

# **Preserving Heritage: Indigenous Rights and Traditional Knowledge**

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## Abstract

Who defines a culture and the boundaries of its heritage, as well as how culture is remembered and used, can be contentious issues. People within a culture as well as those surrounding it often have differing views as to where certain traditions stem from and what sources of history should be consulted. In fact, control over traditional and natural resources is linked to control over knowledge and, essentially, identity. Indigenous peoples, a chronically disadvantaged demographic, are currently finding their culture and traditions threatened by national governments and corporations. This trend is primarily a legacy of colonialism that is reinforced by international legal instruments, which until recently traditionally failed to support indigenous peoples in their struggles for recognition and rights with national governments. This thesis will examine these issues in the context of a Maya group in Belize and their cultural knowledge regarding medicinal plants; the government's seizure of rainforest lands seems to protect biodiversity at the cost of cultural diversity.

An anthropologist doing fieldwork is inevitably working on the ground at a local level, focusing on trying to make abstract scholarly ideas relevant to the people being studied. As Joseph Palacio, an anthropologist active in Belize, noted, anthropology should be used to empower people and encourage development (1976:486). At the same time, the anthropologist also tries to extrapolate larger issues from the local activities. Similarly, a lawyer advocating for human rights needs to have a real-world, local practice to decipher the practical interaction between national legal frameworks and international human rights law. The disciplines of anthropology and law may seem to be disparate

ultimately serving different functions in society; however, these disciplines are often complementary, especially regarding protecting cultural heritage and promoting human – and in particular, indigenous people’s – rights. Both fields have the potential to empower local people to seize control of their resources and provide avenues for dialogue (Merry 2006:11). In future endeavors, I expect that both fields will also affect and be influenced by aspects of indigenous sovereignty, including education and social responsibility.

Public interest anthropology contributes to these efforts by bringing in discourses about what defines local people, indigenous people, and ethnicity in general. As Peggy Sanday describes, Public Interest Anthropology (PIA) complements the role of the anthropologist conducting fieldwork, as it advocates participatory action research, where the scholar “acts as both researcher and public advocate, aggressively investigating the reasons for conflict, presenting their findings to all parties, and participating-when invited-in consensus building” (Salazar 2004:4). (PIA) primarily focuses on dialogue within civil society, investigating how groups conflict with other groups in the promotion of their interests (Salazar 2004:4). For example, those within an ethnic group often define their boundaries in cultural and historical terms rather than purely physical terms, and compare their rights and stakes to other groups in relation to these factors.

This investigation is critical, as delineated parameters of what legally (officially) as well as practically defines a culture profoundly affect how the people of that culture are treated and preserved. One scholar explained that ethnicity is “an aspect of culture that is created, challenged and redefined by people *even while it constrains them*” (emphasis added) (Bolland 2003: 199). Ethnicity can be constraining as ethnic or cultural

categories are usually, legally, defined by a national government, [and thus become politicized means of legitimizing discriminatory policies?]. In this way, ethnicity can be interpreted as “chiefly a property of social relations, not of ideology” (May 2004: 93). If a people become politically marginalized (as has happened to most indigenous peoples), so will their culture and their knowledge or heritage; only when disenfranchised peoples participate in national dialogue as equal stakeholders and take control of these discourses that they may become advocates and take control of their status within their own nations.

Indigenous people belong to a particular category of people that are often marginalized and prevented from participating in dialogue, as they are actively shut out by the government or lack the education and resources. Governments often avoid and disregard the use of the word “indigenous” to minimize the potential claim these people have to the land. This tactic is part of a larger official governmental strategy of homogenization of national populations. As one source pointed out, “the state is inherently uncomfortable with the idea of cultural diversity and it is prone to count and label citizens; the lesser the number of categories the more comfortable the state is” (May 2004: 121). Moreover, indigenous societies are inherently “based...on [livelihoods] that are at odds with the economic and institutional requirements of statehood” (Niezen 2003: 214)

We must therefore attempt to evaluate accepted definitions of the term indigenous. Andre Betiello, in his article *The Idea of Indigenous People*, discusses the evolution of the use of the word tribal to the word indigenous in anthropological literature. It seems that designating a population as indigenous is appropriate “when there are other populations in the same region that reasonably be described as settlers or

aliens” (1998: 188). Moreover, the word is used to denote “a particular history of settlement and usurpation” (1988:188). He notes, however, that the concept of indigenous people becomes problematic in certain cases where the original population has migrated and occupies a wider area than currently than they did prior to colonization (across national borders, for example) (1988: 190).

The United Nations in 1986 and the International Labor Organization in 1989 defined indigeneity? (the property of being indigenous) in terms of “historic continuity, distinctiveness, marginalization, self-identity, and self-governance” (Dove 2006:1). Transition needed here This definition may have been crafted to be deliberately vague so as not to cause too much controversy among the nation states drafting it. As this demonstrates, the debate about indigenous peoples needs to be traced historically, however, as the colonial legacy still affects policy today.

The European colonial powers historically embraced the convenient concept of *terra nullis*, or “lands without a recognized owner,” to lay claim to the territories they invaded (Williams 1990: 675). This attitude led to the “doctrine of discovery,” the standard set by colonial powers that basically claimed that if they “discovered” land containing non-western inhabitants, the land was theirs for the taking. The rights of the indigenous people have thus been impinged upon ever since the colonial powers started to allocate the land into private hands beginning in the 16<sup>th</sup> century. For example, currently, out of between 34 million and 40 million people in Latin America, around eight to ten percent of the population are classified as indigenous, resulting in a fundamental “disengagement between culture and territory” (Assies 1999:4) and (May 2004:131).

The persistence of a nationalist legacy of colonialist prejudice against indigenous peoples has meant that at present, international law “does not contest unilateral assertions of state sovereignty that limit, or completely deny the collective cultural rights of indigenous peoples” (Williams 1990:664). Within the arena of international law, indigenous rights effectively did not exist until the 1970s, during the decolonization era, when a pro-indigenous rights movement known as *indigenism* emerged (Niezen 2003:4). Although the purely legal “indigenous rights” question in terms of international law is a relatively recent phenomenon, it did not occur in an a historical vacuum. Even though the context of *indigenism* was that of post-colonial societies, it is related to a much older debate that raged for centuries throughout Western (European) society about whether natives (indigenous people) were as human as white people, and whether they were entitled to the same “God-given” or “natural” rights as western man. Indigenous or customary law was eventually developed to handle “the indigenous right to...territory and unrestricted natural resources as interpreted by indigenous groups,” (Assies 1999:290).

Within the last few decades, a much wider awareness and more active advocacy of the right of indigenous people has emerged. Stemming from a movement started by leaders of indigenous groups in the Americas, an initial declaration on principles for the defense of indigenous nations was presented at a United Nations (U.N.) conference in 1977. At that time, the U.N. Sub-Commission on the Prevention of Discrimination and Protection of Minorities, part of the U.N. Human Rights Commission, created the Working Group on Indigenous Populations in 1982. The Working Group became a leading international forum for indigenous peoples' leaders meeting annually in Geneva

(Merry 2006:7). As scholar Sally Engle Merry elaborated, in these forums, indigenous groups sought self-determination under international law, “although they were generally not seeking statehood or independence but survival of their cultural communities. They were searching for cultural identity and control over land and other resources rather than autonomy” (2006:7).

The Draft Declaration on the Rights of Indigenous Peoples was finalized in 1994 after much discussion among indigenous groups and U.N. representatives in the Working Group on Indigenous Populations, and includes “the right to create and maintain indigenous peoples' own governments and their own laws and legal systems” (Merry 2006: 7). The Working Groups created a “Draft Declaration on Rights of Indigenous Peoples,” and a “Draft Resolution on the Rights of Indigenous People.”

