



# Institutional Arrangements for Rural Poverty Reduction and Resource Conservation

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**Summary.** — This paper introduces a special issue featuring a set of papers on institutional arrangements for reconciling rural poverty reduction with renewable natural resources conservation in the low-income tropics. Collectively, these papers make four core points. First, synergies do not naturally emerge just because rural poverty reduction and renewable natural resources conservation are each appealing goals with common drivers and some intrinsic interlinkage. Second, it matters less *which* rules a community or country adopts than *how well* they monitor and enforce the rules they set. Third, flexibility and adaptability in design are critical to establishing cooperative partnerships that can advance both conservation and development goals. Fourth, multiscalar approaches are commonly desirable.

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The central United Nations' Millennium Development Goal is halving the number of people living in extreme poverty by 2015. If this goal is to be met without a massive "subsidy from nature" (Anderson, May, & Balick, 1991) that may prove environmentally catastrophic, individuals, communities and countries must organize to design poverty reduction strategies that are consistent with resource conservation objectives. Such reconciliation is equally important if the poor are not to bear the burden of global environmental goals pursued by relatively wealthy populations. The recent scientific literature demonstrates that while it is certainly possible to reconcile poverty reduction and environmental sustainability objectives, the common assumption that poverty reduction and environmental sustainability goals are inherently complementary does not appear to stand up well to empirical scrutiny.<sup>1</sup>

Scholars and practitioners have struggled to identify the key factors that foster "win-win"

outcomes and minimize the tradeoffs between conservation and development objectives. "One size fits all" solutions do not exist.

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When scientists develop technical prescriptions through careful, controlled experimentation, then apply those recommendations widely, with little regard to local conditions, successful outcomes prove spotty at best (Ghimire & Pimbert, 1997; Ostrom, 1990; Pritchett & Woolcock, 2003). One useful approach has been to identify “conditioning factors,” the presence of which jointly improve the likelihood that synergistic conservation-development outcomes occur (Lee & Barrett, 2001; Vosti & Reardon, 1997). It is also clear that the appropriate design of interventions depend heavily on the biophysical and socioeconomic context of a particular setting (Gjertsen & Barrett, 2004) and on local ownership over strategies for tackling conservation and development goals.

The empirical record also demonstrates that prevailing institutional arrangements play a significant role in determining the efficacy of a given set of policy or technological interventions. The Nobel laureate Douglas North (1990, p. 3) defines institutions as “the rules of the game in a society or, more formally, . . . the humanly devised constraints that shape human interaction.” The rules of the game are most commonly articulated by communities, governments or markets. Yet one of the distinguishing features of the low-income tropics is that the capacity of communities, governments, and markets to articulate and enforce consistent rules of the game is frequently quite limited. Thus, designing, implementing and enforcing appropriate rules pose serious challenges. Practitioners and scholars increasingly believe that “getting institutions right” is as important as—and inextricable from—getting incentives right if sustainable progress is to be made in either the conservation or the development arenas, much less both. Yet there remains little synthetic or comparative evidence on the institutional arrangements that best foster synergies between conservation and development efforts.

This special issue of *World Development* offers a set of papers that explores different dimensions of the question of how to get institutions right so as to maximize the chances of reconciling rural poverty reduction with renewable natural resources<sup>2</sup> conservation in the low-income tropics. The papers in this special issue underscore the point that performance in both the resource conservation and poverty reduction dimensions varies enormously from site to site, even among those projects with similar basic designs. Much of the variation in outcome appears attributable to differences in

North’s idea of “humanly devised constraints that shape human interaction:” the rules and policies that condition behavior in rural areas of low-income countries.

Ultimately, the papers in this special issue make four core points. First, scholars and practitioners need to guard against wishful thinking that synergies naturally emerge just because rural poverty reduction and renewable natural resources conservation are each appealing goals with common drivers and some intrinsic inter-linkage. Tradeoffs are the norm. The ability to achieve synergistic, “win-win” outcomes depends in large measure—albeit not exclusively—on the institutional arrangements that shape the incentives and constraints faced by human agents in rural areas.

Gjertsen analyzes a program that has both environmental sustainability and poverty reduction objectives. She uses an innovative panel data set linking socioeconomic and ecological data on 40 different community-based marine protected areas (MPA) in the Philippines to study the correlates of success in both improving human well-being—proxied in her case by children’s nutritional status—and the health of coral reef ecosystems. She studies a range of MPA design variables and local contextual variables, finding several design features—e.g., higher wages paid to conservation agents and efforts to promote livelihoods not dependent on natural resources—that appear to help both protected areas and the human communities around them.

Alix-Garcia, de Janvry and Sadoulet study deforestation patterns in 450 Mexican *ejidos* to identify community specific characteristics that lead to higher probability of success in forest conservation. They develop two theories to describe communities’ management of forest resources, one based on conflict management, the other on cooperation. They find that forest conservation succeeds most in communities without commercial forestry projects, where relatively small communities possessing experienced leadership are able to induce households to cooperate in protecting forest resources. When communities opt to practice commercial forestry, it becomes exceedingly difficult to prevent encroachment, especially by nonmembers of the forestry *ejidos*.

The difficulty of establishing resource conservation incentives that work within large, heterogeneous communities aspiring to improve standards of living helps spark interest in policies that promote payments for environmental

services (PES). Pagiola, Arcenas and Platais review a range of experiences with Latin American PES programs, emphasizing both their potential for advancing poverty reduction objectives alongside environmental goals and the various ways in which they can and do fail to generate such synergies. Zbinden and Lee offer a more detailed investigation of household participation in Costa Rica's PES program, perhaps the best known of such programs in developing countries. Their evidence strongly suggests that PES program payments tend to go to better educated, wealthier, more diversified farmers, and forest owners with greater initial asset holdings. These two papers jointly underscore that it can be difficult—but by no means impossible—to achieve multiple policy goals with a single policy instrument.

