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Conservation and Displacement: An Overview

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Contemporary efforts to protect biodiversity internationally are beset by multiple problems. Growing consumption pressures are contributing to ever faster declines in species and the systems they depend on. Available funds for conservation have declined. High visibility issues such as global climate change have attracted significant attention in the past decade, and perhaps contributed to lower interest in biodiversity conservation. Accusations regarding a lack of synergy between conservation and other social goals such as poverty alleviation, disease eradication, economic growth, and social equity have been advanced by many different scholars [As Sanderson (2002: 162–63) puts it, ‘Global losses in biodiversity and wild places are not the stuff of environmental alarmism; they describe our world today, as detailed in volumes of hard scientific evidence... All these impending losses have a human origin. Economic expansion, population growth, urbanization, and development lead to greater consumption. In turn, growing consumer demand fires competition for fresh water, energy, arable land, forest products, and fish. And globalized production permits the harvesting of nature at ever more rapid rates’. See also Chapin 2004; Sanderson 2005].

Faced with these constant challenges, the response of international conservation organizations has been to try to occupy a higher ground by arguing, among other things, that biodiversity conservation is an ethical necessity (Angermeier 2000; Ehrlich 2002); that the operational obstacles the above threats pose to conservation need to be addressed by sharpening the message of conservation and persuading others of the importance of biodiversity (Balmford & Whitten 2003; Perrings *et al.* 1992); that conservation can be accomplished together with poverty alleviation (Wells & McShane 2004); that biodiversity conservation is important in utilitarian terms for human well-being in the long run (Burton *et al.* 1992); and that an exclusive concern with human development often leads to undesirable impacts on biodiversity conservation (Redford *et al.* 2006). These

protestations vary in the evidence, conviction, and passion with which they are made.

The criticism that blunts the moral and ethical focus on biodiversity conservation is that which highlights the misery conservation programs impose on people. If conservation strategies distress human populations, especially those who are less powerful, politically marginalized, and poor, little that conservationists argue on behalf of biodiversity makes sense.

A spate of recent publications appearing in both the academic and the popular press overwhelms conservation precisely on this ground (Chatty & Colchester 2002; Choudhary 2000; Geisler 2003a, b; Geisler & Letsoalo 2001; Pearce 2005: 16). Conservation, the argument goes, has led to the displacement of tens of millions of people who formerly lived, hunted, fished, and farmed in areas now protected for wildlife, watersheds, reefs, forests, or rare ecosystems. The critiques compare the magnitude of human evictions and suffering to that caused by civil wars, mega-development projects, and high modernist state interventions (Schmidt-Soltau 2005; Brockington *et al.* 2006: 250; West & Brockington 2006: 613). These types of articles began to appear in the late 1980s and early 1990s (Albert 1992; Brechin & West 1991; Peluso 1993), but recent accusations are more assured, more caustic, and more sweeping. Perhaps as they amplify each other, they have found more traction (Adamson 2006; Dowie 2006a, b; Lal 2003; Schmidt-Soltau 2003; Veit & Benson 2004).

Despite these damning accusations against the widespread strategy upon which much conservation work is based—protected areas—it is remarkable that none of the major international conservation organizations has formulated a coherent, systematic, and/or effective set of guidelines to address conservation-induced displacements. This gap between the severity of accusations and the lack of response stands in stark contrast to similar arguments in relation to development-induced displacement. Major development-

focused international organizations such as the World Bank, the Asian Development Bank, the Inter-American Development Bank, and the Organization for Economic Cooperation and Development have each formulated some set of guidelines to shape their actions in the face of development-induced displacement, although several have done so only in the past few years (Thomas 2002).

This paper examines displacement in a historical light and compares conservation-related displacements to human displacements caused by development projects. It examines some of the justifications advanced in favor of displacing humans for conservation, and the extent to which these justifications survive in the face of vociferous human rights criticisms. It ends with a review of the different potential responses that conservation organizations can adopt in the face of what is one of the most critical problems confronting conservation worldwide, especially conservation that relies on territorial set-asides, and at a critical time in global conservation.