The Draft Declaration on Rights of Indigenous Peoples (Williams 1990:684) emphasizes four key points:

- 1) the distinctive nature of indigenous peoples' collective rights
- 2) the centrality of territorial rights to indigenous survival
- 3) the recognition of indigenous peoples' rights to self-determining autonomy
- 4) international legal protection of indigenous rights

The Draft Declaration addresses the issues of territorial and land rights in particular in requiring “just and fair compensation...when [indigenous people's] property has been taken away from them without consent” (Williams 1990:690). The Draft also requires states to “consult with indigenous peoples...prior to the commencement of any ‘large-scale’ mineral and subsurface development project affecting indigenous peoples and their territories” to mitigate negative effects. Most importantly, “in no case may an

indigenous people be deprived of its means of subsistence” (Williams 1990:694). The Draft has not yet passed officially into the annals of international law, however, as it was still not adopted by 2006 (Merry 2006:7).

Other statements advocating indigenous rights have begun to emerge within the last decade, though without legal ramifications . For example, the Rio Summit of 1992 included a call for protection and promotion of the "innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity" (Maffi 2005:7). Also, the Durban Action Plan, the central outcome of the fifth World Parks Congress, highlights “the connection between dispossession and poverty, culture change, and social and subsistence losses on the part of people living in and around protected areas” (West et. al 2006:5). Finally, in a symbolic gesture, the United Nations declared the years 1995 to 2004 to be the "indigenous peoples” decade (Dove 2006:1).

Despite these laudable efforts, many governments have not been held accountable for abuses against people of specific ethnicities, including indigenous peoples. Governments have tended to use ethnic categories to “distribute... burdens, construct category-specific institutions, identify particular persons as bearers of [negative] categorical attributes, ‘cultivate’ populations, or, at the extreme, ‘eradicate’ unwanted ‘elements’” (May 2004:67). Furthermore, if the government retains the power to allocate rights to certain groups of its choosing, “then group membership is an ascribed status, not a voluntary choice” and indigenous peoples must compete with other groups for resources, political power and privilege (May 2004:44).



One way for a group to take control of discourse concerning ethnic identity and make membership in a group a source of pride is through the assertion of cultural history and knowledge. Embracing ethnohistory, the notion that knowledge and history are “seen as both part of cultural property and integral to cultural identity,” is therefore essential (Riley 2004: 311 and Palacio 1976: 489). The Convention for the Protection of Cultural Property in the Event of Armed Conflict, also known as the Hague Convention of 1954, defined cultural property as “movable or immovable property of great importance to the cultural heritage of every people.” Cultural property and identity can be seen as part of a people’s heritage, which in turn can be both tangible and intangible.

Tangible heritage includes physical objects such as archaeological artifacts or buildings, works of art, books; in contrast, intangible cultural heritage is more abstract, encompassing a people’s knowledge and traditions. As one author explained, intangible heritage is “that which enriches the intellectual, psychological, emotional, spiritual, cultural and/or creative aspects of human existence and well being” (Mitchell 2001:4). It includes music and dances, as well as ethnobotanical knowledge, which is a people’s particular understanding and use of their native flora, also known as traditional ecological knowledge or TEK. TEK is “traditional knowledge, innovations, and practices” (Barkan 2003: 209). It also plays an important role in traditional medicine and healing (Barkan 2003: 209).

Much indigenous knowledge falls within this latter category of intangible heritage. Peter Easton, a consultant for the World Bank, defines indigenous knowledge in two ways:

- 1) as “a heritage from the past including specific bodies of knowledge in different areas like botany, medicine, social governance”; and
- 2) as “a means of articulating what people know and - for the *future* – [ a way off] creating new knowledge”

(Woytek et. al 2004:9)

Whether tangible or intangible, a group’s cultural heritage and indigenous knowledge are deserving of protection and preservation. However, the appropriate means of achieving this goal is hotly debated in anthropological, political, and legal circles with each approaching the topic differently. Anthropological and political debates center on the issue of endangered heritage, particularly in relation to indigenous peoples. Legal scholars struggle with defining official ways to claim knowledge, as will be described below.

### Indigenous Intellectual Property Rights

Legal debates address the issue of granting indigenous people the right to their cultural heritage by discussing ways to officially document heritage and ascertain ownership. The controversy stems from the fact that no precedent really exists for protecting intangible knowledge. As one legal scholar observed, intangible cultural products are “legally invisible” (Scafidi 2005: 125). Part of the reason for this confusion about rights to ownership is that law usually ensures individual rather than collective rights; in the western legal tradition, individual ownership is assumed, thus when an individual gets an idea or invents something, he or she must patent or trademark it under intellectual property laws (IPR).

Intellectual property rights (IPR) is the preferred legal framework for establishing ownership of knowledge or technology under the western legal system. Through copyrights, patents, trademarks and trade secrets, IPR gives an inventor or claimant sole rights to the knowledge for a limited period of time. The main goal of IPR is to ensure that “information enters the public domain in a timely fashion while allowing creators, be they individuals or corporate groups, to derive reasonable financial and social benefits from their work” (Brown, 1998: 196).

Obviously, this system of ownership is problematic for many non-Western societies and indigenous groups that traditionally inherit collectively. Also, culture is not a “bounded, static entity” but a process, a conglomerate of traditions and knowledge that people inherit (Brown 1998: 196). This ambiguity makes culture hard to define, claim, and own as such. Also, the purpose of IPR mediums such as copyrights and patents is “to encourage change, not to maintain the traditional” (Greaves 1994: 8). “Finally, patents and copyrights only give short term protection (Brown 1998: 202).

Several legal instruments have recently been crafted in an attempt to protect intellectual property, particularly indigenous knowledge. Trade-related intellectual property rights (TRIPS) established under the GATT agreement seeks to create an international standard for minimum IPR protection. More specifically, the TRIPS agreement “allows nations to design *sui generis* plant protection methods that adopt legal elements from industrial countries” (Brush 1996:15). Advocates claim that TRIPS encourages technology transfer, which is one strategy for equitable benefit sharing also vague. Importantly, communities view their environment holistically making it difficult to assign credit for a particular piece of knowledge to just one individual in a community

(Woytek et al 2004:133). Additionally, TRIPS does not grant patentability to plants and animals other than microorganisms and processes (Woytek et al 2004:134).

The 1998 Convention on Biological Diversity (CBD) acknowledged “the value of indigenous knowledge and resources” for the first time, claiming that “each contracting party shall, as far as possible and as appropriate...subject to its national legislation, respect, preserve and maintain knowledge, innovations, and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity” (Barkan 2003:208). The CBD also provided means for equitable benefit sharing among parties (Barkan 2003:209).

The CBD defined biodiversity as “the variability among living organisms from all sources and the ecological complexes of which they are part; this includes diversity within species, between species, and of ecosystems” (Nazarea 2006:3). As another scholar, Wilcox, noted, an alternative definition of biodiversity is “the variety of life forms, the ecological roles they perform, and the genetic diversity they contain” (Nazarea 2006:1). Essentially, the CBD granted countries sovereign rights over their resources, and with the exception of the United States, over 150 countries signed the CBD (Balick et al 1996:154).

“Plant variety protection” is another type of IPR regarding botanical intellectual property/knowledge. Plant Variety Protection gives protection/sole use rights for 18 years, and allows farmers to duplicate plants for use as seed or for breeding without needing to pay royalties (Brush 1993: 654). This type of IPR is codified by the International Union for the Protection of New Varieties of Plants (UPOV).

Nevertheless, while IPR is often suggested as the appropriate tool for preserving indigenous knowledge, given its potential economic benefits particularly, I will argue that other, more practical and less formal avenues for preserving knowledge, particularly ethnobotanical knowledge, are more appropriate.

### The Maya-A Brief History

A plethora of indigenous peoples have populated Central and South America throughout its history. The Maya have common origins with a larger indigenous group of Mesoamerican people. They principally inhabited parts of Yucatan,,the modern states of Chiapas and Tabasco, Guatemala and Belize, and the western parts of El Salvador and Honduras (Sharer 2006:23). A recent find in San Bartolo, Guatemala, indicates that the Maya civilization was established as early as AD 100, and collapsed around AD 800 under mysterious circumstances ([there are] signs of mass abandonment and a possible hostile takeover by the Mexicans) (Sharer 2006:587). Sharer indicates that the society probably developed between BC 1000 BC and AD 1500 (2006:79). There are three Maya groups, the Kechi, Mopan and Yucatan Maya, and over 28 languages (2006:26).

