AMERICAN UNIVERSITY

PEACEMAKING THROUGH FOREST CONSERVATION:

CONFLICT TRANSFORMATION IN THE MAYA BIOSPHERE RESERVE,

PETÉN, GUATEMALA

SUBSTANTIAL RESEARCH PAPER SUBMITTED TO

THE FACULTY OF THE SCHOOL OF INTERNATIONAL SERVICE

IN THE CANDIDACY FOR THE DEGREE OF

DUAL MASTER'S OF INTERNATIONAL AFFAIRS AND

NATURAL RESOURCES AND SUSTAINABLE DEVELOPMENT

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WASHINGTON, DC

SPRING TERM 2006

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Abstract: *The Maya Biosphere Reserve (RBM) in northern Guatemala ostensibly meets the desire of conservation interests to protect biodiversity while supporting local communities through sustainable forest livelihoods, which contrast with the traditional practice of conservation, comprised of regimes that focused on managing the environment exclusive of human involvement. Given the historic conflict over land reform and search for political representation in the country, the decentralized management of the biosphere reserve model serves to promote local people as the stewards of the forest resources. This paper examines the changing nature of resource access and the institutional relationships in the RBM that develop from the mixture of negotiation, advocacy, and force utilized by different sides to maintain control over or claim the right to use resources. It concludes that in order to make over asymmetric struggles into a constructive transformation a harmonizing analysis is required, one that recognizes the discrete mechanisms of local access as well as to where institutional accountability is oriented in order to judge whether reforms meet the goals of localizing decision-making and power.*

Introduction

By the 1990s, more than half of the Guatemala's northern tropical forests were gone as a land rush continued to flow towards the northern Petén region of Guatemala. The creation of the Maya Biosphere Reserve (Fig. 1), the largest protected area in Central America, was meant to stop and reverse the effects of widespread population growth, migration and resource exploitation that had escalated during the waning years of the Guatemalan civil conflict. Thousands of mainly subsistence farmers lived in the area, but unlike parks of the past that excluded people from the resource benefits, the proposed model incorporated people into a scheme of alternative development activities allowed under a rubric of sustainable forest management. However, this experiment in blending conservation and development also unseated a diverse array of rights, claims and customary practices of people in a way that often complicates the struggle for land reform and political representation in the country.

In Latin American culture, people explain conflict as an experience that is *enredado,* or tangled. The same word refers to being caught in a net. Although there are sayings closely synonymous with this one in English, such as "the tangled webs we weave," it is difficult to locate a metaphor for conflict in which to characterize complex situations that are as rich as this one. We can imagine trying to untie or unravel the severely knotted net. Although someone else may have purposefully made it be in such a way, we might not be familiar with how to make sense of the messy condition. Even if we had ourselves confused and snarled the process, it is our responsibility to make sense of it and create order. People use the above metaphor to explain the situation in the Maya Biosphere Reserve (RBM), but interpretations vary with our line of inquiry and how we

view people's connection to the conservation area and the role the resources within it shape the human relationships. Reading the situation may lead us to visualize an area steeped in conflict, which indeed exists, but in order to overcome the environmental degradation that hinders sustainable development, then conservation must reconcile issues that are not only traditionally neglected with protecting nature, but also wider societal concerns of realizing peace.

On the surface, the technical management of the RBM is sound from the macro-scale down to the local level. The reserve is the locus of not only a system of regional protected areas, but also a corridor of high biodiversity that runs the length of the subcontinent of Central America, which has enhanced state cooperation over the management of natural resources. Contrary to the top down structure of the past, many Central American governments, including Guatemala, devolved governmental powers down to the local level, which allows multiple stakeholders work together to integrate development goals into the larger conservation strategy. So why is the forest still threatened? While some explanations point to human nature and its rational and irrational attempts to exploit resources, the nuances of the mechanisms people use to actually benefit from resources in the RBM landscape is often unclear, but remains extremely germane to both environmental sustainability and peacemaking on a local level.

Land is what defines agrarian cultures. The political, cultural, economic, and social fabric that binds them together in inextricably linked to the territories and resources they occupy and utilize. Central to the issue is the security of tenure and resource access. When land is scarce or made difficult to obtain, it can not only lead to environmental degradation, but also intense conflicts between the people. The uncertainty

in resource access breeds insecurity, creating disincentives for long-term investments for sustainable management of resources.

While the military war ended in Guatemala, as embodied in the 1996 Peace Accords, the land distribution and social polarization problems that in part led to the armed conflict remain the everyday reality for the majority of Guatemalans. The relevant agreements related to land all exhibit a gap between the principles in the Accords and interpretations of tenure security in the implementation process. Nowhere is this more apparent than in the northern department of the Petén. Internally displaced people and refugees returned to reoccupy the region after the signing of the Peace Accords with the promise of resettlement and socioeconomic assistance to find most of the region had become the Maya Biosphere Reserve. The conservation scheme created a de facto agrarian reform process, whereby, in order to legally occupy the area, residents must comply with conservation-compatible uses of the land. Ultimately, lacking autonomy within the system and legal title to the land, the state dictates the terms of people's development. The situation reflects the short-term expediency that conservation took during the armed conflict.

Although the official process of the Peace Accords has not solved the deeper causes or consequences of the civil war, some of the problems with land rights have been alleviated through community management of the RBM commons. The reserve creates partially secure access to resources through usufruct rights, and decentralization of government power aids in participatory decision-making needed to conserve, develop and

efficiently use its natural resources.[1] While the intent of the Peace Accords and RBM is to bring about reconciliation and enhance conservation respectively, neither project will succeed where there is ambiguity and antagonism over land. This is of particular concern because instability in the region stems from low intensity conflict, some of which is rooted in inequitable access to land resources. If the existing institutions address basic underlying injustices and build capacity for resilient forest livelihoods, the process could serve to complement both the goals of conservation and reconciliation in the post-conflict era. The challenge is to identify opportunities, or leverage points, that will complementarily alleviate the root causes of problems, because the capacity does not exist to address them all in discrete initiatives.

This paper is an attempt to connect several, disparate issues: the ongoing, primarily indigenous, struggle for land rights in Guatemala, democratic decentralization reform of RBM governance, and the potential environmental role in peacemaking between all those involved in sustainable forest conservation. The main research questions are oriented in the following way:

- How would state natural resource agencies become active promoters of the Peace Accord reconciliation process? And how does this threaten entrenched interests?
- What incentives can support the residents of the RBM in sustainable forest management under the usufruct rights regime? Can the government guarantee the user-rights for the long term?
- Can the community-based institutions bridge the gap between the land reform ideals presented in the Peace Accords and daily realities of residents, bringing together deeds and words?

Below, I reach the answers to my inquiry by critically examining the way conservation policies interact with the historically constituted conflict over land in Guatemala. In particular, I evaluate the conservation agenda and institutions ability to not only preclude

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[1] Emerging from civil law traditions, usufruct is defined as "the right of enjoying a thing, the property of which is vested in another, and to draw from the same all the profit, utility and advantage which it may produce, provided it be without altering the substance of the thing" (Legal Law Terms 2006).

further conflict, but also actualize the reconciliation process that was encouraged by the Peace Accords ten years ago. I focus on the locally manifested institutional relationships that mediate decision-making, placing importance on the informal, or at times, invisibilized, ways that people access resources through both normalized patterns of activities and extralegal means, which are in part expressions of local, regional and globalized processes.

I present the case and subsequent analysis in the following six sections. The first section of the study will present the conceptual framework for analyzing how people access resources in the RBM. In the second section, I review the emergence of environmental peacemaking, its merits as a point of inquiry, and briefly address how the RBM serves as an example of peacemaking.[2] The third section will then explore the historical context of land as a source of contention in Guatemala, and reform in the ongoing post-conflict process of forwarding the ideals codified in the Guatemalan Peace Accords. The fourth section explains the wider political ecology of the conservation scheme, how the conservation scheme both obscures and advances land reform issues as well as the institutional realities created by local people. Section five investigates the opportunities for peacebuilding through decentralization of power. The last section presents some conclusions about the case in which I place the study in a comparative and theoretical perspective.

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[2] Johan Galtung describes peacemaking as any activity that depolarizes violent sentiments between people often through a creative or empathetic transformation that ultimately helps to reach peaceful resolution to conflict (Galtung 2002, 3). Environmental peacemaking follows this characterization, but an environmental element may be part of the nexus of activity that makes way for conflict transformation.

Analyzing Access and Accountability

Resource scarcity could be thought of as the root cause of the larger violent conflict in Guatemala, ascribing the intensification of population growth as a driver of competition over a dwindling supply of land, which then forces peasants to toil for insufficient harvests in ecologically fragile areas. This image of the Guatemalan conflict is associated with the neo-Malthusian view of environmental and natural resource conflict, and its tendency to express an environmental determinism, one-dimensional causation linking resource scarcity as the main cause of environmentally-induced violent conflict. The favoring of certain laws and institutions that control the distribution of land as a scarce resource, which generally excludes people from access, would be defined by Homer-Dixon, as resource capture (1999, 15). In contrast, Peluso and Watts argue that rather than dealing wholly with scarcity or abundance, "analysis of violence should originate from the precise and changing relations between political economy and mechanisms of access, control, and struggle over environmental resources. Scarcity and abundance are traditionally produced expressions of such relations, and as such should not be the starting point of an analysis" (Peluso and Watts in Homer Dixon et al. 2003, 93). Although nature influences social relations, especially the labor process and power relations, the reciprocal interactions involving a multitude of factors build the context for social conflict.[3] In light of this view, the paper intends to move beyond the scarcity-abundance discourse to investigate how access to resources and the lack of downward

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[3] Peluso and Watts base environmental violence on essentially four dimensions: environmental degradation associated with non-renewable resource extraction; environmental change associated with the human transformation of the renewable resources; environmental enclosure associated with living space and territory, and; forms of environmental rehabilitation, conservation, and preservation (2001, 26-29).

accountability in governance continues to play a role in conflicts over conservation in the RBM, which are in part larger efforts for political reform and the search for peace.

The creation of the Maya Biosphere Reserve entailed a conversion of property rights from private use to state authority, and it is important to recognize what land rights and resource access mean in the particular scheme of the biosphere reserve model.[4] Normally, 'property' and 'property rights' refers to a right or a set of rights to things (MacPherson 1978). It is important in the way claim from a "benefit stream" (Bromley 1992, 2), or an endowment (Sen 1976). Then, how do people go about benefiting from resources, if the idea of property is taken away? People live within the RBM, but they only have usufruct (user) rights to the natural endowments. Communities have the legal right to use and receive benefits from the land and resources in the reserve via social contracts dictated by the Guatemalan state. In effect, the communities lease the land through concessions to the forest resources, and are limited in using the land in any other way. However, the land tenure regime is not as static and unchanging as it seems at first glance of the conservation area. In reality, a mosaic of systems of access overlay the Petén landscape.