A second key point made by these papers is that it matters less *which* rules a community or country adopts than *how well* they monitor and enforce the rules they set. If one accepts North's understanding of institutions as a set of rules that constrain human agency, then it becomes self-evident that the first step in establishing effective institutional arrangements is to set, monitor and enforce rules. Gibson, Williams and Ostrom argue convincingly that this is indeed a necessary (but not sufficient) condition for the long-run protection of local resources. They exploit an unusually large data set of forest user groups from 12 different countries to test this hypothesis, finding that rule monitoring and enforcement indeed seem essential, whether or not user groups are organized, depend on natural resources for livelihoods, or enjoy high levels of social capital. Their findings lend broader empirical support to a voluminous analytical and empirical literature that argues that halting natural resource degradation in rural areas of low-income countries requires that communities play a strong role in setting and enforcing rules (Baland & Platteau, 1996; Ostrom, 1990). This finding is also fully consistent with the considerable literature emphasizing the importance of tenurial regimes that ensure security of property rights in land and water (Hanna & Munasinghe, 1995; Otsuka & Place, 2001).

Third, and building on the preceding two points, flexibility and adaptability in design can be critical to establishing cooperative partnerships that can advance both conservation and development goals. Systematic multidisciplinary research has found that where governance systems are adaptive, stewardship of

resources can go hand-in-hand with economic progress (Dietz, Ostrom, & Stern, 2003). In this same spirit, Haro, Doyo and McPeak carefully document how a program begun as an effort to improve rangeland management and thus quality of life for pastoralists in northern Kenya had to evolve to focus on reducing violent conflict in order to both make cooperation between groups feasible and attractive and to address a common driver of both resource degradation and human suffering. As they illustrate, communities have multiple, nested and overlapping definitions that necessitate multiscale coordination in order to address conservation and development goals effectively. Their findings echo the crucial point that effective management of common pool resources requires explicit efforts to bridge cognitive conflicts that arise from intercommunity differences in perception, not just in material condition (Adams, Brockington, Dyson, & Vira, 2003).

The need for multiscale approaches is the fourth key point of this set of papers. Swallow brings this out most clearly in his study of the correspondence between community, district and national level priorities in the ostensibly participatory process used to establish Kenya's poverty reduction strategy paper. He emphasizes that the current fashion for decentralization has not yet fully come to grips with fundamental questions concerning the scale of the poverty or conservation problems being addressed, the existence of credible mechanisms for establishing, monitoring and enforcing priorities and rules, and the distribution of financial and human resources necessary to get institutions right for sustainable development. Empowering local institutions to conserve biodiversity can prove very difficult where economic, social, or technological conditions are highly variable. Pretending social harmony exists where there is none may not only fail to ensure the success of community-based approaches to conservation or development, but may also impede efforts to develop adaptive approaches to integrating informal community groups, local governments, national governments, private businesses and nongovernmental organizations according to organizational comparative advantage (Barrett, Brandon, Gibson, & Gjertsen, 2001; Ribot, 2002).

One could equally emphasize the need for multisectoral approaches that integrate the public, private and not-for-profit sectors' complementary roles in both development and conservation activities. Privatization has become as

much a mantra as decentralization. Moreover, the two are often closely intertwined where authority and responsibility for activities devolve to community-based groups without effective capacity to set, monitor and enforce rules, without the range of skills and resources to remain flexible, to adapt designs to local conditions and to liaise effectively with actors at other scales and in other sectors. Dietz *et al.* (2003) therefore make the case for “complex, redundant and layered institutions,” with a mix of institutional types to facilitate communication, experimentation and adaptation.

The final word in this special issue belongs to Steve Sanderson, a political scientist whose past scholarly work on these issues and current position as President and CEO of the Wildlife Conservation Society give him an uncommon perspective on the problem of reconciling poverty reduction and conservation. Sanderson sounds a note of caution about the likelihood of success in finding “win-win” solutions without careful planning and coordination, and without a richer analytical framework for conceptualizing authentically sustainable development. By all accounts, progress in implementing sustainable development following the 1992 World Conference on Environment and Development, held in Rio de Janeiro, had proved disappointing in the decade leading up to the

World Summit on Sustainable Development (WSSD) in Johannesburg (Balmford *et al.*, 2002). A core message of the WSSD was that no silver bullet solutions exist for reducing both poverty and natural resources degradation. Sustained, practical steps at multiple scales would be needed to address these pressing problems. Sanderson’s concern is that most of the international development community nonetheless continues to assume that poverty alleviation can and will prove environmentally sustainable. This just adds yet another burden to an already-overtaxed rural economy and runs a risk of sacrificing crucial conservation goals for want of a sensible analytical framework within which to design effective action programs.

At root, Sanderson’s worry revolves around the weakness of tropical states, communities, nongovernmental organizations and markets and the absence of clearly articulated concepts for coordinating among organizations so as to establish and enforce rules that will provide both incentives to increase rural productivity—and thus to reduce poverty—and to conserve nature. Meeting the challenge of reconciling rural poverty reduction and renewable resource conservation will require careful investigation and rethinking of the institutional arrangements on which such efforts so fundamentally depend.

## NOTES

1. See Angelsen and Kaimowitz (2001), Barrett, Place, and Aboud (2002), Lee and Barrett (2001) and Vosti and Reardon (1997) for good summaries.
2. Our focus is on renewable natural resources—e.g., forests, soils, water and wildlife—and not on nonrenewable resources such as metals, minerals and oil.

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