary charge, often decided on the spot by the officer. The prices for forest products are uniformly higher than the official rates set in Forest Department policy (Table 1). By paying these rates, however, producers gain access to larger or unlimited quantities than would otherwise be legal. Moreover, some products, specifically whole green trees, are unavailable except through bribery. This timber earns significant mark-up in nearby towns and is the foundation of a widespread illegal wood economy. The fate of bribe money paid for extraction of these products could not be traced during the period of study but it is widely believed that money collected for illegal forest use is divided into shares that travel upwards in the Forest Department bureaucracy.

The structure of the bureaucracy accounts for much of the perpetuation of corruption. The common class and caste backgrounds of both foresters and the local elites in the wood trade establish strong bonds of trust for extra-legal exchange. The bureaucratic pattern of advancement and pay, tends also to encourage corruption since lower-level Forest Department functionaries are promoted through seniority in a state-wide pool, not just in Latwara. The wait for promotion, therefore, is on the order of ten to twenty years and the incentive to take profits "off-the-top" through bribes is far higher for those with little hope of promotion.

Other incentives enforce bribery as well. If a forester is especially scrupulous and chooses to break the cooperative bonds of the institution by not complying with powerful villagers who expect access to forest products, it is likely that pressure for his transfer will follow. Nor do such practices always appear to these agents as "corruption," per se. By institutionalizing the norms of discretionary rights laid out along lines of local obligation, the system appears to its practitioners more like a legitimate protocol for the use of the forest. This system of expectations amongst a largely homogenous community of foresters also perpetuates a "culture" of corruption, reinforcing a sense of inevitability.

These institutional characteristics of corruption at Latwara follow those predicted previously. Corruption in Latwara is a result of state-apparatus building. It is perpetu-

Table 1
Official and de facto forest product prices

| Product/right | Official charge/right | Lowest reported | Highest reported |
|---|---|---|---|
| Drywood collection | 3.5 Rp/cart (2 carts/year) | 10 Rp/cart | 200 Rp/cart |
| Tree coppice | Allowed to shake tree | 100 Rp/month | 150 Rp/month |
| Palas (*Butea monosperma*) | 0.1 Rp/headload (2/month) | 25 Rp/month | 40 Rp/month |
| Grass collection | 0.1 Rp/headload | 2 Rp/headload | 5 Rp/headload |
| Pharangni (*Grwwia flavescens*) | 5 Rp/headload | 10 Rp/headload | 50 Rp/headload |
| Herding cattle | 1 Rp/animal/year | 10 Rp/animal/year | 30 Rp/animal/year |
| Herding buffalo | 0.5 Rp/animal/year | 8 Rp/animal/year | 45 Rp/animal/year |
| Herding sheep | 0.25 Rp/animal/year | 5 Rp/animal/year | 24 Rp/animal/year |
| Herding goat | 0.75 Rp/ | 8 Rp/animal/year | 24 Rp/animal/year |

ated by official monopolies. Frequent monitoring between participants stabilizes the system, which may not appear as unethical to participants who collude in a culture of corruption.

*The social ecology of cooperation and trust in corruption*

But corruption at Latwara is not simply driven by the internal bureaucratic workings of the Forest Department. Rather, it is linked to village-level social and political economies. Although corruption is a set of economic exchanges, the pricing of and access to forest products is not determined solely by highest bidding and instead depends on the social relationship of the local individual to the forester. Graft does not create simple, highest bidder access to commodities; minor forest products are priced socially. As primary evidence for the social nature of pricing under corruption, note the variations in payment for forest commodities obtained through extra-legal transactions, summarized in Table 1. The best prices for these standard commodities are reported to go to those people who have the "closest" relationship to the forester and cattle guard. These are usually described as "friends of the forester". Individuals in positions of general social and political influence and those in the extended family of the official obtain such "closeness" through pre-existing conditions of trust. In this regard it is significant that eight out of nine of the foresters are members of the rajput caste community.

