

GENDERSCAPE: THE ECOLOGY OF A GENDERING LANDSCAPE

By

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This work is dedicated to Martha Love and Andy Kirby

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This work is in appreciation to all denizens of Lacanjá Chansayab, México who shared their lives with me since 1991. As early as 1991, a couple of Lacandón men asked if I had gone to a nearby lake. My response, "No, I am afraid of getting lost along the way." Laughing at me, they remarked, "it is like us being in your cities and not being able to read the signs, you do not know how to read the signs of the rain forest." Each Lacandón receives my gratitude for teaching me to read and understand the rain forest each day.

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## LIST OF ACRONYMS

CDI	Commission for Development of Indigenous People/Comisión Nacional para el Desarrollo de los Pueblos Indígenas
COCOP	Commission of Concordance and Peace/Comisión de Concordia y Pacificación
CONAFOR	InterSecretariat Coordination Agreement for the Protection of the Lacandón Rain forest/Acuerdo de Cordinación Intersecretaría para la Protección de la Selva Lacandóna
CONANP	National Commission for Natural Protected Areas...Comisión Nacional de Áreas Naturales rotegidas
FONATUR	National Tourism Fund/Fundo Nacional de Turismo
IMSS	Méxican Social Security Institute/Instituto Mexicano del Securo Social
IMSS-COPLAMAR	National Plan for Depressed Areas and Marginal Group/Plan Nacional de Zonas Deprimidas y Grupos Margínados
LTEK	Local Traditional Ecological Knowledge
MBC	Mesoamerican Biological Corridor
PAN	National Action Party/Partido Acción Nacional
PEMEX	Méxican Petroleum/Petróleos Mexicanos
PFP	Commissioner of the Federal Preventive Police
PP	Path of the Panther/Paseo Pantera
PPP	Puebla-Panama Plan/Plan Puebla Panamá
PRI	Institutional Revolutionary Party/Partido Revolucionario Institucional
PRD	Party of the Democratic Revolution/Partido de la Revolución Democrática
RENARM	Regional Environmental and Natural Resources Management Project
SAGARPA	Ministry of Agriculture/Secretaría de Agricultura or Ganadería Desarrollo Rural, Pesca y Alimentacion
SARH	Ministry of Agricultural and Hydraulic Resources...Secretaría de Agricultura y Recursos Hidráulicos
SE	Ministry of Economy/Secretaría de Economía

SECTUR	Ministry of Tourism/Secretaría de Turismo
SEDESOL	Ministry of Social Development/Secretaría de Desarrollo Social
SEDUE	Ministry of Urban Development and Ecology/Secretaría de Ecología y Desarrollo Urbana
SEGOB	Secretary of Government/Secretaría de Gobernación
SEMARNAT	Ministry of Environment and Natural Resources/Secretaría de Medio Ambiente y Recursos Naturales
SEMIP	Secretary of Energy, Mines and Parastatal Industry/Secretaría de Energía, Minas y Industria Parastatal
SPP	Ministry of Planning and Budget/Secretaría de Programación y Presupuesto
SRE	Secretariat of Agrarian Reform/Secretaría de la Reforma Agraria
TEK	Traditional Ecological Knowledge
USAID	United States Agency for International Development

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My research asked: How and why do the Lacandón denizens (figure 1-1) utilize forest resources in the Lacandón rain forest, and does this lead to landscape change? I analyzed the driving forces behind gender roles (social-cultural practices associated with being female or male) and landscape change (visible land features). I explored whether or not these two variables affect forest resource-use within México's socio-political rain forest management planning in the State of Chiapas.

This is a longitudinal study in Lacanjá Chansayab (hereafter simply Lacanjá), México (figure 1-2) during my fieldwork periods in 1991, 1994, 1995, 2003, and 2004. Lacanjá refers to a lake in the Chiapas region. Chansayab refers to the river running through the town of Lacanjá (Boremanse 1998:16). My 2004 census collected qualitative and quantitative data from 56 households out of 90 total Lacanjá households. A town composed in 2003 of a 353 people (figure 1-6). I examined seasonal work activities performed by women and men, time devoted to each activity, perceptions of work activities based on gender designation, and I used a community visioning technique for assessing how “a community envisions its future and how it plans to achieve it” (Green and Haines 2002:43). Participant-observation allowed me to distinguish differences between expressed attitudes and actual physical work being done.

Examination of Lacandón decision-making allowed me to understand the reasons for using certain types of rain forest resources while others remained unused.

For both genders, Lacandón work activities involved using rain forest resources, although reasons for use and non-use differed between women and men. Physical landscape change occurred as men choose service tourism work over traditional participation in the household production economy. Agriculture was once men's main household production work activity, now declining among young Lacandón men. On the other hand, women's participation in tourism depended on their sustainable use of rain forest resources, which provided them with all their natural resources needed for their craft products.

Women's labor activities in addition included craft tourism as well as both traditional household production and reproduction work tasks, such as agriculture, cooking, childcare, cleaning, and washing. Gender bias embedded within governmental development, a term I used to "describe deliberate attempts to alter human interaction with the natural and built environment through innovation" (Chambers 1985:81), projects segregated women to lower paying tourism work tasks, which resulted in women harvesting more valuable timber in order to make higher quality woodcrafts that were sold to tourists.

Women also took charge of their limited work opportunities and in doing so maintained their symbolic landscapes. By landscape, I imply, the "ways in which land is materially appropriated and used" (Cosgrove 1984:1). Women sustained numerous tree ridges grown between land parcels. These tree ridges act as mnemonics for land boundaries between families and between the private and public space being shared by the Lacandones and tourists.

I utilize genderscape, a conceptual model (Krishna 2004), for understanding how Lacandones created, modified, and sustained a neotropic landscape through paid and non-paid

daily work activities and community identity resilience. Genderscape allowed me to decipher Lacandón's sense of place and space in their ecosystem. It also illustrated how utilization of rain forest resources defines all Lacandónes by their own cultural terms and labor activities.

Moreover, genderscape allows for a fluid social and geo-cultural site to exist – a multistage where autobiographies of identity and rain forest resource-use practices were consistently being constituted, performed, contested, and renegotiated under material, economic, and political constrain. As a result, my work informs gender studies, ecological anthropology, tourism, and sustainable natural resource-use management and planning by identifying the connections between gender work inequality and economic work opportunities.

The Lacandón have been described by governmental agencies as Guardias de la Selva (Guardians of the Rain Forest), a term specifically used to identify and authenticate an indigenous community. This identity expression used by the federal government during the last twenty years for the purpose of promoting tourism and geopolitical stability in the Chiapas region is what I termed the “commodification of Lacandón indigenous authenticity.”

The Lacandón live purposeful lives everyday with family and community members, but also co-exist in a brilliantly staged interactive museum-like setting for the tourists (Anderson 1983) to see and for the benefit of the tourism economy. The rain forest became an ideal “tourist setting” (MacCannell 1999:100) for domestic and international sightseers. Tourists visited the Maya architectural splendors of the Bonampak Ruins, while engaging with local indigenous residents whom they assumed were the direct ancestors of the Classic Maya.

Pierre Van den Berghe referred to the Maya marketing of ethnic tourism in Chiapas, which accounted for “ten percent of the domestic and internal travel in the late 1980s” (Van den Berghe 1995:568). Van den Berghe spoke in particular about the role of the indigenous

communities within the tourist background. The Lacandón as a whole were always ready to adjust to any federal economic program and planning, which assured gainful employment for themselves, families and community. Some indigenous community members gained financial benefits through tourism by becoming tourees.

“Tourees are the subjects of the ethnic tourist’s quest. They are the natives whose cultural otherness makes them attractive to the tourist. They are quite literally the spectacle and the principal attractant in ethnic tourism. Whether reluctantly or willingly, tourees are “on show,” and consciously or unconsciously modify their behavior, dress, artifacts, and style of life in response to interaction with tourists. Often this exogenous cultural change is a conscious response to perceived tourist demand, and to new economic opportunities. But, even where the main touree response is aversive and evasive, touree behavior is inevitably modified. Tourist presence changes the local situation” (Van den Berghe 1992:236).

A second issue in my research was the federal government’s role and purpose in creating rain forest policies. I employed Dr. Janaki Alvalpati’s definition of forest policy as “A general agreed to purposeful course of action that has important consequences for a large number of people and for a significant number and magnitude of resources” (Alvalpati 2003: graduate course lecture at the University of Florida, December, 2003) in forest management. México’s federal rain forest policies secured land hegemony without taking into consideration access-ethics (Kuznets 1955) or using a distributive justice model (Rawls 1971; Nozick 1974), and instead left the Lacandónes and other non-land tenured communities to struggle for survival within the market constraint of a global economy.

In the end, the Lacandónes of Lacanjá have been perceived by external governmental agencies as being auto-conservationists. However, my research revealed that within the limitations of the work opportunities made available to them, both women and men will either conserve or exploit their natural rain forest resources based on the benefits they receive, and without regard to externally imposed forest management policy or governance laws.

## CHAPTER 1

### INTRODUCTION

#### **Central Question**

Utility of the commons – the shared natural resources is pivotal to rain forest sustainability and management. How and why do the Lacandónes of Lacanjá utilize finite rain forest resources in the Lacandón rain forest? These questions are essential to my research and correlates to a larger question of why do individuals conserve or exploit their common pool of rain forest resources. Often scholars examine tragedy of the commons (Harding 1977) scenarios among communities holding no legal land tenure or resource-use rights.

Lacandónes have legal tenure as well as resource-use rights. Interaction in the rain forest depends on these entitlements. Land and resource-use rights were granted to the Lacandónes in 1971. Federal agencies oversaw land holdings in the Monte Azules Biosphere Reserve (figure 1-3) and resource–uses. My research documented why were the Lacandón community first granted exclusive rights to land and resource-use, and how this is pertinent in understanding how forestry policies in México shaped rain forest management planning in the State of Chiapas.

Since 1991, the Lacandón perceptions of the rain forest landscape have changed as gender roles evolved in Lacanjá. Lacandón women and men viewed trees, rivers, paths, and El Monte (hillsides) similarly in legend and as traditional ecological knowledge (TEK), but used natural rain forest resources differently. Traditional ecological knowledge (TEK) is defined as the local Lacandón knowledge of geography, animals, and plants, waterways, and any underground or aerial traits in the natural environment. For the Lacandónes, the trees and plants gathered cultural and landscape meaning and definition between families. Trees ridges act as topographic fences around the Lacandón lands.

Ultimately, comprehending Lacandón gender differentiation assists in rain forest resource-use planning and management. Gender roles and work activities informs the natural resource-use planner and manager as to whom does what, when, where, and how in a rain forest. Landscape change; thus, reflects a need for striking a balance between traditional household reproduction and production economies and the growing tourism economy.

