



Beyond the Square Wheel: Toward a More Comprehensive Understanding of Biodiversity Conservation as Social and Political Process

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In this article we build on an accompanying critique of recent writings in international biodiversity conservation (this issue). Many scholars and observers are calling for stricter enforcement of protected area boundaries given the perceived failure of integrated conservation and development projects (ICDPs) and other people-oriented approaches to safeguard biodiversity. Pointing to many ongoing, field-based efforts, we argue that this resurgent focus on authoritarian protection practices largely overlooks key aspects of social and political process including clarification of moral standpoint, legitimacy, governance, accountability, learning, and nonlocal forces. Following a discussion of these six points, we offer a series of recommendations aimed at highlighting existing work and encouraging dialogue and constructive debate on the ways in which biodiversity protection interventions are carried out in developing countries.

Keywords accountability, biodiversity protection, community-based conservation, conservation and development, governance, learning, legitimacy, politics, protected area management

Received 10 February 2000; accepted 5 June 2001.

We thank Lisa Curran, John Vandermeer, Ivette Perfecto, Tom Dietsch, Charles Benjamin, Grant Murray, Juliet Erazo, Christopher Thoms, Elizabeth McCance, Ann-Marie Finan, Heather Plumridge, and Curran's Tropical Ecosystem Dynamics seminar at the University of Michigan for their comments on this report. We are very grateful to Katrina Brandon, Tom Rudel, Chuck Geisler, Max Pfeffer, David Bray, Jill Belsky, John Hough, Gonzalo Oviedo, Sally Jeanrenaud, Michel Pimbert, Anthony Anderson, Peter Schachenmann, Gordon Claridge, Mike Lara, Elery Hamilton-Smith, Sally Timpson, Andy Willard, Toddi Steelman, Kate Christen, Andrew Mittelman, and Cristina Eghenter for sending their critiques and observations. Thanks also to the approximately 150 practitioners, program managers, academics, and other people around the world who expressed interest in reading this article. Earlier versions of this paper were presented at the STARE Colloquium, Departments of Rural Sociology and Sociology, University of Wisconsin, Madison, September 1999, and at the 2000 Annual Meeting of Rural Sociological Society, held in Washington, DC. We also thank the editors of *Society and Natural Resources* for their support and the journal's anonymous reviewers for their helpful comments.

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The analysis that we presented in our critique of a resurgent “protection paradigm” (this issue) points to a critical gap in current debates on the core approaches of international biodiversity conservation. Although the majority of analyses focus on objectives (the “what”), we find that nearly all discussions fail to consider comprehensively the social and political processes by which conservation initiatives are carried out (the “how”). In other words, there exists broad consensus that biological diversity is critically threatened and that large-scale interventions are necessary for its protection. Most observers also agree that current approaches to biodiversity conservation feature significant shortcomings and thus do not provide adequate species and habitat protection. Disagreement tends to erupt when discussing the implications of these conclusions. We have argued that a number of recent writings construct arguments that offer important findings but do not fully account for their social and political implications. In general, the authors of these works conclude that since current conservation approaches do not protect species and habitats, renewed emphasis on strict protection is required. How this protection will occur and who will bear the burden for its impacts are not clearly defined, however. We argue that without further clarification and constructive debate, the adoption of an authoritarian protectionist approach could easily lead to morally and pragmatically questionable prescriptions that most likely will not safeguard biodiversity over the long term. Does this wave of writings represent a new conventional wisdom that will be adopted uncritically by policymakers? Does the perceived failure of people-oriented approaches to conservation such as integrated conservation and development projects (ICDPs) mean that we should throw them out altogether? Or can we learn from the important findings of conservation scientists, maintain some of the useful elements of current approaches, and construct contextually based, problem-oriented responses that are ecologically sound, pragmatically feasible, and socially just? In this article, we present an argument for the latter approach and conclude with several recommendations that we hope will encourage greater dialogue on these issues.

Conservation as Social and Political Process

Since nature protection by definition is a social and political process, it stands to reason that our responses to the biodiversity crisis will have to focus on questions of human organization. We lay out this perspective by presenting six key elements of social and political process, including human dignity, legitimacy, governance, accountability and learning, and nonlocal forces (see Table 1). In the final analysis we argue that by focusing on the human organizational processes associated with nature protection, the conservation community will necessarily have to reflect internally on the fundamental concepts, methods, and modes of organization that govern collective action. Fundamentally, both the “what” (the ends) and the “how” (the means) need to be negotiated and applied in context.

The highly politicized nature of conservation and development increases both the complexity of the protection project and the corresponding incidence of conflict and resistance. It is important to recognize that most areas considered to be high-priority biodiversity “hot spots” (Myers 1988; Myers et al. 2000) are also social and political “hotbeds.” These rural areas in countries such as Colombia, Brazil, Madagascar, Tanzania, Malaysia, Indonesia, and the Ivory Coast often feature high levels of poverty, insecure land tenure and landlessness, unstable and/or

TABLE 1 Six Key Elements of Social and Political Process

Element	Questions	Issues in biodiversity conservation
1. Human dignity	Who benefits? Should biodiversity be granted moral superiority relative to human welfare? On what grounds?	<ul style="list-style-type: none"> • Establishment of explicit moral parameters for social process associated with conservation interventions. • Accounting for principles of social justice: (1) full participation; (2) self-representation /autonomy; (3) self-determination.
2. Legitimacy	Is the process considered appropriate and just by those most affected?	<ul style="list-style-type: none"> • Social control built on strong agreements, fair enforcement, strong organizational and institutional arrangements, and constructive dialogue.
3. Governance	Who decides? Based on what authority? Who participates and how? How will decision making take place? What are the parameters for accountability and enforcement?	<ul style="list-style-type: none"> • Establishment of “rules” or “norms” and responsibilities for decision making, accountability, enforcement, and participation.
4. Accountability	To what extent is each party holding up its end of the bargain? How effectively are participants pursuing their goals?	<p>Responsibility:</p> <ul style="list-style-type: none"> • Rights imply responsibilities. • Upholding commitments. <p>Performance:</p> <ul style="list-style-type: none"> • Appraisal focused on social and political process <i>in addition to</i> other indicators. • Problems of implementation as opposed to conceptual inadequacy.
5. Adaptation and learning	How can we systematically adapt and learn from experience?	<ul style="list-style-type: none"> • Constant reflection and experimentation. • Organizational and social learning.

