WHEN GLOBAL CONSERVATION MEETS LOCAL LIVELIHOODS:
PEOPLE AND PARKS IN CENTRAL AMERICA

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Summary

National park and related forest conservation efforts tend to emanate from core areas of the world and are often imposed on rural people living on forest fringes in the least developed regions of lesser developed countries. We address the social and cultural processes that ensue when center-originating conservation meets local people with their resource-dependent livelihoods, and how these vary under different circumstances. We examine and compare local people's environmental and forest-related values and behaviors, using cultural models, after the establishment of national parks in two countries with very different social and environmental histories—Costa Rica and Honduras. We find that external cultural models were widely adopted by local people—hegemonic to the extent of structuring even discourse opposing conservation. Local people often expressed environmental values, but used formulaic language that suggested that these values were not well integrated with other aspects of their life and often not motivating. We pay particular attention to relationships between environmental values and livelihood values, and the varying ways that new, local environmental discourses and values emerge that mediate between these often conflicting value spheres.

The recent international increase in national parks is a phenomenon of globalization, and often imposes new conservation practices and environmental values onto local people. While these new national parks have some broad public benefits that can be thought of as global, e.g. their role in

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preventing biodiversity loss and climate change, it is also true that few concrete benefits accrue to local people and that parks often impose great costs on local people in the form of lost land, diminished access to resources, and diminished autonomy as national governments and international organizations extend into local life in new ways.

These changes have serious repercussions for local people, often threatening their livelihoods and well-being in significant ways. Yet our results suggest that local people may be willing to work with park managers to co-inhabit landscapes when park managers are able to accommodate local livelihood needs.

Keywords: National parks, Central America, Costa Rica, Honduras, forest conservation

Resumen

Los parques nacionales y otros esfuerzos de conservación forestal tienden a surgir en las principales áreas núcleo del mundo, y por lo general son impuestos a los pobladores de espacios rurales que habitan franjas forestales de los países en vías de desarrollo.

Este artículo se enfoca en los procesos sociales y culturales que se originan a partir de la imposición de estas áreas de conservación y sobre cómo se ve afectada la subsistencia de los pobladores que dependen de los recursos naturales de dichas áreas. También se evalúan y comparan los valores y comportamientos relacionados con el ambiente, percibidos por los pobladores con el establecimiento de parques nacionales, en dos países con historias sociales y ambientales muy diferentes como lo son Costa Rica y Honduras; para lo cual se utilizaron modelos culturales. Al respecto, se encontró que varios modelos culturales externos, que fueron ampliamente adoptados por los pobladores locales, han llegado a ser hegemónicos, afectando la conservación. Los habitantes del lugar estaban disconformes con respecto a los nuevos valores ambientales, porque estos, por un lado, no estaban adecuadamente integrados con otros aspectos de su vida, y por la escasa motivación en materia de conservación ambiental.

De esta forma, se resalta la relación entre los valores ambientales y los valores de sus forma de vida; entre las nuevas formas de ruptura y los valores emergentes que median entre la esfera de valores conflictivos.

El reciente aumento internacional de parques naciones es un fenómeno de globalización, y en consecuencia, impone nuevas prácticas de conservación y valores ambientales a los habitantes de estas localidades. Mientras estos nuevos parques nacionales generan algunas ventaja públicas, que pueden ser pensadas como globales (p.ej. su papel en la prevención de la pérdida de diversidad biológica y el cambio de clima), también ocasionan escasos beneficios para las comunidades, al imponer elevados costos para los pobladores locales como lo son: la pérdida de tierras, la disminución en el acceso a los recursos y la reducción de la autonomía, ya sea ante el gobierno nacional u organizaciones internaciones que extienden sus acciones políticas a la vida local en todas sus nuevas formas. Estos cambios repercuten drásticamente en los habitantes del lugar, lo cual a menudo amenaza, en general, el sustento y el bienestar, de modo significativo.

Los resultados sugieren que los habitantes del lugar podrían estar dispuestos a trabajar con los gerentes del parque para co-habitar paisajes cuando éstos sean capaces de priorizar las necesidades de sobrevivencia de las formas de vida de los habitantes.

Palabras clave: parques nacionales, América Central, Costa Rica, conservación forestal

1. Introduction

Biodiversity conservation is often promoted by those living far from tropical forests, those in urban areas, and those able meet their economic needs without forest use or destruction. This is particularly clear for national park and biodiversity conservation, where institutional efforts and the values underlying them clearly emanate from core areas of the world and are often imposed on rural people living on forest fringes in the least developed regions of lesser developed countries. Local people may find that biodiversity conservation hinders their ability to meet their livelihood needs and ambitions, and, not surprisingly the establishment of parks to protect tropical forests often brings about conflict between conservation and local people (Pfeffer et al. 2001; 2006; Schelhas and Pfeffer 2008).

Park managers have addressed this issue in a number of ways, including (1) programs for local awareness and environmental education, (2) cross-boundary natural resource management programs, (3) promotion of compatible economic development in neighboring communities, (4) programs to promote conservation on farms near national parks, and (5) involvement of local people in protected area management (Western and Wright 1994; Kramer et al. 1997; Brandon et al. 1998; Dugelby and Libby 1998; Buck et al. 2001; Brosius et al. 2005). These efforts not withstanding, tensions between parks and local people are common.

