Society and Natural Resources in Southeastern Central America

No other system of human occupancy so well preserves the natural rainforest diversity. (Gordon 1982:3); in reference to Guaymi land use practices in western Panama.

Since biological and cultural systems are closely linked, the ecological health of [Central America] depends overwhelmingly on the preservation of diversity in all its forms.

(Grosvenor et al. 1992:198)

The horizontal platform created by the biodiversity / sociodiversity synthesis succeeds in placing in the same frame environmental justice and social justice. [But] A sanctioned role as guarantors of steady, sustainable output of low-cost forest produce hardly ameliorates their [Amazonian peasants and indigenous peoples] subject status, and certainly stops far short of mobilizing ecological argument in the name of eradication of underprivilege.

(Nugent 2003:204)

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1. Introduction

This essay is about the resource-use options and the social consequences resulting from human adaptations to the physical environments and political economies of the Caribbean coast of lower Central America; a region that extends from the Miskito Coast in northeastern Honduras and Nicaragua to the Kuna islands of the San Blas Archipelago on Panama's northern border with Colombia. This is an extremely diverse region where countless drastic ecological, sociocultural, technological and political transformations,

syncretic adaptations and millennial continuities have shaped a great variety of distinctive life forms and cultural expressions.

Data available for the wider Mesoamerican Biological Corridor[1] region as a whole indicate that the area is home to roughly 9% of the world's total biodiversity – much of which is endemic and threatened by alarming rates of deforestation (Guzmán 2003a:2-3). In 1950, about three quarters of Central America was covered by forests. Fifty years later only a third remained – most of this being increasingly fragmented and concentrated in protected areas and indigenous territories on the Atlantic side of the Isthmus (Heckadon Moreno 1997:195). But plant and animal species diversity is not the only casualty of rapid forest conversion – soil erosion, loss of fertility and soil compaction are also threatening the agricultural economies, transportation infrastructures and water supplies in several areas within the region (Utting 1993:9-11).

Figure 1: Regional topographic divisions of Central America that have controlled land use and settlement patterns (Wallace 1997:78-79).

In addition to such high levels of ecological diversity, at least 60 indigenous peoples or linguistic groups account for some 11 million people or 23% of the total regional population (Grosvenor et al. 1992). More than half of this total population is

[1] An area that includes the seven modern countries that comprise geographic Central America (Panama, Costa Rica, Nicaragua, Honduras, El Salvador, Guatemala and Belize) as well as the five southernmost states of Mexico (Chiapas, Tabasco, Campeche, Quintana Roo and Yucatan).

considered poor, and in rural areas – where about a third of the population and most indigenous peoples live – the percentage living in poverty is closer to 70% (Annis 1992:5-6). Only about 10% of this regional population lives on the Caribbean side of the isthmus though, which also accounts for roughly 90% of the total protected surface area in the region. These land use restrictions intended to promote resource conservation are increasingly in conflict with the needs of poor farmers and indigenous peoples whose access to critical subsistence resources has been negatively affected (Heckadon Moreno 1997:213).

The highly skewed distribution of *access* to resources and a related set of problems deriving from tenure insecurity (e.g. inadequately defined, delimited and/or enforced property rights) are commonly cited as being the main catalyst behind the many and severe social and environmental problems affecting much of Latin America.[2] To my view, some of the most successful attempts to address these problems have analyzed the historical circumstances behind local patterns of resource use and control (i.e. resource tenure) using multidisciplinary frameworks inspired by efforts to integrate human and cultural ecology with political economy that began in the 1970's.[3] During the 1990's, researchers continued to be interested in the "… ways in which power and politics affect and are affected by ecology and the environment." (Stonich 2001:4053), to the point where "Political Ecology" has become a diverse and expanding set of perspectives on: a) the contextual sources of environmental change, b) conflicts over access to resources, and c) the political ramifications of environmental change (Nygren 2000:14). And as I show in this essay, each of these three sets of interrelated issues has characterized, with varying degrees of violence and severity, the Caribbean region of lower Central America.

The goal of this essay is to evaluate the strengths and weaknesses of various anthropological approaches to understanding human – environment relationships in this region. The specific objective is to assess the relevance of theoretical debates concerning *resource tenure* against a series of location- and culture-specific analyses of the physical environments and political economies in which local communities are embedded. For as

[2] Variations of this claim have been made by: (Brockett 1998, Howard 1998, Huber and Safford 1995, Kay 2002, Nygren 2004, Painter 1995a, Partridge 1989, Richards 1997).
[3] Examples of such early efforts to forge a broadly political perspective on ecology could include: (Davis 1977, Despres 1975, Gross 1979, Young 1971).

this paper will show, the nature of the means, in addition to formal property rights recognized by governments, by which people gain legitimate *access* to natural resources for the purposes of their management, extraction, use and disposal (International Development Research Centre 2001)) can have some very significant consequences for local and national socio-political, economic, cultural, and ecological processes and their outcomes.

The first section of this paper is organized in a roughly chronological order. For each major time period, I analyze and present the significant events and factors that have shaped local and regional resource tenure dynamics, significant environmental impacts and major social consequences. This historical review will then serve to highlight key theoretical debates about the nature of society and ecology and the determinants of the relationships between them. For as will become apparent, underlying the often bewildering array of settings, actors, histories, institutions and environmental problems common to much of Central America is an apparent structural consistency; a set of regularities grounded in relations between the core components of economic production and environmental degradation, and their associated effects upon such interdependent variables as resource scarcity, demographic increases, and population distribution (Durham 1995:262).

2. A social and ecological history of resource tenure

"All historical societies have transformed their relations with the environment; this is the very definition of their historicity."

(Touraine 1981:8, quoted in Nygren 2000: 29)

2.1 Pre-Hispanic ecology and political geography

The Caribbean region of lower Central America is an area of high annual rainfall (2000mm-6000mm) and frequent tropical storms. In 1998 for instance, more than 20,000 people were killed and 2 million left homeless after hurricane Mitch pounded Central America causing extensive flooding and landslides that also devastated roads, bridges, electrical lines, crops and livestock (The World Bank 1999). The region's swampy coastal lands are also frequently subject to severe drainage problems, while its more

sloping terrains are extremely vulnerable to the quick erosion of topsoil. Moisture and slope characteristics are thus key physical parameters which provide incentives and constraints to land settlement in these humid tropical settings (Jones 1989:5-6).

In western Panama alone, as many as 20 short swift rivers flow north from the rugged Talamanca mountain range to the Caribbean Sea, creating a series of narrow coastal alluvial valleys connecting the sea to the mountains and providing access to the lands beyond (Helms 1979:6). This topography has reinforced the formation of a series of discrete geopolitical sub-regions along the banks of the major river systems and their tributaries (ex: the Naso along the Teribe river, the Ngöbé along the Cricamola river, the Bribri along the Sixaola in Costa Rica, the Sumu / Mayangna along the Matagalpa in Nicaragua, and the Miskito along the Coco, to name just a few). These territorial configurations provided access to a range of different products available from the distinct ecological zones situated at different altitudes along the river's course. And by favoring such human settlement patterns, the region's ecological heterogeneity can be understood as an important source of the region's linguistic and cultural diversity. (Cooke 2003:8-12).

Genetic, linguistic, and ethno-pharmacological data from the lower Central America region has largely confirmed the local and regional development hypothesis put forward initially on the basis of archeological findings. This hypothesis suggests that the modern day indigenous peoples (e.g. Bribri, Cebécar, Miskito, Rama, Naso, Kuna, Emberá,Wounaan, Ngöbé and Buglé) are descendent from Misumalpan, Paya-Chibchan and Chocoan speaking South American ancestors. Most of the available ethnographic data is also consistent with this scenario of gradual fragmentation into separate linguistically and culturally related sociopolitical groups that have lived in or else very near to their present-day locations for many thousands of years (Cooke 2003:11). Some anthropologists have even preferred to consider both the Naso and Bokotá to be linguistic subgroups of the larger Guaymí (Ngöbé) tribe (Spielman 1979), even though historical records and Naso informants recognize the existence of considerable autonomy and cultural differences between them (Von Chong S and Ortiz 1982:196-199).

No precise figures exist for the pre-conquest population of Central America. Estimates commonly range from 22 million to only a million or so, with most educated

guesses suggesting around 6 or 7 million people who spoke at least 62 languages and had different cultural configurations ranging from tiny foraging tribes to complex empires such as the Maya (National Geographic Society (U.S.). 1992). There is more widespread agreement that aboriginal populations declined precipitously in the first century after the conquest – mostly due to their lack of immunity to old world diseases – and stabilized at less than 10% of their pre-conquest numbers in subsequent years (Jones 1989:44). Archeological and paleoecological data signal the arrival of the first humans in what is today Panama towards the end of the last ice age (12,000-8000 BC). As atmospheric temperatures and sea levels were rising, plant and animal colonies were also known to have been on the move. The oldest known archeological site in Panama is a rock shelter (i.e. *Cueva de los Vampiros*) located close to the central Pacific coast which was visited repeatedly – from about 9500 BC onwards – by peoples whose stone tools closely resembled those of the "Clovis" tradition which developed in North America at around the same time (Cooke 2003:2).

Pollen studies have been used to show how dramatic changes in floral composition can be directly associated with human subsistence activities. For example, the earliest signs of plant domestication in Panama (i.e. microscopic particles of pollen and starch preserved in soils, grinding stones and human teeth) date back to around 6000 BC, and suggest that widespread deforestation has occurred in areas where fire was repeatedly used to clear existing vegetation before planting a variety of foods. Several varieties of maize, arrowroot and yams known to have been planted between 6000 and 1000 BC are no longer eaten, largely because of the availability of more suitable replacements. Primitive varieties of maize and manioc are believed to have been acquired from Mexico and South America respectively through trade and barter with neighboring agricultural groups. Cooke speculates that given the difficult and laborious task of clearing forest vegetation before the advent of polished stone axes – a technology whose first appearance in the region dates to around 500 BC – these early agriculturalists were mostly attracted to plot sites in the mountains and foothills of those regions with marked and lengthy dry season (i.e. the Pacific slope) (Cooke 2003:3-4).