TABLE 1 (continued)

Element	Questions	Issues in biodiversity conservation
6. Nonlocal forces	To what extent does environmental change result from large-scale commercial enterprises? How are local practices driven by wider political economic process?	<ul style="list-style-type: none"> • Scale of intervention. • Focus of conservation objectives. • Strategic political alliances.

undemocratic political systems, and histories of state-sponsored repression. While the conservation movement is certainly not responsible for these conditions, individual interventions aimed at nature protection produce a range of social impacts that can exacerbate rather than alleviate social justice problems. As mechanisms of resource control, conservation programs tie up natural areas that are highly sought after by resource-dependent agrarian communities. A number of other groups also have interests at stake in these areas, including drug cartels, guerrilla factions, pharmaceutical companies, international development banks, the military, tourism agencies, and oil and mining companies, to name just a few. Conservation programs are embedded by default in highly complex social and political settings, and thus practitioners must openly deal with these conditions in order to operate effectively.

In order for conservation interventions to successfully handle this degree of complexity, we contend that the process by which nature protection is carried out must be ecologically sound, socially and politically feasible, and morally just. If not, we predict that interventions will most likely generate increasing levels of resistance and conflict at all geographic scales, thus derailing attempts at protection. Authors such as Terborgh (1999) and Oates (1999) argue that the dire urgency of the biodiversity crisis requires protection by whatever means necessary. While their appeals are compelling, we find that a deeper understanding of key aspects of social and political process indicates that this strategy might produce limited short-term gains but will undermine possibilities for biodiversity protection over time.

Before considering some elements of social and political process, we wish to clarify a few points in order to situate this article in relation to existing literature as well as ongoing conservation and development programs. First, by referring to “people-oriented” conservation we mean the suite of strategies typically called “community-based conservation” (CBC), including integrated conservation and development projects (ICDPs), community-based natural resources management (CBNRM), comanagement, and community-managed or indigenous reserves. While these strategies vary in important ways, they seek to increase the development options of resource-dependent rural communities as a means of increasing nature protection. In our final analysis we advocate a general people-oriented strategy that affords social justice and nature protection the same degree of importance but suggest moving beyond programmatic blueprints such as ICDPs in favor of addressing specific problems in context.

Second, we purposely focus on conceptual points in order to build upon our earlier critique of recent writings on conservation, although we cite empirical examples as space permits. Our intent is to provide a synthesis of important issues that highlight a growing body of literature and address several points raised in our earlier article (this issue). Third, far from being merely an intellectual exercise, our proposal for conservation with social justice offers a viable alternative to authoritarian protectionism. Since this strategy has yet to be tried on a wide scale,¹ we discuss it mostly in ideal terms, fully cognizant of the fact that conservation activities take place under highly challenging circumstances that may not always be conducive to the approach that we espouse. At the same time we support each conceptual point with citations and examples of field-based studies that examine how different groups engage in the processes we mention. Finally, by asserting that conservation is primarily a human organizational process, we do not mean to indicate that the nonhuman or ecological dimension is inconsequential but rather wish to emphasize that nature protection or resource management is entirely a product of social action.

Human Dignity—Establishing a Strong Moral Foundation for Social Process

While conservationists act upon moral arguments for biodiversity protection, they typically omit explicit discussion of such guidance for conservation as a social and political process. Many might suggest that this type of detail should be obvious, yet the tone of many recent writings could be interpreted as ignoring moral parameters for social action associated with conservation activities. Indeed, conservation organizations have undertaken interventions in the name of nature protection that have had significant negative social and cultural impacts (Ghimire and Pimbert 1997; West and Brechin 1991); for a current case in Burma see Associated Press (1997), Burrell (1997), Faulder (1997), and Levy and Scott-Clark (1997).² Given these concerns, the conservation community faces a series of moral questions. Who benefits from biodiversity conservation? Should biodiversity protection be granted moral superiority relative to the ideals of human welfare and dignity? If so, on what grounds? Does the preservation of basic human rights supercede the goals of biodiversity preservation? If so, in what situations? How can the ideals of human dignity and nature protection be pursued in concert rather than in opposition? In addition to widely recognized sources such as international human rights programs, general guidance for answering these questions in specific contexts can be found in documents such as the 1948 Universal Declaration of Human Rights and in the growing literature on environmental justice (Bryant 1995; Taylor 2000).

The ideal of social justice that we propose centers on three broad principles, which include (1) the right to participate at all levels of the policymaking process as equal partners, (2) the right to self-representation and autonomy, and (3) the right to political, economic, and cultural self-determination (sovereignty).³ These rights imply responsibilities entailing politically constructive participation. In our earlier article (this issue), we posited that attempts to define these terms beyond specific cultural and social contexts risks imposing knowledge constructs incongruent with local understandings, practices, needs, and desires. At the same time, purely local definitions of justice may be too parochial to garner wide support from enough groups to allow large-scale collective action. One option is to undertake concerted dialogue and negotiation in the context of a specific intervention that can shape mutually agreeable courses of action for both conservation and human dignity.

This type of deliberative approach appears to have the greatest potential of generating a legitimate process that can account for social differences as well as changing ecological and political circumstances. It promotes constructive debate, compromise, and power sharing, as opposed to intractable conflict and domination. In the second part of this article we offer some examples of how elements of social justice might be incorporated explicitly within conservation programs.