### **Relevance**

Since the 1970s, the Lacandón rain forest has undergone dramatic deforestation. The Lacandón rain forest is the largest neotropic humid rain forest in North America located on the margins of the Monte Azules Biosphere Reserve in the State of Chiapas, México. This area is among the most diversified tracts of rain forest remaining in the country (Vásquez and Ramos, 1992). The rain forest is “composed of mature forest of tall and medium evergreen and semi-evergreen rain forests, secondary forest, and secondary shrubs (De Jong, et al. 2000:506). Regrettably, since 2006, México lost 234,000 hectáreas of forest cover annually (World Bank 2008:17), which have dire environmental implications affecting social and economic stability in the state of Chiapas.

Nearly “30 percent of the nation’s territory (30.5 million hectáreas of temperate forest and 26.5 million hectáreas of tropical forest) that contributed 1.4 percent toward the gross domestic product and generated over 100,000 permanent jobs that paid three to four times higher in salaries than agricultural work activities” (World Bank 2008:16,17). Furthermore, “38 percent of México’s total forested area has commercial potential, 21.6 million hectáreas, while only 15 percent, 8.5 million hectáreas of the area is administered under approved sustainable rain forest management policies” (World Bank 2008:17).

Managerial forestry planning dilemmas varied from federal policy to rural communities. Economies of scale changed to accommodate Mexican President José Ramón López Portillo’s

(1976-1982) attack on falling oil prices in 1981, capital flight out of México, along with the nationalization of the banking system in September 1982, and the notorious February 1982 pesos devaluation (Valtonen 2000:133).

Moreover, President Miguel de la Madrid Hurtado (1982-1988) made matters worst with his economic liberalization via his attempt in transforming México from a “closed corporate system to an exceeding open one with free trade and further reducing trade tariffs by signing the General Agreement on Tariffs and Trade (GATT) agreement in December 1987. Adding, that in the same year of 1987, President de la Madrid Hurtado agreed to temporary price and wage freezes” (Valtonen 2000:134,135). This move proved to be quite costly to a nation of people trying to survive in urban cities throughout México, but allowed the federal government to “ensure that debt repayments were made on schedule” (Rahul 2007:186).

By 1982 to 1990 “the national minimum wage in real terms dropped by fifty-four percent, and the average real earnings in manufacturing sector by thirty percent at the time when manufactured commodities became the dominate national exports surpassing oil exports” (Valtonen 2000:136). Environmental conservation and sustainable rain forest management took back seat to neoliberal economic reform.

People started seeking alternative work activities everywhere they could find it, and were willing to migrate to other regions of the country or immigrate abroad to the United States, in order to find better financial prosperity. Nuk Yuk, a Lacandón, in 2004 spoke about her son seeking better work opportunities in San Francisco, California. Nuk’s son lived with his brother-in-law’s family while his wife, a non-Lacandón woman, stayed living with Nuk in Lacanjá. For some landless and unemployed individuals without family connections in other urban cities it meant relocating to unfamiliar rain forest lands.

Regrettably, President Carlos Salinas de Gortari's (1988-1994) neoliberal economic reform nicknamed "Salinastroika" did little to advance forestry policies or indigenous concerns. He viewed, "the private sector as the axis of economic dynamics. However, the structure of an open economy tended to favor translational corporations and not small and medium companies operating in México's domestic markets" (Valtonen 2000:139,140). Instead México for the first time since 1917 underwent an extraordinary social-economic change – the end of land reform. Federal land distribution was not longer a governmental responsibility nor was land ownership a legal entitlement for Mexican citizens with the passage of the Reformation of Article 27 of the Mexican Constitution on January 1992. In fact, the Reformation of Article 27 resulted in the "privatization and reorganization of the ejido sector" (Valtonen 2000:139,155).

Neoliberal socio-economic demands from the federal government created conflict between the Lacandones and other indigenous groups in the Lacandón rain forest. Since unlike agricultural communal lands, that were easily divided and privatized by each ejidatario (communal land holder), "communal forest lands cannot be divided and confusion existed over land transfers and forest lands sales to non-ejidatarios that required a two-third majority approval by the ejido assembly" (Valtonen 2000:139,155).

Several vital problems existed in the overall sustainability in rain forest planning and management in Lacanjá; that is, women's ecological knowledge, and resource-use were often overlooked, or poorly simplified by federal and non-profit agencies. Lacandón women were seldom being hired for the better-paid work associated with tourism. And women's participation and inclusion in education training and planning in regards to rain forest management was minimal. My research unfolds one small unit of analyses in a complex ecological-economic cycle. Individuals must choose to either conserve or exploit their natural rain forest environment.

For the Lacandón women their choices mirrored the access they had to the work opportunities offered to them within the domestic and global markets.

### **My Approach**

My study combines a bricolage of quantitative and qualitative data collected in México during separate fieldwork periods in 1991, 1994, 1995, 2003, and 2004. In 2004, I gathered qualitative and quantitative data from 56 households out of 90 total Lacanjá households. I examined the Lacandónes' perceptions of their work (Table A-2) in Lacanjá. Then each Lacandón completed a self-report assessment of their daily (Figure A-10) and seasonal work activities (Figure A-12), time devoted to each activity (Figure A-21, A-22, and A-23), and perceptions of work activities based on gender designation (Figure A-11). Participant-observations allowed me to achieve a better sense of the issues confronting the residents. Division of paid work activities and non-paid tasks among women and men resulted in a change in household production and reproduction economies.

My research went beyond a socio-economic aspect of gender and incorporated the impact of spatial settlement arrangements and boundaries on individuals' daily work tasks. My data demonstrates that men—as a result of the monetary benefits—allocated their time (Table A-1) mostly to tourism, external development programs, and the palma camedor (xate) extraction than from household productions work. This shift left women with twice as much work. Women tended to their milpas (agricultural plots), childbearing and care, harvesting rain forest resources, craft production, and feeding tourists. Labor tasks that were once complementary and shared between women and men became women centered. My 2004 household census shows that women and men still perceive subsistence household production as primarily male work (Figure A-7), but that women were in fact devoting more labor time (Table A-1) than men to both household production and reproduction.

I also analyzed the responsibilities assigned to each gendered work task by using a genderscape model. Sumi Krishna first coined the term in 1994, “Landscape is a product defined by a gender lens.” More specifically, genderscape according to Krishna “helps us identify gender roles, responsibilities and resource ownership. It would render the visible the subterranean currents that govern gender and caste roles and by doing shape the biophysical landscape” (Krishna 2004). The Lacandón’s resources, governance, and use of the commons in Lacanjá have slowly changed due to economic hardships and lacking work opportunities.

Genderscape, like feminism, opposed any logic of domination (Warren 1997) and focuses on the experience of women and men. Genderscape takes into account “system of concepts, propositions and analysis that describe and explain women’s situations, experiences and provide when possible recommendations to remedy discrimination against women” (Code 2000).

Moreover, genderscape contributes to feminist theory “struggle to free all women; women of color, working-class women, poor women, disable women, lesbians, old women, as well as white, economically privileged, and heterosexual women”(Warren 1997) by examining the complementary ways that gender and landscape engender each another, and the impact it has on basic relationships between women and men.

Finally, genderscape can be viewed as a complementary conceptual model that helps identify processes regulating human behavior and people’s interaction with nature. I posit that landscape is a political and socio-economic created artifact; whereas, genderscape is a cultural reflection of landscape modification and change that occurs through natural resource-use and management. Space and nature engenders place identity formation, affirmation, and reconstitution through cultural norms, community behavior, and daily work tasks.

Daily Lacandón work activities and interaction with nature in El Monte (hillsides) assist in eliciting rain forest resources-use practices information and identity constitution taking place in Lacanjá. In particular, women's access and use of rain forest timber and non-timber products allowed women to have financial security and independence. Typically, women generated their own source of income for themselves and families by making crafts such as woodcrafts, woven bags, bracelets, necklaces, pottery, and cooking for visiting tourists.

Women considered their knowledge of trees, palms, shrubs, weeds, and craft making activities as an indicator of being Lacandón. In traditional pre-existing household economies (Figure 1-4), prior to the 1940s, women and men produced crafts for non-commercial use. Désiré Charney in 1882 and Alfred Tozzer in 1907 took photographs of Lacandón women wearing traditional beaded necklaces (Figure 1-7, 1-8 and 1-9). Beaded crafts necklaces were predominantly made for self-use and self-adornment in Lacanjá according to Lacandón women interviewed in 2004. Self-use and limited sale of crafts to mass tourism allowed for the sustainable use of natural resources. And traditional household economies were never fully dependent on harvesting large amounts of natural forest resources.

However, landscape change occurred at a rapid pace in the 1980s with the advent of federal neoliberal economic policies and the rise of the tourism sector, which in essence, commodified indigenous authenticity in México. Within the Lacandón present household economies (Figure 1-5), one can see how women, children, and men increased paid tourism work activities in the 1980s, to their various other work obligations stemming from traditional production and reproduction responsibilities.

Lacandón men and women managed to sell their crafts and tobacco by traveling to Palenque and Na Bolom in San Cristóbal de las Casas. Rural travel historically had been

accessible to Lacandón men, but less so for women, making crafts selling difficult for women. Even in selected cases, craft production only required a limited use of feathers, tobacco, and timber for the bows, arrows, and woodcarved figures. However, forest resource-use steadily changed as work activities evolved to accommodate paid labor, and political and demographic issues started to emerge in the State of Chiapas.

### **Sites of Change – Green Mansions**

México: Green Mansions referred to an article published by Time Magazine in May 22, 1944. The article made reference to the Lacandón rain forest and its inhabitants:

“Out of México came the story of an ancient, charming and all but extinct people—the Lacandon Indians in the remote southern state of Chiapas, who trace their beginnings to the ancient Mayans. Husky, gun-toting Gertrude Duby, a Swiss explorer, visited the Lacandones in Chiapas, returned to México City last week with many a tale about them. The Little People. Lacandones rarely grow more than five feet tall. No more than 200 of them survive. Their thatched huts are hidden deep in the forest, approached by secret paths. They are hunters and farmers. But they work only when and as they please. When they want to do nothing, they do nothing...The Peaceful People.”

The reality at my research field site was far removed from this portrayal of a town inhabited by little and peaceful people. However, to understand the ecological adaptation and changes occurring in Lacanjá, one needs to understand their historical social-economic origins in the State of Chiapas. Lacanjá is and remains a place where women, children, and men confront socio-economic challenges and limited infrastructure, work opportunities, and development resources (figure A-13).