By 2000 BC, the constant need to search for fertile lands on which to plant is thought to have induced small groups of agriculturalists to begin to fan out over the

humid and rugged terrain of Panama's central Caribbean coastal zone (Cooke 2003:4). Further to the west, Cooke speculates that in-migration to the higher and cooler reaches of the Caribbean side of the Talamanca mountain range was delayed by the unsuitability of available food crops to local climatic conditions. The earliest evidence of occupancy in this region dates from the arrival of agriculturalists from the Pacific side around 800 BC. And while it may not be false to call these migrants 'agriculturalists', their livelihoods also depended to a considerable extent on hunting, fishing, and collecting shellfish and wild fruits (ibid:4-5). Gordon (1982), for example, uses ethnographic data about 20th century Guaymi land use practices in Bocas del Toro, Panama to describe how under traditional indigenous land use systems agriculture was but one phase in a long-term cycle which also incorporated tree gardens and the nurture of wildlife. Gordon describes how the Guaymi's constant culling of plants judged to be "useless" along trails and near hamlets creates a subtle reapportionment of species within visited parts of the forest. Additional wild species are also transplanted to nearby "tree gardens" from the surrounding forests, resulting in a deliberately modified form of regrowth vegetation that provides many useful products and a considerable food supply (p.147-157).

Until around the first millennia BC, the material cultures of such peoples remained relatively simple. Some signs of cultural differentiation are visible from the various types of shelters and tools used in different regions of the country, but there is no evidence of advancing social stratification until the period between 500 BC and 500 AD which saw the beginnings of more permanent settlements accompanied by increasing technological (e.g. agricultural varieties, tools, pottery, gold work, etc.) and social specialization (e.g. shamans, chiefs, merchants, etc.) (Cooke 2003:5-6). These patterns contrast considerably with the native societies of southern Mexico and northern Central America (i.e. Olmec, Maya) where, at around the same time, people were building stone temples in largely planned urban settlements and keeping detailed records about kinship, warfare and astronomy (Cooke 1997:158).

By 1500 AD, most Panamanian societies were small chiefdoms characterized by intense status rivalry and competition for wealth and power (Helms 1979). Helms examined the relationships between chiefly status and power, regional and long-distance exchange networks, and the acquisition of esoteric knowledge; concerns that drew her

attention to sumptuary items of chiefly display – gold pieces and ceramics (ibid:3). These chiefs or *caciques* were generally members of high ranking families whose leading members also occupied the lower ranks of regional authority, status and wealth. But these situations were also quite flexible, as evidence indicates that chiefly power also depended in large measure on maintaining agricultural productivity and continued political successes in trade and warfare (Cooke 2003:8-9).

Despite the often bellicose nature of inter-group relations, trade and barter flourished. Marine products were brought inland to exchange for cloths made of cotton, gold jewelry and hunting dogs. These later goods were also widely traded for agricultural products. As mentioned above, as recently as the 1940's much of the interior of Panama was covered with tropical forests, deciduous woodlands and other forest fragments. But at the time when Columbus first explored the coast of present day Bocas del Toro province in 1502, vast sections of the low-lands and mountain slopes had been converted to open savannah by centuries of extensive cultivation (Helms 1979:7-8).

2.2 Conquest and colonization

The Spanish conquered most of Central America between 1502 and 1542. The first region to be invaded was the central Caribbean coast between what is today Veraguas (Panama) eastward to the Gulf of Urabá. These locations (Santa María and Acla) became the staging grounds for a series of coastal raids against indigenous settlements, and an eventual expedition in 1513, lead by Balboa and Pedrarias Dávila, across the central mountain range to the dryer and more densely populated Pacific coastal plains (Cooke 1997:172). At around the same time, Cortez had defeated the Aztec rulers of central Mexico and in 1524 Pedro de Alvaredo attacked and defeated the Maya in Chiapas and Guatemala, and then turned on the Nahua-speaking Pipil in El Salvador. The combined effects of European violence and diseases ravaged an already internally divided native population in Central America which was unable to effectively resist the two-sided invasion (ibid: 172).

Colonial settlements were eventually established within fairly limited areas in each of the modern countries of Guatemala, Honduras, El Salvador, Nicaragua, Costa

Rica and Panama. These settlements were oriented almost exclusively towards the Pacific Ocean. The drier Pacific climate facilitated transportation, and the combination of a sedentary indigenous population and the existence of commercial crops contributed to a general neglect of the Caribbean coast. By comparison, Martin suggests that more remote locations such as Oaxaca, the Yucatan Peninsula and the Caribbean coast offered few attractions to tempt would-be Spanish settlers, and thus many indigenous landholdings in these regions remained substantially intact during the 300 years or so of colonial rule (Martin 1996:196).

Apart from some very limited mining and logging activities on the northern shore of Honduras, the Caribbean terminal of the Isthmus crossing (i.e. Colón) was the only enduring Caribbean settlement in all of Central America (Jones 1988:45). The Caribbean coast was in fact so marginal in the eyes of the Spanish crown that – were it not for the obstinate presence of the Dutch, French and English pirates who used the region's many coves, islands and sheltered lagoons to launch raids against Spanish shipping and inland settlements – the region would likely have escaped all attempts to control and integrate it into the colonial order (Howe 1998:11). An ambition (as captured in a 1980's Sandinista billboard… "*La Costa Atlántica: Un Gigante que despierta*" (Joly 1983:90)) that even the more contemporary states of Central America have had only limited interests or success in achieving.

In those regions where the Spanish did take hold, for instance after decimating the indigenous peoples of the grasslands and savannas of Honduras, Nicaragua and central Panama, these regions provided excellent pastures for grazing imported cattle. Native communities in these regions survived, if at all, by evolving strategies based on compromise, resistance, and manipulation of the Spanish legal system. For example beginning in the XVI century, the Spanish kings and their representatives supported legislation designed to shield Indians from excessive exploitation. Laws were passed that forbade Spaniards, blacks, or other non-Indians from residing in indigenous communities or holding lands within a certain radius of the villages (Martin 1996:198). Although these and other protective measures were often ignored by local officials, they did provide some measure of legal protection that indigenous peoples could use to effectively defend their interests in the courts. According to Martin, colonial archives "… are full of bulky

files of litigation pursued by Indians to protect their lands and rectify other abuses." Many of these documents detail how representatives of indigenous villages carefully measured their lands and prepared briefs that typically asserted that they had possessed their community lands "… from time immemorial" (ibid:200). However, indigenous peoples' recourse to the Spanish courts also carried a price. For not only were ancestral lands sometimes ceded to pay for attorneys fees (Appelbaum 2003:136-139), but such actions also implied a tacit acceptance of the legitimacy of the colonial state.

Other factors that helped to curb Spanish appropriation of indigenous lands during the colonial period were the rudimentary state of agricultural technology, the small size of local and regional markets, and the limited transportation options. Furthermore, armed resistance and native attacks – especially during the 16th and 18th centuries in the Caribbean region – occasionally halted missionary activities and allowed several native groups to retain their territories and independence until well into the 19th century (Cooke 1997:175) (or even the 21st century as can be argued in the case of the Kuna).

Nonetheless, from about the 17th century on, plantation agriculture and cattle ranching gradually became the dominant human settlement patterns in the Latin American tropics – both in terms of the number of people supported by them and the amount of land area utilized. These large estates often became the sleepy, self-sufficient domains of a few well-connected Creole families who generally found smuggling and public office to be more profitable and less strenuous ways of accumulating wealth (Heckadon Moreno 1997:181). In the regions of high population density, indigenous peoples were forcibly incorporated into the colonial economy, a process that lead to a slow but steady increase in the peasant population consisting of small-scale independent producers scattered about on the margins of the large ranches and plantations (Jones 1989:6). Over the entire 300 years of colonial rule, the total Spanish and mestizo population also grew very slowly; doubling in size only about every hundred years (Heckadon Moreno 1997:187). It was not uncommon therefore for haciendas established during the colonial era to combine, to different degrees of variation, all three of these production systems (i.e. ranching, plantation and subsistence agriculture).

The consolidation and expansion of these settlement and production patterns has come about as a result of the various means employed by land-owning elites to ensure cheap labor to extend pasture lands and agricultural plantations (e.g. *repartimiento*, slavery, *encomienda*, abolishing communal land tenure, debt peonage, and land loans, etc.) Sharecropping and extensive cattle ranching can actually be viewed as intertwined in a "cultural symbiosis" induced by development policies that continue to favor the consolidation of large expanses of land by a few people who in turn require large amounts of unskilled labor in order to make these lands produce (Jones 1989:12-13). These transformations took place initially in the Pacific and Central regions of the Isthmus, but since the mid-19th century transportation technologies and international markets have greatly expanded the geographic coverage of both ranches and plantations.

Although the indigenous communities associated with these estates bore a substantial portion of the cost of reproducing the temporary labor force employed on the ranches and plantations, these economic and social relations also allowed them to earn cash with which to buy iron tools such as machetes and axes, pay their tributes, the legal fees incurred in the defense of village assets, and the expenses of the local festivals that helped to reinforce their collective community identity. Thus through generations of trial and error, indigenous peoples fashioned strategies of economic, political and cultural compromise that further helped them to defend their lands and their corporate identities as Indian communities (Martin 1996:203).