Legitimacy—Constructing Authority or Legitimate Power

Even if one were to argue that the intrinsic rights of nature supercede those of people, the “protection-by-any-means-necessary” approach still fails on pragmatic grounds. Since conservation, by definition, requires restraint by resource users, biodiversity protection will only take place through human institutions such as laws, organizations, or cultural practices that control our behavior. While obvious, this point leads to a series of other important points. The behavioral restraint implied by conservation can occur voluntarily or be imposed by outside forces. In practice, social control typically occurs through a combination of self and externally imposed enforcement. The key underlying concept in both cases is legitimacy. Following Weber (1978), legitimacy refers to any behavior or set of circumstances that society defines as just, correct, or appropriate. Thus our focus should not be on voluntary versus enforced compliance, as recent writings on conservation suggest, but rather on fair enforcement or legitimate social control. Since “legitimacy” is socially defined, however, divergent beliefs about what constitutes a legitimate act are most likely to generate tension and conflict when they interface in the same political arena. For example, a cultural group may follow customary practices codified in complex institutional arrangements that govern resource use such as water for irrigation or fuelwood collection. Modern legal institutions that govern protected area management may include regulations that contravene these customary use practices. In the absence of concerted negotiation, enforcement of protected area regulations in such a situation might be viewed as illegitimate by local resource users. The result would most likely be noncompliance with the law (Brechin in press). The line between legitimate enforcement and illegitimate coercion is often unclear. Since conservation and other agencies will likely never have enough resources to adequately enforce the law and since confusion over the legitimacy of enforcement acts at times creates conflict, a more practical, long-term approach would be to negotiate agreements that participants view as legitimate and feasible. Since even the most well-intentioned intervention is to some degree an imposition of knowledge and practices, one means of reversing associated patterns of domination is to help construct authority (defined as “legitimate power” (Weber 1978) at all levels. The second part of this article suggests some recommendations for pursuing this process.

Governance—Establishing Modes of Decision Making and Power Sharing

The term *governance*, in general terms, refers to arrangements for decision making and power sharing. The following questions are fundamental to understanding social and political processes related to governance: Who decides? Based on what authority? What are the ground rules for decision making? How will decision makers be held accountable? How will decisions be enforced? In addition to crafting governance structures for particular interventions, practitioners need to be cognizant of

the broader legal jurisdictions within which projects are embedded (Ribot 1999; Ribot 2000). In the case of a 6-year Global Environment Facility (GEF)-funded project in Colombia's Pacific Coastal region from 1992 to 1998, for example, the process of negotiating a workable operational plan with black and indigenous communities had to be adapted to significant institutional changes at the national level including the promulgation of a new constitution (Wilshusen in press).

Within the conservation and development literature, questions of governance tend to be discussed in terms of local participation (Little 1994; Wells and Brandon 1992). Participation is a narrower concept that is a necessary but not sufficient component of governance. In this regard, we would need to define the parameters of participation by posing these questions: Who participates? What are their demands and expectations? What capacity do individuals and groups have to participate? Will they participate in all aspects of decision making or in only selected phases? How do participants benefit from involvement? When considered in these terms, it becomes clear that questions of governance are the core of the management process. Indeed, when asked, most protected-areas managers note that most of their time is spent "doing politics." The stiff challenges of constructing strong governance structures that include full participation involve significant "startup costs," but can stabilize power relationships over the long term (Blaikie and Jeanrenaud 1996; Pimbert and Pretty 1995; Wilshusen 2000). A range of case studies that analyze the politics of participation with respect to natural resource access and control includes community forestry in the Gambia (Schroeder 1999), protected-area management at Khunjerab National Park, Pakistan (Knudsen 1999), and forest protection in Cameroon (Sharpe 1998).

The core of governance is authority and control. And since legitimacy is socially constructed within the bounds of existing social and cultural norms, arrangements for decision making and power sharing are constantly being crafted and renegotiated in specific contexts. In other words, what works in one time and place may not work in another. This is particularly true because strong tensions over legitimate action will almost always appear in the context of conservation programs. The diversity of participants makes negotiation a highly complex undertaking if we take into account potentially vast cultural, class, ethnic, gender, and other differences among participants and the often subtle power dynamics that these differences produce. Indeed, many communities present strong internal divisions and low levels of organization. At the same time, however, a growing body of literature on common property and environmental regimes suggests that both social conflict and environmentally deleterious practices are minimized in cases that feature strong governance institutions, including stable entitlements, strong self-enforcement mechanisms, strong local organizations, and a supportive policy environment (Gibson et al. 2000; McKean 1992; Ostrom 1990; Ostrom 1999; Ostrom et al., 1994; Young 1989). While these conditions are not in place in many areas, they can be incorporated as central strategies of conservation initiatives.

In recent years, questions of governance have taken on a more prominent role in discussions of biodiversity conservation especially given the global sweep of economic liberalization and political decentralization. While the World Bank has made explicit links between good governance and ecologically sound natural resource management, environmental organizations such as the World Resources Institute (WRI), the International Union for the Conservation of Nature (IUCN), and the Biodiversity Support Program, among others, have focused increasing attention on the topic (Wyckoff-Baird et al. 2000).⁴ At the same time, however, it

is important to note the difference between an environmental governance agenda and an environmental conservation with social justice agenda. The former, in its support for environmentally beneficial outcomes, may or may not encourage socially just processes or outcomes (Zerner 2000). While the concept of governance encompasses much more than “the work of governments,” the economic and structural adjustments in countries around the world noted earlier have had an important impact on local communities and conservation programs. Decentralization and state remodeling in countries around the globe have created new opportunities and challenges for nature protection and social justice. Representative case studies on the dynamics of conservation in the context of decentralization draw on experiences from Senegal, Niger, Burkina Faso, Mali (Ribot 1999), India, and Nepal (Agrawal 2001; Agrawal and Ostrom in press).

Accountability—Guaranteeing Responsibility and Performance

The idea of accountability refers to the mechanisms that participants put in place to guide and enforce agreements. We highlight two aspects of this process: responsibility and performance. The main questions to ask in this context are: (1) To what extent is each party holding up its end of the bargain? (2) How effectively are participants pursuing their goals?