In spite of conflicts, ideas of conservation have considerable power in peripheral regions for both material and symbolic reasons and they are often viewed or disseminated as "global" standards (Grimes 2000). Because the spread of conservation ideas, values, and practices has distinct patterns of global-local flow and interaction, the connection of globalization and the environment offers a productive framework for understanding environmental values and practices at the local level.

Social science research has identified at least three key concepts related to globalization and the environment: (1) the imposition of core conservation values and practices on local people living in remote forested landscapes by more powerful interests, (2) the use of global and universal constructions of the environment in this process, and (3) differences in the content of global (core) and local (peripheral) forest and environmental values that result from complex interactions between, on the one hand, local livelihood and environmental values, and, on the other hand, global

environmental values and conservation actions under unequal power balances and unique local conditions (Schelhas and Pfefffer 2008).

Globalization is often seen as a homogenizing process that will transform diverse cultures to be more like the West (e.g., Igoe 2004). Milton (1996:155) notes, however, that while some see globalization as eroding cultural differences due to the flow of cultural values outward from core areas, others have suggested that it can also generate cultural diversity as new forms are generated in the many different interactions between core and periphery (Hannerz 1992; Sahlins 1994; Milton 1996, Watson 1997; Pfeffer et al. 2001; Wilk 2006). In fact, globally driven conservation has taken many forms, with varying types and degrees of effort to fit local circumstances, and in turn has been met by diverse local responses in different places, including open conflict, covert resistance, and the finding of common ground (Fisher 1994; Little 1999; Neumann 1995, 2001).

It is almost certainly an over-simplification to think about conservation as an imposed Yellowstone model running roughshod over local people and their interests. A different model can be found in Watson's (1997) edited volume on McDonald's fast food restaurants in five different East Asian countries, which shows how these restaurants take on unique characteristics and cultural forms in each country. National parks and conservation can be expected to be shaped by similar processes, both as local people react to externally imposed conservation and as park managers adapt policies to local situations.

This paper addresses the social and cultural processes that ensue when center-originating conservation meets local people whose livelihoods are derived directly from resource extraction, and how these encounters vary under different circumstances. We examine and compare local people's environmental and forest-related values and behaviors, using cultural models, after the establishment of national parks in two countries with very different social and environmental histories—Costa Rica and Honduras.

Costa Rica has been a Latin American leader in national parks and ecotourism, and has attained higher levels of development than other Central American countries. La Amistad International Park (LAIP) in Costa Rica represents a strictly protected park of what is often called the "Yellowstone

Model." The park has interacted with local communities primarily through law enforcement and environmental education programs.

Honduras, on the other hand, was a latecomer to environmental conservation and ecotourism and is one of the poorest countries of Latin America. Cerro Azul Meambar National Park (CAMNP) is a zoned park where a core, strictly protected, zone is surrounded by concentric rings consisting of a special use zone permitting limited harvesting and a buffer zone occupied by 42 communities. Management of CAMNP is contracted out to an NGO, Aldea Global, by the government, and the park guards employed by CAMNP are members of the park communities selected with advice and consent of those communities. Local people at both sites originated as colonists who migrated from other regions of the respective countries within the past 50 years in search of land, and both parks were created with very little input from local communities, setting up conflicts between conservation and rural livelihoods (Schelhas and Pfeffer 2008).

2. Methods

Data used in this paper were collected in two ways. We conducted a set of semi-structured qualitative interviews with 54 individuals in five villages within CAMNP and 67 persons in five villages within five kilometers of LAIP's southern perimeter. The villages we selected were geographically dispersed. We selected respondents purposefully, typically making initial contacts in the villages through park guards or other local informants and by targeting community leaders for interviews. About half of the interviews resulted from cold calls that initiated contacts with individuals we felt were missed in the introductions provided by park guards or informants.

We engaged respondents in semi-structured interviews of between one and two hours duration. Most interviews were tape recorded. Our questioning was based on an interview guide consisting of a variety of open-ended questions about attitudes and behaviors related to forests and the park. Specifically, we asked respondents what they thought the benefits of the park were, who benefited from the park, if they felt the distribution of benefits was fair, and if they thought there were any problems associated with the park. The responses were open-ended and allowed us to capture the respondents' sentiments in their own words.

Our analysis of the qualitative data began with a simple reading of field notes and interview transcripts, and proceeded using *NVivo* qualitative analysis software to code for themes and patterns. We used the qualitative data to select and develop survey questionnaires for use in each country.

In 1999, with the assistance of students and faculty at the Honduran National Forestry School, we interviewed 601 randomly selected household heads living in eight communities in or near CAMNP. In 2000 we conducted a similar survey of 523 randomly selected households in eight villages within five kilometers of the southern border of LAIP with the assistance of faculty and students from the National Autonomous University, Costa Rica. The communities were purposefully selected to provide complete geographic coverage within the CAMNP buffer zone in Honduras and along the southern boundary of the LAIP. In both cases our sampling frames were complete lists of all households in our selected communities.

