

PANCHAYATI RAJ: PROBLEMS AND POTENTIAL FOR RURAL ENVIRONMENTAL GOVERNANCE

Consider the routine of a rural peasant woman in Uttarkhand, a Himalayan state in northern India. She spends hours each day fulfilling her primary domestic responsibility: collecting fuel and fodder from the forest, climbing trees to lop strong branches for her hearth. It's grueling work; more than a few mothers and wives have been hobbled by falling from a high limb or simply the chronic strain. If she is venturing into so-called reserved forests, which are the exclusive property of the state, she must operate clandestinely, on the lookout for forest authorities. If caught, her sickle may be confiscated, so she usually carries two, keeping the good tool hidden in the folds of her sari so she can offer up the rusty implement. Or she may simply be forced to pay a bribe. Whatever she can harvest she must lug home to cook meals, heat a home, and feed livestock. She stands at the frontline of subsistence, beholden to rules and schemes for controlling this forest that are created by state officials. She has little or no say in how these basic necessities are managed and used (Gururani 2000).

Because this is strictly state-owned forest, cutting a single branch is decidedly illegal. At some times of the year, however, she has a second option: the community preserve. Here, her household (typically, her husband) votes on how to manage a smaller tract of land. She still must labor, but her family can legally benefit. This form of decentralization of resource control to the community in India is occasionally heralded as the answer, if also the exception, to a larger, more common problem. Too often, the voices of rural people who are most dependent on basic natural resources are left out of the design and implementation of environmental governance; simply put, opportunities for public participation in decision-making are limited or non-existent (Foti and Lalanath 2010).

Decentralization of environmental governance, the oft-proposed solution to this quandary, can be seen in various forms across India. This paper examines India's constitutional if still nascent effort at rural decentralization, the *panchayati raj* elected councils, in the context of environment governance,

including both resource management and general preservation and protection. What role do they play, if any, in environmental governance? How might they be further strengthened?

DECENTRALIZATION DEFINED

First, an understanding of what is meant by decentralization will be helpful. Ribot (2002a) lays out a cogent description of democratic decentralization as the transfer or devolution of powers to bodies that are locally representative and downwardly accountable. This “best practice” form of decentralization depends on powers that are legitimate, secure and not simply privileges bestowed from above and subject to revocation. Yet decentralization varies in its strength across states, regions and countries. Incomplete decentralization — seen in many efforts around the world — might involve the temporary handoff of powers, the handoff of weak or insignificant powers or the handoff of powers to less than representative organizations. Much literature distinguishes three types of decentralization: political, where legislative powers are transferred to a council; administrative, where powers are transferred to local civil servants of higher administrations who are at least nominally accountable to a local body; and fiscal, where the specific powers of raising and spending revenue are transferred to the local council (Manor 1999 and Johnson 2001 among many others). An important distinction, relevant to the Indian context, is between administrative decentralization and deconcentration. The latter involves the assignment or delegation of powers to local administrators or officials, whose performance is evaluated by government superiors and who are upwardly accountable to higher rungs of government. In this case, local administrators may have no significant obligation to respond to the demands of local government; transfer of powers locally, then, is a mere extension of central authority.

However, Agrawal and Ribot (1999) suggest that decentralization can be analyzed along lines other than the typical political, administrative, and fiscal categories. They suggest looking instead at *actors* (to whom is power is transferred?), *powers* (what powers are given and in what domain are they exercised?) and *accountability* (to whom and how are the actors accountable?). This method recognizes that, typically, features of all three types of decentralization are necessary to make decentralization meaningful. For example, a local government body might have the ability to make its own laws, but can't

raise funds to spend on enforcement. Or perhaps it can raise funds but has no authority to spend as it sees fit. Perhaps power and finances are bestowed with no accountability.

In India specifically, decentralization is frequently discussed using a slightly different metric. Former Indian Minister of Panchayati Raj Mani Shankar Aiyar (2008, 2009 among other publications) writes that central and state governments must devolve functions, finances/funds and functionaries to local, democratic institutions. The World Bank (2008) explains: Functions involve clear, secure and discretionary powers; in other words, the ability to make decisions concerning local affairs, regulations and programs. Functions must come with the finances to actually implement plans and enforce rules. Finally, local governments need control over appropriate posts — technocrats, bureaucrats, engineers, police, education and health professionals and others — instead of these employees being responsible to higher levels of state or central government.