Over and above owning property, access is essential to gain benefits from the forest resources. Access is regarded as the ability to benefit from a thing, or a bundle of abilities (Ribot 1998, Ribot and Peluso 2003). Access analysis helps us understand "understand why some people or institutions benefit from resources, whether or not they have rights to them" (Ribot and Peluso 2003, 154). Access is different from property: "A

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[4] The terrestrial biosphere reserve system is a conservation scheme that generally includes core protected areas, protected cultural areas, buffer zones and multiple-use zones. Unless specifically stated, I refer to the multiple-use zone (ZUM) and Buffer Zone (ZAM) of the RBM together as buffer zones. Although they are both distinct areas of the reserve differentiated by allowed land uses the ZUM has the more stringent restrictions and greater diversity in alternative development.

key distinction between access and property lies in the difference between 'ability' and 'right'…. Access is about all possible means by which a person is able to benefit from things" (155). Importantly, not all the viable ways of access follow state-sanctioned, formal channels, but through, what Leach *et al.* characterize institutions as, any "regularized patterns of behavior between individuals and groups in society that emerge from underlying structures" (1999, 238).

Similarly, the rich literature on entitlements has evolved over time from Sen's entitlement approach to famine (1976). Leach *et al.* developed the environmental entitlement framework (EEF) to explain how the varied institutional relationships mediate the process of accessing and controlling resources, which often intersect and supersede one another (1999, 227). In other words, entitlements are the real benefits derived from environmental goods and services, which arise from the "rights and resources" people have available to them as endowments (233). Thus, turning endowments into entitlements is about how power is manifested. As I intend to show, the process that communities in the RBM must go through to benefit from the forests they inhabit is influenced by the variety of rules in action in the conservation area. They cannot easily transform their endowments into entitlements. It is an arduous undertaking to begin with, and communities may often find it even more difficult to deal with state prescriptions for management and conservation.

Within this framework, land, forests and biodiversity are considered the environmental features of concern for all the different actors. The state and NGOs jointly manage the RBM in a system of decentralized co-administration (CONAP 2002b), which intercedes both in the way people secure resource access and benefit from those

resources. In viewing the state and non-governmental organizations, the investigation draws upon Agrawal and Ribot's actors-powers-accountability analysis of decentralization reforms (1999), which Ribot built upon in his comprehensive review of the literature on decentralization in *Waiting for Democracy* (2004). They created what I call a "trinity analysis" for analyzing decentralization reforms, which poses a major proposition in order to measure progress towards democratic reform, which plays an essential role in an attempt to analyze the depth of decentralizations,

> "*IF* [emphasis included] institutional arrangements include local authorities who represent and are accountable to the local population and who hold discretionary powers over public resources, *THEN* the decisions they make will lead to more efficient and equitable outcomes than if central authorities made those decisions (Ribot 2004, 1)."

The focus is on "which actors are receiving the new powers from decentralization, what those powers are, and the kinds of accountability relations in which those actors are located" (Ribot 2004, 15).

Ultimately, the goals of decentralizations are democracy and the efficient use and conservation of resources. To further institutionalize peacebuilding processes as well, corresponding transfers of power down to the local level must be consistent with those goals. In the past, new or reconfigured institutions have been crafted in ways that still consolidate power with the central state, remaining upwardly accountable. This is not favorable towards building local democratic governance. If decentralization programs are not deftly designed and implemented to favor those people traditionally marginalized, then they will not lead to the equitable outcomes. Looking at the decentralizations and community-based initiatives of the RBM through this lens can enhance activities that generate genuine empowerment, which involves nourishing the skills and confidence at the local level necessary to exercise social power. Treating accountability in governance

with an analysis of access provides a basis for analyzing the case, and for developing a regionalized framework that could possibly serve as model for furthering the process of peacemaking.

Environmental Peacemaking and the Biosphere Reserve Model

Owing partly to the end of the Cold War, and the subsequent changing responsibilities of international and regional institutions, the traditional notion of security began to change. Today, the study of conflict focuses on intra-state instability, which has the potential to cross borders, much more than the traditional concentration on sovereign states.[5] Consequently, environmental peacemaking has emerged not only from a common peace research interest in environmental issues, but also security research done in the late 1980s and 1990s investigating the potential links between environmental degradation and violent conflict. It was ultimately created to propose solutions to confront shared threats on a global scale. The heated discourse between scholars continues concerning how the environmental factors may exacerbate pre-existing social tensions.[6] Essentially, environmental peacemaking research is oriented in the opposite direction, towards how shared resources can fortify transformations to peace.

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[5] One must place the concept of security in perspective according to not only how it is defined, but also how it is applied. Baldwin defines security not as the nonexistence of threats, but a low likelihood of "damage to acquired values" (1997, 13), because at all levels, as Rothschild explains, security has broadened in scope in several ways. The conception includes not only nations in the standard militaristic sense, but also human well-being of groups and individuals, the greater environment, and a social contract of collective responsibility (1995, 56). Although the end of Cold War ideology has nearly eliminated the threat of widespread interstate war and nuclear war, most nations still view a world of perceived threats that replaced old fears. In contrast, the UN intends to reconfigure the anarchic model to enhance neutral, universal principles of collective security rather than rivalry for power and national interests (UN High Level Panel on Threats 2004, 10).

[6] Homer-Dixon instigated some of the earliest investigations into the possible environmental causal mechanisms of conflict (1991), and then developed a framework for environmental security that evolved from a collection of case studies (1994, 2000). The interchange between Homer-Dixon and Levy provides more information on the early security debate on the environment (1995-1996); also see (Schwartz et al. 2000) and the "Exchange" between Homer-Dixon, Nancy Peluso, and Michael Watts (2003).

Although skeptics may still consign environmental issues to low politics, downplaying the role it could play in the larger resolution of different conflicts, Conca and Dabelko hypothesize two broad "pathways" for the makeover from environmental conflict to peace.[7] The first pathway includes any activity that enhances the overall setting of intergovernmental relations, which leverages the "overlapping systemic interdependencies" to create opportunities for the development of trust and cooperation in general. Strategies that improve societal, non-state linkages define the second pathway. More processes that are informal would be included such as initiatives to develop relationships within civil society, build transparent institutions, and cultivate folk dispute resolution techniques (Conca and Dabelko 2002, 220). While these scholars formally put sunshine on environmental peacemaking, the discipline is in its infancy, but the need is great for scholars continue to build case study evidence that is inclusive of different regions of the world and environmentally diverse to test environmental peacemaking propositions.

Kyrou evaluates the scope of the environmental peacemaking pathways by questioning how deeply the current peacemaking investigations and projects integrate codified peace paradigms. The literature on environmental peacemaking struggles with terms and ideas, but depending upon the line of inquiry remains slanted towards either environmental sustainability or creating sustainable peace (Kyrou 2006, 7). Part of the struggle to operationalize environmental peacemaking ideas lay partly in whether we are

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[7] Conca and Dabelko conceive of both pathways as strengthening "post-Westphalian" governance (Conca and Dabelko 2002, 10). The issue of sovereignty is major crux of inquiry for reconfiguring the way in which we address environmental governance. The practice of peacemaking often endeavors to change the traditional realist conceptions of the world as anarchic that limit current international relations and governance "to incorporate more pluralistic understandings of authority, more flexible conceptions of territorial sovereignty, and more heterogeneous ways of knowing about problems and solutions…." (Conca 2006, 5).

using peace to make environmental change or using the environment to create peaceful change. But, if we tend towards one, does that rule out the possibility of the other? More and more, we find the two, environmental sustainability and sustainable peace are not mutually exclusive because they are often oriented towards similar goals.

For example, the ultimate goal of conservation is to protect biodiversity, but conservationists have begun to realize that planning and managing conservation areas must often be done during violent conflict and in immediate post-conflict situations (Oglethorpe et al. 2002, 366). Ironically, wars can protect forests for short periods by discouraging timber operations in zones of conflict, although McNeely insists that aside from a few instances of conflict aiding forest protection, the overwhelmingly negative impacts make forests more vulnerable in wartime. Immediate postwar situations can be highly devastating for forested regions as well, frequently spurring a sort of land rush into deserted areas (McNeely 2003, 3). Along these lines, the tension that arises out of the either-or dichotomy leads scholars towards different models and orientations, such as Kyrou's Peace Ecology paradigm, which "indiscriminately" endeavors to nourish all kinds of eco-social initiatives that reduce conflict and/or enhance the chances for peace (2006, 7). Collaboration and the creation of community reciprocity is an end in itself.

While there are opportunities at all levels, the environmental peacemaking focus has been primarily on opportunities to make peace between nations or within regions. In order to give saliency to the inquiry, much of the research converges on the high politics of state-to-state interactions, although a broad array of issues relate to environmental peacemaking at the most lowest level of society. In particular, water cooperation has garnered attention because the nature of water as essential to life processes and popular

tendency for water conflict to end in peaceful resolution. Some other issues might include

relief in the wake of natural disaster (Renner and Chafe 2005), the regional effects of

climate change (Purvis and Busby 2004), and transboundary conservation (Budowski

2005). The latter example, sometimes referred to "transfrontier" conservation, is

increasingly a way not only for states to efficiently manage shared boundaries but also for

conservationists to pursue their goals of ecoregional conservation. Globally, more than

169 transboundary park complexes now cross over 113 countries; a number that is

expected to grow. Indeed, the Maya Biosphere Reserve, like many of the larger parks and

biosphere reserves in Central American, is located in a border region. Often promoted as

Peace Parks (Budowski 2005, 4), donors and conservation groups promote these

conservation schemes as a way to drive peacebuilding between nations, sustainable

development and rural economic integration.[8] However, pursuing sustainable peace,

especially in frontier areas, necessitates extremely comprehensive local strategies in order

to ensure the benefits filter though all levels of society.

The spectacular growth in the number of parks and protected areas in Central

America coincided with the conciliation process initiated in Central America in the late

1980s. In total, there are over 400 declared protected areas in Central America, of which

184 were declared between 1990 and 1996. These protected areas encompass parts of the

region's major ecosystems, over 9.5 million hectares, or approximately 18 per cent of the

subcontinent (Girot 2002, 307). To a certain extent, the sheer number of parks

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[8] Transboundary conservation is the operationalization of the hotspot strategy (Myers 2000), endorsed by donors of biodiversity conservation and the largest conservation NGOs. The ideologies driving it are fascinating, particularly the cooption of bioregionalism by the means of conservation science. Ultimately, new political landscapes are created when ecosystem conservation overlays existing physical and ideological boundaries (Wolmer 2003). The arrangement could easily impact local communities in a variety of negative ways if the state uses environmental norms to impose authority over former marginal areas of the nation (Duffy 2002), or by trying to integrate them into the formal global economy (Duffy 2001).

demonstrates how influential conservation is on regional politics, and its potential role, even responsibility, for transforming conflict. Local impacts on resource access can be extraordinary. The widespread top-down creation of protected natural areas has often been carried out with little or no regards to the active participation of local people illegalizes particular livelihood strategies that were once common (Duffy 2002). The language automatically changes: hunting becomes poaching, settlement of land is portrayed as an invasion, and the cutting or use of the forest is prohibited. Without the staff capacity to control access, hard tactics become ordinary, often states call upon the military to settle irrepressible disputes over land.

