

From Displacement-based Conservation to Place-based Conservation

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PROBLEM STATEMENT

The viability of biodiversity conservation based uniquely upon a model of protected areas is being questioned in the developing world, and new evidence is emerging on the social and ecological costs of displacing people in order to ‘impose wilderness’ (Neumann 2002; Igoe 2004; Rodríguez 2006). This re-evaluation of the strict protected areas model is driven in part by new data showing that some human-dominated regimes of land use and tenure are effective complementary conservation strategies that can achieve both sustainable livelihoods and biodiversity conservation, although there are tradeoffs in all forms of conservation land use (Velázquez *et al.* 2003a; Zimmerer 2006). A vigorous debate frequently based on fragmentary data is giving way to a more nuanced appreciation of the costs and benefits of varying forms of land use and their benefits for conservation and development. This is greatly assisted by the maturation of models of community forest management for timber and protection in Mexico (Bray *et al.* 2005, 2008), indigenous reserves in Brazil (Nepstad *et al.* 2006), and participatory landscape conservation planning in Madagascar (Hanna *et al.* 1998).

Strict protected areas or ‘parks’ were a U.S. creation, as in the iconic parks of Yellowstone and Yosemite, although it is now known more clearly that in both cases wilderness was created by banishing or placing under strict controls indigenous peoples who had managed the landscape for millennia, in what has been called a ‘dramatic reversal of the origin myth of national parks’ (Redford & Sanderson 2006). As the strict protected area model has vigorously expanded in the developing world over the last several decades (Naughton-Treves *et al.* 2005), parks have commonly been created in areas where indigenous and local peoples are still resident, and where displacement, when attempted, receives a good deal more attention than it did in the 19th century United States.

Human displacement for the creation of parks has a variegated history in the developing world. Despite some early examples, active displacement of long-resident peoples in Latin America is rarely done (Bray & Anderson 2005). Displacement efforts are slightly more common when external colonization by land-hungry settlers overruns a protected area, but barely so, since even quasi-democratic governments prefer a few angry environmentalists over thousands of poor citizens. A troubling pattern of active displacement does, however, continue to occur in other parts of the world. For example, an estimated 120–150,000 people were either physically displaced or deprived of resource rights by parks in the Congo Basin (Cerneia & Schmidt-Soltan 2006), largely without compensation. That these large-scale recent displacements take place in some of the poorest societies and most authoritarian governance systems in the world should cause conservationists to question the defensibility and future of this strategy. As well, it is questionable whether the policy of several African governments to carry out shoot-on-sight of suspected wildlife poachers, which includes ‘impoverished peasants searching for small game and fish’, would be thinkable anywhere else in the world (Neumann 2004).

Even in Latin America, however, protected area establishment frequently strips local residents of resource rights creating situations where conservation goals are barely achieved or become a source of constant conflict. For example, the Monarch Butterfly Biosphere Reserve in Mexico has received major policy and budgetary attention from the Mexican government and conservation nongovernmental organizations over the last 10 years, and is still considered one of the most contentious protected areas in the country. Parks are bureaucratic top-down creations of central governments and are thus dependent on the vagaries of public policy and unstable budgets. This is particularly true if there having not been sustained efforts to

co-manage them with local residents, as is the case with the Monarch Reserve and many others. Some 90% of the six billion dollars spent annually on conservation is in economically developed countries, and funding for conservation is declining in strategic areas like the Amazon Basin (Brooks *et al.* 2006). Given pressing economic problems, developing governments are unlikely to consistently dedicate adequate funding to biodiversity conservation. As well, recent experience in the United States shows how shifts in public policy can quickly reduce protection on federal lands.

NOVEL CONSERVATION INITIATIVES

At the same time, overall protection strategies are shifting from strict protected areas to 'people-centered protected areas' (Naughton-Treves *et al.* 2005). It has been estimated that only around 9% of the world's 98,400 terrestrial protected areas are in the strictest IUCN categories of I and II (Naughton-Treves *et al.* 2005: 231). When these strict protected areas have achieved local and national stakeholder support they can be effective, but when they alienate local people or shut them out of decision making a crucial conservation opportunity is lost. People defend places from which they derive their livelihoods and their identity (Kates *et al.* 2001; Cheng *et al.* 2003). Long-resident local peoples may indeed contribute to biodiversity loss, particularly through subsistence and commercial hunting. But new efforts to combine traditional knowledge and scientific knowledge are emerging as indigenous people struggle with new constraints, and significant numbers of indigenous communities are moving toward figuring out how to profit from new conservation strategies like payment for environmental services (Herman *et al.* 2003). As well, long-settled rural peoples are showing that even relatively intensive human use can be compatible with a substantial degree of biodiversity. About 4.5 million sq. km of global conservation areas are used for agriculture (Zimmerer 2006). Timber production has been heavily criticized (Rice *et al.* 1997, 2001) but there is evidence that many forms of selective logging have minimal effect on biodiversity (Putz *et al.* 2000).

We are at a new stage of research into the relative effectiveness of various land tenure regimes for biodiversity protection (Hayes 2006, 2007). Better data is being produced on what works more effectively in different situations and the costs and benefits of different strategies, and this research takes us well beyond protected areas. For example, Naughton-Treves *et al.* (2005) call for 'expanding the frontier of research into protected area effectiveness and deforestation' and suggest more emphasis on buffer zones. However, the most appropriate comparison for evaluating protected areas is not 'no protection', normally the case in buffer zones, but community-based management (Bhagwat *et al.* 2001). There is increasing evidence that bottom-up, community-based processes, in concert with carefully planned support from governments and NGOs, can achieve multiple socially desirable goals (Velázquez *et al.* in press; Fisher *et al.* 2005).