The Lacandón rain forest is the Lacandónes' site of landscape change and community resilience. Community resilience comes from the Lacandónes' capacity and capability to consider and learn all new types of work, and adjust their craft products to meet the taste of domestic and foreign tourists.

Lacanjá is a small Maya town located in the Ocosingo municipality. The Lacandón rain forest is northwest of the Maya classic ruins of Bonampak and southwest of Yaxchilán between the Usumacinta and Lacanjá Rivers in Chiapas, México. Lacanjá lies at an altitude of three hundred and twenty-five meters above sea level.

Rain forest climate is humid warm with abundant summer rainfall (García and Lugo, 1992). Average monthly temperatures “range from 75F to 78F with warmest temperatures 82F in May and coolest temperatures of 64F in January. Mean annual rainfall is 2500–3500mm with roughly eighty percent of the rains falling between June and November. Originally the area was covered by over a million hectáreas of rain forest, of which about half remain today” (Naranjo and Bodmer 2007).

Initially Spanish colonists saw this province “as being too poor and small to provide an incentive for expeditions. The rain forest had impenetrable vegetation, flooding rivers, marshes, outcroppings of rocks, and malaria made it difficult or impossible for horses and humans to travel with ease” (Bruce and Perrera 1982:10). Lacandónes called themselves *Hach-Winick* (real people) that translates into Spanish as *los verdaderos hombres* (real people). Likewise, they were often referred to as *Chakuch Nok* (long tunics) reminiscent of the long white tunics woven from locally grown cotton and worn by men and women. Consequently, rain forest density acted as a secured green fortress of protection for the Lacandónes and other indigenous communities against invading Spanish colonists and missionaries.

In 1506 the Lacandón rain forest was recognized as being the Lacandón Country (Zemurray-Stone 1986). The Royal Council of Indians formed in 1524 and administered new Colonies for the King of Spain. Antonio Rodriguez de Leon Pinelo, Court Reporter to the King

of Spain first mentioned the Lacandón in his 1639 report to the Royal Council of Indians (Zemurray-Stone 1986).

Etymology of lacamtun (lacam: large; and tun: rock) is Pena Grande or Penol that was later translated into the word Lacandón by the Spaniards in 1559. Spaniards began colonization of lacamtun (large rock), but spoke about a principal island settlement on Lake Lacandón, later renamed Lake Miramar in 1928. Lacandón became a term used to define an entire area and language of people located there (de Vos 1988; Bruce and Perera 1982; Zemurray-Stone 1986).

Subsequently in 1639 Lacandón lands were revered as “fertile for fruit, corn, cacao, achioite, honey, wax, salt, and other commodities of worth and value. Everything seemed “beautiful with wilderness, plains, valleys, and gentle mountains; in fine all agreeable for human habitation” (Zemurray-Stone 1986:16).

Conversely, Antonio Rodriguez de Leon Pinelo wrote, “Lacandones were most barbarous and wildest, whose pacification ought most to be attempted” (Zemurray-Stone 1986:2). Furthermore, a Spanish manuscript letter referred to a “two-fold division of the Lacandones: the eastern Lacandones living on the Rio de la Pasión, and east and south of the Usamacinta, a harmless agricultural people who spoke Maya with western Lacandones who spoke Chol or Puten” (Tozzer 1984 [1912]:2). Franciscan Friars Antonio Marjil de Jesus, Lazaro de Mazariegos, and Blas Guillen had signed the manuscript letter in August 26, 1695 (Tozzer 1984 [1912]:2).

Significant diminution of Lacandón rain forest land occurred some throughout the ages. By 1987, only 1 million hectáreas of rain forest existed in the southeastern part of Chiapas, México. Compare this to nearly 15 million hectáreas, (7.5 percent of the national territory) first accounted for in 1972. According to a 1985 Secretaría de Agricultura y Recursos Hidráulicos (SARH)

report, 24 percent of the Lacandón rain forest has been destroyed (Arizpe, Paz, and Velazquez 1993:70). Approximately 100,000 hectáreas of the rain forest was destroyed each year in México (CIES-ECOSUR 1987).

The physical terrain of the Lacandón rain forest has been classified humid tropical with classifications of over one hundred types of trees growing year round. Trees form part of the secondary rain forest, mediano (medium) trees, measuring between 35-40 meters, as old as 80 years, and bajo (low) trees, measuring 5-6 meters. There is also a normal reduction in tree growth during the months of February, March, and April. During these three months Lacandónes traditionally worked in their milpas (agriculture plots) since weather was moderate and dry.

Reliance on rain forest resources and land continues to be imperative for Lacandón subsistence. Women utilize natural rain forest resources without going beyond a viable carrying capacity. By carrying capacity, I mean, “the maximum level of use in an area can sustain as determined by natural factors such as food, shelter, and water” (Newsome et al. 2002:153). Depleting natural resources meant eliminating Lacandón financial security. Favorable soil types, seed banks (Diemont et al 2006:23) and short walking distance to their milpas (agriculture plots) made farming in secondary rain forest preferable. Others scientists have given credit to the fact that the rain forest's geological formations, sedimentary rocks formed during the Cretaceous Period, favored surface flows and, as a result, produced soil that was less prone to erosion (Boremanse 1978:2).

Environmental scientists believed that the Lacandón rain forest, an autotrophic system, provided adjoining population settlements, a unique ecosystem with “thirty-four percent of México's wildlife species, including armadillos, cougars, crocodiles, deer, gophers, frogs, howler monkeys, iguanas, porcupines, rabbits, spider monkeys, snakes, and turtles. Bird species were

sixty-six percent and included blackbirds, crows, cuckoos, curassows, doves, ducks, eagles, parrots, pheasants, owls, and toucans. There are ten different types of fish exist in local lakes and rivers making up twenty percent of the country's total fish species" (Baer and Merrifield 1971:242). Unfortunately, deforestation has already contributed to the extinction of numerous species including the guacamaya, jaguar, and white turtle, to name a few (Dichtl 1988:43).

There are also vast numbers of indigenous flora in México. For example, out of the 300,000 known plant species in the world, 30,000 plant species are found in México (González-López, Alacór-Lavín and Freyermuth-Enciso 1991). Likewise, according to data figures from the Instituto de História Natural, 40 percent of México's plant species exist in Chiapas. Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT) reported in 2003, 160 species of plants and between 500 thousand to 2 million trees. Among plants found were amate, bayalte, blanca, caoba, capoma, ceiba, chacaj, chechen, chicozapote, chocho, coralillo, guatapil, jolmeshte, mamey, malta, plantanillo, ramón, saepute, tepescohuite, and palma camedor (xate).

Traditional milpas (agriculture plots) provided a plentiful food base of fruits, vegetables and offered shelter for small animals that Lacandónes hunted and ate. Medicinal plants traditionally played an essential function within indigenous medical practices. For example, tepescohuite is known for its ability to heal burns and is used by the Red Cross in México City for treating secondary and third degree burns that otherwise would require skin grafts. This is only one of countless plants within a rain forest pharmacy that were harvested and sold by colonists and Lacandón to buyers.

Another example of multi-use of rain forest resources is the ramón (*brosimum alicastrum*) tree, which measured thirty meters tall and grew flowers from September through October.

Lacandónes used sap from tree trunks to treat asthma. Furniture and eating utensils were made with the remaining wood. Seeds were used for mixing with medicines and coffee. And when seeds were boiled or toasted, people consumed them plain or mixed them with corn in order to make tortillas.

However, with the advent of tourism in the Lacandón region, rain forest resource-use dramatically changed for women and men. As Nuk Yuk, one of the Lacandón women, remarked, “Men gain power through tourism and women are left in charge of the kitchens.” Women were relegated by service tourism to work in the kitchen - private sphere of gender work. Men held onto their autonomy in the public sphere, by becoming tour guides in a booming service tourism economy. In many cases, tourist guides “were often seen as cultural emissaries providing a link between the tourists and local community” (Cukier 1998:63). However, although men were often the guides in Lacanjá, women did find a unique niche in tourism - Lacandón women held dominion in the craft tourism economy.



Figure 1-1. La Selva Lacandón in the State of Chiapas, México (Courtesy of Robbie Reed)



Figure 1-2. Map of Lacanjal Chansayab, Chiapas, México (Courtesy of Robbie Reed)

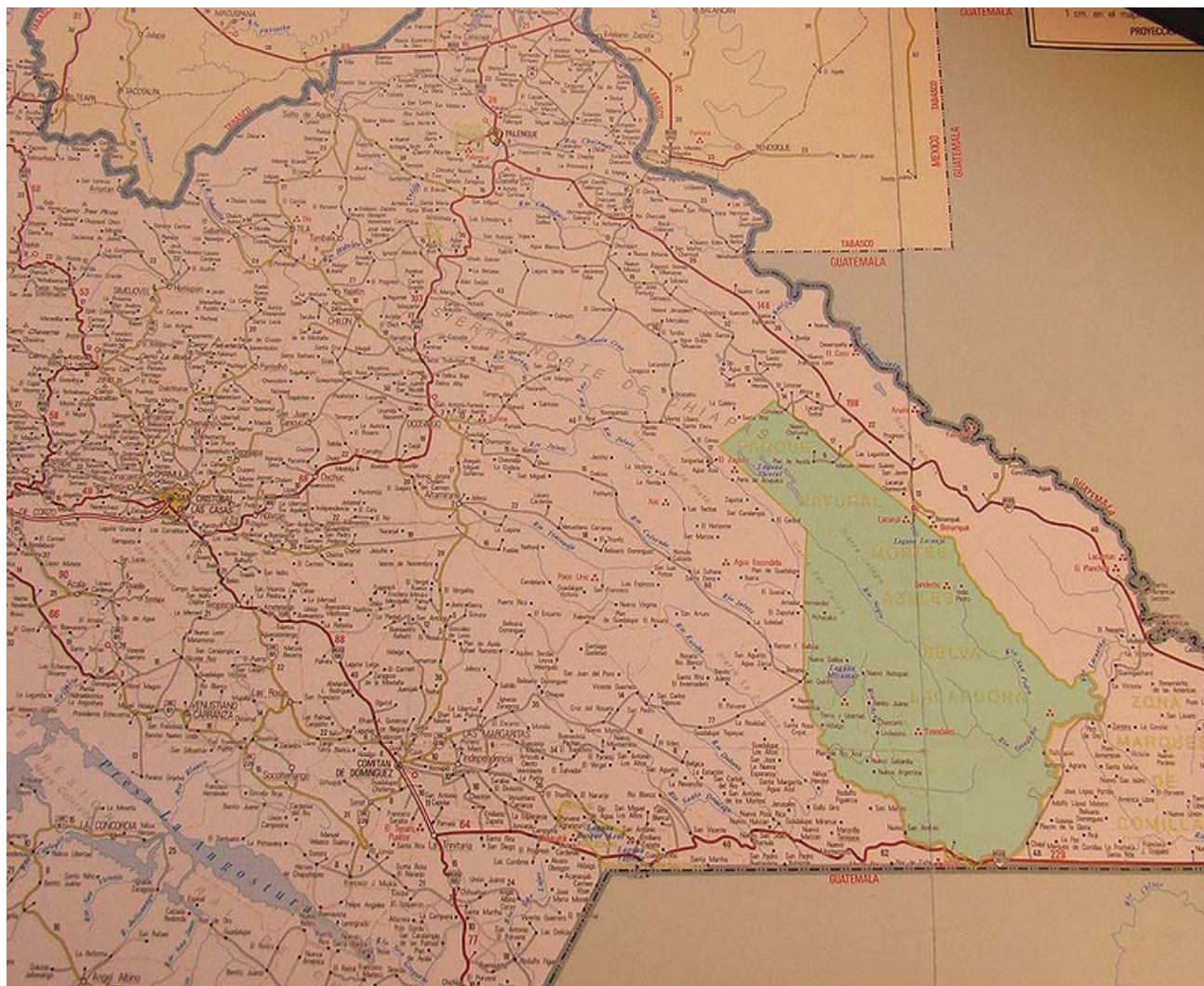


Figure 1-3. Map of Monte Azules Biosphere Reserve - Lacandón in the State of Chiapas, México (highlighted green area)