Increasingly, Siurua finds the "fortress" model of conservation has been cast in doubt not only due to the incapability of conservation interests to enforce park boundaries, but also agrarian populations are all the time more perceived to be defenders of nature (2006, 73). Martinez-Alier aptly labels this common resource stewardship in developing countries as an "environmentalism of the poor," driven by people who have a material interest in the environment as a source and requirement for their basic livelihood (2002, 119). In a region emerging from the direct violence of war, fought partly over land and the marginalization of agrarian populations, peace and environmental sustainability may well lie with incorporating humans progressively more into the conservation landscape as well as conservation accepting the onus for rebuilding peace.[9]

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[9] Peluso highlighted the dangers of conservation organizations colluding with and legitimizing state violence to protect the environment in cases from Indonesia and Kenya. She emphasized how exclusion from resources, the lack of state capacity to implement environmental regimes and the use of force led to local resistance to conservation initiatives (1993). Duffy's investigation into the local effects of the CITES regime also found when environmental initiatives sustain opportunities for state control or elite capture, resistance manifested in localized "illegal activities that ignore, subvert and adapt those norms" (2002, 1).

In his historical investigation into the roots of conservation and development, Agrawal states, "An ethically acceptable face of conservation requires greater autonomy and freer plays to the preferences of local users, even if such conservation does not lead to efficient conservation." He warns of a historical blindness that duplicates conservation in different forms, but with the same outcome, disinvesting people of the land (Agrawal 1997, 477). An inherent tension lies in the dichotomy of applying top-down strategies to solve global problems, which are essentially localized somewhere, because global or regional approaches seldom meet local needs and realities. Thus, if we endeavor to solve "post-Westphalian" problems, we should not focus on Westphalian-esque frameworks of inquiry and project implementation. Ali maintains a "policy frontier divides conservation initiatives from both foreign policy and the intra-state community relations" (2005, 52). He goes on to rationalize that,

> "Instead of trying to tease out environmental causality in conflicts and thereby accentuate the importance of conservation, we could also look at how environmental issues play a role in cooperation, regardless of whether they were part of the original conflict.…. The main premise of environmental peacemaking holds that certain key attributes of environmental concerns could lead acrimonious parties to consider them as a means of cooperation" (2005, 59).

Although the environment was not a factor in ending the Guatemalan civil war, it could play a role in mediating the simmering negative peace that exists in parts of the country today.[10]

What factors will move the state institutions in directions conducive to cooperative interaction, democratic accountability, and peaceful dispute resolution, all via

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[10] Galtung characterizes negative peace as the absence of direct violence (physical, verbal, and psychological) between individuals, groups, and governments, which is not the ideal of a sustainable and just peace. He also describes a "positive" peace as a broader aim of eliminating violence that requires a long-term process of peacebuilding and the removal of social-political and economic structures of violence (1990).

the environment? The conservation-development nexus potentially fits into Conca and Dabelko's second pathway. In essence, the biosphere reserve model is an integrated conservation development project (ICDP) intended to integrate development, conservation and cultural protection in a sustainable fashion.[11] It endeavors to reconcile previous attempts to protect biodiversity within confined areas while keeping people out, which excluded people from their traditional access to resources. It also incorporates the feeling that in order to protect unique cultural heritage and ecosystems, we must utilize a broader suite of social and political strategies to work across "living landscapes" (Maginnis 2004, 326). Inherently more peaceful than its predecessors, the approach allows simultaneous possibilities to alleviate pressures on biodiversity and social conflict. It makes peacemaking possible, but the nuances of actualizing these plans involve multiple actors, which is process not free of complications.

In the short period of their existence, ICDPs have faced many challenges overcoming the shortcomings of both conservation and development. The management of biosphere reserves depends upon community-based strategies and other decentralized modes of governance. The biosphere model has evolved with these trends. Newer paradigms of development and conservation place greater emphasis on issues that were made invisible during the era of statist, top down development. Critiques of ICDPs are often oriented towards the nuanced processes and local failings of transferring power from the central state and delivering power to the hands of people who have traditionally been excluded from decision-making.

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[11] The UNESCO Man and the Biosphere Reserve program is listed as a Category V protected area, which reflects the human element as part of the conservation scheme.

Although a recent backlash has resurfaced advocating for a return to top-down, protectionist conservation strategies, development as an autonomous right has been codified into international environmental governance norms.[12] One outcome of the Rio United Nations Conference on Environment and Development in 1992 was a push for a significant scaling-down of decision-making control to local communities as a way to promote sustainable development as a divergent, more holistic mode of development. Global governance norms diverged from purely state-centered configurations. Principle 22 of the Rio conference report asserted

> "…local communities have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognize and duly support their identity, culture, and interests and enable their effective participation in the achievement of sustainable development" (United Nations Department of Economic and Social Affairs 1992).

Subsequent environmental regimes and state policies have encouraged a recipe of localizing power at the local level for multiple political-economic, social and ideological reasons, and often with the support aid agencies. Advocacy organizations have also increasingly aligned human rights and development concerns with the right to a healthy environment, and the large conservation organizations and the IUCN have affirmed their confidence in the wider social agenda of conservation.[13]

Ultimately, forest systems exist today as sources of immense physical, cultural and spiritual value. The tropical forests of the Maya Forest region are no exception, having helped shape the agrarian culture of the Petén. At the global scale, the importance

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[12] Wilshusen et al. reviewed a range of opinions regarding the resurgence of "fortress" conservation strategies (2002), which diverges from the popular community-based strategies generally accepted by donors.

[13] The 5th World Parks Congress adopted a theme of "Benefits Beyond Boundaries," upholding the socio-economic significance of park areas to people's livelihoods and even the potential role for peacemaking on an international level (IUCN 2003).

of forest resources and their contribution to people's livelihoods is remarkable. The World Bank estimates that 90 percent of the world's 1.2 billion poor who live on one dollar per day or less rely on forest products for at least part of their livelihood (2002, 13). Increasing access and income is generally thought to reduce dependence on forest resources (McNeely 1994). FAO finds access to be essential if local people are to be able to participate in and benefit from the cultivation of food crops and locally valued products on forestlands (1992). Although community forestry concessions have been found to generate more than 100,000 days of labor per year and a major source of income (Cortave 2004, 26), a large component of family income in the reserve comes from the varied non-timber sources. Accordingly, much attention is paid to alternative income-generating strategies in zones around protected areas (Sayer 1991), but communities derive much income from managing the forests, agriculture and non-timber forest products contribute to raising the living standards of people. The World Resources Institute regards the non-timber, non-agriculture contribution to a family's livelihood as "wild income."[14] The share of wild income used is important for measuring the overall well-being and security of a community, because access to a variety of resources makes people less vulnerable to external shocks. The share of wild income provides a more precise evaluation of people's dependence on the forest ecosystem for income (WRI 2005, 34). The saliency of forest conservation, particularly the human activities within

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[14] Members of the community forest concessions and other seasonal wage labor augments people's income to buy commodities. However, residents of the reserve also derive wild income from cultivated, wild and uncultivated natural systems, both from the animal husbandry, *milpa* and the forests. This includes commodities such as fuelwood, and NTFPs (primarily *xate* palm, *chicle* and *pimienta*), wild game, medicinals, and fruits. Wild income can also include revenue from ecotourism in areas close to important natural and Maya cultural sites. The amount of wild income greatly varies seasonally, by family, by gender, and by community. At some times, it may serve as a primary or secondary source of income (WRI 2005, 38).

the Maya Biosphere Reserve, to environmental peacemaking is the consequence to people's livelihoods.

There is no shortage of initiatives to safeguard the forests of the Petén. Similarly, a focus exists on post-conflict peacebuilding as part of the Peace Accords. Rarely is it acknowledged how the two are interlinked, nor does the capacity exist to deal with either as discrete issues. "Too frequently, institutionality is at the root of injustice and environmental damage" (Borel 2005, 16). Governments and society treat conflict over the land as a given without the recognition that environmental well-being and post-conflict peacebuilding are preconditions for security and vice versa. Failure to conserve the forest or build social peace may necessarily worsen efforts to do either. Thus, the preconditions for conflict still exist because we view the problems as isolated. The next section will investigate how the current environmental circumstances, particularly land, and the peace process complement one another.

Addressing Land Reform in the Peace Accords

Guatemalan society must face the vestiges of this history of violence, which has left ethnic tension, poor economic development, and fragmentary land reform among many seemingly irreconcilable issues.[15] As in many Latin American countries, inequitable land distribution and marginalization of the agrarian poor were two of the many causes of Guatemala's 36-year internal armed conflict (Kay 2001). The Spanish initially banned all indigenous right to land and began to consolidate lands through the *latifundio* (estate) system. Although people were given small parcels to subsist upon, as agriculture began to

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[15] *Structural* and *cultural* forms of violence persist in Guatemala. Galtung lays emphasis on these forms of violence, which emanate from social-political and economic structures in society, and diverge from the overt *direct* form of violence of combat and war. A culture of violence can begin a transform into a culture of peace once all forms of violence cease to exist (1969).

modernize and diversify, the land-rich oligarchy began to push small landholders into areas that were marginally-suited for agriculture (Krznaric 1998, 4). Even today, decades after colonization, the issue of land reform is not resolved in the country. The complex history of contested property, land, and territory claims continues to resurface in the current conflicts over conservation and development cooperation discourse in the Maya Biosphere Reserve.

An agrarian society without land contributed to pervasive poverty, undernourishment, and social unease. The oligarchy supported the colonization of the northern Petén region in order to alleviate population pressures and competition for agricultural land in the highlands. One genuine endeavor at land reform emerged in a 1952 legislation by the Arbenz administration; at this time, 2 percent of the population owned 72 percent of Guatemala's arable land. Of the land in private hands, only 12 percent was cultivated (Handy 1994, 82-83). The effort at land redistribution expropriated some foreign-owned plantations, which characterizes how the conflict over land was both internal and internationalized. The U.S.-backed overthrow of the Arbenz government and the subsequent, what Kay labels "counter-reforms," re-seizing of the land from *campesinos* initiated the agrarian violence between the government and guerrilla groups (2001, 761). Sometimes referred to as the Guatemala-Maya war, the military waged a campaign of terrorism and genocide along class lines, but also against mostly Mayan indigenous groups (Pando 1997). The social and cultural impacts of the war are incredible. The label "holocaust" has also been used to describe the outcome of the hostilities, in part due to "the media prominence of the Rwandan 'genocide,' the growing international attention given to indigenous rights, and debates on the

'uniqueness' of the Jewish experience in the 1930s and 1940s" (Krznaric 2002, 199). Statistics vary, but it is estimated upwards of 180,000 people died, and 40,000 people were "disappeared" during the conflict. Additionally, several hundred villages were destroyed, and at least 100,000 people escaped the country to Mexico. More than a million people are thought to have been forcibly displaced within the country, some of which fled to the furthest northern department of the Petén (Costello 1997).