In the first part of this section we emphasized the need for policymakers to recognize rights to equal participation, self-representation, and self-determination as part of a proposal to incorporate social justice principles within conservation programs. Often many conservationists react to this type of argument with frustration, as if it were nothing more than a politically correct “trump card.” The perception is that attending to social justice once again will mean that humans win and nature loses—that much is given to appease humans and nature gains little. It is important to make clear, however, that the notion of rights implies responsibilities to be fulfilled (Strum 1994). By conferring rights, the negotiating process over how to pursue nature protection can proceed based on clear expectations, commitments, rules, and agreements. Enforcement, if needed, is a perfectly legitimate undertaking when backed up by carefully negotiated agreements. In the absence of such accords, enforcement agencies should at least be held accountable for their actions.

A growing literature on accountability discusses the challenges of holding a wide range of social actors to their commitments. These different levels of organization include multilateral organizations such as the World Bank (Fox and Brown 1998), states (Agrawal and Ribot 1999; Fox 1995), leaders of grass-roots organizations (Fox 1992), and the scientific community (Brunner and Ascher 1992). An array of case studies illustrates the political dynamics of internal accountability, including community-based ecotourism in Belize (Belsky 1999; Belsky in press) and nongovernmental organization (NGO) networks in Mexico (Wilshusen et al. in press). In Belize, efforts to develop and maintain an ecotourism enterprise at Gales Point Manatee broke down due to conflicts stemming from differences in gender, family alliances, and political party affiliation. At the same time, the Gales Point Manatee project featured no oversight or conflict-resolution mechanisms to overcome these differences and hold individuals to their commitments. In Mexico, the statutes of the Yucatan Peninsula Sustainable Development Network initially did not contemplate compliance mechanisms. As a result, when one NGO member began operating in ways that conflicted with the network’s

goals, the regional body had no immediate reaction. The network eventually responded to this oversight, but not in time to regain the confidence of some of its community partners.

The second aspect of accountability—performance—refers specifically to the effectiveness of outcomes associated with action. Several appraisals of integrated conservation and development, including the book *Parks in Peril*, have been performed (Larson et al. 1997; Wells and Brandon 1992; Wells et al. 1999; Western et al., 1994), while others have developed guidelines for evaluation (Margoluis and Salafsky 1998; Salafsky and Margoluis 1999). With limited exceptions, however, existing reviews of conservation programs lack an explicit framework for appraising social process (an exception is Clark et al. 2000). If conservation challenges are largely a question of human organization, then we must rely on some frame for analyzing decision making and organization. This is important because even if an intervention is not apparently achieving the long-term goal of species and habitat protection, it may feature innovative organizational processes that could be applied in other contexts. Moreover, in the absence of performance accountability, organizations may emphasize self-serving practices such as fundraising to the detriment of their conservation objectives (Brulle 2000) (for case studies on Madagascar and on Wyoming, see Clark 1997; Hough 1994).

The books that we reviewed for our critical review article (this issue) strongly suggest that conservation with development does not protect species and their habitats (Brandon et al. 1998; Kramer et al. 1997; Oates 1999; Terborgh 1999). While none of these sources claims to provide a comprehensive evaluation of ICDPs or community-based conservation, it is clear that the authors find far more problems than benefits in current, people-oriented approaches to protected areas management. Notwithstanding the varied assumptions that underlie the conservation with development approach, proponents of authoritarian nature protection tend to overlook important processes such as organizational development that have emerged from many projects that fall under the rubric of community-based conservation. Thus, when considering components of social process, the following questions surface: Has conservation with development failed on all counts? To what extent are problems that have been identified actually related to implementation shortfalls? In other words, are they problems of concept or application? While conservation with development may feature key conceptual flaws, there are almost certainly ways to correct and improve the approach, rather than throw it out entirely as the authors cited earlier seem to suggest.

Adaptation and Learning—Institutionalizing Reflection and Self-Correction

The joint concepts of adaptation and learning appear strongly in the adaptive/ecosystem management literature (Holling 1978; Lee 1993; Lee 1996; Lee 2000; Walters 1986). The main question that emerges in this context is: How can we systematically adapt and learn from experience? This applies not only to management prescriptions but also to social process.

In his influential book, Lee (1993) refers to this process in terms of “compass” and “gyroscope.” “Compass” suggests that conservation policy be viewed as an on going experiment wherein practitioners attempt to generate increasingly accurate and useable information that might advance progress toward reaching management objectives. “Gyroscope,” in turn, points to democratic social process as the only legitimate way of carrying out interventions (Geisler in press).

Regarding social process, discussions of adaptation and learning emerge in the literature on both organizations (Argyris and Schon 1987) and policy (Hall 1993) (often called *organizational learning* and *social learning*, respectively). In addition to promoting rigorous appraisal of goals, writings on learning emphasize reflection on the appropriateness of goals (often called *double-loop learning*) and approaches that individuals and organizations adopt (Argyris 1982; Schön 1983). In this sense, conservation as social process entails continuous self-correction based on what works best in a given time and place (Brunner and Klein 1999).

For most practitioners working at the field level, the types of learning just described are a necessary by-product of carrying out management activities in complex settings. Policymakers, on the other hand, tend to emphasize standard monitoring and evaluation procedures without reflecting on the appropriateness of goals (*single-loop learning*). While learning implicitly occurs in the course of everyday management activities, it is much harder to institutionalize learning processes within program operations. Typically the high complexity of conservation and development interventions leads to organizational routines in which managers constantly must respond to new and unexpected problems. According to the authors cited earlier, building in time for collective learning allows organizations to better understand and respond to complexity. Internal reviews by the International Union for the Conservation of Nature (IUCN) (Borrini-Feyerabend 1996) and the World Wildlife Fund (WWF-US) (Larson et al. 1997) highlight the importance of learning and adaptation of field-based conservation projects.