For non-family and non-village elites, higher prices are reported. Increased cooperation with foresters and guards acts to increase mutual trust and to decrease commodity prices over time, however, and is reinforced in three ways. First, a local producer may periodically overpay for commodities and legal transactions, smoothing the relationship with the official to depress future prices and gain access to illegal products as "valued customers". Second, producers typically throw "parties" for foresters, where guards are invited to share food, meat, and liquor. Guards, especially new personnel or transfers from other assignments, are usually received at a new post with several such parties. Additionally, large bribes paid at one time for a big purchase, especially a cartload of trees, establishes a strong and immediate relationship with the forester. In this way, the relationship between the producer and the forester fixes the price for forest products outside of a simple market, based on trust and a long-term demonstration that the producer is a willing and regular participant in the institutional economy.

By establishing basic trust, a villager establishes a minimal arrangement of cooperation and can avoid strict and overzealous enforcement and scrutiny in resource use. This eases daily extraction, small tree pilfering, herding, and collecting. Small holders or the keepers of a handful of animals must minimally establish this level of trust to meet the requirements of household reproduction. Higher-level trust allows discounted rates for trees and other forest products, as well as access to enclosed plantation areas within the forest. This requires several well-placed bribes. Moreover, as predicted in institutional theory, the bond of social capital through trust must be maintained and stabilized through continuous feasting and ongoing social interaction. Because this level of trust is both pre-existing between powerful caste

groups in the village or at least requires high levels of ongoing resource commitment, it is typical of large landholders, politically powerful locals, and those involved in the regional wood trade.

Not everyone is equally well positioned to access this market. As one local farmer put it, who was himself known for keeping good relations with foresters, "it is easy for a big man to get trees, for everyone else the forest is closed". Lower caste groups, for example, are still underrepresented in the forest department bureaucracy and so receive less immediate access. The relationship between these groups and the more elite communities that make up a bulk of the bureaucracy is not ready-made and can only established over time. The system of bribery also has expensive "entrance fees" in the form of preliminary bribes that exclude many poorer households. Moreover, women are not in a social position to establish "closeness" to the forester through the highly masculine practices of parties or drinking. This does not mean that corruption does not occur amongst women or the poor or that these groups are not involved in the system of graft; they are. Rather, the point is that women and the poor more often reported bad relationships with foresters and often chose the tactics of evasion and shame in dealing with foresters rather than cooperation and trust.

Women, especially older ones from marginal communities of leather-workers and flower-growers, describe deliberate tactics for defying forest department enforcement and several declared with pride that they have never paid a single rupee to a forester. When caught in the act and "fined" for harvesting of forest products, women report using social tactics like shame ("you will only take this money to buy liquor and get drunk!") to evade excessive fining or punishment. As seen elsewhere in the Indian context, the gendered moral authority of women producers in part configures their positions relative to the bribery economy (Gururani, 1999).

Significantly, in bad rainfall years, foresters are especially lackadaisical in their enforcement of cutting and collecting restrictions. They use the discretionary authority of the corrupt system to ease the burden of villagers during these bad years. This reflects the highly local nature of graft and its informal elements, and shows that foresters, despite their official power, remain embedded in local cultural expectations.

In sum, the social ecology of bribery in resource access in Latwara reflects the institutional characteristics of corruption (Fig. 2). Corruption molds the equitable de jure systems of authority in the Rajasthan Forest Act around local systems of trust, power, and social capital, skewed inequitably in favor of traditional caste elites and men. Corruption is institutionalized in the reproduction of "social capital" between foresters and local producers whereby those inside the social and political circle of the official pay less for forest products than those outside and where traditional obligations are levered to alter the rules of use, pricing, and extraction.