Fragile Tenure Institutions

Unruh states, "most civil institutions cannot endure the stresses of armed conflict" (2002, 337). The Peace Accord process in Guatemala is necessarily an ongoing to process to reconstitute the institutions that were weakened during the conflict. Governance of natural resources often remains at the locus of this process in an agrarian landscape where arable land is needed to satisfy people's livelihoods. Also, conservation is seen by many small landholders as an extension of historical tendencies to depopulate areas while bringing them under state control. In the end, we must deal with the presence of the RBM, but also realize it did not emerge in a vacuum outside of the scope of larger societal affairs.

The Peace Accord process created three agreements that addressed agrarian reform, all commonly referred to as the Socioeconomic Accord, the Resettlement Accord, and the Identity and Rights of Indigenous People Accord. They are explained below.

The Socioeconomic Accord – signed 05-06-1996
This Accord commits to social spending increases, and establishes a market-based land reform, which created the Land Bank to extend credit for buying land. It also refers specifically to the support of private and community-based organizations in the conservation of renewable resources, including forests.
The Identity and Rights of Indigenous People Accord – signed 03-31-1995

This accord calls for inclusive government accountability regarding indigenous rights, particularly rights to property. It additionally authorized constitutional reform, which recognizes Guatemala as a multiethnic, multicultural, and multilingual country.
The Resettlement Accord – signed 06-17-1994
This accord acknowledges the importance of land ownership, and grants resettlement rights to those people displaced by the war. In addition to acknowledging human rights, it intends to guarantee a healthy environment through the protection of ecologically important areas and sustainable resource use.

Peace Accords relating to Land 1
Sources: (United States Institute for Peace 1998; ProPetén 1999, 82-83)

Today, indigenous or reservation lands are virtually non-existent in Guatemala compared to some other countries in Latin America. The state effectively abolished all indigenous property, which today only exists in the Petén in one place: the Itza Reserve on the southern border of the RBM. Atran asserts that traditional eco-cultural practices are in a process of accelerated disappearance in the Petén. This knowledge survives among only a small number of producers and among the native Itza, whose language is languishing in the midst of a modern *Peténera* culture.[16] The only living Petén Maya, whom never were consulted about the Maya Biosphere Reserve, have been effectively blocked as beneficiaries (Atran 1993). Most of the international aid for the RBM has not focused on assisting the Itza populations, notwithstanding a recent World Bank and GEF supported grant to develop the Bio-Itza Reserve (GEF 2000).

Krull maintains, "Tenure security is the foremost concern for the majority of Peténeros" (1999, 64). In his research of popular participation and the role of NGOs in the Buffer Zone (ZAM) of the Maya Biosphere Reserve, he found that a majority of residents face threats to the legality of their land claims primarily due to lack of title, which is economically or bureaucratically prohibitive to obtain. The constant threat of being "muscled-off" the land they work is a barrier to investment in the land beyond

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[16] The term Peténero(a) is a label given to individuals from the northern Petén region of Guatemala.

practicing agriculture (Krull, 65). In the author's own work in 2005, he found residents of the multiple-use zone (ZUM) held the same sentiment. Although the communities are able to live and work in the reserve under usufruct rights, the absolute prohibition of titling within the reserve was enough of an impediment for them not to exercise agroforestry-type practices. Preventing private title to land remains an unbending term in negotiations with the National Protected Areas Council, CONAP, the principal Guatemalan conservation agency.

Fuzzy Entitlements

Still, the usufruct system is peculiar, differentiated from the focus on Western liberal ideal of land ownership as a right and something towards which to strive. It is similar to the concept of an easement used in the United States by environmental groups for conservation purposes (The Nature Conservancy 2006). Similar to easements where the holder of the easement keeps the development rights to land, usufruct rights bestow certain limits on what people can do as part of the conservation scheme of the reserve. Communities have the legal right to use and receive benefits from the land and resources in the reserve via social contracts dictated by the Guatemalan state. Traditionally, the state extracts rent for the use in terms of taxes or fees on timber. Devereux labels usufruct as a type of "fuzzy entitlement" (2001), because in effect, it is a weaker claim over resources not based on ownership and property, although property is not even a guarantee that the resource entitlement will not be taken away. It has been suggested that although the state shapes the terms of land use in the RBM the *campesinos* actually establish parallel usufruct rights themselves (Clark 2000), based more on autonomous local custom, and which may eventually influence their rights to the land in the future.

Many indigenous and displaced people throughout the world seek to have their customary, usufruct rights, codified into formal laws. In fact, some scholars reason that private ownership is the natural evolution and paramount climax of land tenure development. Property rights may evolve from communal possession to private exclusivity, via re-allotment, inheritance of usufruct rights, which solidifies private property rights and makes market-style interactions possible. Thus, in order to incentivize investments in sustainable management, it may become necessary to give land users the right to use their land exclusively (Hayami 2000, 20). The same privatization argument persistently reappears in different forms as a solution to the "Tragedy of the Commons," which has historically been used to vilify the rural poor as agents of environmental destruction. Environmental degradation, Hardin asserted, was a symptom of natural human desire to maximize their individual gain from public resources even when overexploitation and collapse is evident (1968). Conservation groups also view insecure land tenure as an important deterrent to sustainable resource use. Some NGOs now view titling as having an "anchoring" effect on agrarian families that would otherwise continue to practice the traditional system of *millpa peténera* and move on once the soil becomes depleted.[17] Tenure security in the form of private property would hopefully give people more reason to more actively keep new migrants out of the areas they themselves own

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[17] A common strategy of agriculture in the tropics is to first clear land of vegetation by cutting and burning. The practice clears the area of weeds and releases enough nutrients to support vigorous crop growth for the season. Often, people will then move on to let that area lay fallow until the productiveness returns. The nuances of *milpa peténera* diverge from the slash-and-burn practiced in other regions of the tropics, mostly in the use of traditional crops, semi-permanent areas of crops, vegetables, domestic animals and trees co-exist in a symbiotic atmosphere of mutual benefit that mimics natural conditions very similar to a functioning ecosystem (Atran 1993). In many areas, transitory agriculture is the only system that does not destroy productive capacity, although this becomes increasingly difficult as arable land becomes scarce (Corzo, 2003). The custom is prohibited within the reserve, but every year fires grow out of control and burn large tracts of forest.

(Conservation International 2004, 16). However, the arguments for privatization overlook the abilities of communities to look after resources in common property arrangements.

The European model of private land tenure was frequently imposed upon the Central American region, and indeed, the whole world. But by themselves, private property rights do not create the conditions for the desired stewardship of resources. Substantial research validates that "common property institutions do not necessarily lead to overexploitation" (Gibson et al. 2002, 209). Guatemala has a tradition of municipally-owned *ejido* forest systems that are durable and up until now, sustainable through time. These common property management systems reflect the capacity of folk institutions to effectively manage resources (Atran 1999; Ostrom 1990). The regime is not based on title to the land, but often a usufruct right that people create for themselves, which is not awarded to them by the state. The local livelihood context is strong in these alternate community models of land stewardship.

Laying Claim to the Petén Frontier

The first rush of *chicle* tappers went to the Petén in the 1890s to help meet the burgeoning world demand for the *chicle*, found in the *Achras zapota* or *Manikara sapota* trees. It was not until a century later that the Guatemalan central government actively promoted swidden farmers to settle the wild "frontier" areas of the Petén region (Schwartz 1990, 256). By that time agricultural fragmentation in the highlands was making agricultural production more impractical, pushing out-migration from rural areas to the country's agricultural frontier (Bilsborrow and DeLargey 1991). Landless people or those internally displaced people from the war fled to the Petén in search of land as well as to escape the fighting only to find most of the remaining insurgent forces had

moved to occupy the Pasíon and Usumacinta River regions. During that time, as many governments had done in the past, Guatemala's governments provided perverse incentives that subsidized development through a various set of strategies to increase agricultural production and forest, and petroleum exploitation. Often, the government took property rights away from people unless they actively cleared and developed the lands (Schwartz 1990, 267).

Before the 1960s, the Petén population was scattered in "enclaves" of villages whose purpose was extracting forest products like *chicle*. The population now reaches surpasses 500,000 people (Grandia and Fort 1999) due to still rapid human development and migration into the area. The country has an increasing number of rural families with no access to fertile lands and few options besides migration to the expanse of unsettled forest in the northern department. However, as population growth rates exceed 10 percent annually farmland requirements are expected to double within twenty years (Grandia 2000). This rural to rural migration is blamed for driving the process of deforestation, which in the past coincided with the clearing of half the forests in the region during the period of government-supported settlement of the region from 1966-1985. The progression of deforestation in the Petén can be seen clearly in satellite imagery and is documented on the ground in and around the region's national parks (Sader et al. 2001).

In addition to population growth and state development policy, deforestation in the lowland tropical Maya Forest results from a series of interconnected trends in poverty, land speculation, and increasingly climate change, among a range of other smaller factors. In Guatemala, as in other Latin American countries, it generally proceeds in a three-step process. Timber or petroleum companies create roads in order to exploit

resources in interior areas. Migrants settle the near roads, sometimes depleting soils by inappropriate farming methods (Sader et. al. 1994). Then, land speculators or ranchers buy or muscle the people off the land in order to consolidate property. A process like this one continues to this day to the extent that the most recent demographic and health surveys revealed information on land distribution, finding that one-third of farmers had to either rent or borrow land (Grandia et al. 2001).

The Political Ecology of Conservation in the Maya Biosphere Reserve

Poverty, lack of resource access, and environmental degradation are incredibly important factors that continually threaten conservation of areas of high biodiversity. Additionally, economic decline associated to foreign debt throughout Latin America has likely increased poverty and decreased public investment in environmental programs that could exacerbate degrading activities such as the deforestation and the utilization of marginal lands (Gullison et al. 1993). In Guatemala, the drawn out violent conflict exacerbated the existing problems enough to warrant regional and international concern for the protection of the Petén region (Burnett 1998). Conscious of the rapid rates of deforestation and weak economic growth, the Guatemalan government created the Maya Biosphere Reserve in 1990 with the support of international donors in the waning years of the war.