Contrary to many scholarly and popular accounts of colonial Latin America, the history of these events is impossible to understand without considering the collaborative relationships and tensions that existed between the colonists, the colonized and the actions and goals pursued by various intermediaries including local land speculators, government officials and indigenous authorities. Besides being supported by much of the available archival documentation, such a perspective is appealing because it repudiates both the all black (i.e. "genocide") and all white (i.e. "civilization") accounts of the colonial period that have tended to attribute agency almost exclusively to the Europeans. Newson (1992) develops one such example of a more nuanced treatment of regional variations in the impacts of Spanish colonialism on the indigenous peoples of Nicaragua and Honduras. Her account stresses the complex interplay and relative importance of

different factors including disease, degree of violence and exploitation, different rates of demographic decline and recovery, the character of native society, and the nature and quantity of available natural resources. Cooke (1997) provides similar evidence about how during the 18th and 19th centuries, the Miskito (like the Kuna) successfully exploited European rivalries to acquire firearms and boats from the English which allowed them to extend their sphere of influence up and down the Caribbean coast (Cooke 1997:175-76).

The creation of the Miskito Protectorate in 1749 was part of a British plan to increase their geopolitical control of the Caribbean region. The British also pursued similar relations with the Kuna in the Darien region of Panama for the same strategic purpose of destabilizing the Spanish colonies (Herrera 1982:68-69). But most significantly for the surrounding indigenous peoples of the lower Caribbean coast, the pressure of constant Miskito attacks and demands of tribute in the form of slaves and products forced many to flee their coastal and island settlements in order to seek refuge further inland in the more inaccessible higher elevations. This is to say that during the 18th and 19th centuries, Miskito military and political power significantly altered the geographic distribution of local indigenous peoples. For many of the regions' peoples the 19th century is still remembered as a period of widespread hunger, suffering and inter-group warfare (Von Chong S and Ortiz 1982:47-48).

2.3 Republican modernity

Political independence from Spain came to most of the region in the form of the Confederacy of the United states of Central America which lasted from 1822-1838 (Heckadon Moreno 1997:184). Racked by internal conflicts between Liberals (advocates of free trade, federalism, and the separation of church and state) and Conservatives (advocates of economic protection, centralized political power and Catholicism as the official state religion) and provincial rivalries between key cities for control over regional resources, the five nation federation would breakdown only to be followed by renewed attempts to revive it more than twenty times over the 19th and 20th centuries. But never once was Panama invited to join (Furlong 2000:31).

Although geographically Panama appears to be a southward extension of Central America, culturally, economically and politically its destiny has always been closer to Spain (until 1821), Colombia (until 1903), and with the completion of the transcontinental railroad (1850's) and especially since the Inter-oceanic Canal was inaugurated in 1914, to the United states of America than to its neighbors (Furlong 2000:31). Furthermore, unlike in northern Central America (i.e. Guatemala, El Salvador, Honduras), the estates of the south (Nicaragua, Costa Rica and Panama) rarely had either Indian villages or peasant cultivators as hostage labor sources. Colonial demographic disasters, isolation, or the prominence of long distance trade created a situation where elites whose political power was based on control of trade and government rather than landed property were unable – or uninterested (as in Panama) – to directly dominate the commoner population economically (Gudmundson 1995:164-165).

In some ways, Independence was even crueler to the indigenous peoples of Latin America than those patterns described above for the colonial period. For instance, form Mexico to Chile post-independence land-owning elites expropriated church estates and crown lands, and made various attempts to privatize the traditional collective holdings that previous colonial governments had permitted indigenous peoples to maintain for their own subsistence (Stavenhagen 2002:24-25). By the 20th century these economic measures, combined with the often equally significant state policies designed to culturally assimilate and socially obliterate all remnants of indigenous identity, had contributed to a situation of widespread landlessness, increasing agrarian unrest, multiple revolutions and various experiments with land reforms (e.g. Mexico (1910-1920), Bolivia and Guatemala (1952), Peru (1960's and 70's), Chile (1970-73), Costa Rica and Panama (1970's and 80's), Nicaragua (1980's), etc.) (ibid:25). Unfortunately, many if not most of these state-led approaches to land reform and rural development were severely compromised by official corruption, partisan politics, short-sighted thinking and derelict bureaucratic institutions (Bobrow-Strain 2004:890). And as I will show in the next section, on the eve of the 21st century while the policy prescriptions may have changed somewhat over the years, the endemic poverty and hardships of the largely indigenous populations living in rural areas of Central America has not.

Given the widespread incidence of poverty reported at the outset of this essay, and the long history of exploitation and war in much of Central America, considerable comparative research has attempted to answer the question of why three countries had major revolutionary movements (i.e. Guatemala, El Salvador, Nicaragua) and two (Honduras and Costa Rica) – three if we include Panama – did not.[4] Most studies point to the pattern of export-led economic growth, which especially since the 1960s, has impoverished peasants everywhere except in Costa Rica. But the Central American states also handled peasant protest very differently, with both Costa Rica and Honduras carrying out land reform and Panama – under the populist military government of Omar Torrijos at the time, expanding social services – while the three other states responded with repression and militarization which led to war (Smith 2001a:1620).

The other big comparative question has focused on the factors explaining the democratic trajectory of Costa Rica in a region characterized by an enormous degree of social inequality and civil strife. The evolution of the landholding structure has received considerable attention, but Gudmundson rejects the idealized view of Costa Rica as a country of smallholders. While the spread of coffee cultivation during the second half of the 19th century did lead to a transition from a municipal, public lands system to a farming system based on permanent private coffee groves, Gudmundson argues that because Costa Rican elites had no colonial tradition of restricting access to frontier lands, they monopolized only the coffee processing and export phases; leaving production to small and medium suppliers. Chronic labor shortages and migration options to colonization fronts on the forest frontier also encouraged land owners in the coffee growing regions of the Central Valley to enter into sharecropping arrangements with peasants that provided relatively good incomes by regional standards (Huber and Safford 1995:205-207).

One can hardly overestimate the importance of colonization as a primary developmental and economic theme of post-colonial Central America. Forested lands, and in particular the vast areas of humid tropical regrowth inhabited by indigenous

[4] See for example: (Annis 1992, Brockett 1998, Huber and Safford 1995).

peoples and Blacks[5] on the Atlantic side of the Isthmus were seen as virtually unlimited resources but unproductive in their 'natural' state and thus requiring incorporation into the national economy (Jones 1989:44). The goal of pioneer colonists is normally to increase the value of the land (on which they have insecure property rights) as quickly as possible. This is usually achieved by sowing it with pasture, after a couple of years of subsistence crops (Richards 1997:107).The conversion of forests to pasture has also been encouraged by agrarian legislation that classified forested lands as idle, thereby making property rights to such areas subject to prescription through "proof" of occupancy (i.e. forest clearing defined as "mejoras" or improvements). Joly (1989) has aptly described how in Panama such visions of the "social use of the land" embedded in legislation and common practice have fueled the conversion of rain forests to pastures for extensive cattle raising (Joly 1989:93-94). Large scale deforestation got underway in Panama after WWII. In the space of some 40 years, less than 40% of the previously forested area remained (Heckadon Moreno and Espinosa Gonzalez 1985:51, in Herlihy 1995:90). Throughout Central America, the areas of remaining tropical forest are now largely restricted to the Caribbean lowlands, where the absence of a dry season has hindered the development of overland communications and presents special problems for permanent agricultural production (Jones 1989:45). When combined with tax and credit incentives to invest in land speculation and cattle ranching, this process of pasture expansion has led to many disastrous social and ecological consequences. [6]

Throughout Latin America, forging the post-colonial state involved deliberate and determined attempts to homogenize the nation and consolidate strong central governments (Sieder 2002:4-5). In pursuit of these objectives, the dominant *criollo*[7] elites made passionate defenses of progress and national destiny which also appealed to the

[5] Peoples of African heritage generally make up the major non-Indian population group on the Caribbean coast of Central America. Most Afro-Hispanics are the descendents of runaway and freed slaves brought to the colonies especially during the 18th century. The other major sub-group is comprised of Anglo-African immigrants from the Caribbean islands who, by the mid 1820's had established turtle fishing camps in the region. These groups were followed by an influx of Island laborers as a consequence of rail and canal projects and the development of the banana industry (Gordon 1982:25-27).

[6] For example see (Davis 1977) on the disastrous implications for Indigenous peoples, poor peasants and the Amazon ecosystem of policy incentives and government investments in Brazil. For other examples from Central America see especially (Brockett 1998, Edelman 1995, Strasma 1992).

[7] Throughout Latin America, the term Criollo applies to descendents of Spanish settlers who were born in the Americas.

mestizo and mulatto lower classes and thus fostered an inclusive national identity. State proponents of liberalism were particularly unwilling to tolerate a people who explicitly rejected that identity (Howe 1998). Towards the indigenous peoples of the region, the newly independent states pursued policies that inevitably dispossessed or disregarded their territories under the assumption that they would either assimilate into the dominant culture or be condemned to remain 'primitive' (Plant 2001). As during the colonial period, even the most 'well-meaning' laws and policies intended to protect indigenous rights often proved misguided, inadequately enforced, or simply ineffective. Take for instance laws intended to protect indigenous lands from encroachment by outsiders – the land tenure conflict resolution mechanisms included in such legislation have tended to be slow and costly processes disproportionately benefiting the more powerful interests in society. Furthermore, the state agencies responsible for demarcating and enforcing indigenous land tenure rights have been notoriously under-staffed and under-funded (Utting 1993:50-52).