As noted earlier, the indigenous peoples of the New World have been marginalized ever since the Colonial period, and the Maya have been no exception. There are many accounts of Spanish and British exploitation and blatant disregard of the well being of the native peoples. The Spanish invasion of Meso and South America in the early 16<sup>th</sup> century did immeasurable damage to the Maya culture and social structure by uprooting many of the Maya from their traditional homesteads and driving them into *encomiendas*, which are economically efficient plots of land. This distribution of land

allowed colonists to occupy land between native communities, and induced a mass relocation of Maya from Belize to Guatemala and Honduras, and vice versa.. Currently, three different Maya groups are scattered throughout MesoAmerica, and subsist mainly on agriculture and hired labor (Rabinowitz 1986: 36).

### The Maya in Belize: Past and Present Political Discrimination

In Maya, *Belikin* means “land of the road toward the sea” and is] probably the origin of the name Belize (Bolland 2003: 1). Belize is one of the smallest countries in Latin America, and the second smallest in Central America, covering a mere 8,867 sq. miles (Premdas 2001: 2). The Spanish first colonized the area in the 17<sup>th</sup> century, and were followed by the British who specialized in mahogany exports. Due to the havoc wreaked by the Spanish *encomiendas* as described above, by 1697, the Belize Maya “had melted into small groups living in hamlets or *alquijos* away from the main roadways connecting their territory to the Spaniards in Bachalan and in Tayal.” (Cal 2004: 19)

Up until the decolonization period (and even afterwards), native tribes have been denied full title or sovereign rights over their homelands, even though in places like Belize, between 15% and 20% of the people are indigenous (Assies 1999:4). The current government claims that the Maya currently residing in Belize emigrated from Guatemala in the 19<sup>th</sup> century. While there was a mass migration at that time, most likely some of the Maya escaped the forced relocation and epidemics and continued to live in southern Belize until they intermarried with the incoming Q’eqchi Maya during the 19<sup>th</sup> century (Cal 2004: 18). According to one source, the Mopan Maya are the descendants of the original Maya living in Belize (Rabinowitz 1986: 6).

The chronically low status of the modern day Maya in Belize is due in part to the British legacy (they controlled the area for over one hundred years), as they always denied the legitimacy of Maya claims to the lands. In fact, the Maya were referred to in official documents as “immigrants who came after the British” (Barnett 2001:11). Elements of the “doctrine of discovery” can be detected in the origin myth propagated by the British, which states that the indigenous Maya supposedly “deserted the area long before the arrival of the British, who occupied an uninhabited land” (Bolland: 2003:17).

Yet, as the British sociologist Nigel Bolland describes, when the British moved inland in search of resources (particularly timber), the Maya had to be forcibly induced to leave their villages. This displacement deprived them of a means of livelihood and made them dependent upon their timber employers, as they were simultaneously denied the right to own land (Bolland 2003: 125). The colonial masters of Belize as well as the current governments of many of the areas formerly inhabited by the Maya, purposely gloss over these forced mass relocations in claiming that the Maya are not indigenous. Point is not clear. In this manner, the colonial power conveniently removed the stigma attached to “the process of conquest, dispossession and colonization” (Bolland 2003: 101).

The British also established a hierarchy of ethnicities placing the Maya at the bottom of the socioeconomic chain, and it survives to this day. The structure of society is historically characterized by a concentration of land and power in the hands of the white British, the uppermost economic class. They were followed by the Creole landowners and merchants, and then the Mestizo and landless Creoles. At the bottom were the landless Maya and Garifuna who were collectively denied the right to own lands under

the Crown Lands Ordinance of 1872 and had thus had small reserves created for them. Paraphrase? (Bolland 2003: 18).

Belize is a nation of mixed ethnicities; according to one source, it has eight “ethno-cultural” communities, all competing with each other for government attention and resources (Premdas 2001:2). In addition to the Maya (whose three subgroups live in several areas of the country, speaking slightly different dialects of the Mayan language), Belizean ethnic groups include the Mestizo, Creole, Garifuna, Chinese, Syrian-Lebanese, East Indians and Mennonites. This was reflected in the 1991 Census, which used the following ethnic categories: Creole, East Indian, Chinese, Maya, Garifuna, White/Caucasian, Mestizo and Other. The Mestizo population is a product of immigration and refugee flows from Central America. The Creole are descendants of African slaves brought in by the British. The Garifuna are descendants of Caribs from the island of St. Vincent who intermarried with African slaves. The Chinese were originally brought in as indentured agricultural labor for the southern sugar estates about 100 years ago, but a second wave is currently immigrating as entrepreneurs. The East Indians are principally merchants. Finally, the Mennonites emigrated from Manitoba (Canada), Chihuahua (Mexico), and Germany in the last century in search of cheap farmland (Barnett 2001:4 and Premdas 2001:2,8,21).

In Belize, the relationship among ethnic groups and the current government seems particularly challenging, especially relative to other Central American countries for several reasons. “GP”, a Maya man active in the indigenous movement in Belize, claimed that although the Maya in Guatemala experienced an ethnocide in the latter part of the 20<sup>th</sup> century, currently, those Maya populations have their own flags and enjoy a



certain degree of recognition from the government (GP, personal communication, 5/24/06). Another Maya man observed that the Belizean government is ethnically mostly Mestizo, whereas in Guatemala many officials are Maya (D, personal communication). In fact, only one Maya person is a representative in the Belizean government, a Kechi Maya from the southern Toledo district who seems to focus principally on those living within his district (OC, personal communication, 5/22/06). Upon further investigation, this representative is the Hon. Michael Espat, of the Toledo East district and is the Minister of Works (House).

Naturally, the government has different priorities in handling claims from the various groups, though it invariably treats the Maya as the lowest priority. The government does not seem to acknowledge the Maya's indigenous claim to land, heritage, or resources. Though relatively little conflict is manifested between these ethnic groups on the local level, evidence exists of a bias on the part of the government against certain ethnicities, including the indigenous Maya. According to a Garifuna teacher at a Maya school, the ethnic groups mostly stay separate, with the Garifuna and Maya working together more because they occupy the two southern districts of Stann Creek and Toledo, while the Mestizos are in the northern districts of Cayo, Orange Walk and Corozal. Members of the national government are mostly Mestizo (DO, personal communication, 5/26/06).

One of the main reasons the government treats the Maya as a low priority and discredits them is unmistakably due to the fact that the Maya claim to be the true indigenous inhabitants of Belize. As discussed previously, this claim to indigeneity has important political implications, since it fundamentally challenges the authority of the

state (Assies 1999:285). Expressing his frustration with the government's treatment of his people, one Mayan man, "GC", said that the state prefers "to do what it can to walk on us and make us into nothing, as we have a claim as the first [people] here" (GC, personal communication, 5/22/06). The indigenous aspect of the Maya identity is clearly critical, invoking their "sense of permanence and their ability to survive and stay close to their cultures and homelands despite almost insurmountable odds" including the claims to the land made by the colonial power and the current state (Niezen 2003:xii).

As Maya teacher and advocate "FP" commented, "the government doesn't recognize communal land ownership or indigenous rights to land," as these challenge the state's right to the land, including the subsoil and airspace. Many years ago, the Maya Leaders Alliance -- a group of Maya leaders and intellectuals that generates debate and represents indigenous people in negotiations with governments -- apparently filed a petition with the Inter-American Human Rights Alliance to force the government to recognize the Maya people. The Belizean government has yet to address it. The Maya are among the poorest people in the country, even though "FP" claimed that they often live in areas "with high natural and cultural resources"—another painful irony for them to endure (FP, personal communication, 5/29).