WHAT IS DISPLACEMENT? NATURE, SCOPE, IMPACTS

A large number of words signify the physical dispossession of peoples from their lands: displacement, dislocation, eviction, exclusion, and involuntary resettlement are routinely used. Analogously, other terms have been used to describe the loss of access to resources that accompanies physical displacement, but which can, of course, occur without physical dispossession. ‘Displacement’ has been used as an omnibus term to cover a range of phenomena in the literature on displaced peoples, including loss of access or restrictions on livelihood opportunities or future income related to environmental resources (Cernea 2005). Such an expansive meaning actually obscures the plight of those who are physically separated from their land and homes. Indeed, the dictionary meaning of displacement, ‘removal of a thing from its place, putting out of place’, (OED 1989) corresponds closest to the idea of physical removal of people from a place. Here, we use ‘displacement’ to signify the involuntary physical removal of peoples from their historical or existing home areas as a result of actions by governments or other organizational actors. We use ‘exclusion’ or ‘loss of access’ to denote the restriction of access to resources that may occur even without physical removal from place.

DEVELOPMENT AND DISPLACEMENT

Even if the more familiar images of involuntary refugee-style displacement and resettlement are associated with conflicts and natural disasters, it is large development projects that have led to the most human displacement. [It is also worth noting that ‘unlike some of the effects of natural disasters or wars, displacement undertaken for development purposes is always permanent’ (Brand 2001: 962). The permanency of displacement is also equally true of conservation-related

origins.] In the case of international movement of refugees, the United Nations High Commission for Refugees estimates their numbers to be around 14 million in 2000, of which six million are Palestinians (UNHCR 2001). Another 30 million people have been displaced within national borders (Robinson 2002). In contrast, displacement because of development interventions—typically related to infrastructure projects such as dams (which flood massive areas), roads, state-owned plantations, mining, pipelines, and urban reconstruction—is estimated to be between 100 and 200 million people since 1980. Cernea (2000: 6) estimates the total number of people displaced as a result of development-related projects between 1980 and 2000 to be close to 200 million. Others have provided numbers that range closer to 100 million (Koenig 2002; McDowell 1996), and the increasing number continues to be in the neighborhood of an additional 10 million people annually. It is likely true that the reasons for development-induced displacement may be changing: from being related primarily to the construction of dams in rural areas to other high-technology infrastructure projects (Koenig 2002: 2; see also Baviskar 2003; Bunnell 2002). But the violence that development projects inflict upon people continues to be stunningly commonplace (Morvaridi 2004).

The juxtaposition against displacement by development projects can inform the ethical, socio-political, and economic analyses of conservation-related displacements and resettlements. For one, studies of development-associated displacement and compensation for the displacees have been growing for three decades: contrast this to work on conservation-related displacement, which is far more recent and sparse [for a recent important set of cases and reflections, see the 2003 special issue of the *International Social Science Journal* 55(1)]. There is greater historical detail and accuracy in studies of internationally funded development-induced displacement, and more evolution of consideration of harm and how to mitigate it. There is also better quantitative information and qualitative knowledge about the scope, nature, and impacts of displacement induced by development—not true for conservation related displacement.

Large development projects typically generate winners and losers on a significant scale, especially in countries such as India and China and countries in Southeast Asia. But even in smaller countries where fewer people are displaced, the proportionate impact on the population can be significant (Rew *et al.* 2000, cited in Koenig 2002: 2). The usual defense of displacement lies in arguments about how critical those projects are to national economic growth. Progress in achieving economic growth is viewed as capable of generating a sufficient surplus for the entire population that will offset losses by those who are displaced. Such faith in the capacity of project planners is especially likely to be displayed by project authorities and government officials, and likely was more assured two decades ago than it is today.

The human rights and displacement debate is fuelled by the devastating impacts of some mega-development projects and the increasing evidence that economic redistribution

and adequate compensation seldom occur. The majority of those displaced by development projects fare badly long after such projects are launched, as do the minority who officially received compensation. As Cernea (2003: 39) puts it, the idea that ‘full compensation for losses would be adequate to...restore the incomes and livelihood of those displaced and relocated...is unwarranted and unproven. It is in fact contradicted both by logical and historical analysis...and by massive bodies of empirical evidence’. Indeed, the continuing destitution of millions upon the pillory of development projects is striking (World Commission on Dams 2000).