Political Economy—The Impact of Nonlocal Forces

There is a well-documented consensus in the literature on biodiversity conservation that nonlocal social, political, and economic forces can play a significant role in exacerbating species/habitat loss and rural poverty in ways that defy the scope and impact of community-based interventions (Brandon 1997; Brandon et al. 1998; Ghimire and Pimbert 1997; Kramer et al. 1997; Larson et al. 1997; Oates 1999; Seymour 1994; Terborgh 1999). This trend coincides with the literature in political ecology (Blaikie 1985; Bryant and Bailey 1997; Zerner 2000). In this respect, two questions emerge. First, to what extent does environmental change result from large-scale commercial enterprises such as mining or timber exploitation? Second, how are local practices such as game hunting and swidden agriculture driven by wider political economic processes such as market demand or land tenure laws?

Many discussions refer to large-scale national and international commercial enterprises including pharmaceutical firms, and oil, timber, and mining companies (the so-called “resource pirates”) that have strong connections to the state or political elites (see Dorsey in press). It may happen, for example, that a close friend or relative of a nation’s ruler receives timber concessions in recognition of loyalty. That person in turn may develop a business relationship with an international logging company, which covers capital investment in return for exclusive extraction rights (see Ross 2001). Given this alignment of political and economic interests, it would be highly unlikely that the national forestry agency, NGOs, or local communities could prevent or change the logging operation. A recent editorial by Whitten et al. in the journal *Conservation Biology* offered a firsthand account of the severe ecological impacts of 30 years of commercial logging across Indonesia in spite of millions of dollars in donor aid for nature protection and the rise of conservation biology as an academic discipline (Whitten et al. 2001).

In addition to these types of power plays by national and international interests, nonlocal forces can refer to structural factors such as laws, treaties, economic adjustment programs, international trade, and bilateral aid projects, among others. These institutional opportunities and constraints are in many cases tied to global-scale capitalist economies. Two different conceptual angles for understanding how nonlocal, structural factors impact local conservation efforts emerge in this regard. The first perspective centers on the ways in which structural power in the form of formal and nonformal institutions as well as discourses and ways of thinking shape how political action occurs. In the case of “illegal” residents cultivating coffee within forest reserves in South Sumatra, local planters were motivated in large part by price increases precipitated by crop damage in Brazil (Brechin in press). In Madagascar, a shift in global conservation strategy from ICDPs to ecoregional planning led to a restructuring of national programs that reduced investment in and participation by communities and increased the role of state agencies and national NGOs (Gezon in press). A second perspective builds on these understandings of power relationships to consider organizational outlets for constructive political action that can attend to these nonlocal forces, including formal organizations, international environmental governance regimes, and common pool resource institutions. Case studies from Mexico (Wilshusen et al. in press), the Dominican Republic (Geisler in press), and the Philippine’s San Salvador Island (Christie et al. in press) all provide examples of the challenges of crafting biodiversity conservation with social justice.

A partial cross section from the literature presents numerous other country-specific cases on the multiple layers of nonlocal political forces associated with conservation and development, including Zimbabwe (Alexander and McGregor 2000), Zambia (Gibson 1999), Tanzania (Neumann 1995), the Gambia (Schroeder 1999), Senegal (Ribot 2000), Ghana and South Africa (Leach et al. 1999), Cameroon (Ekoko 2000), India (Agrawal 1998; Saberwal 2000; Sivaramakrishnan 2000; Sundar 2000), Cambodia (Le Billion 2000), Indonesia (Harwell 2000; Li 1999), Nicaragua (Nygren 2000), Guatemala (Sundberg 1999), Ecuador (Bebbington and Perrault 1999), and Mexico (Klooster 2000).

Future Directions: Rethinking Biodiversity Conservation as Social Process

Given the six key concepts associated with social and political processes just presented, we offer another six general ideas that we hope will encourage an open and balanced dialogue on the future of international biodiversity conservation (see Table 2). Much of the rhetoric in the writings that we reviewed by authors such as Terborgh (1999), Oates (1999), Rabinowitz (1999), and Soulé (1995) tend to frame the debate on biodiversity protection in terms that rely on a false dichotomy: pro-nature versus pro-people. In contrast, we argue that establishing a legitimate process by constructively working with people is the most feasible and morally just way to achieve long-term nature protection. In other words, since conservation is a human organizational process, the goal of biodiversity protection (pro-nature) depends on the strength and commitment of social actors (pro-people). We would expect to find that increased human organizational capacity, in line with the elements of social and political process that we describe in the first part of this article, will increase self-enforcement and dramatically reduce the need for forced compliance. While some might argue that this type of approach already has been attempted unsuccessfully, we would argue that nature protection with social justice has not yet been tried as a

TABLE 2 Recommendations for Rethinking International Biodiversity Conservation

Recommendation	Components
1. Conservation with social justice—establish explicit parameters for social process.	<ul style="list-style-type: none"> • A set of standards that can guide design, implementation, and appraisal of biodiversity programs. • Organizations define commitment in a particular place, stabilize expectations of affected parties, and set boundaries of accountability.
2. Conservation in context—apply knowledge in context and adopt problem-oriented approach.	<ul style="list-style-type: none"> • Detailed action strategies negotiated by participants in particular setting. • Apply conservation “tools” most appropriate for given context.
3. Knowledge about conservation—develop systematic social scientific knowledge.	<ul style="list-style-type: none"> • Social theory and the environment • Social causes of environmental change. • Conservation management as a process of human organization. • Political dynamics of conservation. • Social impact assessment. • Organizations and natural resource mgt.
4. Increase capacity for organizational coordination and collaboration.	<ul style="list-style-type: none"> • Organizations—structure, goals, commitment, capacity. • Organizational networks and collaborations.
5. Conservation performance—Establish parameters for appraisal of social process.	<ul style="list-style-type: none"> • Decision process appraisal. • Organizational performance. • Comparative case studies.
6. Dialogue on conservation—Establish an ongoing “workshop” among social and ecological scientists to find common ground and generate strategies.	<ul style="list-style-type: none"> • Continuing series of meetings or roundtable discussions centered on problem solving and strategy building. • Overlapping working groups for international, national, and local contexts.

general strategy since integrated conservation and development have emphasized economic incentives and compensation as a means of “buying” constraint.