The biosphere reserve model intends to meet not only the conservation demands, but also foster economic and human development for those people reliant upon the natural resources in addition to encouraging scientific study of unique biological areas (Batisse 1986). The declaration of the RBM, motivated by the application of the Law of Protected Areas one year prior, generated a series of social conflicts within the department due to the initial prohibition to the essentially free forest resources. Supported

by local and international NGOs, a strong social movement emerged to fight for community concession rights to manage the forests on their own (Cortave 2004). An additional factor was the government's "incapacity to control the ZUM" (USAID 2001, 26), which encompasses 40% of the RBM area. Although its main purpose is the conservation of biodiversity, the conservation interests celebrate it as an ideal solution for environmental sustainability and poverty alleviation in the country (CONAP 2001).

The two million hectares under environmental protection take up the majority of the land area in the northern department, comprising of a complex of several core protected areas, anthropological parks, wildlife preserves, multiple-use and buffer zones, all designated for varying levels of human use. In some communities, certain environmental elements have Mayan origins that reach back at least to the post-classic Mayan period, which in turn were affected by Spanish and Yucatan influences since that epoch (Atran 1999). Resident and nearby communities harvest Forest Stewardship Council (FSC) certified forest products on a sustainable basis, particularly timber, which are then sold for export markets around the world. Non-timber forest products (NTFPs) remain important to the economy and culture of the region: *chicle*, the tree resin used to make chewing gum now mostly in Japan; *xate*, a floral palm sold in flower markets across Europe and the United States; and *pimienta* (allspice) are harvested from the wild forests of the reserve and generate more than one million U.S. dollars in export revenues every year (Reining et al., 1992). The living landscape of the RBM allows Guatemala to secure a small niche in the world market for boutique and certified forest products.

Many aspects of the RBM are internationalized. It comprises a substantial part of a larger system of protected areas throughout Southern Mexico, Guatemala and Belize,

known as the Maya Forest. The region forms the northern eco-regional section of the Mesoamerican Biological Corridor, which endeavors to protect a chain of interconnected ecosystems throughout the sub-continent. These areas are a collective reservoir for biodiversity in Central America, part of the internationally recognized Mesoamerican hotspot. The subtropical moist forest, savannah, and wetlands are ecologically connected with the Calakmul Biosphere Reserve just across the western frontier in Mexico and the Belizean Rio Bravo protected area on the eastern border. Also, the RBM bridges a corridor from La Cojolita Communal Reserve in Chiapas into the Mexico's largest lowland protected zone, the Montes Azules Biosphere Reserve (Mittermeier et al. 1999, 100).

Sadly, conservation faces incredible deficits in financial support compared to other sectors. The entire protected area system of Guatemala operates on an annual budget of 32 million Quetzals (just over $4 million); the National Director believes the system needs double that amount at a minimum. In contrast, the Costa Rican system functions on $26 million dollars a year (Prensa Libre, May 29, 2005). Accordingly, the three respective countries of the Maya Forest region have interests in economic integration with the motive of integrating communities into the market economy. Certainly in the near future, integration of electricity infrastructure and road improvements will eventually lead to a series of interstate rail and highway links, industrial and free-trade zones stretching the length of the Central American subcontinent (Toly 2004).

As illustrated in the preceding section, the armed conflict reduced the effectiveness of the already weak land tenure institutions in the region. The Petén was

one of the last regions the war reached. At the moment of its creation, thousands of settlers and displaced people were living within the newly created reserve. Then, subsequent to the signing of the Peace Accords, refugees returned to find the new rules of conservation put in place. In reality, the RBM was only protected on paper like the whole host of other parks created in the same era, so the expediently formed National Protected Areas Agency (CONAP) rushed to normalize resident communities into the conservation system and relocate others. Granting usufruct rights to the communal areas created a de facto land reform system, apart from the Peace Accord-directed process, which granted some tenure security, but also obscures the larger cultural and structural problems in society.

Urgency shapes the conservation groups actions in that the RBM is too small and too threatened to provide adequate natural habitat. The biggest threats from the advance of the "agricultural frontier" due to subsistence agriculture practices and colonization by landless peasants from other areas are due to processes outside the realm of authority of conservation interests. Thus, conferring security of land tenure and developing non-agricultural sources of forest-based income for the population are perhaps the two most important activities in the buffer zone that focus on developing compatible management alternatives that maintain environmental quality and the sustainable extraction of natural resources (CONAP 2002c). Now, legally, residence in the reserve is conditional upon compliance with the various activities defined by a number of measures the communities must implement, including the non-alteration of current land use, prevention of land "invasions" and non-regulated harvesting of resources. Local and international NGOs work in tandem with CONAP to help the communities comply with the requirements

necessary to maintain their concessionary status. These NGOs play an important role in

developing community participation and alternate sources of income. They provide

subsidies for forest management, as well as managing the often complex environmental

planning and documentation requirements needed for the intricacies of timber harvesting

and marketing.

Community forest concessions may ultimately improve the livelihoods of the poor

in the short term, but at the cost of what foresters would conventionally consider good

forest management. Because of failing rates of regeneration and overcutting, dividends

from the concessions that have until now thrived on the extraction of the most valuable

caoba and *cedro* species are expected to fall within several years.[18] Contrary to the

idealized version of the sustainable extractive reserve model, Finger-Stitch contends,

> "Certification provides an incentive for communities to enhance their
> entrepreneurship. However, with the overall difficult local socioeconomic
> and, frequently, climatic conditions; little support from the state; rather
> insecure back up from international donors; and difficult access to markets
> that are furthermore capricious and not inclined to pay for the extra costs
> of sustainable forest management, it is a true challenge for the local
> communities to develop some relatively autonomous capacity for
> sustaining their forests and livelihoods."

Finger-Stitch questions whether the structure of the model that relies on "catering to

international markets at the expense of other forest uses and livelihood strategies" will

ultimately decrease cultural and environmental diversity (2003, 176). Ultimately,

improving the livelihoods of resident communities needs to be coupled with

strengthening their access to resources and their ability to make use of these resources.

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[18] These species form the majority of the profit from the concessions. Possible solutions include developing
markets for secondary markets, as well as investing in natural capital. Regretfully, there is not enough
experience within the communities to undertake the process of restoration without technical assistance of
external resources or financial resources within the community. Illegal logging also threatens certain
populations. Developing new markets for secondary products proves difficult for several reasons. Many
species occur in scarce densities that make it difficult to harvest efficiently, and the more common species
have to compete with existing wood markets globally. Lastly, taking secondary species has the potential to
harm the biodiversity of the region (USAID 2001).

Sunberg asserts how the conservation debate complicates the local reality with technical fixes to larger structural problems and socio-economic realities (1998, 400), though the framework outlined here helps to illustrate how local people navigate the barriers to resource access that ultimately shapes their livelihood strategies and how effective local governance meets can account for this process. The above historical view will show to be essential in understanding the larger social processes at play that influence landscape and ecosystem change. Protected area legislation that created the RBM evolved from a grander historical process that suddenly overlaid environmental norms onto pre-existing community endowments and contracts that are often much stronger than the new laws. Out of necessity, communities create their own de facto community norms that belie the standards of conservation.

Reconfiguring Current Conflicts over Land

Although a range of actors and institutions ultimately affect the trajectory and outcome of the RBM this paper reduces the analysis to local people's access via legally recognized and de facto institutions with the intention of actualizing a sustainable peace process from the local level and preserving the eco-cultural integrity of the region with the resources available. The onus of deforestation has often been placed on poor people, but problem has also been treated in isolation. Consequently, projects are misdirected, and based on local affects of much larger structural problems.

While autonomous sustainability is often the goal of integrated conservation and development projects, the biosphere reserve model actually necessitates a long-term balanced relationship between the state, NGOs, local populations, and the environment because the model is restricted to its engagement with the larger socio-political and

economic processes. The incapacity of the state in many cases and the power of some of the NGO actors place local people at a disadvantage in these relationships, but the success of conservation depends upon their empowerment. The access analysis is a beginning point to disaggregate the ways local people are enabled to gain and maintain access to the resources the depend upon within the RBM model.

Tangled Webs of Power

The terms access and entitlements are used to describe similar concepts of both the "ability to derive benefit from things" (Ribot and Peluso 2003, 153), and the "range of possibilities people can have" to take advantage of the ecological resources available and under what conditions (Leach et al. 1999, 232). These concepts encompass the whole scope of mechanisms different actors utilize, which intermingle across the landscape of the RBM. "Different people and institutions hold and can draw on different 'bundle of powers' located and constituted within 'webs of powers' made up of these strands" (Ribot and Peluso 2003, 153). The *enredado* metaphor exemplifies something similar to this webs image. Depending upon the point of view, asserting these different powers could be perceived to be legal, illegal, de jure, de facto, formal, and informal, among others. In the end, the mechanisms of access define the struggle to maintain livelihoods in an ever-changing system of rules.

Since local people do not own land within the RBM, they are limited in the ways people usually take advantage of resources through property relations in the traditional sense. Analyzing conflicts over land within the reserve in this way reconfigures the situation in a way that teases out both the environmental aspects and the power relationships at play. Ribot and Peluso outline two traditional categories of access

mechanisms, "rights-based" and "illegal access," which include subcategories of "structural and relational mechanisms" that mediate or are used in conjunction with people's legal rights or extralegal methods of access. These are technology, capital, markets, labor, knowledge, authority, and social relations (Ribot and Peluso 2003, 164). Reflecting on the list and on the RBM context provided earlier, we can begin to get a sense of which actors have the ability to utilize which specific mechanisms or bundles of powers for a desired outcome. The mechanisms are constituted historically through the process of colonialism and legacy of conservation, and imposed geographically onto the region through the different land uses and human activities allowed in the RBM. The main categories are established through law, but custom and convention also shape the institutions that put them into action.

The Access Regime

Although the state owns the land, security of tenancy is guaranteed to the population by means of the community forest concessions (CFCs), which are renewable every 25 years. Thus, communities maintain the legal usufruct rights to their communal property and CFCs. Not all communities maintain residence in the reserve, and not all members of the communities are *concesionarios*. In principle, each household is entitled to a limited area of cultivated land in the communal area for subsistence, but only *concesionarios* are entitled to profits from the timber operations and are also allowed a small share of timber for domestic use. In exchange for access, the community is supposed to respect the areas assigned to them and not sell the land, in other words, they are obligated to enforce boundaries and assert their exclusive rights to their communal areas from outsiders. People not affiliated with the concession do not have legal rights to the forests at all, and

membership should remain low to maximize profit. Ribot and Peluso describe this responsibility as "access control" and "access maintenance." Local people regulate their own use and others potential exploitation of the resources available (2003, 158-159).

The narrow structure illustrates how, via certain mechanisms, the institutional rules prescribed by the state benefit some people and not others. People, and their families, who are members of the concessions obtain and control privileges through their affiliation with the concession. Job opportunities are in short supply in all areas of the RBM, and the basic right of entry to the concession is based on a fee. Indeed, most men will travel as seasonal laborers outside of the reserve to work or trade labor for commodities. *Concesionarios* share an identity, maintain social relations based on that identity, and job-specific knowledge, which translates into authority. Concessions also give members access to technology, capital and markets.