The policy response to development-induced displacement and resettlements is depicted well in what Cernea (2000) calls his ‘Impoverishment, Risks, and Reconstruction (IRR) Model’. [Cernea’s model might more appropriately be viewed as a framework for analysis. Ostrom (1999: 39–40) distinguishes among frameworks, theories, and models. Frameworks identify the elements and relationships among elements for guiding analysis; theories specify the important assumptions for answering questions related to relevant phenomena; and models state the precise relationships among the variables that lead to outcomes. In many ways, Cernea’s framework for analyzing displacements does little more than state the relevant elements that affect impoverishment. It fails to provide much insight into how these different elements may themselves be related, or the extent to which their impacts on poverty depend on varying contextual conditions, despite Cernea’s recognition that the context plays an important role.] Building upon earlier work by Chambers (1969), Nelson (1973), and Scudder and Colson (1982), Cernea identifies eight sources of risks—primarily economic in nature—that contribute to the impoverishment of displaced people. Cernea locates the possibility of reconstruction to address each of the eight risks and argues strongly against a program of rehabilitation based on compensation. (The impoverishment risks, according to Cernea, are landlessness, joblessness, homelessness, marginalization, food insecurity, morbidity and mortality, loss of access to common property and services, and social disarticulation. The strategy to address each risk is to counter it specifically—provide land to those rendered landless, create jobs to deal with joblessness, construct homes to remove homelessness: the prescription has directness in relation to the diagnosis that is immediately pleasing in relation to policy. See also Cernea 1999.) Cernea’s analysis has four different functions: predictive, diagnostic, problem-resolution, and research.

Two important gaps can be noted with respect to Cernea’s framework. In viewing each source of risks as independent of other sources, the framework lacks a concerted approach to reconstruction. Thus, the analysis hints at but is ultimately silent on how a focus on land, or health, or assets can affect outcomes related to other sources of risks, or strategies to address risks. Additionally, in focusing primarily on economic risks to livelihoods it fails to consider the political and ethical context within which displacement occurs. It can appropriately be classified into a ‘reformist-managerial’ mode of responses to displacement rather than a ‘radical-movementist’ set of

responses (Dwivedi 2002).

The first gap is in part addressed, at least in terms of policy responses, by Kanbur’s proposal in favor of generalized social safety nets in addition to project-specific safety nets. Since it is unlikely that compensation to the poor and marginalized displaced households will address the adverse impacts of a development project (Heming & Rees 2000), Kanbur (2003: 33) suggests that project-specific compensation should be supplemented by social safety nets designed to address the plight of those people likely to be affected by development projects: ‘small farmers, rural landless, urban informal sector, etc.’ However, Kanbur does not outline how such social safety nets might be constructed and implemented, and indeed, one must question the practicality of such options given the competing demands on the budgets of most developing countries.

The distinction that some have drawn between the managerial and the social movement response to development is in part a recognition of the fact that even a painstakingly planned and sincerely implemented compensation package will never be equal to the task of ensuring that those displaced by development projects end up ‘no worse off’ than their situation before the project was implemented (De Wet 2001). But it is also the result of the suspicion that mega-development projects, especially large dams and infrastructure projects, are undertaken because of their positive outcomes for a select few rather than their aggregate benefits for the national society (for an especially cogent articulation of this position, see Roy 1999).

Scholars focused on the human rights of the displaced and the accountability of the corporate and state actors who allow that displacement tends to reject the developmentalism inherent in Cernea’s assumptions, and focus instead on grassroots organization, mobilization, and resistance to displacement in the name of development (Dwivedi 1999; Escobar 2003; Routledge 1993). Their vision of just development focuses instead on concrete examples of successful or quasi-successful efforts to undermine development policies leading to displacement. As Dwivedi (2002: 710) argues, the 1980s were the decade of displacement, but the 1990s were the decade of popular resistance to displacement.

CONSERVATION AND DISPLACEMENT

Displacement is a consequence of conservation projects because conservation, like development, is inherently spatial. Conservation of species and ecosystems requires restrictions on human influences—local, state, and corporate—in areas where species or ecosystems are to be conserved. (The literature on this theme is so complex as to brook no easy summary. For a relatively rosy assessment of the ease with which humans and wildlife species can coexist and prosper, see WWF 2006. Agrawal and Redford’s (2006) survey of 37 projects attempting joint achievement of biodiversity conservation and poverty alleviation finds little systematic evidence in favor of synergies between these two goals.) The most popular strategy

is protected areas. However, the global picture about the size and complexity of protected area classification and the impacts of different types of protected areas on human activities is at best unclear.

The number and total area of protected areas has grown enormously in the postcolonial period: more than 105,000 listed PAs covering approximately 20 million sq. km. [For details, see <http://sea.unep-wcmc.org/wdbpa/>. The official classification and information in the World Conservation Monitoring Center (WCMC) database does not include areas covered by private and informal arrangements for wildlife protection that are common in many parts of the world.] Of these, terrestrial protected areas cover 15.3 million sq. km, or over 10% of the land surface of the planet (Ravenel & Redford 2005). [Chape *et al.* (2005) estimate that close to 12% of the land surface of the planet is covered by more than 100,000 protected areas. It is worth noting that this proportion is already beyond the target of 10% of land surface proposed more than a decade ago at Caracas during the fourth World Congress on national parks and protected areas (World Conservation Union 2003).] The growth rate of protected areas has been steady over the past five decades, with faster growth in the 1990s (Naughton-Treves *et al.* 2005). Some of the growth in the area under protection may reflect better reporting and record keeping and the inclusion of areas that are semi-protected.