DECENTRALIZATION FOR THE ENVIRONMENT

The case for decentralization in environmental governance has been articulated internationally most prominently in the declaration of the 1992 Rio Earth Summit. Principle 10 specifically states that

Environmental issues are best handled with participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided (UNEP 1992).

The declaration also contains a second relevant directive, Principle 22, which affirms the role of indigenous and local communities in environmental management and encourages states to enable local participation. Both principles were subsequently codified and elaborated in the United Nations Economic

Commission for Europe's 1998 Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, commonly referred to as the Aarhus Convention after the Danish city where it was signed. The convention holds that living in a healthy environment is a fundamental right, from which follow three subsidiary rights, the so-called three pillars of the convention: "the right to know, the right to participate and the right of access to justice" (UNEP 2006: 4). This repeats Principle 10's call for communities to have access to information; in an environmental context this can refer to everything from pollution reporting data to tabulations of royalties paid for resource extraction. Participation is taken to mean local involvement and consultation in decision-making that reaches beyond symbolic public comment periods. Finally, access to justice refers to legal procedures and formal judicial standing enabling individuals to use the courts to seek redress for environmental harm or mismanagement. Former U.N. Secretary General Kofi Annan has called the Aarhus Convention "the most ambitious venture in the area of environmental democracy so far undertaken under the auspices of the United Nations" (Foti et al. 2008: 18).

Rio Principles 10 and 22 as well as the Aarhus Convention call for a package of rights that reach beyond the scope of — though certainly enhance — decentralization. Nonetheless, it is worth noting that India's *de jure* structure is generally in line with these international guideposts of environmental governance. Its constitution, adopted in 1949, enshrines the right to a healthy environment, which has been interpreted broadly by courts and has enabled access to justice in cases of environmental harm (Eurick 2001). In 2005, the parliament passed the much celebrated Right to Information Act which, in the hands of ordinary citizens, has become a powerful check on corruption (Ashraf 2008). The remaining right, to participate, is most closely aligned with the efforts at decentralization upon which this paper focuses.

The underlying logic behind decentralization is that devolution of powers to the local level places decision-making powers about resource use, conservation, and environmental degradation closer to those people most affected. This developmentalist framework says that local institutions with local information can better interpret, understand, and react to local needs and wants, and that they are more likely to do so

because they exist within communities and face pressures of downward accountability. This logic leads to a “first priority” of decentralization via democratic institutions; though local executive governments, social movements or civil society organizations may have a role to play, these alternative candidates for devolution of powers are not by definition democratic and may be prone to elite capture (Ribot 2002b). Of course, local situations are highly variable and the functioning of even democratic institutions depends on variables such as politics, motives, socioeconomics, capacity, and a host of other considerations; indeed, research has shown that successful outcomes in decentralization are equally dependent on case-by-case dynamics (Crook and Sverrisson 2001). This notion conforms to one of Ostrom’s basic design principles for collective action and/or community management or governance of a resource (1990).

CODIFYING LOCAL TRADITIONS

The panchayat — literally translated, the committee of five — has existed as a form of decentralized local governance in parts of India for millennia; they typically took shape as a council of elders that would decide on social, administrative and judicial matters at the village level (Mansingh 2010). It must be noted that traditional panchayats were not necessarily institutions of equity or representation; they frequently served to reinforce caste and class stratifications that persist today. Panchayats were largely left to ruin during the colonial era; the British (first the East India Company and later the monarchy via a viceroy) instead ruled through a combination of treaties negotiated between and with princely states as well as a system of “collectors” who were semi-local administrators primarily responsible for taxation. In the run-up to Independence in 1947, popular leader Mohandas Gandhi and others longed for hundreds of thousands of villages working in self-sufficient harmony; this vision romanticized panchayats. Yet in India’s post-colonial infancy, decentralization remained largely a dream as leaders and the intellectual elite considered a strong state government and an even stronger central government to be preferable, particularly in light of the development challenges the young, poor country faced. Ultimately, the constitution created a federated structure with power split among states governed by a considerably stronger center (Dasgupta 2001). Much of that concentration of power lingers today, as India’s 28 states and seven centrally administered territories remain weaker than the central government.