The wide-ranging survey interviews included questions about attitudes toward natural resources, especially forests and the park, land use, including agricultural production and de- and re-forestation, sources of information about forests and the environment, expected benefits from the park, and a variety of sociodemographic characteristics like income, income sources, age, education, and household composition. Details of the survey can be found in Schelhas and Pfeffer (2008).

3.   Forest and Park Values

One of the first things that emerged in our qualitative interviews was a set of responses that suggested near complete adoption of conservation rhetoric, often varied little from one person to the next, and seemed very automatic and superficial. In Costa Rica, the most common themes expressed were: (1) forests and the park as important for producing pure air or oxygen, often expressed as the "forests is a lung" or "without forests, there would be no pure air;" (2) the role of forests in maintaining rainfall, stream flows, and water for human use, often expressed as "without the forests, this place would be a desert;" and (3) the importance of continued existence of wildlife so that different species could be seen by people in the future, often expressed as "if we destroy the forests, the future generation won't know the wildlife."

In Honduras, the major themes were similar, but slightly different: (1) forests were associated with life in a general way, often by repeating a government slogan, "forests are life;" (2) the role forests play in bringing rainfall and maintaining stream flow, often expressed as "without forest this would be a desert" and the need to protect forests around the "sources of water" (*fuentes de agua*); and (3) references to the perceived role of forests in producing clean air, a cool and pleasant environment, and good health, using terms like "pure air," "oxygen," and "coolness." We attribute the difference between the two countries to the fact that social discourses of global conservation are expressed differently from place to place in the media and in conservation programs.

There are several things that suggest these common expressions amount to something more than respondents simply saying what they thought researchers would want to hear. First, everyone knew them and repeated them to us, indicating that they had been absorbed by most people and were seen as important enough to repeat. Second, they provided the dominant general structure for the way people talked about forests. They were often frequently mentioned and referenced throughout individual interviews, and people often fell back on them when they had trouble expressing an idea or answering a question. In the Costa Rican site, where people expressed more outright opposition to forest conservation and the park than in Honduras, people often expressed their opposition by taking these same common expressions, using them in a different way, and suggesting that they were factually incorrect and thus provided little justification or conservation (e.g., "we have plenty of oxygen here" or "Costa Rica is not a desert … there is more forest than cultivated land").

Strauss (2005) calls common expressions like these verbal molecules, which tend to be ideas that are very superficial and have not been broadly incorporated into people's thoughts and actions. Strauss (1997) believes that verbal molecules are associated with lip service motivation, not lack of or weak motivation, because they indicate that people have internalized a coherent view of what they think is common opinion with reference to how they should (according to outside norms and pressures) be thinking about something—in this case, forests—and these ideas may in fact be accepted by them as appropriate beliefs and values.

Thought of as verbal molecules, these common expressions clearly provided key terms and concepts to local people for thinking about conservation. To some extent, these expressions indicate what people believe outsiders expect them to think and talk about forests. But they also indicate that, due to the power imbalance between outside conservation interests and local people, outsiders set the terms of any discussion and local people adapt to these. Thus, outside models play a significant role in structuring the way local people actually think about and value forests.

This may be especially true in our two cases because people were recent colonists from agricultural zones and did not have a long history of interacting with and living in close association with the forest. Many of our interviewees used these ideas as a foundation on which to build more in-depth and complex mental models of forests. These outside ideas exert a significant influence over any new, local forest values that are developing, a process that we will discuss in detail later. Although it would be possible for new, counter-hegemonic discourses to emerge, we encountered little of this except for limited opposition to conservation grounded in economic and livelihood values in Costa Rica. We will address some possible reasons for this later.

People living in rural places interact materially with forests and receive some real material benefits from them in the form of products and environmental services. Utilitarian views of forests were strong in both countries. Forests were used as sources of lumber to build houses and furniture, for firewood, and to obtain food and medicinal plants. While it was considered inappropriate to waste trees, cutting trees for these purposes was generally considered to be acceptable by local people in both countries and trees were seen as a renewable resource for human use that could be managed for sustained production. While it was clear in the questionnaire responses that people did not see utilitarian benefits as the only thing important about forests, they were a dominant category of benefits that they considered themselves to be receiving from forests.

Utilitarian values of forests were stronger in Honduras than in Costa Rica.

Figure 1 shows the level of agreement with statements expressing various dimensions of a utilitarian attitude toward trees and forests. The overall pattern of agreement with these statements is similar in our two