Most protected areas fall under six different IUCN categories corresponding to specific management objectives that permit increasing human use—from category 1a and 1b (strict reserve) to category 5 (managed resource use). The actual presence and influence of human beings in a given protected area location depends on the extent to which management objectives and laws assigned to that category are put into effect (Ravenel & Redford 2005: 387; West *et al.* 2006).

Indeed, the tension between human presence/use and conservation success means that the management objectives associated with particular classifications and their translation into practice are deeply contested. This uncertainty, and lack of systematic data about what actually happens in particular categories of protected areas, is relevant for five reasons: (1) we do not know how particular management objectives translate into practices that lead to displacement; (2) the magnitude of displacement consequent upon the creation of protected areas—particularly categories 1a and 1b to 4—is unclear (category 5 permits sustainable use of protected area resources, and is the least likely of the six IUCN categories of protected areas to lead to displacement); (3) the social impacts of displacement, clearly negative and highly significant, are known specifically only in the case of a few detailed studies; (4) there is no systematic evidence of the extent to which governments and other agencies have attempted to address the condition of those who have been evicted; and finally, (5) existing knowledge about the extent to which such efforts at redress have been successful is astonishingly poor.

What knowledge we do have regarding these five issues is based mainly on more or less informed speculation and case studies. Nearly all of what we can say about the overall

magnitude of conservation-induced displacement depends upon heroic extrapolation. Typically, such speculation suggests that the magnitude of conservation-related displacement is lower than what has been produced by development projects, and is possibly in the neighborhood of 10–20 million people. [One such example is representative. Geisler (2003) arrives upon a figure of 8.5–136 million humans displaced as a result of conservation projects by taking the total area of protection under different IUCN categories (8.5 million sq. km), and multiplying it with an assumed population density of 1–16 persons per square kilometer. Using this procedure, Geisler's estimate today would have ranged between 10.8 and 173 million. Others have taken Geisler's estimates of 1–14 million displacees for Africa, and asserted a figure of 14 million displaced peoples in Africa as fact (Dowie 2005).] But given the major gaps for even basic information in the WCMC database, we simply do not know how many people have been displaced as a result of the establishment of protected areas. [The WCMC database lacks size information on 12% of the listed records, and the establishment date for 35% of them (West *et al.* 2006).] Certainly, there has been no attempt to build a picture of the magnitude of conservation-related displacements using micro-level data (but see Brockington & Igoe 2006 for a significant start), and any attempt to do so will flounder upon the shoals of spotty and unreliable generalizations inevitable in case-based studies.

Our knowledge about these questions is based primarily upon case study evidence. In an extensive review of the impact of protected areas on people, West *et al.* (2006) suggest that somewhere around 50–60 studies provide some careful information about the impact of some protected areas upon the livelihoods of people living within them, and those displaced since their establishment. Many of these studies are geographically clustered, with better information being available for some protected areas in India, Nepal, southern and East Africa, and the United States than for most other protected areas, and most other parts of the world. [See, for example, the essays by Rangarajan and Shahabuddin (2006), Redford and Sanderson (2006), Goodall (2006), McElwee (2006), and Brockington and Igoe (2006) in a recent special issue of the journal *Conservation and Society*. The absence of studies from many regions may be interpreted as the absence of significant displacement in understudied regions, but it would be equally easy to suggest that the absence of evidence is not evidence of absence.] What these studies do tell us about the economic and social impacts of eviction from protected areas is limited but in consonance with the far larger literature on the social, economic, political, and cultural effects of development-induced displacements.