### Pre-existing system

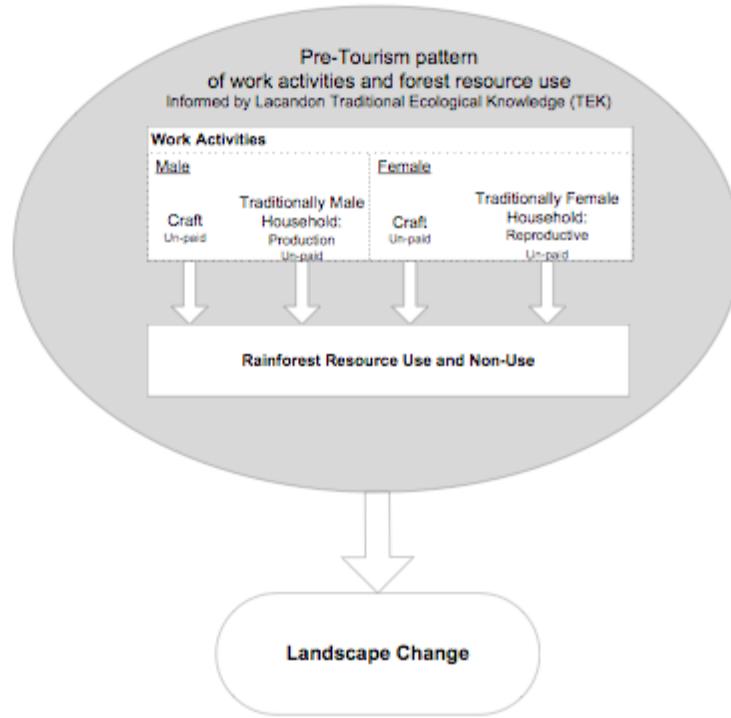


Figure 1-4. Pre-existing Lacandón subsistence agriculture (milpa), 1991

Present-day

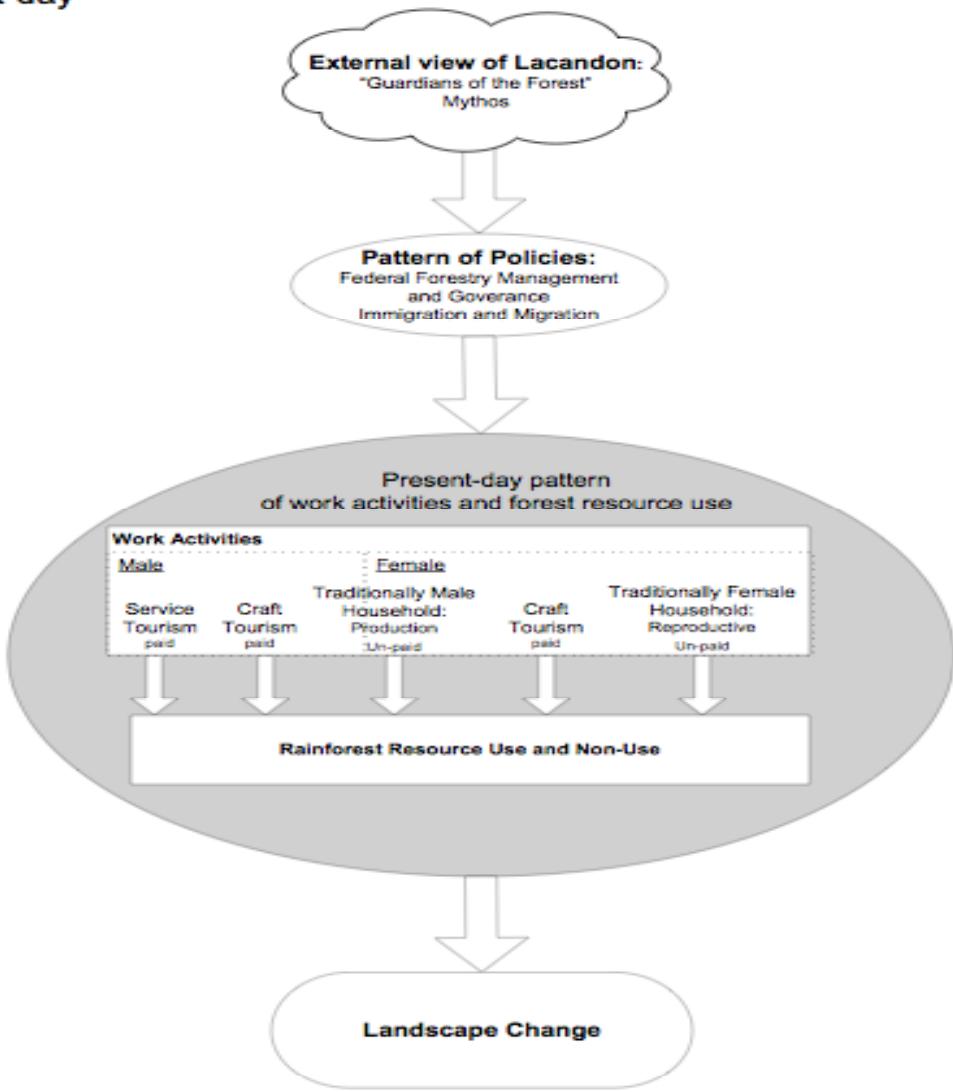


Figure 1-5. Present Lacandón subsistence agriculture (milpa), 2004

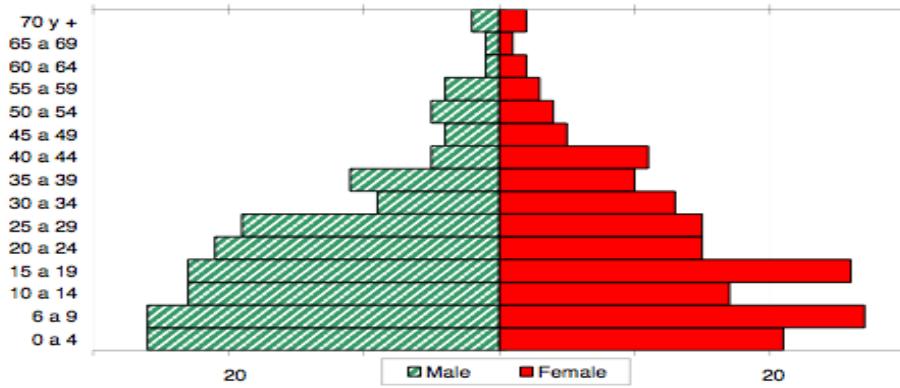


Figure 1-6. Population and Age Cohorts in Lacanjal Chansayab, Chiapas, México, 2003



Figure 1-7. Lacandones, 1882 by Desire Charnay (Photo courtesy of © Dr. Sebastian Roeling 2004-2008 at [www.mayaweb.ni](http://www.mayaweb.ni))



Figure 1-8. Lacandón mother and male child, 1903-1904 by Alfred Tozzer (Photo courtesy of © Dr. Sebastian Roeling 2004-2008 at [www.mayaweb.ni](http://www.mayaweb.ni))



Figure 1-9. Lacandón girl and child, 1903-1904 by Alfred Tozzer (Photo courtesy of © Dr. Sebastian Roeling 2004-2008 at [www.mayaweb.ni](http://www.mayaweb.ni))

## CHAPTER 2

### METHODS

#### **Methods as a Process**

Ricky Maynard, an ethno-photographer stated at a panel discussion at the Museum of Contemporary Art in Sydney, Australia in June 2009, “How being part of a community was an accomplishment apart from studying a set of behavior among people.” Listening attentively to Maynard in Sydney, I reconfirmed my situated position that I could never be Lacandón; instead my identity was and is fixed between two countries in México and the United States. Except I understood my role as a woman, and as a person living out a performance (Schechner 1985, 2002) of graduate study work activities versus being a single parent gainfully employed in New York City.

Cultural expectations are always different for me and many challenges exist in both geographical realms. At best, I was an “outsider-within” (Collins 1986, Harding 1991, Krishna 2004). Within Lacanjá I was a researcher privileged by Lacandónes to live and experience life in their town. I could never truly be a member of the community. I was not married to a Lacandón man nor possessed cultural attributes defining me as a Lacandón woman. For Lacandón women, their engagement with their rain forest locale informed their gender roles, along with the federal governments’ external expectations of them being Guardias de la Selva Lacandóna (Guardians of the Lacandón Rain Forest). I too, was defined in the ethnographic process by multiple sets of perceived gender roles in two countries, but was free from several cultural restrictions in Lacanjá.

Unlike male researchers in the field, my ability to have discussions and spend time with women and their children without male family members around gave me a unique opportunity to hear their personal narratives without censorship. Women shared their life’s narratives and in

doing so, communicated their Maya history through talk (Burns 1988:99). Their narratives became liberated in a public space. Participant-observation methods also meant opening a door into my personal life. Lacandónes were curious about my life and my reasons for coming to Lacanjá? Porqui aquí [Why here?] Was a common question that I faced each visit since 1991. From the onset Obregon Kin, a Lacandón elder asked me if, “I had permiso (permission) to be in Lacanjá?” His son Ricardo Kin jumped in and said “es Méxicana” [she is Mexican]. His father responded, “ah, Méxicana esta bien” [oh, Mexican that is fine]. Fine and acceptance were two different cultural concepts that would take years to unveil. Families in Lacanjá kept me at a distance. I was never invited to meals or offered anything to eat or drink for free. Social distance and privacy were undercurrents that I managed to swim through in Lacanjá.