sites, with individuals in both countries in greatest agreement that basic livelihood needs should take precedence. In both countries, individuals expressed less support for commercial uses of forests. Concerns about satisfying livelihood needs were slightly more pronounced in Honduras, where local residents were relatively poorer and more dependent on local resources than their counterparts in Costa Rica.
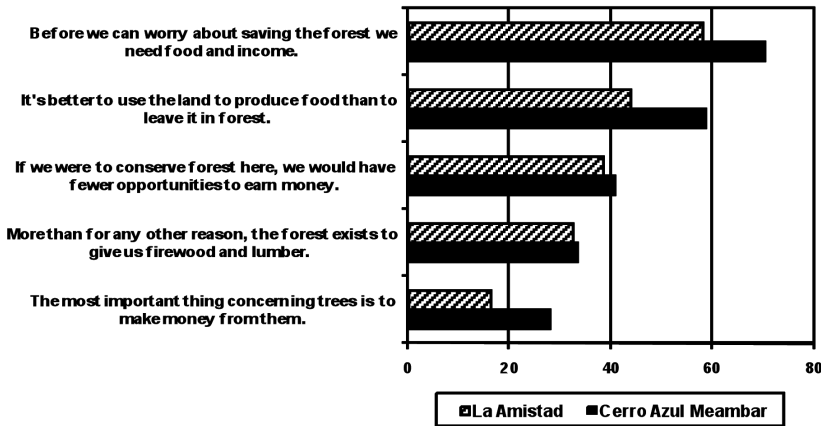
Figure N° 1.

Figure N° 1. Proportion Who Agreed With Selected Statements About Forests, Cerro Azul Meambar, Honduras and La Amistad, Costa Rica

The role of forests in maintaining rainfall patterns and the flow of water in streams was pervasive in our interviews in both countries. People told very specific stories about streams drying up and changing rainfall patterns. Although the scientific evidence associating forest clearing with changes in climate, rainfall, and stream flow is complex and not conclusive (Bruijneel 2004, Kaimowitz 2005), people clearly believed that changes in water regimes had occurred and they associated these changes with forest clearing. The association of retention of forests with continued water availability was without doubt the strongest forest-related belief and value that we found in both sites, and also provided the strongest justification and impetus for forest conservation for local people.

However, people valued forests for more than the utilitarian purposes of products and services. In both countries people made statements

about the beauty of forests and people appreciating this beauty. There was, however, an interesting difference between the two countries. Many of our Costa Rican interviewees made heartfelt and impassioned statements about the beauty of the forests, such as "it is something that is beautiful, it is something that fills one with the spirit of life" and "I am in love with this forest … I have always been a lover of nature." Our Honduran interviewees, while sometimes talking about experiencing the beauty of forests, were more likely to talk about others enjoying it, for example, "They say it is very pretty. I've never been there but someday I'll go and walk around." or "Some of the people who have stayed with me have gone there and come back talking of beautiful things." This suggests that, in Costa Rica, aesthetic and recreational values of forests may be more widely experienced and perhaps more deeply incorporated into people's mental and cultural models of forest than in Honduras. In both sites, nine out of ten persons surveyed agreed with the statement, "We should have a lot of forests here because they are so beautiful."

Religious associations with the forest and the environment were common. Taking care of the forest was often discussed as taking care of God's creation, as a human responsibility. In some cases this took on aspects of all species being important or having the right to live. More frequently, people suggested that God created nature for people to use and live from, not just to be appreciated. Other important social values also became integrated with forest values. For example, a Honduran interviewee talked about parallels between the plight of forests and the plight of women, and parallels in the way they had been treated. In other cases, forests seemed to symbolize the rural environment and its cleanliness, health, and lack of social problems, and to be contrasted with the dirtiness, disease, and social problems of the urban environment.

These examples show the way that forest beliefs and values become intertwined with beliefs and values from what are largely social, and not material, domains and thus highlight the social and cultural nature and construction of forest values.

One way we sought to learn more about the source of forest values was by asking a series of questions that explored the ways that forest-related beliefs and values were learned and shared among people. One of our interests was the roles played by the media and representatives of

government conservation agencies or nongovernmental conservation organizations, since they potentially play a key role in the transmission of outside conservation beliefs and values into the local community.

Park management and forestry organizations were often cited as important sources of information. They were often talked about as the people who had brought environmental awareness into the communities, calling local people's attention to the problems related to deforestation and forest degradation by organizing meetings, giving talks, and showing movies in the local communities. This form of awareness raising seems to have reached more of the local residents in Honduras than in Costa Rica.

Figure 2 shows that a higher proportion of Hondurans reported having learned about forests from extensionists and informational meetings. In fact, in Honduras, people tended to talk about changes in environmental awareness that clearly showed the influence of outside authority figures, for example: "we weren't oriented" before; "the majority of us are educated now:" "People would have learned how to work" if the park had arrived sooner, and "the mother [the park] knows but her child [local people] does not." In Costa Rica environmental awareness was described more as an organic process of increasing awareness within individuals in response to a broader cultural shift.