In the specific case of the Kuna people from the coastal regions of northeastern Panama, Howe reports that outsiders began playing a progressively greater role in their internal affairs from the beginnings of the 20th century on; these included turtle hunters, rubber tappers, colonists from Colombia, then missionaries and government school teachers (Howe 1998). Panama's independence from Colombia in 1903 eventually became a significant catalyst in the Kuna's socio-cultural and political evolution from a regional alliance of independent local chiefdoms into an internally self-governing constitutional confederation with special status under Panamanian law (Holloman 1975:28). After the brief and successful Kuna rebellion in 1925, USA military intervention preempted any state retaliation during the following y ears of negotiations between the Kuna and the Panamanian government (Herlihy 1995:81).[8] These negotiations lead to the eventual passage of national legislation recognizing the comarca de San Blas as a semi-autonomous territorial jurisdiction, and approval of a 'Carta

[8] The course of these important events has been described in considerable historic detail by Howe (1998). Suffice it to say here that an American by the name of Richard Marsh had come to the eastern Darien region of Panama in the 1920's with the goal of establishing a rubber plantation. Marsh became a good friend and political advisor of Nele Kantule, a traditional leader and representative of the moderate Kuna faction that organized the 1925 revolt.

Organica' establishing a framework for an indigenous territorial government. In attempting to specify the extent and nature of both indigenous and state authority within the territory, the carta organica extended formal recognition to the Kunas' evolving political system based on a hierarchy of regional chiefs. And yet despite such advances and a series of others expanding the legal responsibilities of the national government (e.g. the Constitution of 1946, creation of a National indigenous Institute, etc.) indigenous lands throughout the country continued to experience colonization by outsiders, and relations with governments remained sporadic and characterized by inadequate levels of direct support (ibid: 82-82).

During the 1970s, the populist military president Omar Torrijos encouraged indigenous leaders to 'struggle' for government provided health care and education services, and delimitation of their territories. A series of National indigenous Congresses were held at which various indigenous leaders became aware of the political effectiveness of the Kuna *comarca* model of government based on a congress of regional caciques. In theory, the *comarca* concept was to provide for continuous access to the resources necessary for indigenous peoples social and economic wellbeing. Despite some of the problems noted above, evidence suggests that recognition of comarca status did allow the Kuna to use their indigenous political system to manage their internal affairs (ex: migration to the banana region) and make important resource use decisions (e.g. to oppose road construction and commercial tourism development on their lands). The Kuna model is also reported to have inspired other indigenous leaders to begin to reshape their own political and ethnic organizations. For example: the Embera and Wounan peoples of the Darién and even the Guaymi in western Panama had never developed formal regional hierarchical social institutions. comarca status was now beginning to appear as the best way to guarantee indigenous land rights, socio-economic development and cultural heritage; and for the state, it was increasingly seen as a way to stabilize rapidly expanding rural to urban migration patterns (Herlihy 1995:83-84).

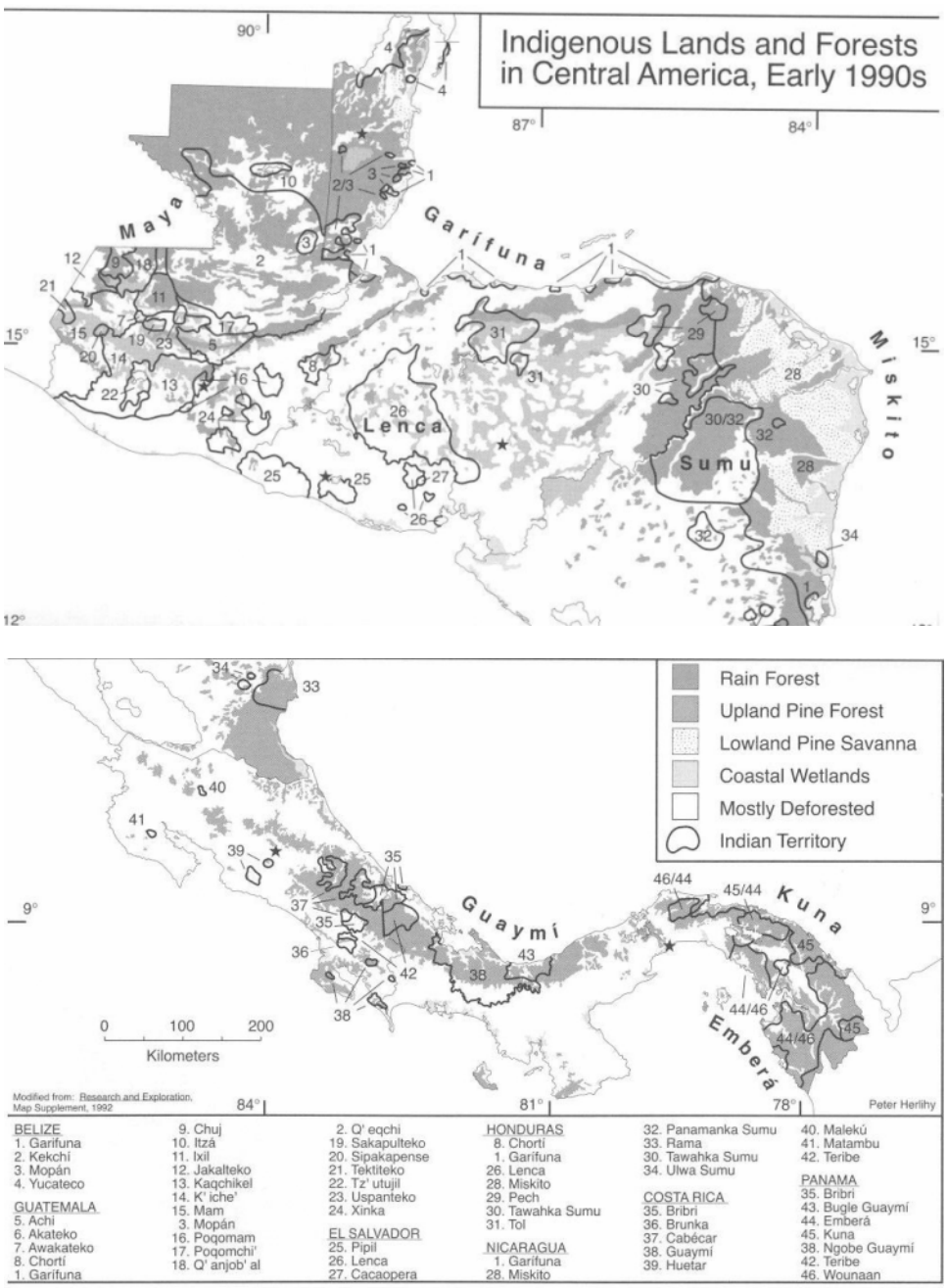

Figure 2: indigenous lands and forests in Central America, Early 1990's (Herlihy 1997:218-219).

During this same period, two well-known and respected social scientists (Stanley Heckadon Moreno and Francisco Herrera) joined the government's General Directorate for Community Development creating significant public pressure in favor of indigenous rights. This helped to draw more attention to indigenous issues and prodded the government towards recognizing its constitutional obligations to promote cultural

continuity among indigenous peoples (ibid: 84). Thus Herlihy concludes that by peacefully (for the most part) and deliberately working within Panama's legal and political institutions, indigenous Panamanians have successfully secured state support for their land and resource rights against unauthorized usurpers (Herlihy:91-92). He also argues that these *comarcas* probably represent the best potential for the development of indigenous autonomy in all of Central America (ibid: 93).

Other observers of these developments in indigenous Panamanians relations with the dominant society are less enthusiastic in their assessments of the significance of these changes. Much of the lack of optimism regarding indigenous comarcas in Panama (where it has not been simply the results of racists and political reactionaries worried about their vested interests in protecting the status quo) has focused on the relatively recent comarca experience of the Guaymi or Ngöbé-Buglé.[9] Wickstrom (2003) for instance recognizes that indigenous peoples have been "more directly engaged in negotiating their control over resource management with the state." (p.43), but she is reluctant to grant that the degree of control obtained through such negotiations will allow them to adequately address the crushing poverty and mounting ecological problems that she sees as being caused by increasing integration into national economic and political systems (Wickstrom 2003:61-62). Wickstrom attributes the relative success of the Kuna in protecting their land rights and cultural autonomy to competent leadership and a remarkable ability to mobilize in defense of their collective interests. Following Howe (1986), she explains these achievements by the enduring strengths of Kuna political culture grounded in a tradition of frequent communal gatherings, rules and obligations enforced by police, and diverse cooperative productive activities (2003:47). Even so, Wickstrom wonders if in the future the Kuna's capacity to exert autonomous control over their territorial resources will be enough to ensure their ability to manage these resources sustainably (ibid: 62).

[9] Young points out that among the provisions of Panamanian National Assembly Law 10 of 1997, the government reserved for itself the right to all natural resources in the Ngobe-Bugle comarca, with simple requirement that the Ngobe be "consulted" if the government decides to develop or exploit any natural resources within the comarca. Young and many Ngobe have interpreted this Law as effectively leaving the Ngobe with no real decision-making power in the matter (Phil Young, personal communication received via e-mail on 19/03/2004). See also: (Gjording 1991, Wickstrom 2003, Young 1999).

2.4 Neoliberal globalization

Since the 1980s, neoliberalism has emerged in Central America as part of a broad post cold-war shift from macro-economic stabilization to addressing the more structural issues thought to undermine sustainable long-term economic development. In terms of agricultural and rural development policies, these changes have shifted the emphasis from agrarian reform to land policy –with issues like privatization, property rights, land taxation and titling coming to the fore. This new orientation has also been accompanied by the phasing-out of many of the previous generation of state-sponsored supports for small-scale agriculture, with the predictable impact of further increasing heterogeneity among producers.[10] The new economic and socio-political contexts created through these measures have provided additional impetus to capitalist farming, while serving to further marginalize subsistence producers and/or harvesters. I will return to this point about the socio-economic implications of these development choices in the final section of this paper. For now I simply want to emphasize that while most Latin American peasants and indigenous peoples are equally concerned about the nature of these changes, these trends have also reinforced the shift among indigenous peoples to base their land claims on ethnic and cultural features instead of social class and economic ones (Gutierrez 2002:552).