I also quickly realized the extent to which Lacandónes understood their role in anthropological discourse. Historically, since the 20<sup>th</sup> century, the State of Chiapas has been an epicenter for anthropological research. Since the Mexican Revolution of 1910, anthropological research contributed toward understanding socio-economic disparities found in stratified localities populated by indigenous communities – *regiones de refugio* (refuge areas) (Aguirre Beltrán 1979). Several universities in the United States established field schools in Chiapas, including the Harvard Chiapas Project 1957-2000 under the tutelages of Evon Z. Vogt, University of Chicago under Norman A. McQuown, Stanford University under A. Kimball Romney, Cornell University under Allan Holberg, and University of Illinois under Joseph B. Casagrande.

All universities worked in cooperation and collaboration with Instituto Nacional Indigenista (INI) under Alfonso Caso, Director of INI, Manuel Gamio, and Director of the Interamerican Indian Institute, Gonzalo Aguirre Beltrán, Deputy Director of INI, and Alfonso

Villa Rojas, Director of INI Center for the Tzotzil-Tzeltal Zone. Research focused around each researcher's interest and as Vogt wrote, "We dropped the effort to understand the influence of government programs on the Indian community, and moved to a study of a number of basic domains of culture" (Vogt 1994:142).

Simply put, I was one more face among a sea of graduate students in Chiapas. Dr. Jan de Vos an expert on Chiapas history asked me humorously in 1991, "Como de gusta Chiapas, el Club-Med de los antropologos" [How do you like Chiapas, the Club-Med of the anthropologists]? His comment was one facet of the complexities that Lacandones faced every day. How exactly does one act or speak when your family life story has been shared with people you do not know? To what extent do you reveal yourself to a stranger knowing that what you say or do will be recorded and in a language that is not your own or understood?

As a community, Lacandones had reports written about them as early as 1639 by Antonio Rodriguez de Leon Pinelo, Court Reporter to the King of Spain (Zemurray-Stone 1986), now in 2010 exactly 371 years later, the Lacandones are still in the public eye. However, female voices were at best a patina in ethnographic research. Lacandon history was neatly tied to a governmental ideal of guardianship of the Lacandon rain forest, and structural socio-economic inequalities. Social realities in Lacanjal changed as "tourism was used as an economic justification for the preservation, of heritage, although tourism also serves to preserve artifacts and folk life in the gaze of the tourist" (Hall 1994:180). The Lacandon community was imagined vis-à-vis geographic and cultural landscapes promoted by government bureaucrats and appreciated by sightseers. Political agendas in the end navigated federal intervention and local governance.

My objective was to understand the social-economic ecological complexities in the Lacandón rain forest. Amplify the multiple voices among the Lacandónes through direct research and discourse. I sought to understand the similarities and differences in how women and men used rain forest resources, and the types of work activities they performed in and outside of the rain forest. I analyzed whether rain forest policy or lack of policy affected direct management and governance. Finally, I examined if land and resource-use had direct impact on rain forest landscape modification or change. My data supports the importance of genderscape in understanding how labor choices, opportunities, and responsibilities are not only gender driven, but also are part of the federal governments' means of promoting tourism in the region.

Even now, in 2010, I think about the Lacandónes asking me 19 years earlier why conduct research in Chiapas? My answer: To fully comprehend socio-economic drivers causing resource-use and deforestation in the Lacandón rain forest, and because I simply felt at home in Chiapas.

### **Accidental Tourist Researcher**

I confess that I thrive in population density. The bigger the city, the more attached I am to the urban metropolis. Feelings of security came from a city being economically, and geographically, and socially diversified. Hence, Lacanjá would keep me alert. Over-romanticizing the lowlands of Chiapas as a Henri Rousseau portrait or a bucolic setting was not an issue. My field site was not gateway to transcendence or innate nature remembrance.

My familiarity with Chiapas came from distant states in Jalisco and New York. My family's reaction to me conducting research in Chiapas was not surprising, "que te vas a Chiapas? Necesitas un pasaporte para ir allí" [What you are going to Chiapas? You need a passport to go there]! Remarkably Chiapas felt more like home than Guadalajara, Jalisco ever felt to me.

Ecological anthropology and gender questions grew in and out of the field. Questions pending in 1991 became more multifaceted and in many ways morphed from micro to macro issues. And like a construction worker building a new structure, different tools were required every step of the way. In my case, I required a bricolage of theoretical models combined with personal Lacandón narratives. Merging private intellectual models with intimate voices of the Lacandón is my accomplishment of being as close to as I ever will be in being part of the Lacandón community.

I first conducted research in Chiapas in the summer of 1991, under the direction of Dr. June Nash. As an anthropologist Dr. Nash had extensive research spanning several decades in the highlands of Chiapas, both as a graduate student at the University of Chicago and a faculty mentor at City College and the Graduate Center of the City University of New York (CUNY). I was a member of Nash's Research Experience for Undergraduate Program 1991, funded by the National Science Foundation. I quit my job as Associate Director of the National Council of Women of the United States (NCW-USA) in New York City to pursue my study in anthropology in Chiapas. And in the spirit of the second wave feminists who I worked for at NCW-USA, I was adamant about documenting the most unheard – the female voices.

In San Cristóbal de las Casas, I met a small group of street vendors selling their crafts in the main zocalo. Later I invited a few craft vendors to eat at a local eatery with their mothers' permission. When the waiter saw the young girls, he quickly asked them to leave, and I had to insist that they were my guests at his restaurant. The waiter was not happy but the girls' smiles made it all worthwhile. We left for the bathroom to wash our hands before eating, and while we looking at ourselves in the mirror, one girl swiftly remarked, "Te pareses como nosotros, eres

bonita” [You look like us, you are pretty. I answered, “Si me veo como ustedes” [Yes I look like you], and I smiled feeling ethnic camaraderie for the first time at age twenty-five.

Being born into a family of pallid complexions and blue and green eyes was always a point of distinction in my family in Guadalajara and San Miguel el Alto, Jalisco. Seldom did I look like my family, even though I am one of forty-three maternal cousins scattered throughout Mexico, United States, and Spain. Conducting research in Chiapas allowed me to peripherally feel that I was part of a larger community. I was ready to go into the Lacandón rain forest with fewer hesitations and with many inquiries.

Early on, I decided to focus on ecological issues in the Lacandón rain forest after my initial discussions with several people in the Centro de Investigaciones Ecologicas del Sureste (CIES-ECOSUR), and other anthropologists such as Dr. Ronald B. Nigh, Dr. George Collier, Dr. June Nash, and the Co-founder of Na Bolom Gertrude (Trudy) Duby-Blom. We discussed how deforestation was a prevalent problem in the Lacandón rain forest, and how additional research was sorely needed. They all mentioned how mostly male scientists and graduate students undertook ecological studies in the Lacandón rain forest. Determination became my guiding light in a research field where I was one of only a few women working in Lacandón rain forest.

Trudy Blom had advised me about conducting rain forest conservation research in 1991. She stated, “You can slow it down but you cannot change it. People have to eat so the government had to do something. Do what you can for today and forget about tomorrow!” I chose not to forget, and in fact that was the catalyst to my many years of travel and research into the Lacandón rain forest.

Traveling to Lacanjá from Palenque in 1991 took over six hours to drive by car. Both the state and federal governments concentrated on projects other than infrastructure development,

leading to hazardous road conditions. The drive seemed endless on that unpaved road to Lacanjá. There were numerous road potholes all along the way. Dirt clouds made it nearly impossible to see the road ahead. Naptali Ramirez-Marcial, a botanist from the Centro de Investigaciones Ecologicas del Sureste (CIES-ECOSUR), commented in 1991 that at “one time you could leave Palenque and within a short time be in secondary rain forest. Not anymore.” For miles one could only see countless tree trunks - a testimony that modernity had direct impact on rain forest landscape.

Lacanjá lacked grid electricity, indoor plumbing, telephone access, washing facilities, and indoor latrines. What it did not lack was social and community resilience. Lacanjá did not offer a glimpse at the past, but rather was a modern snapshot of an indigenous community struggling for economic subsistence and identity within the global economy. Research in Lacanjá during most of its ethnographic time, was dominated by male anthropologists. The notable exception was French anthropologist Dr. Marie Odile Marion Singer. I felt that it was time to hear Lacandón women speak. Solutions regarding ecological issues in the Lacandón rain forest must involve speaking, hearing, and working with both women and men as equal stakeholders in natural resource management and policy development.

In January 1995 I made the journey back to Lacanjá, but this time not in the company of agronomists or botanists from CIES-ECOSUR. I was alone. As a result of the Zapatista Uprising in Chiapas on January 1, 1994, investigators from CIES-ECOSUR had temporally halted all their research in and outside of Lacanjá. Traveling from San Cristóbal de las Casas to Palenque by bus involved being stopped four times at military checkpoints.

In Palenque, Dr. Miguel Picazo Maldonado, from the Instituto Medico Servicios Social (IMSS), warned me “not to take any local third class bus alone to San Javier.” San Javier was

two hours away from Lacanjá walking. Dr. Maldonado talked about “robberies taking place on board the bus route to Lacanjá, as many as four hold-ups per route.” Taking his advice I found an alternative method of transportation. I opted to buy a seat on a tourist bus heading to the Bonampak Ruins from Palenque.

From Palenque to Lacanjá, we were stopped once at a military checkpoint. Military soldiers asked for my identification papers and demanded to know my reasons for me being in the Lacandón rain forest during political unrest. I showed them my documents including my uncle Miguel Hermosillos’ information stating that he was my contact, an attorney and Director of the Sistema Penal de el Estado de Jalisco (Judicial System of the State of Jalisco). Suddenly I recalled my uncle warning me “once you are in la Selva Lacandóna there is very little I can do for you.” I was scared but not alone. I made it through the military post and looked forward to continuing my research.

Rain forest landscape had changed between 1991 and 1995. It took only three and half-hours and the formerly dirt road from Palenque to San Javier had been impeccably paved. More colonies existed than in 1991, resulting in further deforestation in the area. Colonists' homes replaced fields of tree trunks last seen. Three things concerned me as I approached Lacanjá in 1995. First, could I obtain data verifying that the Lacandón oral traditions provided narratives for land and resource-use management? Second, I wondered about the effects of grid electricity, installed in Lacanjá in 1993? Third, what if I were not welcomed in Lacanjá due to suspicions about my relationship with the state or federal government?