National policies encouraging homogenization of the population are prevalent throughout Latin America; in Belize, the Maya are actively discouraged from embracing their heritage. This tendency is occurring despite the Belizean government's official policies of embracing a mixed heritage. Given that national self-image usually "reflects an ambivalent combination of cosmopolitan modernity and self-conscious reference to

the traditions of the past, most often represented by the icons of indigenusness” the prejudiced national policy is unwarranted (Postero 2004: 130).

In fact, Maya culture is one of the most important aspects of Belize’s national image, constituting a large part of the tourist attraction to this small Central American nation. Part of the government’s strategy for creating a homogenous Belizean national heritage involves claiming the archaeological sites of the Mayas as purely national symbols as opposed to symbols of the indigenous culture. Today, archaeological sites in Belize open to the public are completely government-run; visitors pay a fee at the gate, which is usually located right next to gift shops profiting from the legends, history and culture of the Maya. The government monopoly of site management seems to have occurred at least partially under the pretext that the Maya could not comprehend the artistic-cultural merit of archaeological items. Additionally, many tourists visit Belize as eco-tourists—they venture into the rainforest (now national sanctuaries) where many of today’s Maya population used to live.

As noted earlier, definitions and parameters of ethnic groups are often hard to characterize. In many situations, national governments attempt to define and recognize certain groups, but not others. In response to this trend in Belize, the Maya have begun to engage in a process of ethnic revivalism and even ethnogenesis, or “the attempt by each community to write its own experiential narratives and record its historical memory.” In this way, they are trying to control their image and empower themselves, though the movement is not united by any means (Premdas 2001: 29).

The Maya Leaders Alliance is one of the few organized groups actively involved in advocating for indigenous Maya rights. Other activists include the Maya of the

southern Toledo District, who continue to vigorously argue that they are indigenous to that part of Belize. Specifically, the Maya Cultural Council of Toledo claims indigeneity “as a means of justifying ownership of a vast area that they want to be officially declared a ‘Maya Homeland’” (Premdas 2001:15). Notably, Julian Chu was an educated Maya activist who represented Maya all over the world, particularly at indigenous conferences sponsored by the UN. A few years ago, he led a minor united resistance against Malaysian logging companies trying to operate in Belize, and had organized protests in the capital city. Unfortunately, he died under mysterious circumstances, and many Maya believe the government was somehow involved, adding to their feeling of helplessness and resentment in dealings with the government (GP, personal communication, 5/24/06).

#### The Maya Centre and the Cockscomb Basin Wildlife Sanctuary: A Case Study

Since AD 1000, the central zone of the Maya region (Yucatan, Chiapas and Tabasco states in Mexico, and Belize) has been covered by tropical rainforest (Dobson 1973: 16). Thus, the Maya have for a millennium been living in small villages, mostly within the Maya Forest, and managing their food requirements through *milpa* (slash-and-burn) farming.

“GC” is a Maya man who grew up in one of these rainforest villages following this traditional lifestyle with his family. His family along with the other Maya families had been growing maize, hunting, fishing, conducting agroforestry, and forest management through starting and maintaining a network of trails. Some of those living in the forest became quite adept at botany and medicinal plants particularly due to

necessity. His father arrived at the rainforest now known as the Cockscomb Basin Wildlife Sanctuary in the early 1960s from the southern Maya district of Toledo.

38 Maya families lived in Cockscomb Basin Wildlife Sanctuary since that time, mostly related to each other, though historically this area has intermittently been inhabited by the Maya, as it is located in the center of what is known as the “Maya Forest” (JC, personal communication, 5/25/06/06). You make it sound as if no one lived in this area before GC. If so, where did these Maya come from and what was their homeland? —Is this really what you mean to say? When the government decided to make it a nature preserve in 1983, most of the Maya started to leave in shifts (GC, personal communication, 5/21/06). However, nine families stayed on until they were officially forced to leave in 1984 (JC, personal communication, 5/25/06). Many of them moved to the Maya Centre nearby, which had been established in 1972 at the edge of the rainforest.

They apparently did not receive any kind of compensation (land or money), and were ultimately forced to move due to the imminent development of the Sanctuary (GC, personal communication, 5/23/06). GC’s brother, OC, noted that the only benefit to moving to the Maya Center was the possibility of getting a state education (OC, personal communication, 5/22/06). The Maya fought the government for land because most of the area surrounding the Maya Center are run by private agricultural businesses. He added that before the growth of the Maya Center upon their arrival, there was no running water. When the families started to arrive, they had “to fight for ... water because most of the lands around [them were] operated by agricultural companies that use dangerous chemicals.” Finally the British military installed a tank, and now an NGO maintains it. (GC, personal communication, 5/22/06).

The sanctuary was created because a conservationist and jaguar biologist named Alan Rabinowitz had advocated for it, claiming that the jaguar population, along with several other endangered animals, was dwindling (1986: 20). Initially, a combination of logging wildlife protection and tourism was envisaged for the sanctuary, but following a proposal from the BAS (Belize Audobon Society) and the World Wildlife Fund (WWF), a corner (covering the area of an old lease to the Development Finance Corporation) was set aside as the Cockscomb Basin Wildlife Sanctuary in March 1986 (SI 32), “for nature conservation to take the dominant role.” (BELIZE). The current sanctuary covers over 200 hectares, and was given protection status “specifically to target the preservation of the Jaguar (Matola 2001: 4). The sanctuary also serves to protect the watersheds of important rivers, and currently preserves biodiversity, hosting over 300 bird species, 200 jaguars, parrots, black howler monkeys, toucans and a lot of other species found only in South American tropical forests. Right next to the Wildlife Sanctuary on its northern border is a 'National Park,' though its origins are not fully known. (Belize Parks).

As noted above, part of the reason the Cockscomb Wildlife Sanctuary was established was to attract tourists. A website sponsored in part by the Belize Tourism Industry Association notes that the creation of the sanctuary was partially “promoted on the basis of its educational and eco-tourism potential.” It is therefore indicative that they have separate entrance fees for natives and foreigners--Belizeans pay \$2.50 and foreigners, \$10. The park manages an intricate trail system and facilities for overnight stay, and the sanctuary is widely promoted attraction, known as the only Jaguar Preserve in the world. Even a cultural attraction exists, a minor Maya ceremonial site known as Chucil Baluum dating from the Classic Period (Belize Parks).

When the government finally agreed to the establishment of the sanctuary, however, it could not reconcile the problem of what to do with the native inhabitants. As one scholar noted, this kind of displacement from protected areas “is one of the most controversial and contested aspects of protected areas” (West et. al 2006: 5). Chapin adds that conservationists, in their zeal to protect the environment, “frequently seem to be behind the evictions” (2004: 18). The same site sponsored in part by the Belize Tourism Association attempts to justify the creation of the park by claiming that about 80% of households “benefit financially from visitors to the sanctuary.” Yet this figure seems quite arbitrary, as there is no indication as to which households they mean, and if the statement is referring to the Maya Center, it is implausible, as there are only 3 tour guides and 2 places to stay (GC, personal communication, 5/21/06/06).

According to GC (and verified by other villagers), when the Maya families moved to the Maya Centre, they at first received no financial or land compensation. The expropriated Maya families demanded that the government arrange to give them some land, since most of the area surrounding the Maya Centre is owned by private agricultural businesses. This would seem to have violated both their human rights and the Belizean constitution, which promises “protection from arbitrary deprivation of property” (Modern Legal Systems). It also violates the Belizean Land Acquisition (Public Purposes) Act, although this act does not address the issue of eminent domain in great detail. Only two clauses address the right of the interested party/owner, acknowledging a right of access to the courts, one for the purpose of determining “whether the acquisition was duly carried out for a public purpose” and the other to make claims for compensation (BelizeLegal).

The expropriated Maya were also supposed to have been given priority in business related to Cockscomb Basin Wildlife Sanctuary Jaguar Preserve, such as the allocation of contracts and employment, although in practice this never materialized. JC told me that he only knows one person who used to live in the sanctuary who still works there (JC, personal communication, 5/25/06). GC also told me that he and the other Maya are only allowed to enter the sanctuary as private tour guides, unless they pay an entrance fee like regular tourists.