### *Sustainability and corruption's specific ecology*

Accounts of forest "thinning" as a result of tree-cutting are universal in the area, with foresters, farmers, herders, and laborers all agreeing that tree-harvests are taking a toll on the reserve's regenerative capability. All also agree, however, that the sytem

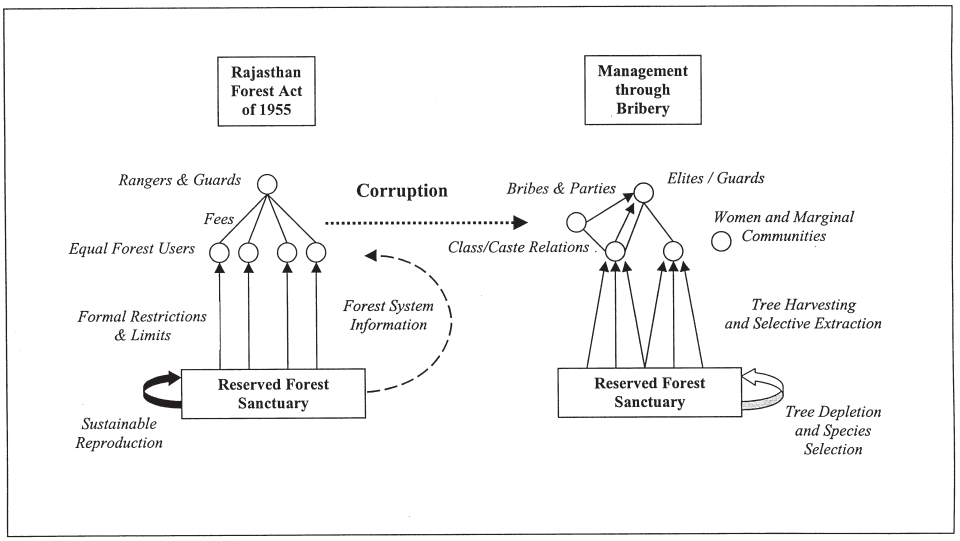


Fig. 2. Natural resource corruption at Latwara.

of bribes and nightly harvests can not be significantly altered to face this changing reality. In a direct way, this reflects the inflexibility and feedback breakdown characteristic of corrupt institutions that render them unsustainable. If the system is generally ecologically unsustainable, however, the environmental effects of the existing rules are specific. Any institution for resource management has specific and measurable effects on the natural system it governs and the specific rules of corruption shape the biotic system in particular ways (Robbins, 1998). Corruption does not act on the local ecology in a generalized pattern, destroying all species equally or at the same rate. Instead, certain species are targeted while others are not. Three brief examples of selective extraction pressure on tree species, animal populations, and tree coppice, demonstrate the specific ecological effects of corruption.

In the first case, tree species in the Latwara reserve are not uniformly available to the community. Because of bureaucratic pressure to protect some important indigenous trees, they are more aggressively defended. *Acacia catechu* (Khair), in particular, is uniformly reported to be unavailable, even for those who pay regular bribes. The tree suffered serious decline in the period before the Reserve was established in 1985 and, as a result, receives attention from upper-level bureaucrats who oversee the Reserve's management. Other equally rare trees, however, receive no such protection. *Sterculia urens* (Karaya) and *Anogeissus pendula* (Dhav), for example, are both rare and vanishing species that make up an important part of the wood economy and continue to be available for the price of a bribe. Such arrangements suggest the merging of de facto and de jure rules in the constitution of the actual corrupt management institution. It is difficult to determine whether this selective pressure can be documented at the landscape scale, but locals and foresters agree that these latter two species are in a state of serious decline.

In a second example, the enforcement of rules against hunting is also species-specific. The Latwara reserve, like other contemporary wildlife sanctuaries in India, was the hunting reserve for the local maharaja during colonial and pre-colonial times (Gold, 1997; Haynes, 1998). Throughout that period, hunting by locals was forbidden. Post-colonial forest management follows from this tradition, restricting all hunting, even that of previous royal owners who were allowed an exception as part of their Privy Purse until the 1970s. This protection for forest animals is explicitly extended to wild game that might invade a farmer's fields at night, trampling corn and devouring alfalfa. Prominent signs around the area warn that "You Will Go to Jail!" for hunting nuisance species like nilgai (the Indian "blue bull") or jungli sewer (wild pig).