Additional impetus for indigenous peoples to seek to tie ongoing negotiations over land and political autonomy to ethnic and cultural criteria has come from a resurgence of academic and policy interests in communal land and resource tenure systems.[11] These studies recognized the multiple functions that communal tenure systems generally perform (i.e. ensuring equitable distribution of access rights, reducing vulnerability to economic or environmental shocks, etc.) and have led to a reassessment of their virtues, including their capacity to evolve and respond to changes. Contrary to the 'tragedy of the commons' scenario of degradation frequently assumed to characterize

[10] Mexico is a particularly good example of such reforms, especially the changes to Article 27 of the Constitution allowing for the privatization of usufruct rights within land grant communities (ejidos) (Moguel, Botey, and Hernández 1992, Stanford 2000). Costa Rica adopted similar measures including privatizing much of its agro-industrial sector and lowering trade barriers and subsidies (Edelman 1999:72-84).

[11] On Indigenous and other communal resource tenure systems see especially: (Assies 2000, Bromley 1989, Davis and Wali 1994, Forster 2000, Ostrom 1990, Richards 1997, Wali and Davis 1992).

group owned or managed natural resources, much of this experience has shown that indigenous tenure systems contain significant normative and institutional assets for local people to manage common resources in an effective and sustainable manner.

Take for instance the case of the Naso people of Panama who are currently attempting to secure legal protection of their collective property rights, customary laws and community institutions. The Naso have sought to designate the lands within their traditional territory as the collective property of the Naso people to be intended for the exclusive use of their inhabitants. Lands situated within the boundaries of this territory cannot be mortgaged for credit or privatized, and neither will they be subject to alienation by any means including prescriptive acquisition, adjudication or embargo (Indígenas 2003). Among the Naso, access to land and associated resources is regulated by a system of usufruct rights. These rights are obtained and held by individuals (or households) through one of three channels: 1) by requesting the permission of local authorities to use currently unoccupied lands, the size of holdings allotted in this manner will expand or contract depending on family size; 2) by inheritance through which both sons and daughters can obtain land and other goods from either or both of their parents; and 3) by purchase and sale between Naso community members (Yala 2002:44-45). The significance of these practices – and the knowledge and cultural innovations that sustain them – has been increasingly recognized in recent government and NGO initiatives that emphasize greater indigenous participation in resource management and conservation programs.

Thus instead of aiming to replace customary tenure systems with "modern" (i.e. privatized) ones, current best practices suggest that policies should focus on increasing the *accountability* of these systems – where accountability means that men and women will have equal access rights to resources with collective forms of ownership. This important policy shift reflects the insight that, under conditions of low population density and/or high ecological variability, communal tenure arrangements can be a cost-effective way to ensure that land access and security of tenure lead to major equity and efficiency benefits (Deininger 2003:29-32). Positive outcomes have been reported as most likely to follow where indigenous peoples possess both legal and real empowerment over these resources, adequate institutional arrangements for decision-making and enforcement, and

sufficient social capital to perform these tasks. The accountability of traditional tenure institutions is especially crucial as the current emphasis on indigenous peoples' collective rights to land will do little to change gender-discriminatory traditional practices and customs with respect to indigenous women's land rights (Deere 2002:61). Deere and Leon's data on land rights in Latin America actually point to a negative correlation between the legal endorsement of indigenous territorial rights and state support for women's land rights. In a comparative study of twelve countries, these authors found that the slimmest gains for women's land rights have been made in the countries with the largest indigenous populations (i.e. Mexico, Guatemala, Peru, Bolivia and Ecuador) (ibid: 53-54).

The 3500 or so Naso indigenous peoples in Panama are an interesting case study for considering the social and ecological implications of these policy changes. Most Naso are very poor subsistence farmers who derive what little income they earn from the sale of the agricultural products (cocoa, oranges, plantains, etc.), animals (pigs, chickens, ducks, etc.), lumber (cordia alliodora, cedrela odorata, etc.) and some handicrafts which they transport to the relatively nearby city of Changuinola, Bocas del Toro (population 30,000, 1 to 2 hours away by raft or dugout canoe). Thus while the Nasos have remained largely isolated in geographic terms and receive few visitors to their communities, they are for the most part bilingual (Naso and Spanish), wear Western clothing, and many among them have converted to evangelical protestant religions (Von Chong S and Ortiz 1982). And yet so enormous is the scientific and eco-tourism potential of their rainforest kingdom that the state transferred large sections of their traditional territory to its own system of national protected areas. Increasingly though, land tenure and resource management conflicts with colonists, commercial industries and government agencies threaten the conservation of the area's natural and cultural resources. In a bid to stave off these threats to the viability of the Naso culture and homeland, King Santana and his royal predecessors have tried, for over 30 years, to obtain collective legal title to their lands (Fundación Dobbo Yala 2002, Yala 2002).

The Naso political regime of today is a hybrid system that combines traditional elements of a hereditary monarchy (i.e. a King and his appointed councilors), and locally-elected community representatives responsible for the administration of justice and the

maintenance of public order. Over the years the Naso King (always a male) has become an elected figure, with the stipulation that he be from the line of the Santana family. It appears that the title was first applied to the highest chief of the Naso warriors. The historic and archeological evidence considered earlier in this paper supports this view of the origin of the monarchy within the chiefdom societies prevalent in the region between 500 and 1500 AD. The current King's (Tito Santana) role is to represent the Naso in relations with surrounding communities and governments, and to attempt to resolve those problems which the elected community official are unable to solve (Von Chong S and Ortiz 1982:187-190).

Since 2003, Panama is finally on the verge of recognizing the Naso's rights to possess, use, and manage their territorial resources according to their customs and traditions (Comisión Permanente de Asuntos Indígenas 2003). With the apparently immanent adoption of legislation creating Comarca Naso Tjër Di, Panama has confirmed its position as one of the most advanced nations in Latin America with respect to indigenous legislation (NORLAT 2003). Panama has also recently adopted a comprehensive approach to consolidating indigenous territories. In addition to delimitation and demarcation, the World Bank's Panama - Land Administration Project includes a series of complementary activities required to fully regularize indigenous territories and to ensure that indigenous communities achieve territorial control. These additional measures include: (i) assessing potential land and resource use conflicts or overlaps with non-indigenous peoples, protected areas or other entities; (ii) satisfactory resolution of these conflicts; (iii) complementary studies on such matters as tenure or land use patterns; (iv) assistance in the drafting of the legal and regulatory frameworks to establish indigenous Reserves (comarcas); and (v) strengthening of indigenous organizations with respect to land regularization and consolidation (World Bank; 2000: 94).

And yet a consultant familiar with indigenous rights issues in Panama has recently suggested that the government's willingness to recognize a Naso comarca is characteristically tied to the construction of the Bonyic hydroelectric project that could require resettlement of some Naso households. In Herrera's view, were it not for this factor, the comarca legislation would likely continue to languish (Herrera 2003:83).

These characteristics of the Naso – i.e. small, fairly homogeneous population, well-defined resource boundary, locally accountable institutions, and supportive external policy environment – make their experience crucial for understanding the enabling conditions of sustainable territorial management.

3. The importance of resource tenure in human / environment relations

> *Indeed, it may not be an exaggeration to say that overreaction to the "ecology without politics" of three decades ago is resulting now in a "politics without ecology," which, in violation of truth in labeling, is still billing itself as "political ecology" (instead of "natural resource politics" or simply "political anthropology"...)*
> *(Vayda 1999:168)*

3.1 Political ecology

As I noted briefly in the Introduction to this essay, the field of political ecology emerged during the 1970's as a critique of the apolitical and micro level analytical traditions prominent among the cultural ecologists and ecological anthropologists of the 1950's and 1960's.[12] In contrast to these earlier approaches, political ecologists emphasized the dynamic nature of the relationships between human productive activities and the environment, and also between individuals and the various social groups within society itself (Painter 1995b:7-8). Similarly, in this essay I have sought to provide a means to contextualize the complexity of local level studies of resource use and environmental change within broader historical perspectives on socio-economic and political processes – including market incentives, state subsidies, land tenure, and policy and regulatory regimes (Stonich 2001). Also crucial to political ecological analysis is the relative power of, and collaboration among, the relevant social actors that influence access to, and management of, natural resources. These stakeholders are themselves linked within and among levels of analysis through relations of power[13] (Blaikie and Brookfield 1987:27).

[12] For an influential example of such early cultural ecology see (Steward 1956).
[13] Power, in the sense that I use the term here, refers to the ability to effectively control or sanction the acts of others – generally so as to influence the distribution of privileges (social, economic, ecological, etc.) for personal gain.

A broad spectrum of geographers, anthropologists, political scientists and others have adapted many of the conceptual and methodological orientations of political ecology.[14] For instance Blaikie and Brookfield (1987) assert that researchers should follow a chain of explanations that starts with the activities of local land managers (e.g. choice of crops, size of the area planted, capital investments, etc.), and then consider these resource uses in relation to the user's position within a particular household, in relation to other land users, and then to other groups in society that affect land management decisions. Finally, the third step is to understand the various national and international interests involved and their respective roles in promoting particular patterns of resource use (Blaikie and Brookfield 1987:27-28). This latter recommendation has proven especially fertile ground for contemporary anthropologists concerned to analyze how local events can simultaneously evoke and depart from political narratives of economic globalization.[15]

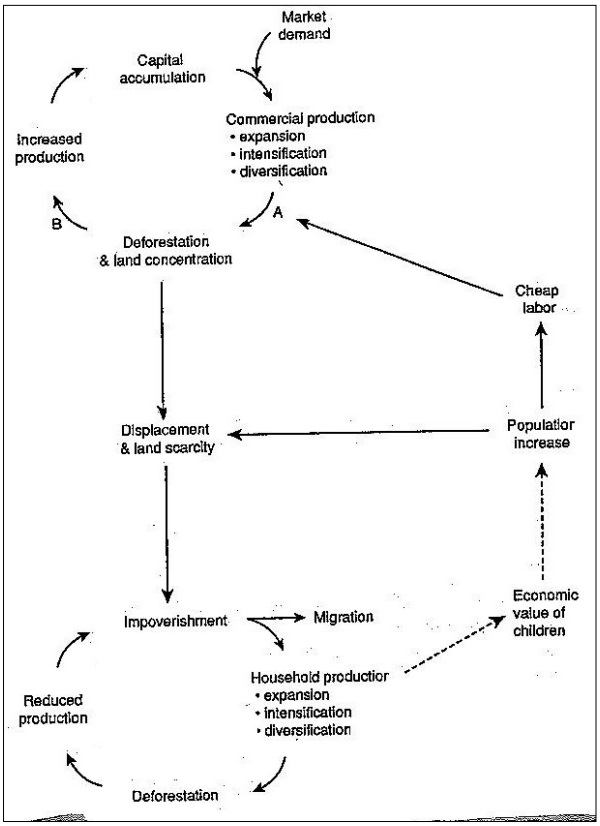

Figure 2. The political ecology of deforestation in Latin America: a simplified sketch highlighting the structural causes of environmental destruction. 'A' refers to low input costs, 'B' to production subsidies. Dashed lines indicate suspected relationships (Durham 1995).