The presence of park guards living in the community was often cited as important in Honduras, but our survey findings show that about the same proportion of individuals in Costa Rica reported that they had learned about the forests from park guards. In Honduras the park guards worked closely with local community leaders (the *patronato*), and as indicated in Figure 2, a majority of the individuals surveyed in Honduras mentioned that they had learned about forests from local leaders. This highlights the importance of local community members as intermediaries between globally driven conservation interests and local people. The media, television in Costa Rica and radio in Honduras, represented another very important outside source of environmental information (see Figure 2). A number of interviewees reported being avid fans of environmental programs on television and radio.
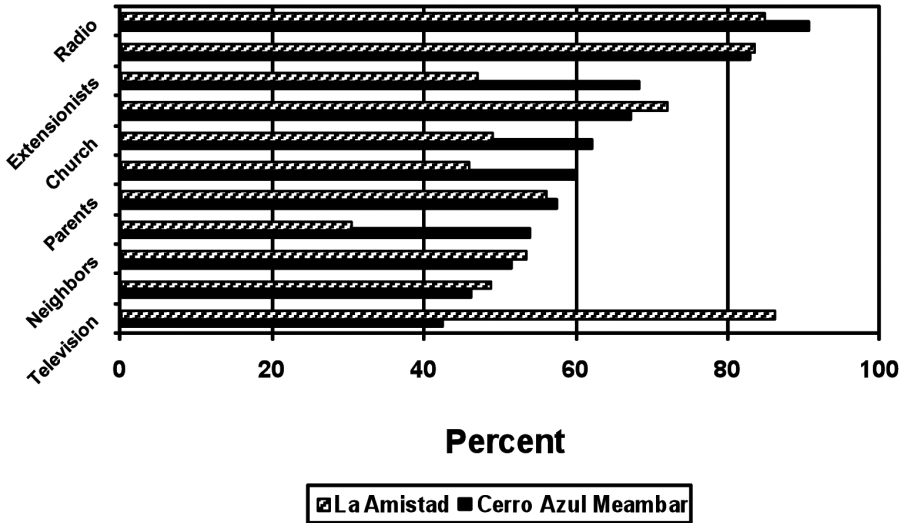
Figure N° 2.

Figure N° 2. Proportion Who Learned What They Know About Forests by Source of Information, Cerro Azul
Meambar, Honduras and La Amistad, Costa Rica

People in both countries reported a variety of other organizational
disseminators of environmental messages. Churches were an important
source, and when people talked about churches they generally talked about
learning through participation in local church activities rather than lear-
ning from religion or theology more broadly. As indicated in Figure 2,
about half of the Costa Ricans and sixty percent of the Hondurans reported
that they had learned about forests from the church. Other local groups,
generally organized with outside guidance, were also addressing environ-
mental issues, for example a women's group in Honduras and a tourism
board and a local environmental organization in Costa Rica.

Notably, though, many people reported that their principal source
of information was their own experience living in the region and seeing
changes in the forest and the environment. As one Costa Rican said, "It is
not necessary for people to tell you something if you have already seen
it." Some of the most eloquent statements about forests and wildlife came
when people told about experiences they had when they were young—sit-
ting by a river, looking at trees and forests, or seeing wildlife around their

houses. In fact, our survey findings show that working and living on the
land was cited as the most important source of information after radio (and
television in Costa Rica; see Figure 2).

Thus, while outside organizations were credited with getting people
to think about forest and wildlife values, people did not necessarily see
these as being their sole source of inspiration. Rather, they found clear
confirming evidence from their own experiences with forest and environ-
mental change and were motivated by emotionally powerful experiences
with forests and wildlife.

Another way of learning about local acceptance of forest conserva-
tion was to ask what people thought about forestry laws, which placed res-
trictions on and required permits for tree felling and generally prohibited
forest clearing. We also asked people what they thought would happen if
someone in the local community began to fell trees or clear forest, becau-
se if forest conservation norms were strong and widespread we expected
people to be willing to participate in their enforcement. In both countries,
people gave significant credit to forestry laws for having slowed or sto-
pped previously widespread forest clearing. They generally felt that even
if forest values were widely recognized and supported there would always
be some people who would fell trees and clear forests if there were no laws
prohibiting this.

People generally saw the laws and associated punishments as crea-
ting an effective disincentive for tree felling. In each country, people ta-
lked about communities wanting to be able to call on forest authorities to
stop forest clearing when it occurred, indicating how communities and
government can sometimes work together.

In both countries, however, people had complaints about complica-
ted and expensive processes for obtaining permits to harvest trees. Park
guards often talked about trying to negotiate a middle ground: trying to
stop people felling trees for personal profit, while accommodating genui-
ne local needs for timber without subjecting people to complicated bu-
reaucratic permit processes. In Honduras, in particular, the involvement
of community-based park rangers and local *patronatos* played a key role
in this. They were reportedly often willing to look the other way in cases
of genuine need, which defused some of the tension over enforcement of
forestry laws.

In Costa Rica, a local park ranger supported a similar attitude and behaviors, but complained that other park rangers who did not reside in the community often took a hard line in enforcing the law. Reflecting this harder line, Costa Rican respondents told about an organized community protest when one of their neighbors was jailed for felling young second growth (*tacotal*) to plant beans, and threatened to set fire to park forests if the rangers were too strict in enforcing conservation laws. There was also a sense in both countries that wealthy and well-connected landowners and loggers were more easily able to get permits than were local people with subsistence needs.