The Mexican Consulate always questioned me in New York City about my research in Chiapas after each field period—especially when I visited in February 1994, one month after the Zapatista Uprising. I had assured the officials at the Mexican Consulate that my research was

neither instigating nor documenting any political unrest. If I were not welcome, I would have to leave Lacanjá immediately even if it meant walking for two hours back to San Javier before nightfall in order to avoid any close encounters with large nocturnal animals or unfamiliar men.

My question about the effects of electricity was answered immediately in 1995. Upon reaching Lacanjá I saw an advertisement saying "Tome Una Fria - Coca Cola" [Drink One Cold - Coca Cola]. Refrigeration through electrification had become a reality. And by 2009 several Lacandón tourist camps depended on electricity to power their paying guests' Internet use, which they charged \$1.50 US per hour.

### **Household Census**

In 2003 and 2004, I conducted additional qualitative and quantitative research in Lacanjá. Ethnographic data was collected from a census of 56 Lacandón households out of the 90 family households existing total in Lacanjá. The census included 30 women and 26 men (age 18 years and older) out of the 352 people (figure A-14) in the overall local population in 2003, and 2004. The census date revealed that rain forest resource-use, work activities, gender perspectives, and landscape awareness was tied to evolving community identity perceptions. Some scholars have argued that, “identity is also formed through relations of power” (Rose, 1993:6). In the case, of the Lacandónes both women and men had to find their way through governmentally imposed power structures.

My previously fieldwork and textual research was conducted in 1991, 1993, 1994, and 1995. I arranged living with different families in order to better calibrate my social position within Lacanjá and gain better insight of the Lacandón social networks already in existence.

Using genderscape helped me identify gender roles, work activities and perceptions of gendered work, responsibilities and resource ownership (figure A-11). Participant-observations were central in gathering life narratives and personal environmental knowledge of the

Lacandónes. Free listing (figure A-10) and pile-sorting (Bernard 2000:265, 271) succinctly documented the meaning of words, and emic (inside) value of terms, and categorical group similarities. Livelihood matrix ranking, time allocation, seasonal labor calendar questionnaires along gender lines illustrated the internal divisions of labor between men and women.

Each open-ended questionnaire was a result of Lacandónes recommending other residents in their social networks in Lacanjá - snowball sampling (Bernard 2000:179). Community visioning was a strategic self-assessment tool that allowed the Lacandón to envision their community's needs and goals in the future. Finally, in-depth face-to-face interviews with local government officials and health professionals gave an overall etic (outside) viewpoint of the environmental and health dilemmas facing the Lacandónes.

And although I had planned to utilize participatory mapping (Stocks 2003) during my fieldwork, where participants drew a map of their own town, I quickly discovered that my instructions for drawing a map was in essence a blueprint to my own perceptions of their environment, so I abandoned cognitive mapping.

### **Participant-observation**

Participant-observation superimposed Lacandóns' thoughts about their local traditional ecological knowledge (LTEK), work activities, and social interaction versus what is actually being done in Lacanjá. I observed adult work tasks and elicited the Lacandón's definitions for "work" and "identity" terms through unstructured and semi-structured interviews with household members as well as with non-Lacandón women working and living in Lacanjá. This technique of participant-observation allowed me certain degrees of participation such as cooking, playing basketball, washing clothes and dishes, conversing, observing religious ceremonies, formal primary school teaching methods, and typical work conditions, learning how to make woven bags and woodcrafts and seeing Lacandónes' interactions with each other.

### **Questionnaires**

Questionnaires used in the study (Appendix B) were developed to ascertain basic biographical information as well as determine the characteristics of the family unit whether monogamous or polygamous, and size, migration patterns, bride labor service, work activities, level of formal education, and fertilizers or pesticides or tools used while farming on their milpas (agriculture plots), and land resource-use along gender lines.

My interviews with household members as well as non-Lacandón people working and living in Lacanjá were supplemented by unstructured day-to-day conversation interactions. Lacandónes explained to me the process by which they acquire work and ecological knowledge in town and surrounding rain forest areas. I was also able to detail social relationships between individuals along gender lines and the identity similarities and difference between the families who lived in Lacanjá compared to those who migrated from Najá or San Javier.

### **Seasonal Work Activities**

Seasonal labor activities (figure A-14) carried out by adult, 18 years and older, household members were documented during my 2003 and 2004 fieldwork terms. Also included were non-Lacandón women living in Lacanjá (figure A-6). Matrix ranking was used to determine what constitutes work activities, and preference of income and non-income activities in Lacanjá. Each adult Lacandón was asked to create a free list of terms relating to work.

By the end of summer I was able to ask participants to separate work and identity terms into appropriate groups. Using pile-sorting, participants grouped their terms into meaningful associations.

### **Daily Work Tasks**

Daily work performance by both women and men and land resource-use link the Lacandón to their past as well as their future. Additionally, non-Lacandón women's daily work

performance (figure A-3) was also examined. To date three types of spatial (Lefebvre 1991 [1974]) units influenced their neotropic rain forest landscape. First, representation of space created through state and federal rain forest policies. In other words, why did the Lacandónes receive land and resource-use entitlements from the federal government over other indigenous communities? Second, representational space refers to the Lacandón everyday life experiences, and actual work activities completed by women and men. Third, spatial practices refer to the Lacandón worldview, in terms of who they perceive is completing specific work tasks. All three spatial units are products of federal and state rain forest policies and the Lacandóns' subjective sense of space and place in the landscape. Landscape being as Tim Ingold described as "a particular cognitive or symbolic ordering of space" (Ingold 1993).

### **Professional Interviews**

Interviews were first conducted in 1991 with Martha Orantes, Coordinator, Educacion de la Selva, Tuxtla Gutiérrez; María de Lourdes Márquez Gómez, Instituto de História Natural, Tuxtla Gutiérrez; biologist, Javier Jimínez González, Director, Sección de Preservación Ecológica de Areas Naturales, Instituto de História Natural, Tuxtla Gutiérrez; and agronomist, Dr. Manuel Parra Vázquez, México, D.F. offered their ecological expertise. While Belgium historian, Dr. Jan de Vos, Chiapas; anthropologist, Dr. Ronald B. Nigh, Chiapas; and Gertrude Duby-Blom, Co-founder, Na-Bolom, Chiapas, México, defined prevalent social-economic issues facing the Lacandón and other community members in the Lacandón rain forest.

I also build on the fieldwork I conducted in February 1994, with the assistance of archeologist, Dr. Mario Tejada, Past-Director, Na-Bolom, Chiapas; botanist, and Dr. Naptali Ramirez-Marcial, CIES-ECOSUR, Chiapas, México. In late December 1994 and in mid-January, 1995, I returned to the Lacandón rain forest and conducted further textual research at Biblioteca Nacional de Anthropología y História and the Instituto de Investigaciones Anthropologicas

Biblioteca Juan Comas-Universidad Nacional Autónoma de México in México City. Data on Lacandón language and migration was housed at the library.

### **Literature Review**

Past ethnographic literature in Chiapas, México since 1639-2002 (Rodriguez de Leon Pinelo 1986 [1639]; Tozzer 1907, 1984 [1912]; Amram 1942; Aubrey 1980, 1987; Boremanse 1978, 1986, 1998; Bruce 1979; Bruce and Perera 1982; de Vos 1988; Marion-Singer 1990, 1991; Vega Martinez 1994; McGee 1990, 2002; and Roeling 2008) focused on the validation of the Lacandón indigenous identity through the community's relationship with their local rain forest environment. Many of the studies offered social, economic, political and environmental explanations regarding deforestation and identity creation Lacandón rain forest. Yet, none explained the landscape's influence on gender, rain forest resource-use, and identity. By using a genderscape model, one ascertains how rain forest resource-use and identity formation are part of a dialectical of space and place production.

TO DATE STUDIES HAVE DIRECTED THEIR ATTENTION TOWARD LACANDÓN HISTORY AND MIGRATION (DE VOS 1988, 1990; TOZZER 1984 [1912]; AMRAM 1942), SOCIAL INTERACTION AND CHANGE (TOZZER 1907; AUBREY 190, 1987; BOREMANSE 1978, 1998; BRUCE AND PERERA 1982; MARION-SINGER 1990, 1991; MCGEE 1990, 2002), DEFORESTATION AND LAND-USE CHANGE (NATIONS 1979; ARIZPE, PAZ, AND VELEZQUEZ 1996; O'BRIAN 1998; VASQUEZ, ANGEL AND OLIMOS 1992; WEINBERG 2003), WOMEN'S PERCEPTIONS AND INTERACTION WITH THE LACANDÓN RAIN FOREST (DALTABUIT, VARGAS, SANTILLAN AND CISNEROS, 1994; MCGEE 2002; ARIZPE, PAZ, AND VELEZQUEZ 1996; TOWNSEND AND JANET GABRIEL 1995), WOMEN IN LACANJÁ (MCGEE 2002), POPULATION ECOLOGY AND CONSERVATION (NARANJO 2002), ETHNOHISTORY AND ARCHEOLOGY (PALKA 2005), CONTEXTUALIZING LACANDÓN IDENTITIES (SLINKER 2005), ENERGY EVALUATION ON LACANDÓN SWIDDEN AGRICULTURE METHODS (DIEMONT ET AL. 2006) AND SUBALTERN REPRESENTATIONS IN THE RAIN FOREST OF CHIAPAS (GOLLNICK 2008).

## CHAPTER 3

### LACANDÓN HOUSEHOLD REPRODUCTION, PRODUCTION ECONOMIES AND SOCIAL MILIEU

Historically, Lacandón economic systems have been self-sustainable, due to governmental land tenure rights with resource-use entitlements held by Lacandónes and also due to its low population rates. In 2004, according to the Instituto Mexicano del Securo Social (IMSS), there were 352 people living in Lacanjá. Local landscape and rain forest resource-use continuously changed as gender roles evolved from an agricultural subsistence base economy to tourism services and tourism craft production. In 2004, tourism in México generated “8 percent toward the gross domestic product and over 5 percent of paid employment according to the World Bank” (Instituto Nacional de Estadística y Geografía 2004).

Lacandón gender roles for the most part remain fluid distinctions within a unique Maya continuum built on Lacandón traditions and political imagination (Anderson 2006) that provided community coherence. Tourism and lack of coherent sustainable management planning began to affect the types of work undertaken in Lacanjá. Understanding economic shifts from traditional household economies to tourism aids in demystifying gender and landscape change, and the consequent changes in rain forest resource-use.