In general terms, what might conservation with social justice look like and what lessons can available case studies offer in this regard? Obviously there are many different answers to these questions, but we can begin to sketch an outline of one generalized view that considers clarification of standpoint, contextualization, knowledge, organization, performance, and dialogue. While other points could be added to this list, we can at least begin by considering how these six points intersect

in the context of “doing conservation” in specific times and places. We propose that a socially just approach to nature protection advances rather than detracts from human dignity. This way of thinking about conservation does not preclude potential trade-offs or conflicts of interest between protected areas and local communities, but it does elevate the goal of promoting human dignity to the same level as that of saving species. Nothing in what we propose is particularly new, and numerous practitioners within the conservation biology community have promoted many of the general issues we highlight here (e.g., Jack Ward Thomas’s keynote address to the 2000 annual meeting of the Society for Conservation Biology). At the same time, by synthesizing elements of social and political process and advancing some ideas about incorporating them in practice, we seek to create an alternative vision of conservation that does not rely largely on state-led, authoritarian practices.

Interestingly, the perceived “sides” in debates on conservation—pro-people and pro-nature—make similar observations on several points (e.g., nonlocal forces mentioned earlier) but use them to support very different arguments. For example, advocates of strict protectionism critique participatory methods (community-based conservation) because they tend to make assumptions about idealized “local people” living in harmony among themselves and with nature (Brandon 1996; Brandon 1997). In the majority of cases, these observers argue, local communities are internally divided, often are poorly organized, and rarely possess anything like a conservation ethic. As a general rule, therefore, it should not be assumed that they will behave in ways that protect species and habitats. Scholars and practitioners associated with political ecology and other critical social scientific perspectives, on the other hand, make many of the same points about assumptions regarding “local communities” but use the information to make different arguments about the inequities of conservation programs (Agrawal and Gibson 1999; Brosius et al. 1998; Leach et al. 1997; Li 1996; Zerner 2000). While both perspectives are useful and insightful as far as they go, neither tends to consider in any detail what we might call the “pragmatic middle ground.” In other words, they argue for either ecological preservation or social emancipation but do not account for what is politically possible in specific times and places. In what follows, we offer a middle course: a politically constructive proposal that satisfies three general criteria—ecological, pragmatic, and moral.

Conservation With Social Justice

Recommendation 1: Establish explicit parameters for social and political processes associated with biodiversity conservation.

Specifically, this recommendation calls for conservation and development organizations to elaborate a set of standards that can guide design, implementation, and appraisal of biodiversity programs. This might take the form of a policy statement or similar type of declaration. We have suggested that the principles of environmental justice outlined in Taylor (2000) and Bryant (1995) might provide general guidance in this regard, above and beyond questions of basic human rights. By clarifying its standpoint with respect to the process by which interventions will be carried out, a conservation organization defines its commitment to working in a particular place, stabilizes the expectations of all affected parties, and sets the boundaries of its accountability. In this sense we are not suggesting that conservationists should aspire to some universal moral standard but rather that we negotiate

and make explicit our positions on human rights and responsibilities in the context of nature protection.

For many in the conservation community the idea of explicitly joining conservation with social justice may seem like an attempt to invent a new politically correct buzzword. Skeptics might remark that, as with sustainable development, such an approach excessively dilutes or hampers the mission of nature protection. Now that conservation with development is being questioned for its apparent inability to protect species, we might be accused of trying to “change the name but keep the program.” Both conceptually and practically, however, joining conservation with social justice allows policymakers and practitioners to move beyond the development imperative as it is currently framed. Interventions that adopt the core principles of justice—full participation, self-representation, and self-determination—allow both nature protection and human development needs to be negotiated in context without imposing a priori economic development goals.

Conservation in Context

Recommendation 2: Apply knowledge in context and adopt a problem-oriented approach, recognizing local uniqueness and issues of scale.

Regardless of approach—strict protection or conservation with development—conservation as a problem of human organization must account for the aspects of social and political process presented in the first part of this article (human dignity, legitimacy, governance, accountability, learning, and nonlocal forces). Although conservation practitioners might adopt general operating guidelines, like the principles of social justice mentioned, detailed action strategies will be most effective if they are negotiated by participants in a particular setting. This line of reasoning suggests that the context defines the response, not vice versa. A number of authors recognize the importance of contextual problem solving in conservation, given vast differences in ecological, political, and social complexity across settings (among others, Brandon et al. 1998; Kramer et al. 1997; Western et al. 1994). For example, protection strategies in certain times and places, such as Guatemala’s Peten region in the mid-1990s or Indonesia in 1997, might require immediate emergency action on the part of government and other actors, given the rapidity of land cover changes from fire or uncontrolled settlement. In other contexts, local communities may be internally divided or producer organizations (such as agricultural cooperatives) may be absent, thus posing significant barriers to the type of deliberative, participatory approach to conservation that we advocate. However, in other cases, such as in Panama’s Darien region, local organizations are incipient but there appears to be strong potential for pursuing comanagement agreements that encompass existing protected areas as well as parts of indigenous lands (*comarcas*), given the low intensity of environmental change. In places like Australia and Mexico the structure of land tenure and other legal entitlements places significant land management responsibilities in the hands of rural producers, suggesting that negotiated partnerships may be the only viable conservation strategy (Arnold 1998; Stevens 1997).

Knowledge About Conservation

Recommendation 3: Develop and synthesize systematic social scientific knowledge of conservation as a social and political process.