Notwithstanding the importance of these theoretical and methodological contributions, political ecology is no panacea for explaining all environmental changes. For all too often, what political ecologists actually study is more about political contests over natural resources – for example changes in access rights (i.e. tenure

[14] For political ecology perspectives see for example: (Anderson and Berglund 2003, Davis 1977, Gross 1979, Nygren 2004, Painter 1995a, Zerner 2000).
[15] For anthropological perspectives on globalization in Latin America see especially: (Chase 2002, Loker 1999, Orlove, Foley, and Love 1989, Phillips 1998).

reforms) – and not, to any significant extent, how the resources themselves are explicitly affected by these changes (Vayda 1999:168-169). Although critics such a Vayda are generally willing to acknowledge the importance of political and economic factors in explaining particular ecological events, they point out that it is crucial to first analyze the significance of the environmental variables themselves, and how these interact with the former to shape human-environment relations. I fully recognize that I am not immanently qualified to attempt this task, but nonetheless for this essay I have tried to learn from and refer to various sources that I judged to be competent in this important respect.[16]

An important advantage claimed by the proponents of this approach is to be guided more by open questions about why ecological changes occur. This contrasts with the practice of many self-styled political ecologists who prefer to ask narrower questions about how these changes are affected by the factors *believed* – often on the basis of a priori judgments and theories about what should do the explaining – to be most significant (ibid:177). In other words, "…what passes as "ecology" in the media and in many other circles has, in reality, been selected to support preordained philosophical values or political agendas." (Kay and Simmons 2002:xiv-xv) In sum, political ecology must balance the cultural / social construction of the environment with a meaningful and comprehensive analysis of the environmental construction of the social and the cultural (Stonich 2001:4057).

3.2 Structure versus Agency

Political ecology has also been criticized for overemphasizing the explanatory power of structural forces (i.e., the political economy) while downplaying the crucial role of local resistance, the diversity of household survival strategies, inter- and intra-household conflicts, and cultural beliefs (Stonich 1993). For example, de Janvry and colleagues have famously characterized the rural poor or peasantry in Latin America as *victims* of a "double (under-) development squeeze." On the one hand, gradual improvements in public health and living conditions have tremendously increased their

[16] E.g. (Cooke 2003, Gordon 1982, Lentz 2000, Redford and Mansour 1996, Ventocilla 1996, Wallace 1997, Yala 2002).

numbers, compounding the problem of declining average farm size. At the same time, employment opportunities have not kept pace with population growth (1989:396 quoted in Loker 1999:29). This crisis is being felt most acutely by the rural poor in relatively densely settled highland regions, and because it is seen as inducing many poor households to migrate to 'frontier' regions of agricultural expansion, the double squeeze is frequently held to be indirectly responsible for environmental degradation and social conflict on the lowland humid colonization fronts (Loker 1999:31). While several political ecologists have considered how local level forces interact with these broader structural forces (e.g. Gordon 1988, Joly 1989, Stocks 1996, Stonich 1993), increased attention to civil society and the role that cultural values can play in shaping resource use patterns may help restore the balance to what is essentially part of the broader structure vs. agency debate within the social sciences.

In her Ph. D. thesis for example, the Costa Rican anthropologist Bolaños (1999) argues that from the 1930's to 1960's many U.S. scholars of the region failed to recognize indigenous peoples and other minority groups as important social actors (agents) in the history of Central America. This intellectual blind-spot was also maintained by Central America scholars well into the 1970's (ibid:128-129). Bolaños sees two factors as responsible for this important weakness: 1) oligarchic elite intellectuals' ethnocentric and paternalistic understanding of the "indigenous problem" in the construction of their projects of modernity and national identities; and 2) the limited role assigned to ethnicity and cultural diversity by anti-imperialist middle-class intellectuals and the nationalist political movements of the 1960's and early 1970's. The latter drew especially on Dependency Theory, French Structural Marxism, and Mexican anthropological critiques of the earlier state-sponsored 'indigenista' approach (ibid: 131-134).

More recently, what is probably the most venerable version of this debate has involved, on the one hand, proponents and sympathizers of the neo-Marxist inspired dependency and world-systems theories of capitalist development (i.e. the *structuralists,* and even many of the so-called '*post-structuralists*' who stress discourse and identity politics instead of class-based economic interests); and on the other, a loose coalition of more actor-oriented opponents who emphasize the importance of human agency "… as

part of ongoing social processes that emerge and develop in the context of people's every day lives." (Rudolf 1999:13-14) My own evaluations of these not always mutually exclusive approaches have convinced me to lean more heavily towards the latter more empirically nuanced and heterodox positions, exemplified most remarkably by the anthropologists Charles Hale, and Marc Edelman and the social historian Lara Putnam.

Hale's (1994) analysis of Miskito history and identity, together with the more contemporary negotiations between Miskito of various persuasions, Sandinistas of various convictions, and other ethnic groups in the Caribbean coastal region of Nicaragua "…is a rare ethnography of a multifaceted political movement, one that treats culture, social relations, and political consciousness as dynamic historical phenomena." (Smith 2001b:1622) In *Resistance and Contradiction,* Hale's primary concern is with ethnic conflict. Hale tests the applicability of his theoretical framework for analyzing the relations between ethnic groups and the state by moving back and forth between Miskitu and Sandinista roles and perspectives on the conflicts that took place on Nicaragua's Atlantic Coast during the 1980's. Hale agrees with Bourgois (1989) who – in an earlier study of ethnic and economic relations on a Costa Rican banana plantation – pleaded for researchers to abandon the then rampant and yet ultimately sterile theoretical debate over "…the relative determinacy of ideology and material reality" in favor of understanding class and ethnicity as "social processes that define one another." (Bourgois 1988: 329). Bourgois demonstrates this point by contrasting the divergent experiences of economic and ethnic oppression suffered by the Guaymi in the plantation labor force to the upward mobility of the Kuna who came from relatively similar economic settings.

The Guaymi, and in particular those from the more subsistence-oriented inland and up-river communities, are disproportionately represented in the most dangerous and burdensome low-paid field jobs (e.g. clearing forests and irrigation ditches, applying chemical pesticides, etc.). The Kuna, on the other hand, while also concentrated in the lower levels of the occupational hierarchy, are considered especially well-suited to "softer" jobs requiring team work (e.g. making and packing cardboard boxes, and working as messengers, chauffeurs, night watchmen, etc.) (Bourgois 1988:339) Bourgois attributes these differences to the "ways they have mobilized their respective ethnicities in mediating politically and ideologically their relationship to the non-Amerindian

world." (Bourgois 1988:330). For example, Kuna leaders have attempted to keep tight control over the behavior of their workers and the negotiations of collective labor contracts. In contrast, among the Guaymi no indigenous institutions have emerged to mediate the disruptive processes of migration and plantation labor (ibid: 333-337).

Young and Bort (1999) explain the relatively unsuccessful terms under which the Ngóbe (Guaymi) have become increasingly dependent on the market economy as a case of traditional coping strategies being unable to meet new challenges. They refer to several key normative features of traditional Ngóbe socioeconomic organization (i.e. reciprocity between kin, sharing, barter, cooperative labor parties, etc.) as having been adaptive under conditions where poor mountainous soils and repeated incursions by hostile neighbors required theme to move often. Under such conditions, these forms of exchange and distribution helped to improve food-security, but since the 1950's they have become difficult to sustain under the mounting pressures of population growth, decreasing agricultural yields and the declining importance of the non-monetary subsistence economy (ibid:115). Similarly, whereas the socio-ecological conditions prevalent in the past were clearly responsible for reinforcing a relatively segmentary and acephalous political culture among the Ngóbe (Wickstrom 2003:49), since the 1970's the Ngóbe have made significant attempts to consolidate a pan-Ngóbe sense of ethnic identity and a political structure similar to that of the Kuna (i.e. Comaca Ngóbe-Bugle is based on a federation of regional leaders and regulated by a "Carta Organica") capable of presenting a more unified front in their relations with the government and the various commercial interests with designs on their territory (Young and Bort 1999:133).

Partially accounting for the Kunas' comparatively successful experiences with migratory wage work is what Bourgois sees as their emphasis on incorporating such work into the "ritual structures of their corporate communities, thereby offering a sense of purpose and logic to emigrating banana workers set squarely within the "traditional bounds of Kuna ethnicity." (Bourgois 1988:336). One of the best example is of this ritual extension is perhaps the Kuna mutual aid organization UTRAKUNA, to which all Kuna in Bocas del Toro were obliged to belong. Membership dues ($2.00 per month in 1988) were automatically deducted by the employer from Kuna workers paychecks and deposited directly into UTRAKUNA's bank account, these funds were to be used in

emergencies and some were sent home to be reinvested in the border regions of the Comarca de San Blas to prevent encroachment on un-cultivated lands. The institution also helps to reaffirm ethnic identity and solidarity by holding regular gatherings to discuss the issues affecting their community (ibid:336-337).