Decentralization began to see new life in India due to environmental, political and administrative trends beginning in the 1970s. The international environmental movement articulated at the 1972 United Nations Conference on the Human Environment was translated in India — as in much of the Global South — in terms of development and rural poverty alleviation. At the convention in Stockholm, then Prime Minister Indira Gandhi made her famous and oft-quoted statement, “Poverty is the greatest polluter” (Gupte 2000). Food crises put a renewed spotlight on agriculture; new schemes to bring natural resources and livelihoods to the local level included social forestry and watershed management. Some scholars have argued that the movement toward decentralization stemmed from failures in service delivery; powers were decentralized to make local governments responsible for implementing central schemes (Nayak 2011). At the same time, both non-party social movements and some opposition political parties began to find power at the grassroots level (Baumann 2003). With politics shifting toward populism in some states — and perhaps with an ulterior motive of bringing central politics to the villages as a way to capture votes — national politicians passed the 73rd Amendment to the constitution in 1992, calling for the creation of panchayati raj institutions. Some states already had formal panchayat structures in place, but the amendment institutionalized them across India, requiring all but a few exempt state assemblies to pass Panchayat Acts. The acts were to devolve power in various economic and social matters to a two- or three-tiered system of elected bodies, loosely called panchayats (though names vary somewhat from state to state). Panchayats were to feature reserved seats for women as well as members of India’s indigenous tribes and socially repressed low-castes, with direct elections to be held every five years; the number of members per council varies. Indian states are divided into districts, which are further divided into blocks in larger states; both levels have panchayats. At the lowest level sits the heart of India’s efforts at constitutional decentralization: the gram panchayat, or village council. Most states have seen three elections for panchayat seats. India has nearly 233,000 gram panchayats, the lowest elected level, with more than 2.6 million elected seats (GOI 2008); these are the first line of government for most of India’s 833 million rural people (GOI 2011). Typically, a gram panchayat will cover multiple villages,

representing total populations of about 10,000 people. Operating in conjunction with the council is the gram sabha, a semi-regular convention of all voters in the panchayat area.

Officially, the Indian constitution sets up panchayats as self-governing bodies for social and economic development; accordingly, states “may” — note: this language has been interpreted widely as suggestive rather than prescriptive — empower them to plan and implement “schemes for social and economic justice” as well as levying taxes and collecting revenues. The constitution delineates for panchayats 29 functional areas, many of which directly concern the task of environmental governance, including agriculture, land improvement/soil conservation, watershed/irrigation management, fisheries, social/agroforestry, minor forest produce, drinking water, fuel/fodder, non-conventional energy sources and sanitation (GOI 2007). Panchayats have also been entrusted with more general development functions of employment, education, village industries, and some specific central government schemes such as public distribution of food and government employment guarantee programs. Some states, such as Rajasthan, Karnataka, West Bengal, and Tamil Nadu have granted functions in all 29 areas. Other states have been far more restrictive; Goa has only devolved powers in six areas; Punjab, seven; and Uttar Pradesh, twelve (World Bank 2008). Yet panchayats function largely as development institutions, responsible for implementing central government plans with little discretion or power to raise funds or enforce rules. Their broader potential functions are determined by a patchwork of rules and varying responsibilities across states. Since 2005, the central government has initiated a scheme to make panchayats more effective by ranking devolution efforts by states and awarding additional grant funding for better performance. Southern states Kerala, Karnataka, and Tamil Nadu lead the way, followed by West Bengal (Alok and Chaubey 2010). Six other states score better than average. In the same study, however, 18 states scored below average or didn’t score at all, including India’s most populated, Uttar Pradesh, and Bihar, India’s poorest.

Much literature (Agrawal and Ribot 1999, Mitra 2001, Johnson 2003, Tiwary 2005, Aiyar 2009, among others) suggests that this form of decentralization is still nascent, incomplete and evolving in India. In a detailed study of the status of panchayats, the World Bank (2008) mapped panchayat activity at

the three levels of local government across four states; analysts found wide variance in the number of responsibilities assigned to local elected representatives. For example, in sanitation, local panchayats in Kerala decided overall design, siting and technical specifics of latrines and other village-level sanitation infrastructure; furthermore, panchayats gave financial approval, took ownership, and oversaw construction. In the same analysis, panchayats in Rajasthan and West Bengal were responsible specifically for major repairs to latrines in schools and nothing else. Those in Karnataka had no responsibility. In many other cases, powers were duplicated between multiple levels of local government and state functionaries. Other reviews have found that local panchayats routinely lack funds from states to fulfill most of their allegedly devolved functions (GOI 2001), again with a few states as notable exceptions.