This point focuses in particular on what social scientists can do to participate more directly in the conservation policy process. In many respects a broad literature

already exists on many of the issues that we highlight in this article. In spite of the numerous discussions on multidisciplinary work, social scientists could significantly add to debates on biodiversity conservation by comprehensively addressing the possible applications of their analyses and by pursuing greater cross-disciplinary collaboration. Several areas stand out in this regard, including explorations of conceptual issues (Bryant 1995; Buttel 1996; Redclift and Benton 1994); studies on the social causes of environmental change (Rudel and Horowitz 1993); environmental history (Christen 1994; Grove 1990; Grove 1995; MacKenzie 1988; Neumann 1998); studies that examine conservation as policy process (Clark 1997; Clark et al. 1996; Clark et al. 1994; Clark et al. 2000b); analyses of the political dynamics associated with conservation (Brechin et al. in press; Bryant and Bailey 1997; Zerner 2000; Peet and Watts 1996); studies on social impacts associated with conservation (Fortwangler in press; Geisler 1994); and studies on organization and environment (Brechin 1997; Brechin 2000; Brechin et al. in press-a; Keck 1995, Keck and Sikkink 1998).

Conservation Organization

Recommendation 4: Increase capacity for organizational coordination and collaboration.

If conservation is primarily a problem of human organization, then attending to the structures and interrelationships that sustain coordinated action should form the core of protection strategies in addition to producing ecological knowledge. For example, as Clark's (1997) in-depth analysis of an endangered species recovery program in the United States suggests, a scientific consensus on bolstering populations may be in place but organizational failures prevent concerted action. In this case, efforts to establish a captive breeding program for a newly discovered population of black-footed ferrets (*Mustela nigripes*) nearly failed due to organizational power struggles among Wyoming Game and Fish and other organizational actors (Clark 1997). While the sheer breadth and complexity of the organizational challenges involved in conservation merit wider exploration than we can provide here, in this section we offer this one general proposal—the need for coordination and collaboration that consider long- and short-term activities; see also Brechin et al. (in press-a).

As conservation work becomes increasingly complex, practitioners face the challenge of creating and maintaining innovative organizational arrangements (Gray 1989; Western et al. 1994). While increased complexity demands greater decentralization of professional effort, the need for rapid responses and precision requires greater coordinated linkages with other organizational actors (Perrow 1984). This will be difficult to do without a shared strategy, a sophisticated monitoring and communication system, and a coordinated response structure. Although there are no simple recipes for effective organizational coordination and collaboration, project designers and other practitioners will need to account for questions of structure, performance (see next subsection), culture, and commitment (Brechin et al. in press-a; Brechin et al. in press-b). Specially trained personnel and separate financial resources may prove central to this task, just as small groups of endangered species specialists often offer technical advice on population recovery efforts. In general terms, the complexity and urgency of protection activities may best be accomplished through umbrella organizational structures or networks and negotiated coordination strategies. In Mexico, the GEF Small Grants Programme supports an innovative

NGO network that successfully coordinates community-level conservation and development projects across the Yucatan Peninsula (Wilshusen et al. in press). At the global level, the Forest Stewardship Council (FSC) has established a forest certification regime, including flexible standards that can be adapted to local conditions (Viana et al. 1996).

Conservation Performance

Recommendation 5: Establish parameters for appraisal of social process.

As with the organizational challenges discussed earlier, performance monitoring and evaluation covers a broad field of study. The conservation and development community has dedicated increasing attention to appraisal (Margoluis and Salafsky 1998). We wish to add to this discussion by pointing to three areas—decision process appraisal, organizational performance, and systematic case-study analysis—that tend to receive comparatively less attention than ecological indicators.

Carry Out Decision Process Appraisal

Evaluating how decision making occurs uncovers an event timeline that shows both missteps and successful advances. Given the decision-making history associated with a particular program, participants can trace individual and group performance as well as accountability. The importance of establishing parameters for socially just action becomes especially apparent at this stage since, in addition to project-related objectives, evaluators can examine the extent to which decision makers act in ways that promote both nature protection and human dignity (see Clark et al. 2000b for several conservation and development case studies focusing on decision-making appraisal).

Evaluate Organizational Performance

As we note in our accompanying critique (this issue), conservation and development project shortfalls may result from problems of implementation rather than concept. To better understand this so-called “implementation gap,” practitioners need to evaluate organizational performance. Key questions that arise in this context include: Organizational performance for whom? Who defines success and failure of organizational efforts? Based on what criteria? More specifically on the nature of organizations themselves, what organizational participants, structures, technologies, and cultures are essential to promoting what specific types of conservation efforts? In sum, which organizational arrangements work and which ones do not and why?

Systematize Comparative Case Studies

The conservation literature is rapidly growing but lacks systematic analysis. Individual case studies comprise most of our information on people and park issues. Each author tends to use his or her own criteria for determining the relevant issues to be reviewed as well as criteria to determine success or failure. As a result, it has been challenging to systematically compare the tremendous amount of information collected on people and parks issues worldwide. This has led to differing interpretations as to where we stand and where we need to go, especially regarding consensus on policy guidelines. To refine our understanding and push conservation knowledge to the next level, we need to systematically review, organize, compare, and outline what we know, what we do not, and where to go next. A recent article in the journal

Science by Aaron Bruner and colleagues provides an example of the type of systematic research needed (Bruner et al. 2001).

Dialogue on Conservation

Recommendation 6: Establish an ongoing “workshop” on biodiversity conservation to find common ground and generate strategies.