The refugees did, in fact, eventually receive some swampy land located across the main highway from their new village. Yet only part of this land is useable for any sort cultivation and is limited to citrus fruit plots. Apparently, the local citrus market is not even particularly lucrative, and the Maya lack the financial capital to buy equipment to increase production and maximize profits (JC, personal communication, 5/25/06). Furthermore, as citrus fruits are not part of traditional Maya cuisine, they sell these fruits and supplement their diet by finding land on the banks of a nearby river to grow essentials such as maize and vegetables (GC, personal communication, 5/22/06).

Those Maya that were particularly knowledgeable in terms of the layout of the park (trails), animal sounds and botany (people like GC and his brother) became tour guides of their former home. They merely received a national license after taking a basic test and have been practicing ever since. Anyone with basic training in forestry can take the test. In the Maya Center, GC and JC are trying to train others specifically about Cockscomb Wildlife Basic Sanctuary, though it is becoming increasingly difficult to find young people who are not bent on moving to the cities. As GC noted, "I teach as much



as I can to whoever wants to listen” On Earth Day each year, he invites all who are interested to join him for forest tours (GC, personal communication, 5/21/06)

As this case study demonstrates, despite their potential cultural and economic contributions to the national economy, (particularly as beacons of traditional ecological knowledge, or TEK) the Maya have minimal political representation to voice their concerns about land rights and other pressing issues. The Maya living in this village (as well as others) have had difficulty getting their voices heard and needs attended to by the government; unlike other Belizean ethnic groups fighting for their rights, the Maya have only one representative in government, as aforementioned (OC, personal communication, 5/22/06). Moreover, his position as a Minister of Works is not particularly powerful, and according to many doesn’t carry a lot of weight -- he “can’t pull anything” (GP, personal communication, 5/24/06)..

While the government may not have specifically targeted the entire Maya population for resettlement, “the process of migration of the various ethnic groups resulted in a very clearly defined ethno-geographical distribution of the population which facilitated the state in fashioning an ethnic-based land policy” (Barnett 2001:11). Essentially, this mass relocation weakened the population and any efforts to assert their indigenous claim. This point is made more salient by the fact that this was not the first time the government supported a policy of purposely unequal land management?]; due to the remnants of colonialism, at the end of 1986, less than 2% of landowners owned more than 85% of privately owned land, while 85% of landowners held less than 4% (Barnett 2001:13).

Indelibly, government decisions to privatize (as has been the case in the history of logging) or zone off the rainforests for nature reserves have profoundly affected the Maya. The government's policy of encouraging nationalism has been an attempt to forge a Belizean identity, yet practically, there has been discontent and a "growing ethnic consciousness" due to uneven development and bias (Barnett 2001: 12). In the words of one of the former residents of the rainforest, "I understand that the goal [of making the preserve] was to protect wildlife, but the fact that we lost our right to the land, that was unfair — we are used to living off of nature" (GC, personal communication, 5/21/06).

#### Biological versus Cultural Preservation

More than 70% of Central America has been deforested within the past 40 years (Matola 2001: 1). The Maya Forest, stretching across Belize, Guatemala and Mexico, is the largest expanse of tropical forest north of the Amazon Basin, covering 25,000 square kilometers. Population Action International has called the Maya Forest "a biodiversity hotspot" with more than 24,000 plants, 5,000 of which are endemic, and it holds second place in the list of 25 regional resources most at risk (Ford 2001: 5). Thus, the Belizean government deserves to be commended for its concern for the nation's forests. Belize has over 40 percent of its land under some category of official protection. But unlike the 86 percent of the national sanctuaries in South America that are inhabited or used by local peoples, Belize's protected zones are effectively off limits to its indigenous groups (Matola 2001: 1; Little 1999: 269).

In the case of the Cockscomb Basin Wildlife Sanctuary, the Belizean government's actions in dispossessing the Maya were motivated by environmental

reasons rather than purely economic ones. A combination of motivated individuals as well as international organizations like the WWF all came together and convinced the government to protect the area due to biodiversity concerns as well as due to the possibility of ecotourism.

Yet concern for the preservation of biodiversity should not negate a concern for the preservation of cultural diversity. The UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expressions defined cultural diversity as “the manifold ways in which the cultures of groups and societies find expression.” Few things differentiate humans from animals, and culture is one of them. Furthermore, from an evolutionary perspective, humans in different environments have developed cultural adaptations such as different medicines which, upon study, can most likely help humankind in general. Thus, in many ways, the preservation of cultural diversity is essential to the survival of humanity.

Also, the preservation of biological diversity is strongly correlated with the preservation of cultural diversity; a full understanding of the needs of biological conservation would only be enhanced by indigenous knowledge of the landscape. Landscapes should be understood as “a meeting ground between nature and people, between the past and present, and between tangible and intangible values (Brown et al 2005:1). According to the World Heritage Convention, *cultural* landscapes are “illustrative of the evolution of human society and settlement over time, ...and as a diversity of manifestations of the interaction between humankind and its natural environment” (Brown et al. et al 2005: 6). This interaction has allowed many people

living in the natural environment, like indigenous peoples, become very attuned to their surroundings and the needs of conservation.

The World Conservation Union (IUCN) has become increasingly cognizant of the links between cultural and biological preservation. For example, it uses the term “cultural landscape” to “represent a tightly woven net of relationships that are the essence of culture and people’s identity” also a vague definition (Brown 2005:6). Among the priorities for its 2005–2008 mandate, the IUCN’s Commission on Environmental, Economic, and Social Policy (CEESP) includes the “improved understanding of the synergy between cultural diversity and biological diversity and on how this may be harnessed and applied towards shared values, tools, mechanisms and processes that enhance conservation and promote a more sustainable and equitable use of natural resources” (Maffi 2005:8).

Without a doubt, tension exists between prioritizing environmental and cultural conservation. This tension or “the interaction between political and environmental variables” is known as political ecology (Little 1999: 255). Although theoretically, ecotourism is a positive phenomenon, in reality, “ecotourism often causes conflict and changes in land-use rights [while failing] to deliver promises of community-level benefits” (West et. al 2006: 9). Additionally, it seems that ecotourism can inadvertently make the people living in the surroundings of the attraction part of the attraction. In this way, ecotourism creates “simplistic images of local people and their uses and understanding of their surroundings” (West et. al 2006: 9). Unfortunately, making people seem more primitive and less a part of the real world can also diminish the political reality regarding land usage.

With a little foresight and willingness to bring people of different ethnicities and histories together, however, it is possible to reconcile this tension of preservation. Since historically, indigenous peoples-who have extensive, useful TEK- have been excluded from preservation efforts, Latin American governments have not always been successful at protecting wildlife. For example, while the Cockscomb Basin Wildlife Sanctuary was given protection status “specifically to target the preservation of the jaguar...the jaguars found there undoubtedly travel into neighboring forests, both for search of food and breeding partners” (Matola 2001:4). Clearly, nature conservation cannot be achieved sustainably “within ‘islands’ of strict protection surrounded by areas of environmental neglect”(Mitchell 2001: 2). Perhaps if the Belizean government allowed the Maya to become more involved in the sanctuary in general, they would be more motivated in helping to achieve its goals.

Perhaps the biggest problem with the Cockscomb Basin Wildlife Sanctuary is the allegation of poor management. . The Belize Audubon Society (BAS), an organization linked to the national government, was formed specifically to oversee the Cockscomb Basin Wildlife Sanctuary and other national parks. The BAS is also allegedly notoriously corrupt – a claim made not only by the Maya, but by observers like an American in Belize who told me that BAS “has many problems, many [of the members] are co-opted politically” (PH, personal communication, 5/23/06). Maya tour guide GC related a rumor that negotiations are taking place between BAS and a major logging firm that owns property next to the Cockscomb Basin Wildlife Sanctuary. This enterprise wants to build a resort right next to the preserve, and has already cut a road through the preserve.