Because the provisions relating to particular categories of protected areas are applied unevenly even within a country, residents of protected areas (or those who utilize the protected areas' resources) face uncertainty as to whether, when, and how they will be displaced, and with what effects. Emblematic of such uncertainty are loud headlines in newspapers that announce the potential eviction of four million people in

India as a result of amendments to and possible enforcement of protected areas policies (Sekhsaria & Vaghlikar n.d.). We also know that the use of force is typically critical to displacement from protected areas and that displacement has caused impoverishment, social disarticulation, and political disempowerment. (Some of the worst, and long-recognized, impacts of the creation of protected areas concern the adverse effects on the incomes of those who are displaced, even if they live within or in the vicinity of newly formed protected areas. Numerous studies have documented significant direct losses to livelihoods and agricultural incomes, human-wildlife interactions, and indirect losses because of loss of access to areas set aside for conservation (Ghimire & Pimbert 1997; Hulme & Murphree 2001; McLean & Straede 2003; Rao *et al.* 2002).] Few of the displacees have been compensated (Schmidt-Soltau 2003) and, in many cases, displacements are not legally recognized despite being pursued both under the authority of law and through the use of extra-legal force. [Much of the case work on this aspect of conservation-induced displacements is only available in the gray literature rather than as published materials. See, for example, the report on coercive conservation practices prepared by Hebert and Healey (n.d.) for the International Human Rights Advocacy Center, and reports published by the Legal and Human Rights Center on the Serengeti killings (http://www.humanrightstz.org/humanrights/serengeti_reports, accessed on April 20, 2006).] Given the limited base of information about the process of displacement, its impacts, and compensation policies, the absence of knowledge about whether compensation produces sustained positive effects is not surprising.

The consequences of displacement on human welfare are difficult to state with precision even though they can be inferred. By the same token, it is also difficult to know exactly how much the setting aside of protected areas has contributed to biodiversity conservation. Various studies of protected areas provide general indications of their effectiveness. But this general conclusion hides a wealth of details and variations that prevent precise statements about the marginal gains from strict conservation, gains from partial protection, and how such gains can be balanced against the losses to those displaced from protected areas (Hayes 2006). For example, some quantitative studies covering a significant number of protected areas focus more on conservation of forests rather than wildlife (Naughton-Treves *et al.* 2005). Many other studies focus more on the extent to which existing protected areas represent biological diversity rather than the actual effective protection. [The well-received studies by Parrish *et al.* (2003) and Rodrigues *et al.* (2004) constitute important illustrations of this assertion.] Analogously, there are few established metrics on the basis of which the management effectiveness of protected areas can be compared (Chape *et al.* 2005). A large number of studies point to the numerous threats to protected area effectiveness (Bruner *et al.* 2004; Struhsaker *et al.* 2005), including the fact that many established protected areas are expected to contribute to poverty alleviation (Naughton-Treves *et al.* 2005). And finally, a large number of conservationists agree that effective

biodiversity conservation must include conservation outside the boundaries of protected areas, especially in the case of marine biodiversity (Allison *et al.* 1998).

It is clear that international conservation organizations must choose to act in relation to displacement in a relative vacuum of reliable information. At best, we can infer from the limited evidence that the people displaced as a result of conservation projects are as poor or marginal as the ones displaced by development projects. Conversely, it is also likely that policies designed to address the plight of displaced (or the potential protests and mobilization that might emerge among them) may be similar for both types of displacement.

On the other hand, the extent to which the protected areas responsible for displacement have reliably contributed to biodiversity conservation gains is also uncertain. Lack of systematic information about how management objectives associated with particular categories of protected areas are translated into practice, cross- and intra-state variations in the implementation of protected area provisions, paucity of quantitative or broadly comparative studies that provide information on actual effectiveness of protected areas, and lack of consensus on the metrics along which conservation effectiveness should be compared across sites means that it is impossible to balance the human costs and conservation benefits associated with protected areas in a global sense.

JUSTIFICATIONS AND COUNTER-ARGUMENTS

The core arguments for biodiversity conservation are its ethical necessity and its critical importance for future sustainable survival. Even if one general measure of biodiversity decline—species extinction rates—is not well established, most observers believe it to be orders of magnitude 100–1,000 times greater than prehuman rates [(Balmford *et al.* 2003; Hughes *et al.* 1997; Pimm *et al.* 1995). See Colwell and Coddington (1994) and Purvis and Hector (2000) for different assessments and measures of biodiversity. McKinney (1997) reviews lessons from writings on theories of extinction.] Soule and Wilcox (1980: 8) underline the exceptional ethical stakes involved in biodiversity conservation when, referring to species extinction, they say, ‘Death is one thing; an end to birth is something else’. Analogously, Myers (1976: 119) argues for the economic importance of conservation in suggesting that the treasures of biodiversity ‘can make a significant contribution to and pharmaceuticals, and to industrial processes especially in the advanced world with its greater capacity to exploit genetic resources’. More generally, attempts to put a value on biodiversity suggest that the economic costs of extinction may be astronomical (Edwards & Abivardi 1998; Losey & Vaughan 2006; Pearce & Moran 1994).