#### **Traditional Male Household Production**

##### **Milpa**

Land and rain forest resource-use in Lacanjá has adjusted to population pressures by immigrant and migrating indigenous and non-indigenous groups. Traditional Lacandón subsistence agriculture was a copious land-use system involving several ecological zones. Previously, in a single hectare of land over 50 types of wild fruit, vegetables, and other seed plants were cultivated without using any fertilizer, herbicides, or pesticides. Land fallowed for five to seven years, which attracted small game to the milpas (agriculture plots), which were

hunted. Intercropping practices enhanced soil regeneration. Surrounding uncleared rain forest areas in 1991, 1994, and 1995 contained aquatic terrestrial ecozones that included lakes, riverbanks, and streams that provide fish for self-consumption.

Rodrigo Kin (28 years old) commented in 2003, that Vicente Kin's milpa (agriculture plots) was for self-consumption. Vicente's milpa (agriculture plots) was larger than others in the area. Rodrigo remarked that the "milpa only grew corn without any other fruits and vegetables." Vegetation structure in the milpa (agriculture plots) had changed since 1994, when milpas (agriculture plots) in Lacanjá consisted in intercropping of varies fruits and vegetables to balance crop nutrients.

In 2003, Carlos Kin and Rosa Yuk spoke at length about work activities and youth's participation in employment opportunities in Lacanjá. Carlos believed, "El trabajo es necesario para los hombres. La juventud no le gusta trabajar en la milpa. Se miran sus manos y se les ensucian. Ellos no quieren lavarse sus manos! El gobierno nos dio cuatro habitaciones para los turistas, pero el resto del tiempo fue para trabajar en las milpas" [Work is needed for the men. Youth does not like to work in the milpa. They look at their hands and their hands get dirty. They do not want to wash their hands! The government gave us four rooms for tourists, but the rest of the time was for working in the milpas]. Seasonal tourism went from being part-time work to a full-time economy.

Moreover, Carlos Kin mentioned, "Without daily care of the milpas (agriculture plots), plagas (pests) invade the crops. Plagas (pests) make it difficult to grow crops in Lacanjá. I asked Carlos what men do if there is no employment? "Pues nada, a veces roban los vecinos. Gente roba maíz para vender" [Well nothing, sometimes people steal from their neighbors. People steal corn to sell]. In 2004, corn sold for 2.5 pesos (\$.25) per kilo in Lacanjá. Some residents were

planning to grow bananas in 2005 in order to pay off an Instituto Nacional Indigenista (INI) debt. Carlos also commented how Enrique Kin family' had build a “Casa de Artesanía,” in order to sell crafts to tourists, which in turn meant spending less time in the agriculture fields.

In 1991 and subsequently, Nuk Yuk spoke about her husband Kinbor Kin's milpa (agriculture plots) where he worked daily. By 2003, Nuk mentioned how Kinbor no longer worked in the milpa (agriculture plots) anymore. He only worked with tourists. Kinbor charged tourists' fees for driving them to Bonampak or staying at his tourist camp. It takes more than two hours to walk by foot from their tourist camp accommodations (figure A-20) to Bonampak. Nuk also confirmed that very few men worked in their milpas (agriculture plots). Nuk remarked. “I have to travel to Palenque in order to purchase rice, papaya, pina, yucca, and bananas.”

In 1991 Ernesto Kin mentioned that on average “individuals only had to cultivate about ten hectáreas (25 acres) in a lifetime since every milpa (agriculture plot) produced crops up to seven years.” Each milpa (agriculture plots) produced corn, chili peppers, sweet potatoes, bananas, pineapples, yucca, and several different kinds of beans. This diversity of cultigens minimized deforestation in the area because intercropping reduced demands of clearing additional rain forest land.

In 2003, Maria Martinez, non-Lacandón, also confirmed that, “The Lacandónes were using pesticide in their milpas (agriculture plots) to kill insects.” Their intercropping practices had changed. Some families planted corn alone without intercropping other fruits and vegetables. She noticed additional use of rain forest resource. “Trees were cut in the rain forest and left to rot, which she found wasteful.” “Si lo van a cortar, pues no lo dijen no mas allí” [Well, if they are going to cut it do not just leave it there].

Lacandón women's labor in turn, was centered on making crafts for tourists, traditional household work, but also included traditional male household production work tasks such as subsistence agriculture. Milpa (agriculture plots) work activities have turned into womens' work. By 2003, milpas (agriculture plots) had transformed from the pesticide-free multi-cropping system of 1991, to one that yielded fewer types of fruits and vegetables and required pesticide use by several Lacandón families.

Some women found themselves seasonally hiring day laborers from neighboring communities to help plant, sustain, and harvest their crops. However, this was an exception to the rule because most Lacandón women interviewed in 2003 and 2004 had little supplementary income to afford hiring anyone. It required women to harvest more timber like jobillo or ceiba in order to earn more cash by selling their higher paid crafts to tourists.

Hiring outside non-Lacandón seasonal manual labor was problematic. Moving permanently to Lacanjá by non-Lacandónes was discouraged because their children were prohibited from attending primary school in town. In 2004, Juana Martinez and Lazaro Martinez, both non-Lacandón, and their entire family moved from Ocosingo to work in a milpa (agriculture plots) owned by a Lacandón man involved in service tourism. Their children were not allowed to attend school in Lacanjá. Only children of women married to Lacandón men were allowed to attend school. In the end, migrating families were discouraged from staying in Lacanjá. Less labor was available for maintaining the agricultural fields. At best the Lacandón crops yielded lower amounts of produce, which escalated the dependency on off-site produce and goods from Palenque, and at worst crops were left completely unattended and abandoned.

## **Livestock**

Ernesto Kin along with other Lacandónes commented that only one person in 1991 owned a cow. Everyone else either worked on their milpas (agriculture plots) for subsistence use or sold

crafts to tourists in Lacanjá, Palenque, and San Cristóbal de las Casas. Enrique Kin also expressed his feelings about individuals clearing and harvesting the rain forest. Although he did not want people to destroy the rain forest, he understood that “everyone needs to feed themselves and their families.” He tried to show respect and tolerance to outside indigenous and non-indigenous groups entering the rain forest for settlement purposes.

Under past Lacandón tradition it would have been unthinkable to harvest “a field where mounds existed since these mounds were believed to be the dwelling place of Wayantekob (wandering god)” (Boremanse 1978:36). Both Ernesto Kin and Enrique Kin remarked, “That many people living near Lacanjá faced challenging financial situations.” Other Lacandón men spoke about “how people received little or no federal government support.”

Kinbor Kin, mentioned that the “federal government had given the Lacandón community 180 head of cattle, 60 goats, and 42 pigs that were shared by 10 to 20 of his associates (kin and non-kin) in Lacanjá. Federal government officials offered livestock to Lacandón men as part of a three-year interest-bearing community loan. Yet, government officials never provided either small or large animal production instructions or additional feed for the livestock.” Feeding the livestock forced people in nearby hamlets to increase their land-use in rain forest areas.

Feasibility studies were never made. No one in the government checked to see whether or not Lacanjá was suitable for pasture production, or whether there was any pre-existing Lacandón knowledge of animal husbandry. Proper irrigation systems were not available. No corrals or other types of enclosed areas existed, which were crucial for keeping cattle from overgrazing and to protect the crops. To make matter worst, livestock was considered inadequate collateral at any bank to borrow money against. Instead, family bickering ensued.

Quarrels exploded in 1991 when cattle, goats and pigs (figure 3-1) wandered into the neighbors' unfenced milpas (agriculture plots) and ate their crops. Tensions among the Lacandónes could easily have forced substantial clearing of adjoining secondary rain forest in order to protect their milpas (agriculture plots) from the runaway livestock, but they did not. Ultimately, the Lacandónes' only profit came from selling their cattle. Keeping the cattle required intensification of corn yield already being grown. All goats and pigs were left to die, and the federal government forgave the loan without any monetary penalties.

Lacandónes understood that food and labor costs calculated within an uncertainty of market and price fluctuations for raising cattle, goats and pigs were tremendously less economical than simply growing your own crops. Better assistance at the onset of the livestock venture by the federal government could have resulted in success, instead of the failure that the Lacandónes experienced in time and money. Regrettably, federal government lacked long-term development vision or sustainable resource management plans. Instead, federal agencies ignored the urgency of rain forest resource sustainability in 1995 and set the stage for encouraging tourism and increased land and resource-use by landless people in rain forest areas throughout 2004.

### **Traditional Female Household Reproduction**

#### **Tunics**

Previously, Lacandón women made all their cotton spun tunics (figure 3-2, 3-3 and 3-4). Men grew the cotton in the milpas; then, women spun the cotton into threads (Figure 3-5), and then weaved it in a backstrap loom (Figure 3-6 and 3-7). I observed Lacandón women using cotton looms in 1991. Even at that time, an elder Lacandón woman commented, "Her grandchildren did not know how to weave cotton." In some cases, time and economic constraints

forced women to make tunics of loom woven cotton primarily for tourists, while they made their own tunics from store bought fabrics.

In 1995, Nuk Yuk, expressed how “bought fabrics eased women's work because they no longer had to spend their time growing or spinning cotton.” She stated, “General demand for cotton tunics was slight since most young men between the ages of 12 and 20 preferred wearing pants in Lacanjá.” Ricardo Kin sadly added in 1995 that “the children were not being taught how to make tunics, and once elders died, so would this knowledge.” As I visited and spoke to fifty-six Lacandónes in 2004, I observed that no one was spinning cotton nor making the traditional tunics anymore. Admittedly, Mariana Yuk mentioned in 2004 about the possibility of her growing cotton in the future in order for tourist to see.

In 2004 Elena Martinez (47 years old), a non-a Lacandón from Chancala, was selling cloths and fabric, 20 pesos (\$2.00) each, to families in Lacanjá. She commented, “No hay dinero sin el turismo. Mujeres que hacen artesanía tienen dinero y compran” [There is no money without tourism. Women who sell crafts have money to buy].

Tourism impacts the growth of crafts being made and sold in Lacanjá. Tourism incrementally increased from “1946 when a dirt two-engine airstrip ran through the main intersection of the town” according to Miguel Kin in 1991. He added “tourists would fly into Lacanjá in order to visit the Bonampak ruins, but by 1980 the airstrip had fallen out of use.”

Another resident Chankin Kin also remarked in 1991 that, “the road built which connected Palenque to San Javier in 1971, made it possible for buses to arrive into the rain forest and also made it possible for the Lacandón, especially the women, to encounter individuals from the outside.” Tourism decreased after the January 1, 1994, Chiapas Zapatista Uprising. From 1992 to 1994 forty tourist buses entered Lacanjá from December through January. After the Zapatista

Uprising the number of buses decreased to only five, and by the end of February 1994 there were rarely any buses arriving at all. Times and political mandates did change. By the late 1990s and early 2000s, tourism under the guise of theme travel and ecotourism would become its own brand name in the Lacandón region.