Corruption of the hunting ban is difficult to track, but it is well known and reported in the area that night-hunting is conducted by foresters who lead groups of hunters into the reserve for a steep price. But the diverse faunal population (including leopard, hyena, wolves, and jackals) is not hunted en masse. Rather, the hunt is restricted to the wild boar population. This is largely because both the hunters and the foresters who lead them are members of the rajput caste whose elite tradition of hunting wild game is restricted to species they might eat, including and especially the wild boar. Other numerous species, like the Langur monkey, and nuisance species, like the blue bull, are excluded from this tradition. This reflects the fact that, as noted previously, the institution of corruption overlays an existing set of social and cultural norms. The reported populations of these species in 1994–1995 show fewer boars than blue bull (714 of the former to 1051 of the latter). Such a proportion is the reverse of expectations for the relative size and niches for these two herbivores. A full long-term accounting of animal populations is required to demonstrate this effect further but corruption does again suggest a specific ecology.

In a third case, the kind and character of cutting in the reserve also reflects the specific pressure of the rules under corruption. Foresters aggressively police tree coppicing—the cutting of tree limbs for animal leaf-fodder—even while they take money to allow tree cutting. Tree coppicing is illegal in the forest, though some does occur. The reported bribe price for coppice (dali) is also quite steep. Further, the full coppicing of a single tree is rarely allowed, even in cases of bribery. The only recorded case of violence in rule-enforcement, in fact, is related to tree fodder collection; a forester was slain by unidentified users in 1991. The death is generally blamed on two herders who were confronted while collecting leaf fodder. Full-scale tree cutting in the forest, on the other hand, is not uncommon. As noted above, large numbers of trees are often felled at once following a bribe. Different kinds of cutting follow from specific rules of use in corruption.

The results of this differential enforcement are difficult to measure, though some impressionistic evidence is instructive. When surveying the reserve, for example, it is more likely that you will come across a tree-stump than a tree that has been fully denuded of leaves. When surveying the village, on the other hand, the reverse is more likely; full-trees are rarely cut but almost all trees are entirely coppiced during the winter and summer seasons. What such selective constraints mean for the reproduction of tree species and the fauna that might depend on canopy cover is unclear.

Still, the enforcement of some rules and not others directs the pressures of forest use and evidence suggests that corruption is not a force for degradation in a general way but that it shapes the forest through specific effects. As a hybrid form of rules, corruption is an institution with specific and measurable effects, even while unsustainable overall.

## Conclusion: surrendering rights for gifts

I have demonstrated here that corruption is an institution, not the absence of one. In Latwara, as elsewhere in the world, corruption represents the transformation of equitable rules of resource management into inequitable ones through the establishment and reproduction of persistent institutions along strong networks of cooperation between elites and officials. Authority over resources is established through formal law but the structure of obligations is reformed along axes of classed, casted, and gendered social power. In the process, specific ecologies are carved into the landscape through rules created in extralegal exchange.

A pervasive and normatively disturbing feature of the institutional regime at Latwara, however, which continues to elude explanation, is the willing participation of the majority of the most marginal households. With the exception of the handful of stubborn producers who dodge authorities and resist cooperation with forest guards, most of even the poorest households in Latwara participate in corrupt transactions. Ultimately, they do so to their own detriment by paying more for resources than they legally have to. The minimum charges for grazing animals and collecting important Minor Forest Products under corruption are far higher than those laid down by law. Further, the high level of tree extraction carried on under corruption by local elites allows degradation of forest resources upon which the poor are highly dependent. Corruption punishes the poor even as they participate.