But the extent to which these important arguments justify human displacement is unclear. To become relevant in the context of displacement, they need to be coupled with two assumptions: that human presence has a negative impact on conservation, and that there is a calculus of gains and losses through which the worst effects of involuntary displacement

on humans can be balanced by gains for conservation through displacement (see below).

In addition to these core arguments for conservation, some conservationists hint at other justifications of displacement—that there is a lot of injustice in the world, and conservation-related injustice is mild. These justifications are merely rationalizations and fail to address the significant ethical and rights-based criticisms, sidestepping them instead. If conservation-related displacement is an injustice then its character does not change simply because there are other greater injustices in the world. Whether only a few people have been displaced because of conservation projects is an empirical question. The evidence necessary to answer it has not been collected either by critics of conservation or by conservationists themselves. [As the recent Tiger Task Force Report argues in relation to tiger conservation efforts in India, ‘there is virtually no compilation of data on firstly, the number of habitations within these [tiger] reserves or on the fringes of the reserves; and secondly, the impact of these habitations on the tiger population’ (GOI 2005: 89). Similar complaints about the lack of any reliable data are voiced by West and Brockington (2006).] The inability of conservation organizations to provide clear answers regarding the magnitude of displacement even in the case of specific protected areas can be contrasted with development projects. Most major development projects that might lead to displacement are now preceded by social impact assessments and cost-benefit analyses. Whatever one might think of these methods and their utility, they are at least an integral component in assessing the feasibility of development projects.

The most important critique against displacement is the injustice involved in the involuntary removal of disadvantaged peoples from their homes and lands: Few elite or rich households have been displaced because of protected area creation. If conservationists do not attend to this, then they strengthen the perception that conservation is a concern of the wealthy and the powerful (see Brosius in this paper). Such justice-linked criticisms undermine the moral high ground that conservationists attempt to occupy. There is a vast incongruity in the position that simultaneously attempts to protect nonhuman life and ignore the livelihoods of humans. Critics of conservation can emphasize the unethical basis of conservation simply by pointing to the incongruities related to displacement. Indeed, the increasing emphasis on poverty alleviation among international donors and aid organizations has often come at the expense of a concern with conservation. In any direct confrontation between poverty alleviation and biodiversity conservation, this tension suggests, advocates of poverty alleviation are likely to get greater attention.

Critics of conservation and displacement gain further ammunition for their arguments from studies that attempt to demonstrate the historical structuring role of people in natural landscapes (Barthel *et al.* 2005; Gajaseni & Gajaseni 1999; McSweeney 2005; Sponsel *et al.* 1996). If certain small-scale human actions have contributed to biodiversity conservation, the reasoning behind protected areas that exclude all human presence is demonstrably flawed, according to these arguments.

However, such counter arguments favoring human residence in protected areas need to be more precise about the limits within which human actions can coexist with biodiversity, and the means through which such limits on human actions can be ensured—a free-for-all of human use is generally not compatible with biodiversity conservation.

Finally, other scholars argue that conservation projects that lead to displacement are likely to create anger and bitterness that lead to conservation failures (see Bodmer in this working paper). Displaced peoples have strong incentives to destroy the wildlife and resources within protected areas. Given the limited capacity of most governments in developing countries to enforce existing regulations, especially in the peripheral locations where many important protected areas are located, conservation success is likely dependent on local acceptance or resistance. Ultimately, it is an empirical question, but it is quite likely that a conjunction of strong local resentments caused by displacement or restrictions, feeble enforcement capacity, and organized poaching pose major obstacles to conservation. [One of the most striking illustrations of the adverse impact of the conjunction of these three forces in recent times is surely the extinction of the Indian tiger from the Sariska Wildlife Sanctuary as reported in major Indian newspapers and summarized and analyzed in a report by the Tiger Task Force established by the Government of India (2005).]

A PROGRAM OF ACTION FOR CONSERVATIONISTS AND CONSERVATION ORGANIZATIONS

Conservationists and conservation organizations have four broad potential courses of action open to them in relation to ongoing displacements of human populations. We denote them as negative, neutral, positive-future, and positive-historical. These are not mutually exclusive and different courses of action may be chosen by the same conservation organization in different situations.

A negative program of action signifies a more aggressive pursuit of conservation through protected areas, especially those in IUCN category 1a. Efforts to increase the size of protected areas and the rigor with which they are protected would likely result in even higher rates of displacement than is the case at present.