As noted, there are various weaknesses with panchayats as currently enacted, namely incomplete or halting devolution. A collection of studies of 42 panchayats across 12 states demonstrates varying success, implementation gaps, and lingering divisions on caste, class and gender lines; not surprisingly, states that are considered more “backwards” lag behind, while post-independence pioneers of panchayati raj such as Karnataka receive more favorable reviews (Baviskar and Mathew 2009). The editors of the volume observe that women and marginalized groups are gaining power; indeed, while democracy is trickling down, “it is not a quantum jump but a painfully slow process” (16). Where once the village panchayat was little more than a feudal council, it is being transformed along a path toward true representative governance: from paternalistic managerial systems first to fragmented sites of social struggle, prone to capture by parochial interests, and then to substantially democratic institutions (Mitra 2001). Perhaps more revealing: Across India, a large survey of citizens (N=9,589) found 39.9 percent trust in local government, compared to 37.5 percent in state government and 35.3 percent in central government (111). In states with a better-than-average track record of decentralization — West Bengal and Maharashtra — the distance between local government trust and state/center was even greater. A final example, drawn from recent research on how local people press claims for services or grievances on government, illuminates the importance of vesting power in panchayati raj institutions. In a survey of

more than 2,200 households across dozens of villages in Rajasthan, 62 percent of respondents said they directly sought government attention through, or aired grievances to, the gram panchayat members. The next most frequented avenue — a state politician — was used by only 22 percent of the survey. All other options — the local executive, neighborhood associations, caste groups, nongovernmental organizations or general fixers — were even less popular (Kruks-Wisner 2011).

WEAK ENVIRONMENTAL GOVERNANCE

The overall state trend in decentralization in India is toward the panchayat system and in particular the gram panchayat. But what of environmental governance? Scholarly literature on the Indian context has focused in large measure on natural resources management — and in particular, processes for governing forests and water. Less has been written on non-resource specific options for environmental governance at the local level. That said, some issues specific to the environment and natural resources are clear.

First, considerations of decentralization should not romanticize local people. In India, there is no automatic reason why desperately poor people would not convert a natural resource — say, a forest or a fishery — into wealth (Ribot 2002) simply because it has been decentralized. Decentralization theoretically provides more opportunity and incentive to steward by connecting local people directly to the benefit streams of resources. Also, decentralized governance does not necessarily mean that equity in distribution of resources will automatically occur. When decentralization is still evolving, governance systems are prone to capture by powerful interests. Finally, although local knowledge and traditional practices in many parts of the developing world — India included — have been shown to conserve, environmental protection, conservation, and management can also benefit from technical expertise that village institutions tend to lack (Baumann 2003).

Panchayats, specifically, have limitations in terms of environmental governance (Lele 2011). They have little or no control over key natural resources — major bodies of water, commercial forests, and minerals. And they have few if any enforcement powers and generally no control over police functions, which are necessary for enforcement. Furthermore, their ability to tax or otherwise raise

revenues is extremely limited; most funds are grants from the state or center and often are tied to specific programs. Panchayats also have political boundaries that do not necessarily coincide with natural resources such as irrigation command areas or watersheds and they may cover substantially more territory than an individual village's community forest or water reservoir (some attempts to scale panchayats down further have been made in tribal areas). Panchayats, Lele says, in practice are structured "as 'development implementation agencies,' not as 'local self-government'" (2011).

Meanwhile, panchayats are hardly the only institution in India involved in decentralized natural resource management. Indeed, panchayats tend to take a back seat to other programs, namely state-initiated partnerships. Though programs vary by state, Lele (2004) has provided an excellent overview of four of the major schemes across India:

- Joint Forest Management (JFM) involves a partnership between an individual village and a powerful state Forest Department to protect, manage and harvest some benefits from typically degraded forestland adjoining the village, which organizes a Forest Protection Committee (FPC) that functions like a forest user group. The FPC gains rights to fuel and fodder supply as well as a percentage of the proceeds from the sale of timber and non-timber forest products. The FPC remains largely beholden to the Forest Department, which oversees and grants approval to committees, plans, harvest decisions, enforcement, and funds. Though more than 60,000 FPCs exist across India, in practice, Lele observes, many of them are "dysfunctional or captured by the elite." Equally interesting, Agrawal and Chhatre (2006) in a bioeconomic survey of forests across a swath of northern India found that co-management between community and state correlated negatively with forest condition. It is also important to recognize that this form of decentralization does not apply to the vast tracts of Indian forests that are strictly under government control for commercial timber harvesting.
- Participatory Irrigation Management (PIM) creates water users' associations for canal management in light of the failure of state government systems. Farmers whose land is irrigated by a particular structure become part of that structure's association and are responsible for maintenance,

operations, collecting finances and distributing water. The state Irrigation Department still owns large canals and reservoirs and makes decisions about water supply regionally. Though the southern state of Andhra Pradesh is credited with making the most gains in this arena in terms of decentralized control, many criticisms still arise. Elite capture seems to be a legitimate concern, as small farmers frequently have little voice; also, Cullet (2009) suggests that by giving control over water use to agricultural users, PIM exacerbates conflicts with non-agricultural water users and moves away from true democratic control.

- Tank User Groups function similarly to irrigation schemes, although they are smaller in scale and not widely active. These groups create systems for community management of village-scale reservoirs that have fallen into disrepair (and lost importance in the age of borewells and larger state-dominated irrigation systems). If rehabilitated, tanks offer promise in water-starved areas. Composition of user groups varies widely and may not fully represent all beneficiaries of tanks, given that beyond small-scale irrigation tanks may also contribute water for drinking/domestic needs, fishing, groundwater recharge, flood control and more (Lele 2004).
- Participatory Watershed Development has seen substantial investment (upwards of \$200 million) to protect land from agricultural degradation in small and micro watersheds. The programs vary widely and are complex with multiple levels of organization intended to design, implement and monitor treatments of a watershed area, much of which falls on private farmland. Though Watershed Committees may spend money, they rely on grants from above as they generally have no ability to raise funds (Lele 2004). There are also concerns about the lack of interaction between watershed managers and managers of other resources.

There are other schemes across India for state-community partnerships in natural resource management, and in some regional instances, communities have also initiated forms of natural resource management independent of any specific state program. One example worth mentioning — primarily because it has drawn a considerable amount of scholarly review — is the case of *van panchayats* of the Kumaon region of Uttarakhand, a state in northern India's Himalayan foothills. The van panchayat —

translated as forest council — oversees community forest preserves created under British rule in response to conflicts over forest usufruct rights; these have continued after independence and are considered secure partly due to their long-standing history. The van panchayat typically governs forestland within village boundaries, and the council is distinct from the broader gram panchayat. These have been hailed as durable cases of decentralization (Agrawal and Ribot 1999) at least in part due to their downward accountability — all households in a village are eligible for forest benefits and elect the panchayat leadership. They still suffer from issues of gender equity, as men vote on behalf of the household but women do the laboring (Agrawal 1999). The van panchayats are now also increasingly in conflict with state government officials under new JFM plans (Mukherjee 2003).

In essence, these alternative forms of natural resource management compete with panchayats for legitimacy in environmental governance. Agrawal casts this as an imposed division of labor: Panchayats are focused on development — building roads, schools, etc. — while the sectoral institutions are the preferred option for natural resource management. Panchayati raj institutions don't play a role presently “primarily because a fair number of people involved in this already have vested interests in existing institutions — user groups and specific resource management institutions” (2011).

But how do they fare by the actors/domains/accountability framework for analysis? Lele's description (2004) shows that these options certainly remain weak as decentralized alternatives. As actors, user groups are rarely more representative than elected governments and sometimes less so. Also, frequently they depend on state departments for approval and technical support, meaning they have features of deconcentration rather than decentralization; advisors, rangers and engineers are assigned to work with or oversee the user group or elected committee, creating upward accountability to the state appointee. Lele also notes that most of these decentralized efforts were not motivated by a desire to give control to local communities but rather by a failure of higher-level agencies and a need to curb costs. In addition, their domains are sector-specific, which limits them when environmental goods and services are connected, as are forests, irrigation and watersheds. Most of these institutions are also dependent on funds from the top down or outside: the state budgets, central schemes, NGO grants or large multilateral lending

agencies such as the World Bank. This, too, means accountability flows upward as much as if not more than downward. And though they are the focal point of decentralized natural resource management in India — often to the exclusion of panchayats — all are highly dependent on state- or center-level politics to grant authority, which makes them more accountable to the whims of state politics. None have the *de jure* constitutional security of panchayati raj.