People in both countries associated the creation of the national parks with forest conservation and cited many of the same benefits for the park as they cited for forests, with an emphasis on broad, public benefits: water availability, wildlife for future generations, and "pure air" and "oxygen." The presence of the national parks was clearly associated with outside forces in both countries. Outside interests were seen as paying for conservation in parks to protect wood, wildlife, and water, and for global oxygen production. One interviewee in Costa Rica considered the park important because of the value of the timber being left unexploited, which was attributed to agreements with other countries for forest conservation. In Honduras, several respondents interpreted the level of outside funding to mean that the parks or their resources had been sold to other countries. Several comments in Honduras, one about having missed hearing about the park and one about having been told that the park was good for the village but having forgotten why, reinforced the idea that people saw the park and conservation as being imposed on them by outside interests.

The park rangers and agencies receiving funds for managing the park were clearly seen as the most concrete beneficiaries in each country. Yet local people also said that they received concrete benefits from the park, most significantly in terms of the availability of water, and, to some extent, for air quality. Importantly, while in both cases people saw themselves as benefiting from the park, they also saw themselves as less likely to benefit than people living in other places (Figure 3).

Yet our Honduran respondents, who were experiencing a parks-and-people approach in the form of a zoned protected area and community park guards, were more likely than Costa Ricans to expect benefits because they

had been closely integrated into park management, lived inside the park, and had access to some park resources. Costa Rican respondents tended to compartmentalize the park from their livelihoods, saying that the park was fine where it was but that it should stay out of the affairs of local land owners.
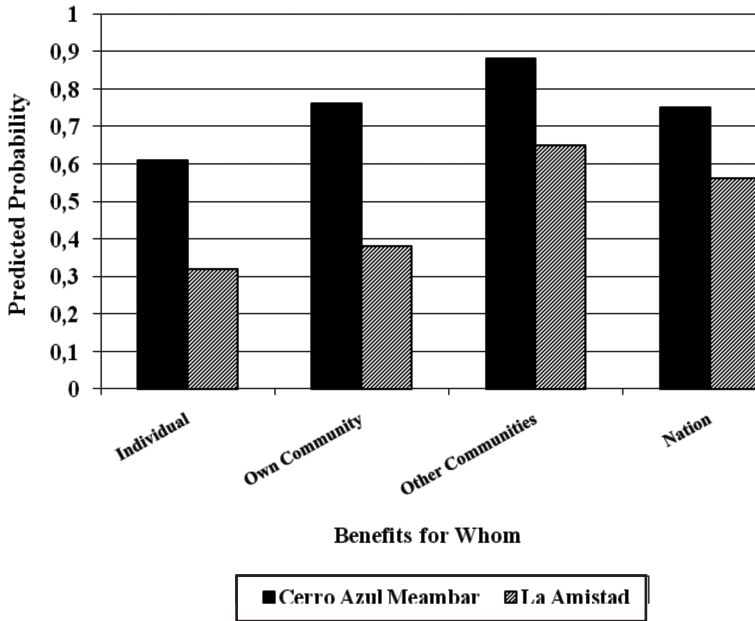
Figure N° 3

Figure N° 3. Predicted Probabilities of Expected Park Benefits, Cerro Azul Meambar, Honduras and La Amistad, Costa Rica.

4.   Environmental Values and Livelihood Values

As other research has shown (Kempton et al. 1995, Medin et al. 2006), environmental values are widely held, but what really matters is what happens when environmental values come into conflict with other values. In the rural communities where we conducted our research, land-based livelihoods easily conflict with forest conservation, and an important part of our analysis has been to understand how local people deal with these conflicts.

In the previous section, we have used two concepts from cultural model theory, verbal molecules and lip-service motivation (Strauss 1992,

1997, 2005), to suggest that people can state beliefs and values from dominant (global) social discourses about the environment but that these may have very little motivating force if they are compartmentalized from other values and not particularly salient in their everyday lives or sense of self. They may represent how people believe they should think in terms of general social expectations, but in their daily interactions with people close to them they may be exposed to different yet more meaningful and motivating beliefs and values.

It was clear to us that some of the people we interviewed were able to recite a standard litany of the benefits of forests but these were compartmentalized and not integrated into their everyday land-use decision-making. But other people had integrated environmental values with their livelihood values and their talk showed changes in the nature and meaning of environmental beliefs and values and the emergence of unique local discourses of conservation, forests, and sustainable development.

5.   Integrating Conservation and Livelihoods

In some cases, people seemed to have tried to find common ground between the global conservation discourse and their livelihood values. One way they did this was by creating new cultural models that integrated across both value spheres. One such example can be found in the general beliefs and values about when it was acceptable and when it was not acceptable to fell trees or clear forests, which were similar in both of our study sites. In both countries, people rejected the past forest clearing, in which trees were felled and burned or left to rot, as wasteful and done out of ignorance. They clearly considered this to be wrong. However, they thought of forests as something intended for use by humans, and saw using trees for basic subsistence needs, like house construction and firewood, to be acceptable. Additional qualifications were often added, for example specifying that tree felling near streams or springs was not acceptable, that old and dying trees should be harvested to make room for new growth, and that trees were a renewable resource and when one was felled new ones should be planted.

This conception is similar to the utilitarian conservation that has characterized the forestry profession, and different from the more preservation-oriented conservation that lies behind national parks in general and

Costa Rican national parks in particular. This utilitarian conservation was not necessarily seen by local people as conflicting with wildlife conservation, recreational use of forests, and aesthetic appreciation of forested ecosystems, but it does place human needs first and allows for extractive forest use and management.