The neutral course of action would simply change nothing in the way conservationists currently create protected areas, and do nothing about displacement that may or may not ensue. A positive program of action would address the core criticisms of conservation-induced displacements. It would focus on specific examples in which displacement-related grievances are addressed in an exemplary manner, adopt a policy to avoid involuntary displacements as far as possible, convert involuntary displacement into voluntary agreements to move, and where such options are impossible, design compensation packages that would ensure that those suffering displacement are left ‘no worse off’ as a result of protected area creation.

Such a positive course of action could be more or less expansive

in its coverage. If the focus were primarily on displacements that would occur in the future, then conservationists would need to identify the distribution of interests among those likely to be displaced, work with national/local governments and human-aid agencies to create appropriate compensation packages for those who might get displaced, and involve local populations to determine a balance between compensation and concessions concerning the strictness with which conservation objectives would be enforced. [The kind of private contracts between governments and individual households described by Frank and Muller (2003) are unlikely ever to be the main mechanism for ensuring voluntary participation in conservation in the developing world. It is far more likely that conservation organizations would create schemes for compensation in consultation with government agencies rather than deal with specific landowners or local residents individually.] There is no ethically satisfactory way to address the needs of those who are likely to be displaced by conservation projects if their voices and needs are not included in a consultative manner. [For a discussion that depicts the complexity of involving those displaced by development projects in discussions related to compensation, see Garikipati (2005). Further, even if conservation organizations create compensation mechanisms that appear satisfactory to them, their plans will always be open to criticisms if they are not formulated in consultation with (potential) displacees.]

The fourth avenue—positive-historical—would be a more comprehensive effort to address displacement not just in future cases, but also to retroactively cover and compensate for past conservation-induced displacements. This option would necessarily mean that negotiations would cover many more people, and in many cases the best that conservation organizations could do would be to offer compensation to the displacees. (Actually returning physically displaced peoples to protected areas would likely be difficult.) Under this option, conservationists may also consider whether it is reasonable to convert some protected areas out of strict protection so that their resources become available for development. If some protected areas are redundant in terms of the biodiversity conservation they provide, de-gazetting them may result in better allocation of the scarce funds available for conservation, or even make them available for constructing compensation offers.

Choosing among the four outlined options requires striking a balance across: (1) ethical appropriateness, (2) monetary costs, and (3) political feasibility. It appears relatively easy to rank the options along the first two criteria: The first, negative course of action is ethically the least attractive option. It countenances displacement in the belief that the interests of nonhuman species deserve greater recognition than is currently the case. Option 2, the neutral course of action, is a little better, but perhaps only marginally. Option 3, which focuses on future cases of displacement, is ethically laudable. Option 4, under which retroactive compensation is coupled with a commitment to address all future conservation displacees, is easily the most attractive option for critics of conservation-induced displacement.

The ranking of these four options is also straightforward with

regards to their costliness. Option 2—neutral—is perhaps the least costly of the four because it merely assumes the status quo. Option 1 is likely to be costlier than option 2, because conservation organizations will have to spend more resources expanding and enforcing protected areas. Depending on the numbers of those who have been displaced, options 3 and 4 are likely to be costlier still, in that order, but by how much is difficult to assess. But the cost of option 4, even if the lower bound on the number of current conservation displacees (10 million) is close to accurate, may easily run upwards of five billion dollars (assuming an average compensation amount of \$500 per displaced person). [This is not considered an excessive dollar amount even in a poor country such as India (GOI 2005)].

While ranking these four options on ethical and monetary criteria is easy, the difficulties are greater in assessing their political feasibility. Even option 2—maintaining status quo—faces no small difficulties, as suggested by current controversies and critiques on the issue. It is, however, politically feasible in the short run. The ranking feasibility turns on the question of the ease with which coercive conservation can continue. Although some have argued that coercive conservation is resilient in the face of numerous challenges (Brockington 2003), the political landscape has already changed compared to the 1990s, and seems especially inhospitable to conservation displacement today. In a news article, Dowie (2005) writes, ‘It’s no secret that millions of native peoples around the world have been pushed off their land to make room for big oil, big metal, big timber, and big agriculture. But few people realize that the same thing has happened for a much nobler cause: land and wildlife conservation. Today the list of culture-wrecking institutions put forth by tribal leaders on almost every continent includes not only Shell, Texaco, Freeport, and Bechtel, but also more surprising names like Conservation International (CI), The Nature Conservancy (TNC), the World Wildlife Fund (WWF), and the Wildlife Conservation Society (WCS). Even the more culturally sensitive World Conservation Union (IUCN) might get a mention’ (Dowie 2005). One must ask by what alchemy have the names of those who see themselves as the defenders of the planet’s biological heritage come to be linked in the same breath with the names of those who are more appropriately seen as its degraders.