There is room for debate on whether panchayats and alternative forms of decentralized natural resource management can coexist or even be integrated into each other. In many cases, linkages already exist to some degree on paper or in practice. Panchayats are often given mandates to consult or advise a user group and vice versa. In some cases — watershed management, for example — panchayats may even be allowed to organize themselves as the user group. Some scholars argue that Ostrom's concept of nesting (1990) is the appropriate answer to competition between democratic decentralization and user groups. Marshall, looking at Australian examples, argues this is feasible under a certain set of conditions, namely that true subsidiarity is practiced and decision-making with autonomy is devolved to the lowest possible level (2008). Under such organization, forest committees and water user associations would act as subsets of the closest higher-level panchayat. Nayak (2011) says, "If these local level institutions can be nested with PRIs with adequate institutional reforms so that PRI (the panchayati raj institution) does not hinder their functioning, it would certainly be an ideal state." Agrawal (2011) is skeptical, noting the range of overlapping and layered institutions in developed-world countries — from irrigation boards to sanitation committees to park and school districts — that are far from neatly nested beneath each other.

OPPORTUNITIES FOR PANCHAYATS

Environmental governance in India remains relatively new. Many resource management schemes originate from the state level, and central environmental institutions in India are weak in the pantheon of government agencies. The Ministry of Environment and Forests — formally created in 1985 — is primarily concerned with conservation of specific fauna and macro-level flora conservation, though it also oversees the Central Pollution Control Board and grants environmental impact clearances to projects. From 2009 to 2011, the ministry's public profile — and consequently the subject of the environment —

rose with the activism of its chief Jairam Ramesh, who withheld approval to some large investment projects. Still, when Ramesh was made Minister for Rural Development, the move was widely viewed as a promotion that also removed a development obstructionist from the environment ministry (NDTV 2011). Local environmental governance — and that specifically via panchayats — is largely absent from the conversation. When they are mentioned in scholarly literature, it is most often in the debate presented above, between panchayats and other forms of decentralized or community-based natural resource management. Nonetheless, there are some marginal discussions of and opportunities for strengthening the panchayat's role in environment governance:

- A task force of India's powerful central Planning Commission analyzed so-called Centrally Sponsored Schemes, programs funded directly by central government agencies in which panchayats have a large role to play, and identified a number of roles for the multiple tiers of panchayats: pollution monitoring; environmental audits/impact assessments; site designation for mangrove and coral conservation; both JFM and watershed protection; wildfire observation and fighting; poaching control and wildlife protection; agricultural practice supports and extension, including seed banking, village composting, fertilizer distribution, crop insurance; fisher training and local aquaculture site selection; and local disaster management (GOI 2001). A working group under both the planning commission and the Ministry of Panchayati Raj (GOI 2006) recommended that panchayat boundaries could be redrawn and efforts must be made in activity mapping to further clarify responsibilities in both state and central programs where functions are devolved. If this top-down push is sincere, it would give panchayats considerably more involvement in governance. However, it also has the potential to continue to treat panchayats as implementing agencies; panchayats still need powers to design programs, raise funds and hire functionaries, rather than relying on state and central technocrats. Lele (2011) quite bluntly says, "Unless key flaws in the PRI structure can be fixed, there is not much point in trying to 'strengthen' them."
- Central program funding incentives have attempted to encourage states to strengthen overall devolution; West Bengal has laid out a "roadmap" toward improving panchayati raj that explicitly

recognizes environmental governance in a number of areas as appropriate for panchayat level powers (GOWB 2009). The plan calls for panchayats to be involved in land reclamation/afforestation, social forestry on public and private land, soil conservation and community education among others. This recognition is certainly positive for local environmental governance; however, as before, whether panchayats will actually be endowed with funds and powers necessary to this task remains to be seen.