To make matters worse, that road is now apparently being used by hunters and poachers. GC notified the authorities of these activities, but received no response (GC, personal communication, 5/23/06). GC's fellow tour guide and brother, JC, added that people are finding ways into the sanctuary to hunt and fish illegally, but BAS is not prosecuting them. He denounced this indifference, saying "If you really care about the forest, you should really protect it" (JC, personal communication, 5/25/06).

Along with the corruption, BAS seems to be neglecting basic maintenance. As GC noted, "they don't maintain the roads, they don't build bridges on the trails, and they don't treat their security workers well." Additionally, the EU and WWF have provided funds to take care of sanctuary and animals, though this does not seem to be happening. For example, the Japanese government gave money to make a conference room and vehicles to no avail. GC claimed that when the sanctuary authorities asked for more money so the Japanese sent a representative to "oversee the projects himself" (GC, personal communication, 5/22/06).

### The Value of Maya Ethnobotanical Knowledge

As tour guides in Cockscomb Basin Wildlife Sanctuary Be consistent in names such as this throughout the entire document (do a search and replace throughout the thesis). If it is a preserve, then use that term and not sanctuary and other former rainforest homes, the Maya are the last living sources of traditional ecological knowledge (TEK) regarding the Belizean rainforest. Ethnobotanical knowledge is not only central to their culture, but is also of immense value to humankind. The tour guides had extensive knowledge of plants used for cooking as well as for medicinal purposes, and the bushmen

know even more. In this way, biological and cultural diversity are intimately linked concepts.

While the Maya's botanical knowledge clearly has immense cultural value, ranging from usage as remedies for ailments to cooking ingredients, -you need to convince the reader first rather than assume this. Judging its tangible worth is harder to assess. Preliminary studies by ethnobotanists Balick and Mendelsohn 1992 estimate that the annual local value of medicinal plants sustainably harvested from a single hectare in the tropical forest of Belize is between \$726 and \$3,327(129). Furthermore, Balick and Mendelsohn predicted that the value of tropical forests for the harvest of non timber forest products (NTFP) "will increase relative to other land uses over time as these forests become more scarce" (Balick 1992:130).

Significantly, less than 1% of tropical species in the world have been studied for pharmaceutical potential, though about 1/4 of western medicine are phytomedicinals, or plant derived, and of all plant-derived medicine currently used, 74% was first discovered and used by native cultures (Balick 1996:145; Woytek 2004:117). Indeed, one scholar estimates that the annual world market for medicines derived from indigenous people is \$43 billion, though reportedly less than 0.001% of the profits from drugs that originated from traditional medicines have ever gone to the indigenous peoples who led researchers to them (Brush 1996:55). Considering that the wealth of knowledge inherent in Maya ethnobotanical expertise has hardly been consulted in the search for new medicines, it seems a vast health resource for humankind in general and an economic resource for the Maya is awaiting research.

### Problems with Preserving Ethnobotanical Knowledge

Unfortunately, the potential of these medicinal plants is in danger of being lost to the world forever if not recorded in some way, as the Maya population is economically disadvantaged and cannot afford to preserve this knowledge in a concrete way. As noted earlier, the Maya were deprived of their means of subsistence without receiving adequate compensation. Regrettably, being deprived of their land also meant being deprived of the primary means to retain and pass on ethnobotanical knowledge. Thus, they have also been indirectly forced to give up their traditional resource rights (TRR) (Riley 2004:127). Moreover, the government's confiscation of the rainforest lands also violated the indigenous Maya's de facto environmental rights, which are "the claims and rights of peoples to territories, natural resources, knowledge systems" (Little 1999:267).

A discussion of Maya language would be relevant here (how many dialects, how many native speakers in Belize and percentage of population, the importance of language preservation and TEK, etc. discussed TEK earlier... Today around two million Maya (Yucatec, Mopan, and Kechi/Q'echi) speak 15 different dialects and languages (Rabinowitz 1986:36). Of 287,730 people populating the country, the Maya make up 10.6% of the population (CIA Factbook). Neither the past nor present generations of Maya in Belize have been encouraged to value and commemorate their culture. They are discouraged from speaking their traditional language, and knowledge of Maya history prior to the Spanish invasion is lacking in Belizean school textbooks. Therefore, Maya children's potential curiosity in their origins and heritage is not promoted. As one of the tour guides commented, "Maya culture is not strong, school is taught in English" (OC, personal communication, 5/22/06). Without respect or regard for tradition, the



government also does not condone consulting medicine men or bushmen as it claims these practices are dangerous.

Moreover, the threat to the continuity of the Maya heritage into the next generation is compounded by the fact that it lives almost entirely as oral history, with little being recorded. The Maya are used to an oral tradition and young people do not seem to see the value of learning or preserving their culture, particularly with respect to the ethnobotanical knowledge of the tour guides in the Maya Centre.

FP noted the irony that while international interest in indigenous medicinal and architectural knowledge is growing, many young Maya think their native lore is not worth learning (FP, personal communication, 5/29). With a tangible note of sadness, GC said, “most young people don’t care to learn about the old ways, they learn about modern culture.” Furthermore, young people “leave, go to school, come back and go to work” (GC, personal communication, 5/21/06). He feared that although his nephew was being groomed to join his father and GC in the tour guide business, his attendance at high school meant that “he might be changing his path” (GC, personal communication, 5/22/06). One of the village healers commented on this phenomenon as well, stating that the “young generation isn’t interested any more” (A, personal communication, 5/23/06). In attempting to document and preserve her knowledge, she had to ask someone to volunteer, as her children were either unable or uninterested in this task.

This lack of interest in their native culture is partially due to government policies. As noted earlier, the government makes no effort to acknowledge the culture of the Maya except in tourism contexts, and additionally makes little effort to teach about Maya

heritage in its public education. Of course, the effects of technology and globalization inevitably compound the cultural erosion.

The fact that the Maya are guarded about their cultural knowledge, even amongst themselves, presents a final challenge to its preservation. As one of the village healers explained, “our medicines were thought evil by the Spanish, so we kept [the knowledge] secretly... We have to choose who to pass it on to -- usually it’s a close family member” (A, personal communication, 5/23/06). Another informant confirmed that Maya medicinal knowledge is “passed on in the family, kept to ourselves” (Father of GC, personal communication, 5/27). A third Maya also commented on this problem, saying that “people are ignorant, they don’t share their ideas” since they feel they can make money with their secret knowledge (GP, personal communication, 5/24/06).

In all of these ways, the Maya have become disjointed as a culture and as a people.

Government policies regarding education is partly to blame, but I would argue that land policies play a larger role. In other words, if the Maya had some kind of homeland or base (such as within the Maya Forest) they would be able to aggregate the economic resources and generate the motivation to preserve their cultural heritage and valuable TEK specifically. Furthermore, preservation of the TEK would necessitate preservation of the habitat in which these medicinal plants reside, namely, the precious rainforest.

### Potential Solutions

There are several potential ways through which the Maya could protect their ethnobotanical knowledge and become politically empowered. From a legal standpoint, the concept of intellectual property rights (IPR) would be applicable in preserving their

knowledge, or at least protecting it from misappropriation, as it would be an official means of laying claim to their knowledge. Yet, due to several issues such as the fact that in the western legal paradigm IPR protects individual as opposed to collective knowledge and original as opposed to traditional knowledge, this solution may not be optimal in protecting the Maya's ethnobotanical knowledge. Also, IPR enforcement generally incurs high transaction costs, and considering the poverty of most indigenous peoples, cost can be a prohibitive factor. In addition, conservation of knowledge requires a long-term commitment, while IPR is usually only a short-term solution (after a specific period of time, for example, a patent is no longer effective). Finally, individual management may be inadequate to manage resources over a large area. As Brush also pointed out, "states are unlikely to accept either the goal of equity for indigenous interests or the burdens of managing direct compensation" (Brush 1993:666).

Balancing the needs of indigenous peoples and the interests of researchers and scientists is still possible without IPR. As long as one bears in mind the dangers of overcontrol and regulation, there are a few avenues for conducting research, particularly ethnobotanical research, that ensure all parties are treated equally and can share benefits equitably:

- 1) Contracts. They have low transaction costs, and create a market for indigenous knowledge (Brush 1996: 17). They also ensure that there both short and long-term benefits accrue to all parties (Balick 1996:158). Finally, they guarantee the terms for the transfer of knowledge, and in many national settings, "require no new legal instruments" making the transfer relatively easy (Greaves 1994: 9).