Dowie is not alone in these sentiments. An increasingly vocal group of authors will likely continue to rake international conservation organizations over the coals for their alleged indifference to the plight of human beings, particularly those humans who already face the dust heap of history. Consider the following testimony from Joy Ngoboka: ‘We were chased out on the first day the police ran into my compound. They all had guns. They shouted at me, told me to run. I had no chance to say anything...I was frightened for the children...but we just ran off in all directions. I took my way and the children took theirs. Other people were running, panicking, even picking up the wrong children in the confusion. I lost everything. I had 31 cows and some goats and hens. They were killed—20 cows were killed and the rest taken. They burned everything, even the bed and furniture and the kitchen. We’re poor now’

(cited in Ozinga 2003). If one did not know that this woman was displaced by the Kabile Game Corridor, one might believe this was a testimony from a refugee displaced by war. [A description of displacement provided by Fred Pearce (2005) in the *New Scientist* is equally distressing.]

What emotional testimonies like these suggest is that determining the precise numbers of displaced peoples is not the most important issue. Larger numbers simply indicate that displacement-related injustices are common, but whether the number is a million or 10 million is less important. But the identification of striking negative images with conservation is highly prejudicial for conservation organizations from a public relations perspective. The storyline in reports on conservation-related displacements is especially juicy because it focuses on the underbelly of what is mostly seen as a noble cause—the preservation of species and landscapes. It allows an unlikely combination of actors—left wing intellectuals, conservative economists, and populist politicians, each for very different reasons—to unite against wildlife and biodiversity conservation.

In light of the above discussion, we suggest that option 1 (pursue conservation more aggressively) may be the least politically feasible course of action available to conservationists. Options 3 and 4 (more or less comprehensive compensation to those who are displaced) are both ethically and politically more attractive because they show the willingness of conservationists to do something. Option 2 (maintain status quo) is likely the one with the lowest monetary costs, at least in the short run. For that reason it may appear quite attractive because it does not deviate from current conservation strategies. But it should be viewed as politically the least feasible for the long term. Indeed, a different, more compensatory choice will ultimately be forced upon conservationists if they do not respond to concerns about displacements.

This quick thought experiment shows the range of currencies—ethical, monetary, and political—that need to be integrated in order to assess these four options. A global integration across all three is complicated; though it suggests that option 3 would be most likely in most cases.

The example of large dams and development-related displacements is instructive in this regard, where after years of doing nothing, all major international donor organizations have been forced to adopt a policy on how to address the needs of those who are displaced by their funded activities. Large dams are far more attractive to national governments and often have a significant constellation of politically potent economic actors in their favor. Nonetheless, because of human rights claims, it has become trickier to construct large dams in the past decade. It has become incumbent upon governments and relevant international actors to carry out studies that incorporate costs of displacement and compensation as part of the project. If conservationists are unwilling to go where their moral compass should take them, their political future will drive them there.

A SUMMARY BY WAY OF CONCLUSION

A review of existing writings and available evidence suggests

that there is no easy way for conservation professionals and organizations to defend conservation when it leads to forcible displacement of humans from areas that are to be protected, even if it is to stave off extinction of several species. Although there is clear evidence that the establishment of protected areas has been critical to the conservation of rare species and endangered habitats, there are very few studies that establish a relationship between the displacement of humans from the protected areas and the *marginal* gain such displacement confers on biodiversity conservation. Arguments in favor of displacement are built upon the assumption that human presence *invariably* impacts wildlife and biodiversity negatively. But studies have seldom focused on the extent to which this assumption is systematically correct. Therefore, generalizations asserting an inescapable conflict between biodiversity conservation and human presence in protected areas are no more accurate than those that suggest that a harmonious and sustainable relationship can and will prevail.

If the scientific basis for displacing all humans from protected areas on conservationist grounds needs additional work, images showing human beings displaced by conservation projects have undeniable negative impacts. The ethical grounds for displacement, whether pursued in the name of a larger national interest or a general social good, have always been specious. The history of development-induced displacements is a useful guide in this regard. Rather than studying the negative social impact of protected areas on displaced peoples only once the political pressures for doing so makes it unavoidable, conservation organizations can take the lead in setting the agenda on how to address conservation-induced displacements, and by doing so follow the path that is both ethically appropriate, and good for conservation in the long run.

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