- The World Bank in recent years has provided loans for governance capacity building, including the Karnataka Panchayats Strengthening Project (World Bank 2006). The ongoing \$170 million project aims to create higher fund transfers to poorer district, block and village panchayats; improve revenue collection by local communities; institute auditing and reporting procedures through computerized accounting; and implement an Environmental Framework for Panchayats, including environmental audits, environmental profiling of districts and environmental assessment in planning. The project's environmental assessment identified a number of basic issues and actions for panchayats: rainwater harvesting, soil conservation and maintenance of recharge reservoirs and crop planning to lessen groundwater depletion; strictures on usage of toilets, construction of additional facilities to improve wastewater disposal; training in soil conservation and grazing habits to reduce soil erosion; varying fuel sources and reducing chemical farming inputs to protect against land degradation. While these measures may seem generic, the assessment also found little environmental awareness at the panchayat level of the routine causes of environmental harm. What remains to be seen is whether the project can achieve any of these goals; subsequent project updates have made no mention of the Environmental Framework. Yet it is a worthy goal as panchayats are slowly gaining more autonomy under National Rural Employment Guarantee Scheme, which provides guaranteed work for laborers across rural India in various civic projects; in many cases, panchayats are the implementing bodies but they are being granted discretion in terms of projects undertaken (TARU 2010). With money being untied for community development, panchayats have a significant opportunity to improve or degrade environmental conditions through their actions.

- Community-level initiatives, though scattered, show potential to increase the profile of panchayats in environmental governance in India. A classic example is that of Hivre Bazar, a small village that is regarded as a model in watershed management. Here, watershed protection in the 1990s came about through the gram panchayat and a strong leader. Projects included contour trenches, water harvesting and social forestry projects. The community later took steps to restrict the use of borewells for irrigation, growing sugar cane and banana and grazing animals wantonly. The result has been that the water table has risen, and drinking water wells run dry less often (Menon et al. 2007). This was perhaps feasible because of the one panchayat-one village ratio of Hivre Bazar in rural Maharashtra where panchayat boundaries are geographically smaller. Topography also may have contributed to success as the village is bounded on three sides by hillocks, creating a natural watershed overlapping with the political boundary. This suggests that perhaps panchayats, if drawn more appropriately, could have substantial potential in environmental governance. This kind of community-led work stands opposite the trend of higher governments using panchayats as implementing agencies and should be encouraged. Such support is the aim of collaboration between the Ministry of Environment and Forests and the Indian Environmental Society, which have established an information outlet to educate panchayats in environmental management (IESENVIS 2011). The project prints various newsletters for panchayat leaders on topics ranging from organic farming to global warming adaptation; it also maintains a library and a question-and-answer service for panchayat user groups.

CONCLUSION

Only a short time after India gave the traditional local panchayat the weight of constitutional protection, two eminent environmentalist-scholars eloquently laid out the case for decentralized environmental governance in India: “The local people should be empowered to work out plans for developing natural resources and managing local environmental affairs in a manner fine-tuned to the specific local situation and in accordance with their aspirations” (Gadgil and Guha 1995). More than 15 years later, India’s efforts at decentralization clearly have a long way to go; the panchayat certainly

represents a potential if somewhat flawed institution for community authority and control of resources. On paper, India's efforts to decentralize mesh well with wider principles of decentralization of natural resources and the general right to a healthy environment recognized both in India and internationally. Yet in many cases, they represent more an attempt by the center and state to spread the burden of implementing development programs, rather than a grant of true power to local communities. And while there are serious reforms to the panchayat system that could make it more effective for environmental governance, alternative forms of partial decentralization — particularly in natural resource management via user groups — essentially compete with the panchayat for legitimacy. These systems have their own flaws and lack the security of the constitutionally created panchayat. What are ways forward? Central and state governments on paper are recognizing the role local communities can play in environmental governance; they must continue to revise and reform their attempts at decentralization if they truly wish to bring democracy to the rural Indian environment. At the same time, domestic and international donors, lenders and civil society organizations can assist through supporting institutional reform, better environmental standards, local technical capacity, assertion of rights and participation.

As has been mentioned, much research on decentralized environmental management has looked at existing schemes; a substantial research area for the future — perhaps combined with activism and piloting programs — is the role of panchayats in constitutionally mandated but largely undeveloped sectors of environmental protection and conservation. Fisheries management, organic farming and local alternative energy programs, in particular, would be of substantial importance in India.

It's worth noting two numbers again. First, 833 million people live in rural India; the vast majority of them live meager existences connected directly to their land, water and natural endowments. Second, 62 percent, according to a study across Rajasthan, turn to their panchayat for answers and protection of their rights. Together, these make a compelling case for democratic environmental governance flowing through the still-evolving and flawed panchayat. This paper has demonstrated there are certainly problems but also substantial potential.

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