Hale goes one step further though in that he attempts to compensate for "the absence of a well-theorized bridge between structural determination and human action" by demonstrating the explanatory value of a Gramscian cultural analysis of the notion of 'contradictory consciousness'. By contradictory consciousness Hale wishes to signify that subordinated people are conscious, resourceful, and even defiant social actors whose diverse identities and axes of exploitation cannot be reduced to class alone; *and* that they generally incorporate hegemonic premises into their cultural forms. The latter can be seen in the Miskitu people's distinctly Anglo-American affinities (i.e. integration with the Moravian church, North American companies, the U.S. Marines, etc.), a complex of values, institutions and cultural practices that paradoxically served to bolster their ethnic militancy and resistance to Nicaraguan state authority (pp.199-200). In post-revolutionary Nicaragua, Hale argues that these contradictions are such that Miskitu and Sandinista now have an unprecedented potential to form alliances based on mutual grievances with central government rule. And yet formidable barriers of distrust and cultural differences continue to make such a turn of events unlikely (Hale 1994:220). One of the key advantages of his approach is thus, in my view, the skepticism with which it treats explanations grounded exclusively on the constraining, coercive effects of power inequalities (ibid:26-27).

Marc Edelman's (1999) study of Costa Rican rural social movements during the 1980's (i.e. various alliances and coalitions of NGOs, social scientists and peasant agricultural producers for "Justice and Development" (p.162)) combines a similarly compelling and sophisticated political economic analysis – in this case focused on the local and national dynamics of global neoliberalism – with a strong political ethnography of the experiences of various peasant organizations as they pursued policy concessions in the context of state economic structural adjustment reforms. Edelman describes how these organizations and their various social allies tried – at times successfully at others not – to improve the terms of their access to land, credit, fertilizer, seeds, price supports

and marketing services. Along the way Edelman takes aim at a broad range of widely cherished misconceptions about the newness of certain social movements and the nature of globalization. For instance, Edelman criticizes much of the literature on social movements in Latin America for its lack of attention to the historical context of local political struggles and the tendency to ignore the more material aspects of the physical and social reproduction of wealth and poverty (e.g. geographic isolation, lack of infrastructure, asset distribution, etc.) (Edelman 1999:9-10). On the politics of globalization which are frequently represented as a "free-market onslaught", Edelman suggests that it "…might better be understood as a profoundly *cultural* process of contention between dominant and popular sectors (and their respective allies, at home and abroad)." (ibid:207)

Another important anthropological variant of these debates with considerable implications for this region is that which opposes 'constructivists' (or 'constructionists' as they are sometimes called) and 'cultural survivalists'. Put broadly, survivalists draw upon the more stable and homogeneous versions of culture developed by anthropologists during the first decades of the 20th century in order to defend the metaphor of a mosaic of bounded and discrete systems of practices, beliefs and values. In this model, each culture is seen as susceptible – perhaps by analogy to actual culture-bearing individuals – to survive or to die out depending on the measure of autonomous decision making power its representatives retain over their internal affairs.[17] Such views no doubt prompted Nietschmann to argue that, with respect to the self-determination struggles of indigenous peoples in Central America, "Rights have to be tied to land, which guarantees what no central non-Indian government can: the survival of indigenous peoples." (1988:280)

Constructivists, on the other hand, see culture as a socially constructed narrative that is continuously being created and transformed through actions and struggles over meanings (Cowan, Dembour, and Wilson 2001:14). In this light, culture is not fixed in space or time or with respect to any particular institutions and practices, but rather is best understood as a dynamic repertoire of categories and practices created to adapt to

[17] See for example Cultural Survival founder David Maybury-Lewis (1988) on the aims of the advocacy and projects of his organization. For other examples of the cultural survival approach to culture in the Central American context see also (Chapin 1992) and (Sanchez and Balma 1992).

changing social and ecological conditions. Constructivists are also weary of arguments tying cultural survival and identity persistence too closely to specific forms of collective ownership over particular resources. Albert (2001), for instance, points out that the logic implicit in such arguments derives from a model of social change based on a simple oppositional dichotomy between forest Indians and urban Indians and the idea of a one-way neo-evolutionary passage from one sociogeographic state (rural-traditional) to another (urban-assimilated). Constructivists are concerned about the limiting consequences of such arguments for the development of alternative indigenous identities and cultural continuities appropriate to more urban and multiethnic settings. Instead of the either/or logic of survival or assimilation, they suggest that a better way to interpret what is occurring is as a conscious (if not necessarily deliberate) rearranging of indigenous social networks across multiple communities that articulate, on a regional scale, kinship relations and the circulation of people and goods between places situated at various locations between the forest and the city (Albert 2001:55).

But, the constructivist critique of the link between place and identity can also be faulted for downplaying the practical importance of resources (i.e. access to and control over land and water) to identity construction, especially in cases where few other alternatives exist. Without access to land for instance, Gordon et al. suggest that the Miskito, Mayangna and Creole peoples of eastern Nicaragua would lose "… the power to affirm connections with their chosen narrative of the past." (2003:379) Without this claim of cultural continuity, these groups would lose an invaluable asset for collective action to improve their socio-economic circumstances. Conscious of the dangers associated with both the essentialism inherent in the cultural survival position and the potential to delegitimize claims to cultural rights inherent in the constructivist paradigm, Gordon et al. are convinced of the relevance of a third distinct position that emphasizes shared understandings of history – drawing on notions of extended kinship, cooperative economic practices, religious activities and legal/political precedents – as the basis for establishing cultural continuity in rights to land and resources. These broad memories of previous and ongoing efforts to defend and secure their territorial rights – as opposed to length of occupancy or persistence of cultural traits – have enabled local residents to constitute a series of coherent and widely resonant narratives of the past. Thus in the eyes

of the Creole and indigenous peoples of Nicaragua's Caribbean coast it is these cumulative social memories that they share in common that justify their community-specific demands and broader territorial claims (Gordon 2003:378-379).

Although James Howe's recent ethno-history of the San Blas Kuna (1998) tries to steer clear of these theoretical debates, Howe's narrative manages to relate the Kuna's struggles for autonomy and cultural continuity without reducing the aims of these struggles to a set of discrete, authentic traits. He places their efforts in a well-informed historical context and provides a dynamic view of the multifaceted interactions between the Kuna and members of the surrounding dominant Euro- and Afro-ladino cultures. Yet, had Howe attempted to place the Kuna history in a more comparative theoretical framework, he might have been able to explain the Kunas' relative degree of success in preserving their cultural autonomy where so many other indigenous groups in Central America have succumbed to the "…homogenizing onslaught of liberalism and *mestizaje*" (Gould 2000:832). Howe provides one part of the answer to this fundamental question which, as discussed above, can be attributed in part to the Kunas' strategic mobilization of their ethnic identity and cultural institutions to adapt to the changing historical circumstances of the 19th and 20th centuries. Another significant factor though, and one that I have tried to emphasize throughout this paper, is the nature of the geographic isolation and socio-cultural differences between the sparsely populated Atlantic regions of the southern isthmus and the drier Pacific and central highland areas. These differences suggest that it is no mere coincidence that the modern indigenous peoples with the most successful experiences of defending their territorial autonomy (such as the Miskito in Nicaragua and the Kunas in Panama) are located on the Caribbean coast (Jones 1989:45).

Putnam's book (2002), although slightly beyond the scope of this essay, is a fascinating microhistorical foray into the changing contours of local debates over sexual virtue, personal conduct, family values and domestic order in Caribbean Costa Rica from 1870-1960. Through archival research and interviews with elderly people, Putnam analyses the roles these debates played in shaping the kinship, cash and non-kinship relations that structured the daily reproductive labor essential to sustain the regional export economy. And while Putnam finds that demography, settlement patterns and macroeconomic conditions were indeed crucial to the behavioral patterns she finds, she

emphasizes that this does not mean that actors did not have choices, or that the outcomes of their choices had no impacts (Putnam 2002:15).

> "Demography tracks the convergent patterns within a multitude of life trajectories, patterns shaped by perceptions of decency and desire as well as by ovulation and epidemics. As migrants negotiated the geography they encountered, with its particular ecosystems, transit routes, and patterns of settlement and ownership, they shaped the social geography subsequent sojourners would face. What impact state policy had on intimate practice and family values was often indirect of unintended, as public authorities set the terms of institutional access through land titling procedures or civil codes or immigration policy and thus shaped the terrain women and men traversed in the daily lives." (ibid:15)

3.3 Resource conservation and sustainable development

Let me now briefly return to the more ecological themes discussed at the outset of this Section. For the controversial subject of human agency has also figured prominently in debates about biodiversity conservation and sustainable development in Central America. Alvard (2002), for instance, claims that the erroneous perspective which holds that the degree of naturalness assigned to a phenomenon (e.g. an ecosystem) is inversely proportional to the involvement of human agency, goes a long way towards explaining the pervasive belief that people in small-scale societies are natural conservers and have little or no impact on their environments (p.29). Alvard's main point is "…that the impact a subsistence-oriented society makes on its environment is largely a function of its population density, and by extension its access to markets." Conservation, if and where it has ensued, is thus an "epiphenomenal product of such low population densities, not a mythical harmonious nature." (Alvard 2002:31) Kay and Simmons have also added that the fact that the indigenous peoples of the past were generally *not* what we would today call 'conservationists' actually strengthens their land claims. For by modifying the land, they clearly established ownership – even by the Euro-American standards discussed earlier in this paper (Kay and Simmons 2002:260-261).