6.   Redefinition or Appropriation

A second way that people adjusted meanings was by changing definitions and interpretation of terms (Pfeffer et al. 2001). One way this happened was by appropriating conservation definitions for activities that met their livelihood needs. For example, in both countries the presence of shade trees in coffee was seen to make it a conservation land use. In Honduras, this was taken further, with coffee often described as reforestation. Similarly, people often associated planting fruit trees with reforestation and conservation, noting in some cases that this was dual purpose—providing the environmental benefits of trees while also providing products for the landowner.

At the landscape level, in Honduras in particular, people talked about clearing undergrowth and planting coffee under forest trees as a way of keeping forest benefits while getting the economic returns of agriculture. Agroforestry land uses of this type do provide a mix of the environmental benefits of forests with livelihood benefits from marketable crops, but in most cases the environmental benefits are reduced, and crop productivity may be as well (see Schelhas and Greenberg 1996; Schroth et al. 2004). Yet people appeared to gravitate towards these options because of their desire to engage in conservation while still meeting their livelihood needs.

There were also definitional distinctions that place some trees and forests outside the category of forest. Young second grow forest in shifting cultivation systems, called *tacotal* or *charral* in Costa Rica, and *guamil* in Honduras, were not considered trees and forests by local people, and they had few reservations about clearing them. It is true that young second growth can be considered a stage in agricultural systems, and, if patches of second growth rotate around the landscape over time, they may provide ongoing conservation benefits (Schelhas and Greenberg 1996, Schroth et al. 2004).

It is also true that some park guards or conservationists without rural livelihood experiences may not understand the role of woody fallows in agricultural systems. But what we observed and heard about went beyond this, with local people at times pushing the definition of woody fallows into what government conservation agencies and laws considered to be forest in an effort to retain their claim on agricultural land and make clearing justifiable. Disputes between forest guards and local people over what types of woody growth should be considered *tacotal* or *guamil* constituted one of the major sources of conflict at both sites.

7.   Contesting Conservation with Other Values

Another way that people dealt with the conflict between livelihood values was by calling attention to other values, often values that were considered universal or globally powerful, and suggesting that these other values should take precedence over environmental values (Schelhas and Pfeffer 2005). People often used livelihood values in this way. For example, interviewees in Honduras pointed out their need to clear forest to plant crops, noting that, in Honduras, if you don't plant you don't eat; no one is going to give you any food. Another interviewee suggests that the Honduran government needs to pay attention to people in the park and what they need to live, in addition to thinking about conservation. The interviewee goes on to say that it's not good to clear forest and that trees provide people with many benefits, but that the only choice they have is to cut trees.

Similarly, interviewees in Costa Rica state that deforestation is a shame but that people have to eliminate some forest to plant something productive, that no one is going to give them money or a job if they don't grow crops, and that people who are "living under bridges and stealing" and should be given land instead dedicating it to forest conservation.

In Costa Rica we also heard appeals to property rights as a way allowing people to meet their livelihood needs without interference from park rangers. In this case, people outside the park acknowledged that the government had a right to limit forest clearing in the park, which belonged to the government, but they also stated that they should be able to do what they need to do on their land because you shouldn't be able to tell your neighbor what to do on his or her land. One of these individuals found a

parallel with anti-Communism rhetoric, calling to mind "those other countries where they take away from you what you harvest."

8.   Contesting the Social Order

Parks and conservation imposed from outside, and offering unbalanced benefits to locals and others, make obvious the lack of power and resources of local people relative to urban and international interests (Pfeffer et al. 2001). Either because they recognized that the park has some benefits or because they felt powerless to confront it, people living in or near parks in Costa Rica and Honduras called attention to issues of injustice. These injustices were sometimes the basis for attempts to address their needs and livelihoods. This was a common strategy, and manifested itself in several ways.

One way was by apportioning greater blame for forest destruction to outside interests and loggers. It was common in both countries for people to argue that it was not local people who were destroying the forests—they had difficulties felling even a few trees for household use. Rather, they said, it was outside loggers who were destroying the forest for personal gain, leaving the local people to live with the results of both a lack of timber and a degraded environment. They suggested that the government was not doing enough to stop this, casting doubt on the government's sincerity in terms of conservation and validating their beliefs that the rich and powerful are generally able to circumvent laws. Even a park ranger acknowledged that this occurs.

Another way this was done involved accepting conservation but using it as leverage to obtain development assistance. This was most common in Honduras. One person talked about how a "proper park" would have good roads, telephones, and electricity. A number of interviewees in Honduras, when discussing the imbalance of local people having to take care of forests that were protecting watersheds for water and electricity projects, used this not to complain about injustice but to argue that similar services should be provided for local communities. A number of people in Honduras also talked about the need for the government to create some employment options for local people to make up for the opportunities that they had to forgo due to conservation. In Costa Rica, people wanted monetary compensation if large amounts of forest were to be conserved on private land.