- 2) Material Transfer Agreements (MTAs). These involve one party providing information or resources in exchange for monetary or non-monetary payment (Woytek et. al 2004:36).
- 3) Royalty agreements and “institutional authentication labels” (Brush 1996:253). A royalty agreement essentially specifies that if a collected plant sample results in a profitable pharmaceutical product on the market, the provider of that sample may collect royalties.

A few scholars such as Dr. Rosita Arvigo of Galen University in Belize and Dr. Michael Balick of the New York Botanical Garden have focused on ethnobotanical research in Belize. The two worked together for a few years on the Belize Ethnobotany Project (BEP), a collaborative effort of the New York Botanical Garden’s Institute for Economic Botany, the Ix Chel Tropical Research Foundation, and the Belize Center for Environmental Studies. The project collected data from more than 25 traditional healers of Maya, Garifuna, Creole, East Indian, and Mennonite descent. A database was established at the New York Botanical Garden with “planned distribution” to several computer facilities in Belize (Balick et al 1996:327). Also, the BEP worked with the Belize College of Agriculture (BCA), Central Farms to learn how to grow more than two dozen different plants used in traditional medicine in Belize (Balick et al 1996: 332). Finally, the researchers managed to compile 2,600 bulk plant samples to send to the US National Cancer Institute (Balick et al 1996:327). The Ix Chel Tropical Research Foundation still exists but was absorbed by a ecotourism lodge (maintains a visitor’s center, education, tours, study groups, outreach, and some research).

Although the project ended in 1997, the data demonstrated that protecting the rainforest and its medicinal plants is economically viable. It was also one of the few examples of successful collaborations between mostly Western researchers and native people in ethnobotanical studies. Its success inspired conservation efforts in Belize, as is described below (Balick 1994:316).

Another attempt to preserve ethnomedicine was the *Terra Nova Rain Forest Reserve*, a 6,000-acre parcel of land set aside by the government of Belize in 1993. The Belize Ethnobotany Project (BEP) mentioned above is deeply involved in this endeavor as well (Balick et al 1996: 332). This reserve could be termed an ethnobotanical garden as it contains “a specialized botanical collection that allows traditional knowledge and ancestral practices to be maintained in the growing of plants used with medicinal, economical or cultural purposes” (Sarmiento et al 2006:3).

Due to these aspects, the *Terra Nova Rainforest Reserve* has been called the world’s first “ethnobiomedical forest reserve” (Balick et al 1996: 332). The Belize Association of Traditional Healers (BATH), an ethnically mixed group of Belizeans involved in healthcare with an interest in traditional medicine, manages it. The program there involves teaching apprentices about traditional medicine as well as conducting ethnobotanical and ecological research. Part of the aim of this reserve was to have sustainable development, a preservation of *both* biological and cultural diversity: programs in traditional medicine, scientific research and ecotourism “should create a synergistic effect to translate into economic return for the surrounding community” (Balick 1996: 332).

Lamentably, the noble intentions of commercial ethnobotanical projects cannot guarantee success in the market. Shaman Pharmaceuticals sought to be a model bio-prospecting entity, encouraging research in tropical countries. Specifically, it sought to isolate bioactive compounds from tropical plants that have a history of medicinal use to empower local communities, promote environmental conservation, and to make the medicinal remedies more accessible to the world market. Yet it failed to market any pharmaceutical products and ultimately went bankrupt (Balick et al 1996: 248).

Ethnobotanist Mark Plotkin took a more educational approach in founding the Amazon Conservation Team (ACT). ACT works with indigenous peoples to preserve their knowledge. Specifically, Plotkin has taught tribes in the Amazon how to use Global Positioning Systems to map their lands, and therefore know exactly what their territorial boundaries are (Royte 2005:39). This data is essential for a map of indigenous territories, and might also ideally include cultural data, topographic and historical features, as well as natural resources that could be used by the indigenous people to lay claim to certain areas on more legitimate grounds explain (Finger 2004). As Plotkin said in an interview, "Tribes come to us. They want to protect their forest, culture, system of healing, they want clean water, job opportunities, ethno-education" (Royte 2005: 39). ACT specializes in helping shamans and apprentices share medicinal knowledge with the next generation in his model of ethno-education

As Plotkin has proved in his successful models for empowering indigenous people, "ethno-education" is essential to the cultural survival of any group, including the Maya in Belize. They have for too long been taught to believe their culture is worthless or inferior to the majority culture; without effective educational initiatives showing the

value of their ethnobotanical lore as well as their culture in general, an immeasurably important source of knowledge will be surely be lost.

“FP,” a teacher and member of the Maya Leader’s Alliance, has acknowledged the importance of this ethno-educational aspect and founded a Maya educational center which he has been directing in Belize for the last five years. He told me he had to lobby hard for its establishment, and the only reason he managed to get a site for the school was that he found an abandoned site in Toledo. For the past five years he has been raising money through grants, though it’s “a constant struggle.” UNICEF has taken notice of the success of the center and is currently hosting two primary school pilot programs using the Center as a model. Most recently, in the summer of 2006, the center sponsored a symposium on intercultural education featuring the participation of the Maya Leader’s Alliance, the Ministry of Education and UNICEF (FP, personal communication, 5/29/06).

“FP”’s “Maya Intercultural Education Initiative,” has many components. As a member of the Maya Leader’s Alliance, he claims to have created the center with several large goals in mind, including influencing national policies. The curriculum aims to “shape people’s knowledge and integrity, identity” through teachings of cultural heritage too vague (FP, personal communication, 5/29). Specifically, the center teaches about communication, the media and computers, adopting “an intercultural approach that validates knowledge” -- including staples of Maya culture such as the calendar, music, art, and language. Most meetings are conducted in the Kekchi and Mopan languages. Significantly, the teaching method is traditional—elder teachers give “independent training,” (FP, personal communication, 5/29/06).

I have yet to visit the Center, but “FP” claims that the effect of the curriculum can be seen beyond the school walls, encouraging parents to talk to their children about their own cultural knowledge, “whatever was locked up.” Furthermore, “FP” claimed that parents can become inspired by their children’s embracing of their culture, and begin to influence policymakers. He observed that ultimately, the students become better equipped to “handle their own culture and the modern world” (FP, personal communication, 5/29).

The ideas behind ethno-education can serve as a good guide for potential action in Belize. Overall, the creation of an ethnobotanical database is the best way to preserve cultural knowledge and get credit for it. Establishing a comprehensive database of Maya ethnobotanical and medicinal knowledge of NTFPs (non-timber forest products) would help to convert their cultural capital into economic capital and potentially preserve this valuable resource for the Maya people as well as the world with enough guidance and determination. As another source also noted, the documentation and potential publication of ethnomedicinal data “could be seen as a compromise between protecting indigenous interests and rights to traditional knowledge and resources, and facilitating access” (Riley 2004: 293)

This Belizean Maya database could draw from research that is currently being conducted on methodology for investigating, recording and transmitting ethnobotanical and ethnoecological knowledge. There is also extensive research being done to identify factors (such as age, formal education, bilingual ability, length of residency, change in subsistence practice, etc.) that “may affect the maintenance or loss of TEK,” (Maffi 2005:3). If the researchers draw on the model provided by the BEP and passionately seek



to unite the researchers with their subject and the national government, the creation of the database might be possible. It is imperative that the Maya would be involved through the entire process, and perhaps through the medium of a contract, establish that they and the scientists would have sole access to the data. If the village agreed to publication of the database, then they could potentially sell it to pharmaceutical companies, and if nothing else, use it to teach their children. As one scholar noted, though there have been few successful examples of translation of TEK into economically viable drugs, -“there is no reason why ethnobotanical techniques and rational drug design cannot complement each other” (Brown 1998:142).