Richards agrees with Alvard that the various communal resource tenure systems found throughout Mexico and Central America[18] are often vulnerable to demographic and

[18] For discussions of such communal tenure systems in Mexico see: (Aguirre Beltrán 1979, Van der Haar 2000); and for Central America see especially: (Anaya and Macconald 1995, Holloman 1975, Stocks 1996, Utting 1993, Ventocilla 1996).

commercial pressures as they make the transition from subsistence-oriented cultivation to greater market integration (Richards 1997:110). In such cases local institutions may allocate use rights to particular households or individuals and/or common property in other resources; but this controlling interest or access right does not necessarily guarantee the individual or even the broader collectivities legal rights to use or possess the resources in question (Bruce 1998:4-5). Commodity markets are also frequently blamed for undermining indigenous cosmological visions of the world and human's place within it, which tends to further erode the power of traditional institutions to regulate extractive practices and maintain the individual incentives for group members to cooperate. Furthermore, these groups are frequently faced with the management and logistical difficulties of excluding non-members from what are generally quite remote and extensive areas. However, Richards argues that it is over-simplistic to ascribe the erosion of traditional resource management institutions to commercial and/or demographic pressures per se, especially as he suggests, where these institutions have generally faced highly discriminatory policy environments (Richards 1997:95-96).

Government development policies have generally subsidized the consolidation of tropical land into large estates and discriminated against the emergence of viable small-holder farming systems (Jones 1989:14). Typical examples of such policies have included tacit or even open encouragement of colonization by recognizing tenure rights gained by clearing forested lands defined as idle and therefore subject to appropriation. Credit or tax incentives have also been provided to loggers and miners or other vested interests, and these situations are often compounded by the common failure to uphold basic law and order in remote regions (Richards 1997:111). Panama, Costa Rica and Nicaragua have also created large areas of open-access forest (i.e. national parks) in areas previously subject to extensive management by indigenous groups. These measures have compounded the jurisdictional conflicts and ambiguities between centralized legislation and customary institutional arrangements (Ascher 1995 in Richards 1997: 98).

Anthropologists have long recognized the central role of social systems in enhancing and/or threatening sustainability[19], and the study of common property

[19] See for example: (Despres 1975, Gross 1979, Lee 1988, Painter 1995a).

institutions has been especially helpful in understanding the issues of cultural complexity, persistence and change that are the hallmarks of anthropological approaches to sustainability.[20] But anthropologists have also tended to assume that traditional systems of authority or common property institutions must be good and in harmony with nature.[21] Take for instance the work of those researchers who have contributed significantly to our understanding of the traditional resource management practices of the Kuna people of Panama.[22] According to Guzmán et al., although Kuna actions have disrupted marine ecosystems, especially coral reefs, they have generally either not been properly examined or have been accepted with undue indulgence (2003b:1397).

There are many other examples in the literature of tribal groups ignoring ritual taboos and spiritual limits as they have proceeded to clean out local forests of the game animals or forest products which fetch the highest prices on local markets[23]. As younger people in particular move away from tradition and embrace the values of the market economy, this can cause confusion among community members over access to resources, usufruct and property rights. Among the Miskito, for instance, some kinship obligations (ex: gifts of turtles) are not being met in order to produce a surplus to sell to turtle companies. This change is reportedly creating significant social and cultural tensions in what are generally quite close-nit communities (Richards 1997: 100-101). Thus following Alcorn, I believe that it is important to assess the conditions (i.e. resource and group attributes, economic and institutional incentives, etc.) under which communities can effectively implement conservation controls through traditional resource management systems (Alcorn 1995:803, in Lu 2001:426).

Still, it is never easy to separate cause from effects in such circumstances, as the social and ecological outcomes being witnessed are inevitably the result of a complex interactions between external and internal forces that depend, as noted above, on a variety of factors. The magnitude of the potential outcomes of these important debates can be seen from the experience of Colombia where 28 million hectares of lowland tropical

[20] For more detailed discussions of common property institutions see also: (Agrawal 2001, Brandon 1996, Stone 2003).
[21] See especially (Bodley 1999, Chase 2002, Esteva 2000, Howe 1998).
[22] On the ecological benignness of Kuna resource management practices see especially: (Herlihy 1997, Howe 1998, Ventocilla et al. 1995).
[23] See for example: (Alvard 2002, Conklin 1995, Richards 1997, Wickstrom 2003).

rainforest (an area slightly larger than the United Kingdom and comprising roughly a quarter of Colombia's total land area)[24] were recently granted to indigenous people on the basis of the assumption that they live in harmony with nature, and that their stewardship will ensure that the forests will be protected (Alvard 2002:30). Von Hildebrand, an anthropologist who helped design the plan, believes that commitment to conservation (for international and national beneficiaries) in exchange for territorial rights, effective defense against encroachment, and social and (some) financial assistance, is more in keeping with indigenous reciprocal logic. These types of arrangement have the added advantage of causing minimum interference with established indigenous forest management systems (Richards 1997:112).

But explicit in such agreements where indigenous peoples are granted rights to areas whose government designated status as conservation areas is assumed to be fundamentally compatible with indigenous ownership is the unjust restriction that the owners will not develop the land (Kay 2002:261) And whereas the primary goal of environmentalists in such agreements has been to promote the sustainable management of natural resources, it is quite clear from the foregoing that such priorities are not universally compatible with indigenous peoples' fundamental concerns over resource control and self-determination. The precarious nature of the agreements founded on stereotypes of indigenous peoples as conservationists is readily perceptible from the paternalism and intolerance that has been quick to surface whenever the apparently sympathetic and good intentions of environmentalists have been 'betrayed' by indigenous peoples who chose short-term profits over long-term conservation (Conklin 1995:697-703).

Finally, serious doubts have also been raised about the economic viability of such arrangements given the often ridiculously low prices paid for most traditional products (e.g. corn, beans, plantains, coffee, etc.) and the associated dependence of their producers on financial subsidies from governments or NGOs – hence the perhaps exaggeratedly high hopes being placed on organic and fair trade niche markets. Meanwhile, the lack of short-term income earning opportunities is persuading many poor farmers and forest

[24] Indigenous peoples make up less than 3% of the total population of Colombia (Van Cott 2002:47)

dwellers to adopt less benign forms of land use including selling out to pastoralists who prefer more labor-extensive ranching, or increasing the size of their slash and burn plots (Richards 1997:108).

But should the value of rural livelihoods based on small scale farming and diversified subsistence activities be judged mainly on the basis of their economic sustainability? Clearly there are many who would disagree, particularly as these livelihoods can represent important components of broader approaches with significant implications for addressing the many devastating social and perhaps even environmental problems which today are being felt most acutely in the rural and mainly indigenous areas of Central America. These debates underscore the desperate need for more imagination and experimentation to find effective ways of supporting indigenous natural resource management (Richards 1997:113). They also point out that appropriate solutions to these challenges must seek to include the most marginalized groups in society, and also be based on careful location- and culture-specific analysis of the physical environments and political economies in which these communities are constituted. This essay was intended as a first step towards the latter.

4. Conclusions and recommendations

> *The details of this process of resource misuse, environmental degradation, and impoverishment obviously vary greatly from place to place, due to physical, social, and institutional factors. But common to a diversity of specific situations are links that tie together resource use, environmental quality, and economic development, and that tie the resource-use system to inequalities in the distribution of income and resource ownership. (Ascher and Healy 1990:1)*

The anthropologist Guillermo Bonfil Batalla has suggested that indigenous responses to increasing socio-economic development can best be seen as consisting of three interrelated process: resistance, innovation, and appropriation (1990:206-209; cited in (Young 1999:112). Far from being motivated by a simple rejection of modernity or the desire to maintain some form of autonomy in isolation, the indigenous demands for broadening their legal authority over a number of important socio-economic and political jurisdictions chronicled in this paper appear instead to reflect a strategy of constructive engagement with the complex realities of development processes while concurrently

strengthening their own institutions to make such participation more beneficial. The historic examples considered in this essay highlight how indigenous peoples' focus on establishing and protecting their territorial rights is frequently framed and articulated within broader claims for recognition of the political autonomy and legal authority needed to ensure the socio-cultural and ecological sustainability of their territories.

This essay has also reviewed the arguments concerning the important contributions that indigenous strategies for subsistence, conservation and sustainable commerce (agriculture, tourism, wildlife products, etc.) can make towards local and regional economic viability, and towards protecting important non-market values in land (biodiversity, water, cultural values, etc.). Two key elements stand out in these cases where indigenous peoples have successfully re-appropriated the development process. Firstly, there is the capacity to draw on their own traditional modes of organization in order to adapt to changing social, economic and ecological contexts. The cases of the Kuna people in Panama and the Miskitu in Nicaragua are probably the best demonstrations of the importance of cultural assets in collective mobilizations in defense of resource rights and political autonomy. And secondly, are the changes in the nature and role of the nation-state and the resulting policies pursued vis-à-vis indigenous peoples and their specific concerns. Indigenous peoples have sometimes been able to influence the direction of such changes, as in the many cases cited in this essay where through a combination of resistance, compromise and manipulation they have tilted the balance of power in favor of more desirable outcomes.

These conclusions suggest that researchers, practitioners and policy-makers need to know more about how changes in external incentives influence the internal dynamics of households where many decisions about resources are made, and how both affect the local and increasingly international institutions which govern resource usage. For example, how does the nature of land rights (i.e. inalienability, non-morgageability, etc.) affect land management? How to strengthen, rather than undermine traditional resource management institutions? And how to effectively combine resource tenure issues within a comprehensive framework for indigenous development (including such aspects a non-indigenous partnerships, markets and globalization)? My own sense is that the answers to these research questions will likely emerge from more systematic attempts to understand

the cultural and ecological dynamics of local political movements seeking to preserve or alter the prevailing patterns of resource tenure.

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