Although a great number of academic and professional meetings on conservation and development take place every year, this final recommendation proposes a continuing interchange among key players from both the social and ecological sciences. The “workshop” idea could manifest itself in a variety of ways including a series of conference meetings, roundtable discussions, and so on, but the focus should center on problem solving and strategy building. Participants in diverse settings could set up multiple workshops depending on the policy arena. For example, those interested in general questions related to international biodiversity conservation might form a special task force drawing expertise from community organizations, universities, NGOs, intergovernmental organizations, and foundations, among others. More focused working teams might emerge in the context of specific country needs or projects. In Colombia’s Pacific Coastal region, representatives of Afro-Colombian and indigenous groups participated in a working group that restructured a large-scale GEF project, establishing a new precedent for local participation in decision making (Wilshusen in press). Regarding international initiatives, the meetings on “mobile peoples and conservation” scheduled for April 2002 in Wadi Dana, Jordan and hosted by the Refugee Studies Centre at the University of Oxford, IUCN’s World Commission on Protected Areas, and others appears to be an excellent example of multisectoral dialogue and problem solving. We expect that a combination of community groups, the conservation community, private foundations, academic institutions, and NGOs might call for and financially support a continuing series of meetings that allow critical reflection and constructive dialogue on the future of biodiversity conservation.

The Future of International Biodiversity Conservation

We have asserted in this review and in a related critique (this issue) that recent conservation writings present incomplete arguments that could be inappropriately applied to self-defeating policy prescriptions. Critics of the idea of buttressing the biodiversity conservation agenda by explicitly incorporating principles of social justice may respond by stating that the approach we advocate may be desirable but is impractical given the dire crisis facing the planet’s richest biotic zones. Indeed, biodiversity conservation is wrought with difficult decisions and how those decisions are made will, in many cases, affect the future existence of innumerable plant and animal species, most of which have yet to be described by scientists. We wish to reiterate that we fully support the goals of biodiversity protection. Rather than challenge its ultimate goals, the intent of this review has been to question the *process* by which biodiversity conservation is commonly conducted. Notwithstanding some important shortcomings of current participatory approaches such as ICDPs, existing strategies offer a wealth of experiences regarding the human organizational challenges associated with conservation interventions. Many of the proposals put forth in recent works by prominent conservation advocates overlook this fact and lack

sufficient insight into social and political processes such that more than likely they will serve to impede rather than encourage broad collective action in favor of biodiversity protection.

Given the arguments we present in this article, the most feasible and socially just alternative for long-term success is for the conservation community to work constructively with people at all levels, as difficult and imperfect as that may be. To proceed in this fashion will require that we adopt a stance of open dialogue and concerted negotiation with a wide array of actors in diverse contexts ranging from local people to government officials to international lending institutions. The notion of social justice carries a connotation of rights, which, as we have proposed, comprise self-determination, self-representation, and equal participation (Taylor 2000). It is important to remember that rights imply significant responsibilities for generating workable compromises that advance the nature protection imperative. Indeed, one of the main advantages of reorienting conservation strategies to explicitly incorporate social justice is that the agreements produced by the resulting dialogue would carry greater legitimacy. As a result, it is more likely that these types of accords would be grounded in commitment as opposed to lip service. At the same time, they would offer a stronger practical and moral foundation for fair enforcement. Conversely, agreements that result primarily from force or domination tend to include contravening claims, minimal commitment, and enforcement that usually engenders intractable conflict.

In light of our proposal for a process that joins nature protection with social justice, one important question remains: What happens in “emergency situations” where the conversion of specific tracts of tropical forest or other habitats is happening so rapidly as to require tough decisions and immediate action? We certainly do not want to end up talking about saving nature while the forest burns down around us. The “triage” approach being pursued by several conservation organizations to save ailing biodiversity hot spots (Dalton 2000) suggests that rapid response “emergency rooms” need to be the policy norm rather than the exception in many cases. For example, a proposed \$150 million Critical Ecosystem Partnership Fund that has emerged out of a joint effort led by Conservation International, a Washington, DC-based NGO, promises strengthened management of key protected areas for ecosystems in Madagascar, West Africa, and the tropical Andes of South America. It remains to be seen, however, what types of protection strategies this initiative will pursue and how it will work with people living in these areas.

In most cases when a government declares a “state of emergency,” it suspends the civil liberties of its citizens until the threat to national order has been controlled. In hospital emergency rooms, highly qualified, well-equipped medical teams take all necessary steps to save patients who often arrive in critical condition. Both examples are analogous to proposals for protecting biodiversity advanced in recent literature on protected areas but with one crucial difference. Governments that declare states of emergency or physicians that provide emergency medical services must ultimately respond to the citizens or patients they serve. In contrast, it is unclear what degree of responsibility the international conservation community and national governments have to the broad array of groups that are impacted and served by biodiversity protection interventions. Consensus on the question of who the conservation community ultimately serves and how will define the degree of legitimacy that the biodiversity protection imperative will take on for those resource-dependent populations whose livelihoods and oftentimes survival depend upon nature’s vitality.

Notes

1. While numerous conservation and development projects over the last 15 years have helped to improve the economic well-being of rural communities and in some cases have made advances in terms of social justice as we define it (full participation, self-representation, and self-determination), the main emphasis has been on achieving nature protection *through* economic development using incentives and compensation.

2. While space does not permit a long list of examples, other sources provide detailed case studies of the social impacts of conservation measures, including Fortwangler (in press) and Zerner (2000). A representative sample of cases includes Uganda's Kidepo National Park (Turnbull 1972), Mt. Meru in Tanzania (Neumann 1998), and Pakistan's Khunjerab National Park (Knudsen 1999).

3. These three principles are adapted from a condensed list of environmental justice principles summarized in Taylor (2000), originally published as *Principles of Environmental Justice*, ratified at the First National People of Color Leadership Summit, Washington, DC (October 1991). It is important to note that in practice these ideals potentially could conflict with one another. For example, in some contexts, deference to the right of self-determination (sovereignty) could impinge on the rights of some subgroups (e.g., women) to fully participate (thanks to Andy Willard for this observation).

4. For information related to programs, projects, and documents related to governance and biodiversity conservation consult the following web pages (current as of June 2001): World Bank (www.worldbank.org), Biodiversity Support Program (www.BSPonline.org), and IUCN (www.iucn.org). World Resources Institute has created an Institutions and Governance Program (www.wri.org/wri/governance).

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