Also, differences in the way the diverse population uses natural resources in the Petén have been noted in the literature. Of the 700 communities in the entire region, 90 percent are Q'eqchí Maya and peasant indigenous migrants (55 percent *ladino*-mixed and 45 percent native) (FIPA 2001). State agents make assumptions that ethnic populations differ among themselves in knowledge of and capacity to use the available natural resources based on their origins. Resident communities, especially those in the deeper zones of the RBM, are thought to be less educated than non-residents are and less able to manage the traditionally-asymmetric power relations with the state. They also develop specific livelihood strategies based on their origins; some groups may depend more on livestock or certain crops. Ultimately, the resident communities are considered more difficult to work with based on historical conflicts, which may generally affect the

benefits they derive from the state. Grunberg imparts how the "articulation of ethnic diversity" manifests in ways in different environments, which makes the area incredibly complex, but has not been fully studied (2001, 101).

In reality, there is a gap between what the state legally endows and the ways people try to benefit from the resources. Even illegal mechanisms are rights-based as they are characterized in contrast to the activities that are "not socially sanctioned" by the state (Ribot and Peluso 2003, 164). In the eyes of CONAP, a few communities, especially those with resident populations that are situated along roads, have not been able to manage this responsibility. The existence of the road network creates opportunities for easy exploitation of timber from the concession areas. In several cases, community agriculture has expanded into and new migrants have established themselves in the concession areas contrary to the rules of CONAP. These communities have small but growing populations with familial ties that extend out of the RBM whose total extractive activities put pressure on the sustainability of the natural resources.

Long-term Relationships

The development of conflict in the RBM is both multipart and seemingly unpredictable. As illustrated earlier, some conflicts over land today arise from the overall unresolved issues of unequal land distribution and social polarization, secondary conflicts that have spiraled out of the larger structural and cultural issues that persist in Guatemalan society. Ramsbotham *et al.* would characterize these conflicts as asymmetric, between an authority and a minority (2005, 21). The conflicts over land primarily emerge in two forms: the "internal" clashes with permanent communities in the ZUM over the management of their communal land and timber concession, and the "external"

occupations or non-sanctioned use of land in the core areas or ZUM by people outside the system. The disputes are not always totally discrete, and sometimes merge together. However, the mechanisms of access differ for the each actor. Access analysis puts the mechanisms in their appropriate conceptual place, which can help to design peacemaking interventions for transforming the conflicts. While this process is important for coping with short term challenges to peacemaking (keeping the peace), it ought to be seen as a practice nested within the larger efforts of cultural peacebuilding in society and institutionalizing peacemaking within the RBM.

Although there are still incidents of violence by the military or peasants within the RBM, the official method for dealing with conflicts by the state is dialogue and negotiation. This approach is reflected in the contracts with resident communities over their concessions (CONAP 2002), and the official policy on human settlements (CONAP 1999), which ultimately deals with relocations of non-sanctioned settlements. The dialogue approach markedly has diverged from the unbalanced state-community relationship and history of military violence, albeit slowly over time, based on awareness of the impracticalities of pursuing the long-term relationships necessary to manage the RBM in a provoking manner, especially with the resident populations. Pesantez notes how this process was founded in the earliest "statements of intent" in the mid-1990s, which were a "means rather than an end" and created a more balanced atmosphere to develop the policy on human settlements, founded on a much more complex structural problem (2002, 17). The small rising levels of awareness make space for greater contextual and structural transformations.

The primary mode of conflict resolution has been to confront the issues directly with the community leadership and *concesionarios* to build trust and better monitoring schemes. CONAP continuously facilitates meetings and trainings to address issues that arise in communal management of lands. On this premise of continued economic and community development and as part of continued rezoning of degraded areas, representatives in the department of ZUM would like to promote management schemes that seek alternative solutions to extensive traditional cultivation methods to those of intensive methods, such as agroforestry.

The social situation in the reserve is described as a "culture of negotiation" because the number of actors involved in the comanagement of the conservation area dictates an unending process of compromise and capitulation for the communities engaged in managing the forests (Grunberg 2001, 107). Undeniably, if local people have not won their perceived due rights to land through formal channels, they have found outlets through NGOs or non-sanctioned means in order to generate sufficient income from the land, which the biosphere reserve model does not afford everyone. As illustrated earlier, not every person in the community or in the family as the case may be, benefits in the same way from the possible endowments available. Grunberg goes on to state that the "majority" of the local population searches ways to pursue livelihood strategies based on mixed agriculture and "legal land tenancy" (2001, 106), which he defines as "the point at which the community has achieved a degree of stability and zoning of economic space they consider their own, with the outer boundaries fixed" (109).

A dichotomy exists between the formal processes and rules of the RBM, and what local people have been able to realize through education, negotiation, advocacy and

violence. In fact, in Clark survey of colonization and land tenure in the Petén, he found

eight discrete tenure arrangements in the Petén; each scheme had its own particular

> "institutional characteristics that maintain regime-specific linkages to other social and governmental institutions. These eight regimes include open-access lands lacking governmental capacity to enforce property rights (*baldios*), smallholder private parcels, large private ranches, state-owned protected areas, municipal lands, cooperatives, forest concessions, and indigenous common community property" (Clark 2000, 421).

We should not be made to think the biosphere reserve model is the most efficient, or even

the most just. A few of the above tenure regimes have long, often invisibilized histories,

of sustainable management by communities (Scherr and Molnar 2004).

"Invasions" and "Illegal" Access

As noted earlier, the deficient land reform process over the whole of Guatemala has been

a major root cause of immigration to the Petén, which many see as exacerbated by

population growth. Land occupations, referred to as invasions or *agarradas,* have become

a threat to the RBM goals and is chief means of acquiring land, though awareness of

boundaries and enforcement have curtailed the practice of late. Throughout the 1990s,

peasants used NGOs to assert their rights to land, and in some cases, employed violence

as a means to demand land rights to certain areas in the RBM. Local people burned the

forest guard station in Cruce de Dos Aguadas, took government leaders as hostages in

Laguna del Tigre National Park, kidnapped scientists and burned a research station in El

Peru (Clark 2000; Margiolus 2004, 161-163). This led to new state strategies such as

community concessions, legalization of communities, and the signing of community

agreements of intent prohibiting certain land uses.

The expansion of settlements into the reserve can lead to fragmentation of

forested areas, habitat degradation, illegal logging, loss of forest cover, water

contamination, and other health risks (CONAP 2002, 24). Conservation International (CI) and other related NGOs have invested millions of dollars into conservation projects in the Maya Forest region, but CONAP does not have the capacity to control all settlements that cross into the borders of the reserve. As the above negative effects increase in time and negotiation fails, the state continues to use the military to forcibly remove large groups of people to other areas. In the case of Mexico, supporters of the Zapatista National Liberation Army believe the expulsions from the biosphere reserves in Chiapas disguise a wider scope of activities to destabilize the Zapatista movement (O'Brien 1998, 140). After relocation or eviction, the settlers say, the government will proceed with infrastructure and development projects to exploit the timber, petroleum, and genetic resources of the area. Nevertheless, relocations are commonplace. Some say the practice of "disappearing" is still practiced by the governments. However, several communities who faced eviction from protected areas in Mexico have recently been able to file formal protests with the Inter-American Commission on Human Rights (Weinberg 2003, 28).

As the community concessions become more established in the RBM, new migrants tend to recognize the territorial limits of these areas, but in recent years, have begun to occupy more frontier northwestern core and fringe areas of Laguna del Tigre National Park and Sierra del Lacandon National Park. The flows of people crossing the borders in search of land suggest not only problems with land security, but also possibly a looming humanitarian crisis. Even if local decision-makers acknowledge the skewed patterns of land tenure in other parts of the country, they are left with few options to influence the larger societal issues.

From Confrontation to Negotiation

The Petén is largely deficient in state institutional capacity to negotiate land tenure with residents with the RBM. Although the Petén has its own law meant to distribute arable land to agricultural families, it has been severely limited by the population growth and decreasing supply of land. In absence of formal and legitimate tenure arrangements, Clark contends campesinos create their own norms through land invasions, occupation of "free" lands, and improvement of the land through agriculture (2000). Although the government often uses force through the military to reaffirm state domain, the peasants, though slowly over time, create other avenues of access based on localized barriers to access. While many would refer to the invasions as indicative of the Tragedy of the Commons, NGO advocacy has helped create space for asserting rights to land. The two examples of titling projects in the ZAM, and the creation of the community forest concessions suggest the legitimation of usufruct rights that have been transformed into permanent tenancy regimes. An alliance of NGOs lead an initiative that in the end established several thousand parcels over a wide area in the ZAM (Krull 1999; Grunberg 2001, 103).This action was significant due to the earlier steadfastness of the state in regards to not allowing private property.

State involvement with several communities along the Carmelita route is indicative of the challenges in sustainable community development, but also illustrates the development in strategy from confrontation to cooperative approaches within a short period of time. The government has either threatened to revoke or temporarily revoked several community concessions in the past due to the differing conceptions of appropriate access to the forest resources. In the late 1997, the community of El Cruce de Dos

Aguadas refused to settle for less than full title to their concession area. They tried to negotiate favorable terms for the concession, but eventually conceded to the uniform concession provisions. However, high rates of logging in the area led CONAP to place a ranger post in the community to monitor the illegal activities in the area. Government supervision exacerbated the perceived restrictions on access, which led to the razing of the post within a year (Krull 1999, 210). CONAP then broke off all relations with the community for a number of years, and the associated NGOs were forced to leave. Concessionary rights were ultimately given back, and now all communities along the route have completed or are in the process of clarifying and formalizing their land tenure regimes.

Many objectives of CONAP now aspire to minimize threats and sustainably manage the ecological and cultural resources of the ZUM, while broadening the scope of conservation, and thus, the viability of the Reserve. Other objectives are oriented towards institutional structure and capacity in order to reach the goals set that will govern the reserve (CONAP 2001, 5). The Strategic Plan for the multiple-use zone prioritizes several significant objectives that address the key problems that the community concessions face. These objectives focus on reducing illegal extraction, minimizing the impact of human populations, revitalizing the institutional role of CONAP, defining funding priorities, and strengthening the community concession process (2002a, 11). Although almost every government document refers to the Peace Accord process, not one tenet of the Peace Accords is incorporated into the larger goals or objectives of the RBM besides the providing some socio-economic alternatives to the population.