Documenting the knowledge of NTFPs and then teaching future generations about the value of this knowledge in cultural heritage/knowledge educational initiatives could empower the Mayas culturally, economically and politically. Not only would it establish and reinforce pride in their culture and heritage among current and future generations, but it would also give them a database of knowledge that may be potentially lucrative if sold to pharmaceutical companies. Establishing an indigenous database of knowledge may thus serve to ensure that their grievances are heard, their rights are preserved, and their culture is respected.

Historically, indigenous peoples have generally been effective stewards of their environment, expertly managing the natural resources of their native lands. This view has many critics, including Mac Chapin, but I would argue that the indigenous people have an important role to play in the environment in any case. Cultural ecology “stresses the role of local knowledge in adapting to specific physical conditions such as fragile tropical soils or scarce animal resources” (Brush 1993: 658). Naturally, studying and

appreciating ethnobotany “involves both promotion and protection of those plants, peoples and interrelationships that it seeks to understand” (Riley 2004).

Hence, eliciting support of the indigenous Maya for preserving the Cockscomb Basin Sanctuary, who have extensive knowledge of the flora and fauna of the Maya Forest, should be a key tactic in the government’s preservation goals. At this point, it would make sense for the government to encourage BAS to hire the Maya to be local tour guides especially those who are part of the Maya generation old enough to have grown up and trained in the ways of the forest. These tour guides are the nation’s last surviving founts of knowledge regarding the rainforest.

To rectify the apparent conflict between the biological and cultural preservation, I propose a “Protected Landscape Approach?” that advocates indigenous stewardship as well as natural conservation. The Protected Landscape Approach was first proposed by the IUCN (International Union for Conservation of Nature), a group coordinated by the World Wildlife Fund (WWF) (Brown et al. 2005: 2). This approach ultimately emphasizes sustainability of resource management, while encouraging indigenous people to play a large role in this effort.

Specifically, indigenous people like the Maya should become involved in “active conservation stewardship” (Sarmiento et al. 2005:12). In this context, stewardship indicates a community’s responsible management of forest sustainability as well as their own societies within the forest. Its main goal is “to create, nurture, and enable responsibility in land...and resource users to manage and protect land and its natural and cultural heritage” (Brown et al 2005:3). Stewardship can therefore also be seen as a means of empowerment, as indigenous people are directly involved (Mitchell 2001:6).

“Protected landscapes” are not only particular places, but also refer to a process that “guides and accommodates change” (Brown et al. 2005: 13). A protected area is defined as “an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity and of natural and associated cultural resources and managed through legal or other effective means” (Brown et al. 2005: 4). Such designations are essential, as many governments are having difficulty balancing different developmental needs in the face of globalization pressures. As described by proponent Nora Mitchell, the protected landscape approach promotes heritage protection while also encouraging “direct engagement of key stakeholders” as it encourages stewardship of the land by those that live upon it (Mitchell 2001:5).

Stewardship emphasizes the natural choice of employing those who have physically lived in the forest to protect it. In fact, this concept inherently takes advantage of their wealth of knowledge, their “traditional management systems, innovation and love of place” (Mitchell 2001:6). This approach is echoed in the 1980 World Conservation Strategy which emphasizes integrated conservation and development projects (ICDPs). The strategy was developed by the International Union for the Conservation of Nature (IUCN), the World Wildlife Fund, and the United Nations Environmental Program following “the widespread failure of the traditional fences and fines approach to protected area management” (Dove 2006: 6).

Despite critics of the Protected Landscape Approach and similar approaches, the strongest motivation for “the protection and maintenance of biocultural diversity can come, not from top-down efforts, but only from the ground-up action of indigenous and other societies worldwide whose languages, cultural identities, and lands are being

threatened by global forces” (Maffi 2005: 12). As one scholar noted, the studies of ethnobiology and ethnoecology provide “a framework for linking categories with action plans and, in effect, environmental perception with resource management practices” (Nazarea 2006: 4).

[Even if] the Maya are not made stewards of the whole Maya Forest, the government should support the establishment of ethnobotanical gardens such as the *Terra Nova* discussed previously. Given the size and importance that the ecotourism industry has already assumed in Belize, the government should take advantage of the appeal of having indigenous peoples give tours of their rainforest. As one scholar observed, “the signature resources of the Maya Forest, those which attract visitors and income into the region, are both its cultural and natural amenities” (Matola 2001:2). The Garafuna on the central coast seem to be successful in marketing their culture as well, promoting their food, festivals, and a laid back attitude that suits the beach. Therefore, if a combined ecotourism and cultural tourism plan is developed, there would be greater economic incentives for conservation, “especially by adding value to local biodiversity and landscape features” (Matola 2001:4).

Non governmental organizations (NGOs) like UNESCO, Conservation International, the Nature Conservancy and Cultural Survival. Might also be interested in promoting a stewardship or “Protected Landscape Approach” transition needed here. Yet more effective than mere funding or more theories would be the establishment of clear guidelines to preservation. An article by Mark Chapin shows that even well-meaning NGOs can neglect native populations in the interest of preserving biological diversity. He argues that NGOS have a “new focus on large-scale conservation strategies and the

importance of science, rather than social realities, in determining their agendas” (2004:18).

Furthermore, he notes that attempts in the 1990s to promote sustainable development by conservation organizations “were generally paternalistic, lacking in expertise, and one-sided...with little indigenous input” (2004: 20). Finally, in illustrating the attitudes of many biological conservationists, he mentioned their claim that what they do is conservation, not “poverty alleviation” (implying that any work they do with indigenous people falls into that category) (2004:27). Thus Chapin makes the salient point that NGOs like the WWF have some promising approaches, but need to consider indigenous peoples in the formulation of conservation.

#### IV. Conclusion

There could be a danger in representing and advocating for a local group, yet I would agree with Dove in his analysis that “anthropologists' personal witnessing of threats to their subjects imposes a moral responsibility” and furthermore, that “the uneven topography of power in the world makes neutral representation by anthropologists impossible.” (Dove 2006: 9). Similarly, Public Interest Anthropology firmly advocates participant action research. By advocating for the Traditional Resource Rights of the Maya in Belize, I am attempting to avoid the pitfalls of “ethnographic refusal,” or “the refusal by ethnographers to write thickly about their subjects' own views in cases of resistance” (Dove 2006: 9)

Advocating for these changes may be overly ambitious at this point. The government of Belize still needs to adopt a more flexible notion of national identity, one that embraces ethnic [diversity] rather than trying to minimize it. One useful

philosophical approach is multiculturalism. At its most basic, multiculturalism embraces a plentitude of cultures and ethnicities; and opens up dialogue and encourages debate. As one scholar [put it], multiculturalism is “a politics of reflexive ethnicity” (May 2004: 29). Both ethnic diversity and multiculturalism are important for their roles in encouraging investigation of political implications and questioning the dominant “discourses of group boundaries” (May 2004: 27).

“Development with identity” would seem to be the key to giving indigenous peoples and minority ethnicities the capacity to claim their rights and advance economically. As one scholar even suggested, a policy to empower people needs to be formed to extend native title “to cultural property and art forms that are inextricable from land-based claims to political sovereignty and self-determination” (Riley 2004: 9). In other words, indigenous people [don’t] necessarily require a radical transformation of government institutions; however, reforms recognizing “the special status of indigenous people and...the terms of their relationship with the national state” are essential if progress is to be made (Postero 2004: 182).

While IPR may not be the most effective means of protecting indigenous knowledge, there are legal tools such as contracting that may help indigenous people get the credit that is due them. International legal instruments such as the Convention on Biological Diversity are also providing the basis for progress in that regard. With such a wealth of cultural heritage -- especially regarding ethnobotanical knowledge -- at the disposal of indigenous peoples like the Maya, it would be tragic not to find some way for them to realize some benefit from it and improve their lives. Through stewardship of the forests, educational initiatives and databases of ethnobotanical knowledge, the Maya of

Belize could finally make their voices heard and see their rights respected for the first time in over 2,000 years. I look forward to the possibility of contributing to the realization of that dream.

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