9.   Opposing the Parks

In Costa Rica, we encountered a few people who had turned against conservation. Several of the people who asked not have their interview recorded had land expropriated when the park was created and remained bitter. We also heard reports about people, who had lost land when the park was created, complaining about the speed and level of compensation and about the lost opportunities from the land they had claimed. When this opposition was expressed, it was supported with a variety of ideas that we have already discussed. These included saying that some of the common ideas, or verbal molecules, used to justify conservation were not true ("we have plenty of oxygen,") and/or arguing that livelihood values were more important (for example, "Costa Rica has more forests than cultivated land … people are sleeping under bridges and stealing for lack of land to farm").

There were also reported instances of open conflict: one when people told park rangers that if they were too strict in enforcing laws they would set fire to the park, and one when people held a protest to generate the release of a community member who had been jailed for clearing young second growth to plant beans.

We are not certain why we did not encounter extensive oppositional discourses in Honduras, although there were some hints of opposition. One interviewee complained about the length of time–four years—for local people to learn that the park had been established. Also, a number of people indicated that there was great concern when the park was created that local people were going to be forced out or not be able to work. On the other hand, a number of park residents in Honduras felt that the park had not lived up to its potential.

This sentiment was most pronounced in Cerro Azul, a community in a prime location to benefit from the park. In 1998, the village embarked on a campaign to lobby the park management to more actively pursue conservation efforts. Leaders of Cerro Azul with strong agreement from village residents felt they would benefit directly from conservation efforts by being well-placed to attract tourists. Thus, residents of Cerro Azul did not oppose the park and its conservation goals, but agitated for more vigorous development of it. Disappointment with the park set in when they realized that their hopes for potential benefits would at best be realized

in the somewhat distant future. But in general, any opposition to the park
seemed to have been defused when the park established partnerships with
local communities, and, perhaps more importantly, because, outside the
core zone of the park people were allowed to continue to fell trees with
permits and grow crops to meet their subsistence needs. The combination
of community involvement, being able to continue with their land use sys-
tems, and a feeling that the protected forests at the top of the mountain
were important to the water supply, seems to have made the park accepta-
ble to local people.

Still, it is interesting in both these cases, considering the costs that
park establishment had for local people in terms of lost opportunities for
forest use, land clearing for agriculture, and hunting, that there wasn't
greater opposition. There are several factors that appear to have contri-
buted to this. One is that in both places local water supplies came from
the park and these, perhaps along with other conservation benefits, were
recognized as important. It is also possible that, to these relatively power-
less local communities, internationally supported conservation seemed too
difficult to resist overtly, and could only contest the everyday forms of
resistance that Scott (1985) has called "weapons of the weak."

The relatively recent colonists in both sites had no other globally
powerful social discourse (and related local NGO presence) to appeal to,
such as indigenous rights or even a strong rural development presence in-
dependent of conservation. To some extent, going along with conservation
was the only game in town, and people instead engaged in the strategies
we have discussed: going along with it when they could, recasting it to be
more compatible with their interests, and trying to use it to leverage deve-
lopment assistance.

10. Discussion and Conclusions

We have briefly presented an overview of what happened in two
cases where national parks descended upon forest frontier communities.
While socio-economic contexts, conservation histories, and park policies
differed in the two cases, in neither case did communities mount direct
opposition to the parks and related conservation programs even though the
arrival of the parks constrained livelihoods and development possibilities.
We suggest several reasons why this is the case.

First, the power imbalances---both material and ideological—between global conservation and rural people are such that it is difficult for local people to directly oppose conservation unless they have access to other powerful global discourses and related institutions and organizations. Because local people in both these cases were relatively recent colonists, as opposed to, for example, indigenous people, they had few counter-narratives and allies for opposing the parks. Second, the earlier colonization processes at the sites had led to large-scale forest destruction, and while people's awareness of the values of forest was awakened by externally originating conservation programs, the messages brought by these programs resonated with people's own observations of local environmental change and degradation. Third, in the case of Honduras, the park zoning and management polices were designed with local people's livelihoods in mind. As a result, local people in Honduras found it easier to meet their livelihood needs and there was less open conflict that there was in the case of the strictly protected park in Costa Rica.

We have argued, however, that values and institutions are not directly transferred from global centers to peripheral rural communities, but rather that new values and institutions are socially constructed from the interaction between the global and local. Many of the environmental messages disseminated in conservation programs were easily repeated by rural people, but in many cases they were only understood superficially and appeared to lack motivating force. On the other hand, because conservation messages resonated with people's experiences of environmental change, new and unique cultural models developed that integrated across conservation and rural livelihood needs. When most integrated, these models resulted in a combination of utilitarian conservation in the rural landscape with acceptance of national park presence and environmental benefits.

But other models also developed. In one, rural people appropriated and redefined conservation terms to fit their livelihoods, casting themselves as conservationists with little change in behavior. In other models, they contested the unfair situation they found themselves in, either by arguing that while conservation was important they needed to give priority to their livelihood needs or suggesting that they were not the true cause of environmental destruction. While opposing the park was difficult, they did try to use the park as a reason to leverage development in their communities.

Most importantly, the results suggest that if parks seek local adaptations that can accommodate critical forest uses while leveraging new development, local people appear to be willing to work with them to co-inhabit the landscape in new ways.

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