The above examples are not a promotion of privatizing property in the RBM, but serves as an opening for conservation discourse that embeds itself within the socio-economic and political realities of the region. While the process of integrating a conciliatory process into the goals and objectives of the RBM is important, autonomous social organization in the rural areas needs support for long term, sustainable peace. Without decentralization of power to the community level in different municipalities, the local initiatives in the Petén are left to cope with the localized effects of a larger structural problem, having to continue to exclude outsiders from the benefits of resource access in the reserve. The situation within the RBM is often dire, but the drivers of colonization have been largely neglected within Guatemalan society. Ramsbotham *et al.* explains that "peacebuilding from below cannot be seen in isolation from the broader process of cosmopolitan conflict resolution, acting to confront the global and higher level forces that impact on local communities" (2005, 229). A peacemaking to conservation in the RBM context necessitates a cultural transformation that does not vilify the weakest actors, and begins to build peace based on the needs of society.

Conservation Response to Reconciliation

In addition to resolution of conflicts over conservation, a larger effort at peacebuilding will be necessary to assuage the larger structural problems of land reform and political representation in society. Operationalizing peacebuilding within natural resource agencies is important not only for its own sake, but for the need to rebuild trust within Guatemalan society. Hence, new institutions need not be built because opportunities exist for the ones that already exist. "With land, the difficulty stems more from issues of legitimacy than from the institutional inability to effectively recognize and

resolve important tenure issues" (Unruh 2002, 337). The retreat of NGOs and aid agencies from the region after the signing of the Peace Accords left vestiges of institutions, but no resources with which to function. Although constancy in finances is extremely beneficial, donor fatigue and shift of interest did not leave an "institutional vacuum" necessarily. The institutions that remain are essentially the most durable ones that wish to and capable of actualizing change.

Local people's ability to gain, control and maintain rights to inhabit the RBM could quite possibly not have been achievable in a centralized system of governance. The community-based organizations and NGOs were able to advocate effectively in the initial atmosphere of rebuilding produced by the Peace Accords. Amidst the contextual and structural transformations happening at the time, existing communities asserted legitimate claims to the land, while returning refugees and displaced peoples took advantage of porous borders, power in numbers, and state incapacity to affirm their prerogative to stay. Opposed to the centralized management of protected areas in the past, the biosphere model appeared to be inherently dysfunctional. Yet centralized, state-dominated natural resource management and planning institutions have faced similar, if not more difficult challenges to conservation by wholly excluding people from access. The next section will open up the conceptual space to consider how to capitalize on the opportunities of decentralization, which utilizes local knowledge, affords local people more decision-making power in autonomous development concerns, and helps to replace exclusivity with a new model of sustainability.

Building Peaceful Conservation Institutions

Natural resource institutions do not often envision peacebuilding or reconciliation as explicit goals in planning. The assertion that conservation institutions need to grow to be peace institutions may seem to be an undue burden on already overworked and underfunded agencies. Indeed, conservation has rarely been asked to take on the responsibilities of peacemaking, however, the legacy of conservation demonstrates that the practice cannot exist outside of societal affairs. In order to be effective, it must, at least, not exacerbate the problems of social marginalization and land insecurity in a society. While the Peace Accord process has been difficult to sustain, the RBM system has made gains in community empowerment rarely seen in other countries faced with both environmental pressures and histories of violence.

Although government institutions did not fair well during the conflict, the participatory framework exists by means of the ideals of decentralized comanagement. Since the inception of the reserve, CONAP agents, NGO workers, and the permanent communities have been working cooperatively, though not without some conflict, to make change. The arrangement can nurture a form of indigenous empowerment, persevering where the formal Peace Accord process falls short. If peacebuilding is more than just the support of the Peace Accords, then how can natural resource institutions integrate the processes and approaches needed to transform conflict toward more sustainable, peaceful relationships? Much of the strategy concerns what Ribot classifies as "countering resistance and seizing opportunity" in the decentralization reforms (2004, 82). The reforms needed for conflict transformation can be piggybacked and expand upon the governance reforms in the decentralization of natural resources in Guatemala (Gibson

and Lehoucq 2003), challenging entrenched interests that resist true democratic change as well as building and implementing a sustainable conciliatory agenda for the institutions involved. What follows below is by no means a complete list of themes or reforms, but the issues are intended to elicit further discourse on the appropriate strategies for peacemaking through decentralized, locally accountable governance.

The Opportunity of Decentralization Reform

Present day decentralizations diverge from state centralization strategies of the past that in part yielded the expanded public services in some countries during the post-World War II era.[19] Although centralization helped to generate incredible economic growth in most parts of the world, it disregarded local norms of managing and protecting resources (Folke et al. 1998). In some cases, power never resided with local communities, but the "new wave" of decentralizations theoretically promises to devolve powers through subsidiarity principles, down to most appropriate local and effective level of management, in order for communities to develop more independently. However, the reasons for a state to transfer central power to different actors are almost as varied as the ways in which power is transferred. Since each action of transferring power reconfigures the power relations that shape development states choose from a variety of alternatives, some of which are bundled into initiatives labeled as decentralization. Institutional choices are a political strategy for elites, often directed in ways to retain control over resources (Boone 2003).

Decentralizations worldwide are widely carried out both in the form of deconcentration and devolution, wherein powers are transferred to the local level, but

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[19] From the literature, Agrawal and Ostrom identified three previous waves of decentralizations in South Asia and Africa since the mid-1800s (2001).

local governmental bodies often remain accountable to central government. Scherr and Molnar find that comanagement models in most countries are still evolving in a changing decentralized governance structure, which continue to assign most decision-making authority with government or NGOs rather than to the community level (2004). In the case of the RBM, we see a mixture of proper democratic transfers of power to the communities, but also approaches that do not appropriately fit the general vision of local control and equity in resource access. Palma Murga explains that decentralization of land and resource management was a key concession by the government under the Peace Accords. As in most countries, these reforms emerged from pressure by international institutions to modernize and streamline the state apparatus (Palma Murga 1997), and were designed to improve the possibilities for democracy and to integrate the indigenous majority into social, political, and economic spheres from which they were historically marginalized.

One of the biggest critiques of decentralization is that elites use the action as a strategy to consolidate power in fewer hands (Mansuri and Rao 2003). Indeed, the new decentralized initiatives remain politically embedded within a historically centralized and vertically-oriented state power structure. While incomplete or deficient decentralizations lead to unaccountable local institutions, the transfer of power yields both opportunities to institutionalize patronage relationships and prospects to capitalize on reforms. Lederach asserts "the nature and characteristics of contemporary conflict suggest the need for a set of concepts and approaches that go beyond traditional statist diplomacy" (1997, xvi). Ultimately, localized initiatives are partly founded on the assumption that development will be more viable with the participation of local people in planning or management.

Local opinion and decision-making has traditionally been downplayed in the era of top down, statist development worldwide. As discussed above, the reality is that social divisions exist at the local level as they exist everywhere else. Local institutions are not isolated from the greater society in which they exist; thus, the social hierarchies and cleavages reproduce themselves in local institutions (Mueller 2006). In order to be effective and just, proponents of decentralization or bottom-up endeavors have to navigate the varied landscape of options available that will evade the above mentioned problems of power concentrating into fewer hands.

"Effective" Decentralization

The assumption is that local authorities, specifically elected authorities, remain much more accountable to the local people, which yield decisions that are more equitable. It lies in the distinction between "formal" and "effective" decentralization (Agrawal and Ribot 1999). Lederach echoes and furthers this assumption, contending the governance structure of a society must also contain the ability of the grassroots to have an impact on the structures in which they are confined (Lederach 1997, 216). Thus, in order to examine the depth and breadth of decentralizations, Agrawal and Ribot established the actors-powers-accountability analysis. The three-tiered focus is on "which actors are receiving the new powers, what those powers are, and the kinds of accountability relations in which those actors are located" (1999). Although the management of the RBM requires a long-term partnership, communities remain vulnerable when they do not have the autonomy to carry out their own development.

Decentralized management is implemented on a wide-scale throughout the reserve, which includes the creation of local community associations and capacity-

building through special training programs. However, the application of the co-administration strategy allows only for a slight modification to central management. Before, central government made decisions in Guatemala City, now the regional offices of CONAP decide on local level matters. CONAP received powers, but does not have the financial resources to cope with all the challenges to conservation. In reality, the state is only responsible for creation and enforcement, while NGOs implement and manage the conservation and development initiatives (Sundberg 1998, 390). The local people actually manage the resource. It is a potential apparatus for mobilizing action, but under what circumstances are the locals involved in decision-making? Often the state or NGOs make choices for the communities, thereby deligitimizing their role, and reinforcing a pattern of paternalism and dependence (Chemonics 2001 in Patel 2005, 5). It remains to be seen whether local people have the opportunity to take on more responsibilities or develop the knowledge and expertise to actualize their own plans for development. Without discretionary authority, local governance over forest resources not only becomes more difficult, it may cease to exist.

There are still a myriad of grassroots and community-based organizations that represent local interests, opinion and cultures. Most of them emerged during the last years of the Guatemalan conflict. In the short history of the RBM, these smaller organizations have played a role in advocating for community rights. They have provided much needed technical support, local expertise, and an overall balance to government relations with the communities. They contributed to the structural transformation, which enabled the state and communities to partly break out of the asymmetrical relationship in the first few years of the reserve's existence. Through a multi-year advocacy campaign of

consciousness building, they helped the communities gather enough support and legitimacy to negotiate on a more symmetric basis for the creation of the community concessions. At present, the partners face the question of capacity.

Unsound Capacity Arguments

Presumably, communities should be capable enough to manage their own concessions with minimal external support within a short period of time; attempts have been made to diversify livelihood activities through improvements in new ventures such as agroforestry and ecotourism. However, decision-makers are hesitant to transfer discretionary powers too quickly. In a timber concession progress report from USAID, the authors claimed, "Most communities suffer from numerous organizational, administrative and management problems. However, the necessity of working together on a common enterprise has also had beneficial effects of uniting the community and encouraging new organizational arrangements" (Tschinkel and Nittler 2000, iii). The complexity of the concession contracts ensures that the associated NGOs will remain active in the concession process until they can build community "capacity" for effective management of the forests (Finger-Stich 2003).

In practice, states often retain some authority to trump local decisions. This authority is generally based on dubious technical or political reasoning that reaffirms control over resources. Along these lines, Miller noted that increased local authority over natural resources might complicate interstate efforts toward economic integration in the region (2001, 15). Although the community receives income from the activity, the arrangement has much to do with the value placed on tropical hardwoods and the importance of timber as part of the overall economic development strategy of the country.

The same sentiment is resonates in project planning documents: "Special emphasis should be placed on preparing the community groups to interface with the private sector, including their technical assistance provider, buyers and business partners. If increased understanding of the timber industry can be interjected within the system, better decisions can be made by the communities and more realistic contracts negotiated" (Tschinkel and Nittler 2000, iv). Ribot rightly characterizes the "lack of capacity" argument as "specious" (2003, 60). The same comanagement scheme persists more than a decade after the first community concessions were established; capacity has more to do with the function of an efficient timber enterprise than the capability or prerogative of the communities.