EVIDENCE AT A GLANCE

Some of the strongest evidence has come from the emergence of community forest management for timber in Mexico and Guatemala and the emergence of indigenous territories elsewhere in Latin America. While many Mexican communities suffer from deforestation due to cattle raising and agriculture as is the case elsewhere in the tropics (Coomes *et al.* 2008), the alternative of forest management for timber has eliminated deforestation in many cases. In Mexico, the presence of many large forest communities established by Mexico's agrarian reform process has some similarities to indigenous or extractive reserves in other countries, although with a much longer history and more secure land tenure (Bray *et al.* 2005). The *ejido* is a product of Mexico's agrarian reform process and is a common property that can be used for agricultural, livestock, or forestry purposes. A historical process has produced from this common property form of governance well-established community forest enterprises that are mature social and economical institutions. The evolution of strong governance structures has proved to be a triggering factor for achieving more or less sustainable forest management in many cases (Bray *et al.* 2005). Some of these community forests are proving to be comparable with protected areas in terms of the preservation of forest cover and other measures of biodiversity conservation. For example, Bray *et al.* (2004) found that a region of community forests managed for the production of timber had the lowest rate of land use change recorded anywhere in southeastern Mexico, and was lower than two other regions dominated by protected areas (see also Bray & Klepeis 2005). Duran *et al.* (2005) found that community forests in Quintana Roo and Guerrero, in tropical and temperate forests, had similarly low rates of deforestation to a national sample of 74 protected areas. In collaboration with the Wildlife Conservation Society, a recent study aimed at examining the conservation performance of community timber management with protected areas at the level of the Maya Forest, including the Petén of Guatemala suggested that long-inhabited communities with forest management for timber perform as uninhabited protected areas, although neither community forests nor protected areas perform well in the face of advancing agricultural frontiers (Bray *et al.* 2008). In both the Mexican and Guatemalan cases, multilevel forest governance institutions have been created by the communities and external agents, with forest extraction regulated by the state under its environmental laws.

But what is happening under the canopy in timber-extracted community forests? In Mexico, all legal logging is carried out under government approved management plans that require various forms of selective logging as well as silvicultural measures including protection of endangered or threatened species and retention of forests in riparian zones. The more sophisticated forest communities have adopted a number of site specific modifications needed to maintain ecosystem functional integrity. Mexico also has the largest number of communities in the world that follow the standards of the Forest Stewardship

Council (<http://www.fsc.org/fsc-rules.html>). Studies have shown that community logging in Quintana Roo is 'benign' to both migrant and resident bird species. Other studies have shown that community harvest intensities in the Guatemalan Petén are among the lowest in the world and have little impact on biodiversity (although there is the much debated issue of mahogany harvest sustainability, see also Snook 2005). Further afield in Brazil, a recent study by Conservation International scientists found that mahogany logging in an indigenous community in the southeastern Amazon Basin had little impact on small mammals, habitat structure, and seed predation (Lambert *et al.* 2005).

Many protected area advocates argue that only large uninhabited forests can preserve keystone species like jaguars (*Panthera onca*). However, Gerardo Ceballos, the head of the only large-scale study of jaguar populations in Mexico, has compared jaguar habitat in both protected areas and community managed forests. He and his team noted that 'in the Calakmul Biosphere Reserve, there have been invasions of *ejidos* all along its southern border, where several have penetrated the nuclear zone. Breaking this accelerated advance of the agricultural frontier is the most important challenge to resolve in the next decades. The forest *ejidos* present a viable alternative in this sense. For example, in the *ejido* Caobas, in Quintana Roo, great has been our surprise to find a diversity of species, including jaguar, tapir, and white-lipped peccary, in logging areas'. (Ceballos *et al.* 2005). The forest of Caobas has been logged by the community for over 20 years, and this has not hampered significantly the presence of large predators. Similar finding have been reported for Oaxaca, Guerrero, and Michoacán. Larger predators and managed human use *can* coexist on landscapes, just as they do with difficulty in the American West.

CONCLUSION

All of these experiences in conservation are based in places where people live and where they are prepared to defend their livelihoods. In most of these cases, no one can talk about displacing them because they are the owners or have secure legal access. The emergence of 'place-based' conservation that has little to do with so-called 'integrated and conservation and development projects' and is a new robust form of conservation which can be one answer to balancing the equation between poverty alleviation and biodiversity protection. It merits full inclusion as a second pillar of biodiversity conservation appropriate for the needs of developing countries. It is important to make parks work (Terborgh *et al.* 2004). However, parks in developing countries, and even increasingly in the developed world, can only work when they recognize the rights of local communities, and when they are embedded in larger landscapes where communities exercise broader bundles of rights over land use and conservation decisions (Berkes 2004; Velázquez *et al.* in press), a position on which there is an emerging new consensus in the conservation world (Redford & Sanderson 2006). A world is coming where most conservation

will be 'place-based', and deriving its legitimacy from multiscale and participatory governance, and displacement-based conservation will be consigned to the dustbin of history.

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