Rather than organize, complain, or otherwise resist the process of overcharging and unjust distribution of rights, the poor are complicit. This lack of resistance is clearly a result of the coercive pressure and normative social power exerted by caste and class elites who make up the bulk of participants in the system. So too, a sense of fatalism about corruption and other unjust resource distribution systems is often in evidence in households. Ultimately, however, the poor are rendered unable to resist because they are themselves complicit in corrupt exchanges. Because they are given minor concessions to things for which they have no legal rights, they surrender the ability to complain about legal rights that they are denied. By coopting the poor, then, corruption is structurally perpetuated.

This is the fundamental lesson of corrupt institutions. Corruption persists because it is rooted firmly in existing institutions suffused with patriarchy, class privilege, and caste power that locally hold sway in the social whole. Indeed corruption is the logical extension of those systems of power, extending them into the control of nature. Corruption is the vehicle through which local political economy becomes implicated in state power, making relatively equitable de jure rules, like those of the Rajasthan Forest Act, moot and therefore providing space for state agents and local

elites to govern nature/society interactions despite rules to the contrary. To do so, the system of corruption cannot simply provide for the needs of the elite. The poor must themselves participate in corruption and be given small favors that make resistance to unfair access impossible. Ultimately then, corruption is an institutional system in which *rights are dissolved in exchange for gifts* and reflects more generally a state ideology of favors and privileges and a slide towards the criminalization of the daily life of the poor (Scheper-Hughes, 1992).

These conclusions suggest more general practical implications for intervening in situations of prevailing corruption and broader theoretical ramifications for understanding the relationships between state, civil society, and nature. At the practical level, the Latwara case points towards the limits of reform efforts for halting corruption. Interventions against corruption in India have traditionally taken the form of reform laws that create systems of "oversight", where a layer of authority, or a watchman, is empowered to oversee transactions. A higher-level Forest Department official, for example, might be deputized to oversee the actions of corrupt foresters. Such reform efforts are predicated on a traditional conception of corruption, which posits that lack of legitimate state power creates corruption. But since corruption, as shown here, is the bending and remaking of state authority around existing social power, such efforts are fruitless and actually may serve to *increase* corruption by creating new groups of overseeing officials who must themselves be bribed (De Sardan, 1999).

Reform, the Latwara case suggests, must be centered instead on the skewed patterns of social capital that pre-exist the state resource management system; localized power requires localized institutional reconfiguration. Village community committee oversight of forest department actions, intentionally balanced across the class, gender, and caste differences of the community, has a better chance of increasing the accountability of foresters than the addition of another layer of state control. Such decision and control structures also increase the management information flows advocated by institutional theorists of sustainability. An institutional understanding of corruption plants the seeds of realistic reform.

An institutional approach also holds implications for understanding the social character of the state more generally. The porous nature of state rules in local practice at the Latwara reserve shows that civil society and the state are interwoven. Corruption represents the penetration of non-state relations of power into the state and vice-versa such that, as Foucault observes, "the state can only operate on the basis of other, already existing power relations" (Foucault, 1980). The efficacy of both state and local actions is rooted therefore, in the geometry of institutional arrangements. The method utilized here, which traces a rudimentary map of local power networks, could be used to explore the relationship between state institutions and local knowledge, management, and practice more generally (Agrawal, 1999; Bebbington, 1993; Robbins 1998, 2000).

Finally, the larger political and geographic implications of such a system require further consideration. Do industrial cases of extra-legal resource exchange differ significantly from those rural and subsistence-based systems described here? Can localized resource management aimed at institutional reform and equity curb corrup-

tion under conditions of significant imbalances in social power? What regional characteristics contribute to variations in the form of corrupt institutional configurations? To answer these questions, corruption, a common part of management of nature around the world, must no longer be treated as merely the absence of strong laws. The geography of de facto resource management rules demands mapping in order to define the contours and characteristics of the rotten institution.

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