Local NGOs will continue to play a major role in comanagement; however, the political culture of the comanagement model favors patterns of clientelism, and a homogenization of approaches, which may hamper the ability of the local organizations to contribute to stable, democratic, and diverse governance. The United States Agency for Development, one of the major donors for the RBM, just withdrew after completion of their program in March 2006. Currently, two organizations, the Association of Petén Forest Communities (ACOFOP) and the Community Forest Organization (FORESCOM) have an exclusive right to act as liaisons between the state and the communities. Competition over projects forced many groups out of the region after the creation of the RBM, and the number of organizations has been dwindling as donor fatigue sets in. While ACOFOP was a major advocate in winning the rights for community concessions, FORESCOM actually grew out of the need for communities to process and market the timber. They depend upon the communities as active participants and managers of a

sustainable resource base. In the end, these local groups may not be the benign autonomous actors unbound by the structural pressures of survival as donor interest shifts and the direction of conservation changes. They may become more fearful of taking part in controversial advocacy or become fragmented to a point that they will not be able to forward agenda for peace in the future.

Community Autonomy

What if communities had the right to say they did not wish to pursue a livelihood strategy based on forest extraction and timber marketing? Some of the evidence presented above maintains local people's affinity towards agriculture over forestry. Right now, they do not have that power to decide. More than an economic decision, local people demand a share in the decision-making within legitimate institutions. However, accountability is composed of the means to ensure local needs and desires are translated into concrete policies. Evoking the Tragedy of the Commons and the capacity argument does not meet that end. Arendt states, "Power is actualized only where word and deed are not parted company, where words are not empty and deeds not brutal, where words are not used to veil intentions but to disclose realities, and deeds are not used to violate and destroy but to establish relations and create new realities" (1958, 200). Accordingly, the survival of the RBM's resources may rest on the ability of all the actors to negotiate the locally-appropriate strategy, which may mean experimenting with compromise in the management of the resources.

The above focus is on the community concessions, because they are the main impetus for development within the resident communities. Still, not all members of the communities are *concesionarios*. What little power local people do have is through the

concessions. The most rational strategy in the communities is to become a member, and try to gain the benefits that go along with the opportunity. Moreover, sweeping social capacity for resource management, Patel asserts, "cannot be taught in a workshop or explained in a seminar. It is worked into the fabric of society itself and requires a long-term investment…not like a crash course in timber harvesting can provide (Patel 2005, 71). Part of this comes from within the community itself, but community-based models require local people to apply their particular, place-based knowledge. Social development needs must be met as well.

The transfer of technical capacity and funding directly to the community organizations should be viewed not as a threat but as an opportunity. The argument is that the communities must learn over a period of time to manage their concessions, but without discretionary powers they may never be able to pursue livelihoods of their choice, let alone deal with the market. Additionally, the focus on timber extraction prevents communities from developing alternate livelihood strategies, via possibly more culturally-appropriate harvesting of non-timber forest products, medicinal and pharmaceuticals, or ecotourism.

Conclusions

A descriptive study such as this is most useful when general conclusions can be drawn that will be useful for different contexts. We see how land and people's access to it has been shaped by a variety of ways through cultural practice, colonial rule, state development, and conservation. In viewing the Maya Biosphere Reserve in a local context with outsiders vying for rights and access to the resources within, we often deny the effects of regional and global forces. By doing this we are often unable to intervene in

the negative peace that persists in Guatemalan society today, embedded within the larger structural and cultural problems, and sometimes reinforced by the conservation agenda. Within this particular context, those people involved in conservation can not only use it to consider the past to determine the root causes of conflict that surround preservation of certain values over others, but also absorb the lessons of the grander social conflicts in which conservation may be embedded for the reason of devising strategies and creating institutions that promote peace.

Yet, what is proposed here is less than a radical peacemaking proposition but suggestions for appropriate community-scaled forest management and equitable decision-making. Activities pursued by all the actors involved with, living in, and concerned for the RBM. The investigation does not aspire for truth commissions or the top-heavy diplomatic side of peacebuilding necessary for post-conflict reconstruction. A society needs those initiatives, but the role of the environment in peacemaking is more subtle and nuanced in this some respects, but remains complex. Exclusion from land and access to resources is historically constituted and embedded within Guatemalan society. But as the example of Wangari Maathai and the Green Belt Movement shows, the simple act of planting trees builds the foundation for social capital that is peace capital. The Kenyan grassroots network of women grew on its own to spread to several other African countries that not only planted trees, but also focused on capacity building and community development eventually leading to better livelihood security and political change (Greenbelt Movement 2005). The separation of these realms of life is reflective of Western tendencies of reduction, rather than local realities.

The most codified principles of environmental peacemaking are Conca and Dabelko's pathways, and it is necessary to measure the progress of this study against their standards. Enhancing intergovernmental interdependencies is the focus of the first pathway. Although the study focused on the intra-state level, to potential to scale up the analyses within a larger ecoregion or transboundary conservation framework certainly applies. Access analysis is a germane means for considering how different actors go about gaining, controlling and maintaining access via different bundles of power, and in various contexts (Ribot and Peluso 2003). Comparatively, the trinity analysis does the same for institutional governance, but embracing accountability the counterpower to balance usually uneven, or unjust state actions (Agrawal and Ribot 1999, 478). Through both of the tools, we see who is involved, how they manifest power, and at what aims. Without local strategies, conservation across living landscapes becomes increasingly challenging.

The activities that enhance "informal" linkages make up the second pathway. The cooperative nature of the community forest concessions demonstrates the reliance upon the environment for livelihoods. Although the comanagement model orients power upwards and out, away from the communities, rules in use are not ever totally solidified, but continue to change.

Lastly, there is no doubt of the importance of the Mayan forests play on various physical, cultural, spiritual and psychological levels for livelihood security. However, humans seem to value forest protection and their associated benefits at localized levels, and once the spatial scale expands, the range of interactions become more intricate and challenging to track with more actors vying for interest in the environmental goods.

In most parts of the world, we go about protecting the environment and the community via Western democratic principles without forwarding appropriate, local institutions capable of handling the demands. Many reforms represent the potential for a considerable improvement in people's access to resources, accountable governance, and personal empowerment. Enhancing natural resource governance depends much on activities and reforms that have until now largely remained external to environmental management are becoming progressively more important for building peace and environmental protection as complementary processes. Many methods of promoting such inclusion include, but are not limited to sound electoral processes and judicial systems, separation of governmental powers, freedom of speech, civil education, widespread popular participation, and other means of creating multiple check and balances in society (Ribot 2004). Installing such mechanisms requires changes in national laws and policies that are not only specific to natural resources, but to wider issues of governance and citizenship. Capitalizing upon decentralization reform depends upon education as something vital to inform people on their rights and responsibilities as citizens.

We cannot wholly fall into the assumption that one can change the way in which governance works simply by reconstructing institutions and redrawing the rules by which people have lived by for long periods of history. The process of democracy will take time. In applying a peacebuilding approach from the local level, the way in which a conflict is viewed begins to be transformed; whereas normally people within the conflict are seen as the problem, with outsiders providing the solution to the conflict, solutions are partly derived and built from local resources (Rosanbatham et al. 222). Thus, this study at the most simple level is not about conservation or peace, but about the human

relationships. Again, the purpose of environmental peacemaking depends upon our using the environment to increase peacemaking, or applying principles of peace to benefit environmental sustainability. If people embrace certain common principles, such as inclusiveness and respect for diversity, then the two pathways need not be mutually exclusive.
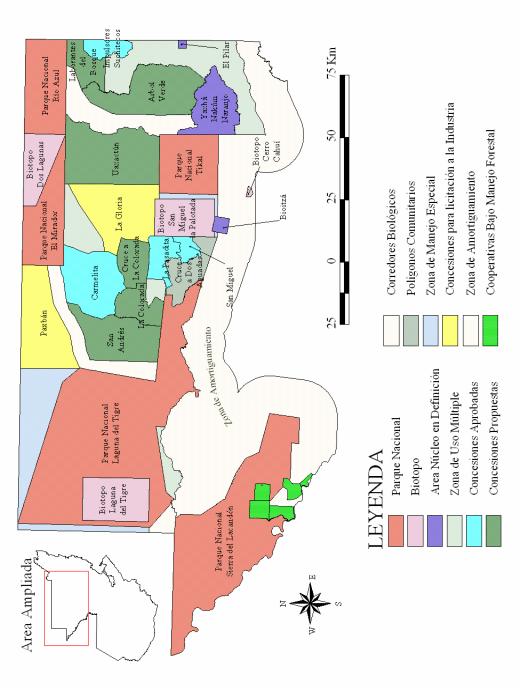
While many notions of accountable local governance are based on an assumption that some decision-making must reside at the local level, the hope is that power, more localized, will provide more efficient and equitable governance, resource access and use than centralized policies. Castro emphasizes the importance of environmental advocacy and networking in the process of governance, whereby "advocacy refers to the act of speaking out in favor of, supporting, and defending the environment with a goal of having an impact on a decision or policy" (2005). Social movements and civil society increasingly utilize this strategy as a way to seek justice and mobilize social power. Advocacy groups in the North could use subsidiarity principles to demand that their partners in the South be fittingly empowered. In so doing, they often must bypass the formal statist institutional structure, but this will remain an important strategy in absence of government that is downwardly accountable to the people.

Ultimately, decentralization challenges the traditional statist assumptions about sovereignty, which Wapner describes as a dynamic and complex set of ethics that change over time and space interacting evermore closely via interconnected and partially overlapping domains from the local up to the global (1998). Hopefully, as the face of sovereignty changes, issues that have traditionally been disconnected from questions of peace, now become more significant, requiring enhanced forms of governance. In view of

that, local actors play an important role in shaping the traditional decision-making of conservation as well as cooperating at a community level amongst themselves to combat significant, more personal threats. By engaging concrete sources of resistance to reform and environmental degradation locally, they actively participate in ongoing struggle against injustice and human suffering in order to stimulate partnership efforts that will reclaim the commons in ways that stimulate change from the local level, and hopefully, sustainable peace processes as well.

ABBREVIATIONS AND ACRONYMS

ACOFOP	Association of Petén Forest Communities
CI	Conservation International
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CONAP	National Council of Protected Areas
FAO	Food and Agriculture Organization
FORESCOM	Community Forest Organization
FSC	Forest Stewardship Council
ICDP	Integrated Conservation and Development Project
MBC	Mesoamerican Biological Corridor
NGO	Non-governmental organization
ProPetén	Petén Project for Sustainable Forests
RBM	Maya Biosphere Reserve
IUCN	World Conservation Union
UNESCO	United Nations Educational, Scientific and Cultural Organization
USAID	United Status Agency for International Development
ZAM	Buffer Zone
ZUM	Multiple-Use Zone

FIGURES AND MAPS

Map of the Maya Biosphere Reserve 1

SOURCE: CONAP

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