### **Woodcarving Crafts**

Traditionally, both Lacandón women and men learned to make jobillo woodcarving crafts from their parents as children. Woodcarving crafts involved making cooking and serving flatware and utensils. Young children gathered timber from the rain forest to sculpt small animal woodcarvings (figure 3-8) and other serving utensils (figure 3-9) and wood plates (3-10). During the summer of 1995, Miguel Martinez and Felipe Martinez, two non-Lacandón elementary school teachers in Lacanjá remarked, “In Palenque Lacandones sold tourists woodcarvings, cotton tunics, and arrows that were typically offered to Kanak'ax (Guardian of the Forest) during child sponsorship ceremonies.” By 2003 and 2004, woodcarving crafts were produced mostly by women and children in Lacanjá.

In 2003, Rubina Yuk (24 years old) and her two children (3 years old and 7 years old) stopped to talk about her crafts. She carried two large wood logs on her back and insisted that she did not harvest any timber instead she remarked about finding it in El Monte (hillsides). It takes her about one hour to find ceiba timber that she uses in carving turtle and jaguar figures. Her children already made necklaces and carve small wood figures. In general, children two to eight years old played and helped around the house and outdoors doing their chores. However, this changes when children nine to eleven years old start selling crafts to tourists. Children charged more money for their crafts than their mothers.

Carmelita Yuk remarked in 2004, “Me dura cinco o, diez horas para encontrar el jobillo en El Monte. Yo corto el jobillo con el machete. Me dura tres semanas para terminar los figures. Y

los vendo por 40 pesos (\$4.00) or 50 pesos (\$5.00). Muchas veses me corto mi dedo cuando hago mi trabajo” [It takes me five to ten hours to find the wood in the hillsides. I harvest jobillo with a machete. It takes me three weeks to finishing the figures]. Common is hearing women complain about cutting their fingers while carving woodcrafts. Carmelita Yuk also added, “Previously woodcrafts were produced for household use, but with tourism in Lacanjá, they produced more to sell.”

### **Ceramic pottery – Los Dios De Mí Papa**

Nuk Yuk and other women made beautiful ceramic pottery in shapes of Lacandón men holding incense jars. Other ceramic pots had faces (figure 3-11) of what she termed, “los dios de mí papa” [the gods of my father]. They normally sold for 40 pesos (\$4.00) for a small ceramic and 50 pesos (\$5.00) for a larger piece in 2003. She used egg whites to add shine to the ceramic and placed them in an open oven outside her home. Nuk traveled 6.2 miles to Nueva Palestina or to Bonampak to buy her pottery clay. Often tourists bought her pottery assuming that they were part of Lacandón ceremonial ritual practices. Nuk spoke how it was her father Chankin Viejo from Najá that knew about these traditional rituals and practices before he died. She did not. Tourists who preferred not to travel to Lacanja in 2007 were able to buy the ceramic pots with faces directly from Na Bolom (figure 3-12) in San Cristobal de la Caseas, Chiapas.

### **Woven Bags**

Nuk Yuk liked making woven purses made from majawa trees (figure A-16). Bags take two entire days to weave and sold in 2003 and 2004 for 50 pesos (\$5.00) each. She gathered timber from El Monte (hillsides). Then she hauled the timber back home and placed it in her river (figure A-17) for up to 15 days or 25 days if the log was larger. When the timber softened, she was able to strip the timber apart and use it as thread (figure A-19) for making bags or baskets. I wondered if women only harvested in specific areas of the rain forest. According to

Nuk, “only milpas belong to individuals – all of El Monte (hillsides) belongs to everyone.” I asked her preference between making pottery or bags. Her response, “I like to make woven bags (figure A-18), but I have to make them in order to eat.”

Nuk Yuk’s daughters-in-law Liliana Martinez and Rosio Martinez (from Cruserio de Chancala), both non-Lacandón, also worked making woven crafts. Liliana mentioned that she tried to find “madera muerta in order not to be wasteful,” but added that it took “several hours in El Monte (hillsides) to find.” Instead she bought jobillo timber for her crafts. In 2004, she paid 20 to 30 pesos (\$2.00 to \$3.00) for timber.

### **Necklaces**

There were 15 to 20 families in 1991 that made natural seed necklaces for self-adornment. As time passed, several women replaced natural seeds with plastic colored bought beads for their own necklaces. By 2004, all 22 Lacandón women, and 5 non-Lacandón and all their children made necklaces for tourists. They would forge for seeds in the rain forest; including, collorin (red), lagrima de San Pedro (white), collorin chico (red or black), ojo de espina (black or brown), quante (red berries) and tsankala or chancala (black spherical) seeds.

Additionally, Carmen Yuk and her nieces remarked in 2003, how “It only took them one hour to bead an entire necklace.” Making a necklace involved making holes through the seeds with a nail and buying the string and clutch for their crafts.

However, in 2004 with craft tourism fully integrated into the socio-economic system, women like Patricia Yuk (36 years old) Marianna Yuk (40 years old), Chavelita Yuk (28 years old), Rosa Yuk (21 years old), Alicia Yuk (42 years old), Carmelita Yuk (26 years old), Teresa Yuk (36 years old), Adalita Yuk (30 years old), Christina Yuk (28 years old), Evelia Yuk (22 years old), Ofilia Yuk (21 years old), Carolina Yuk (30 years old), Margarita Yuk (30 years old), Nena Yuk, Bete Yuk (23 years old), Coj Yuk (29 years old,, Atrisa Yuk (23 years old), Victoria

Yuk, Cox Yuk (27 years old), and Chanuk Yuk (46 years old) all made beautifully crafted and designed necklaces and bracelets from available rain forest non-timber resources found in local and distant areas.

### **Bread and Sewing Machine Women's Cooperative**

Ten women formed a cooperative in 1991 after the federal government gave the community a bread making and sewing machine. No one in Lacanjá knew how to make bread or knew how to use the sewing machine even after two women instructors taught the women in Lacanjá. And even though bread consumption was not typical in a Lacandón diet, women were eager, ready, and interested in working with new machinery. However, gossiping among the women proved to be the projects' obstacle in forming a women's cooperative.

Lacandónes are known to gossip within their families and communities. Nuk Yuk commented in 1991 that, "She only talked with family members from Najá because conversations with any person of the opposite sex in Lacanjá resulted in gossip accusations of trying to find a man." "No hablamos porque empiezan hablar" [we do not talk because they start to talk]. Hablar in the Lacandón sense implied gossiping about amorous interest. Accusations of spousal stealing applied to men as well. Nuk later added in 1995, "in school the children and teenagers spoke to each other freely, but once they turned fifteen years old conversations were discouraged."

As early as 1991, both Nuk Yuk and Maria Yuk from Lacanjá mentioned that they would not work with each other even though external agencies perceived them as being Lacandónes; they themselves do not see themselves as one cohesive unit. Gossip accusations made communal development projects challenging for women and men in 1995. Ricardo Kin stated that he once tried to mediate these cultural differences between the Lacandón groups living together by declaring in a 1995 community assembly "we are not different races, I do not have black or

yellow blood - we are brothers.” His comments failed to change people’s perception of themselves as being different from each other.

By 2003, gossiping among people had changed. Maria Martinez laughed about issues surrounding gossiping community members. Maria offered common advice, “It is better not to say anything and simply respond that you do not know. Women here like to keep to themselves, but maybe not in others parts of Lacanjá.”

Nuk Yuk felt in 2004 that “women could not speak to each other because they were too busy to leave their homes.” The premise of gossiping as a social taboo had switched from cultural differences between community members, to simply financial restrictions on women’s time. Moreover, residents of Lacanjá were equally held responsible for any development or tourism projects in their town regardless of how they perceived themselves.

### **Tourism - Theme Travel**

México’s tourist sector has become its economic boom. In 2007 “tourism generated foreign currency inflows of \$12.9 billion, the third largest amount after oil exports and remittances, and \$7.3 billion for the first six months of 2008” (Presidencia de la Republica-Segundo Informe de Gobierno de Los Estados Unidos Mexicanos 2008). México’s tourism sector has significantly increased its share of the international tourism market over the last five decades, and ranked eighth among world tourist destinations in 2006” (UN World Tourism Organization 2007:8).

Noting in 2008, the World Bank reviewed México’s proposed environmental sustainable development policy loan request to the United States for \$300.75 million (World Bank Report 2008), and found that “the strategic environmental assessments (hereafter SEA) of 2002, 2003, and 2006 pointed to the risks of failing to incorporate environmental considerations in the development and management of tourist destinations, as environmental quality was rated as

barely satisfactory” (Secretaría de Turismo 2002:8). Moreover, “in order to promote environmental protection and assure quality of tourism products, the SEA recommended a shift from a quantitative growth model to a qualitative model, which would attract tourists who are willing to spend more on higher-end tourism, thereby increasing revenues generated from tourism and simultaneously reducing adverse environmental impacts of tourism” (World Bank 2008:8-9).

“As part of México’s efforts to diversify its tourism offerings and promote sustainable ecotourism, a Strategic Plan for Nature Tourism was presented in November 2006 by the Ministry of Tourism (Secretaría de Turismo (SECTUR) in collaboration with Ministry of Environment and Natural Resources (Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT); Ministry of Economy (Secretaría de Economía (SE); Ministry of Agriculture (Secretaría de Agricultura or Ganadería, Desarrollo Rural, Pesca y Alimentacion (SAGARPA); Ministry of Social Development (Secretaría de Desarrollo Social (SEDESOL); Commission for Development of Indigenous People (Comisión Nacional para el Desarrollo de los Pueblos Indígenas (CDI); National Commission for Natural Protected Areas (Comisión Nacional de Áreas Naturales Protegidas (CONANP); National Tourism Fund (Fundo Nacional de Turismo (FONATUR); and the Mexican Council for Tourism Promotion (Consejo de Promoción Turística de México (CONAFOR). The plan provided basis for preparing a National Strategy for Sustainable Tourism Development and Recreation in Natural Protected Areas in México, which was given in September 2007 by SECTUR in collaboration with SEMARNAT and CONAN” (Secretaría de Turismo 2002:9).

Overall policies were “aimed to enhance the sustainability of México’s destinations and ensure that the country’s rich environment remains a source of competitive advantage, particularly as an increasingly larger segment of the tourist market shifts from massive sun and sand destinations to theme travel” (World Bank 2008:8). In effect, the Lacandón rain forest became the front stage (Goffman 2004 [1959]) for a theme travel destination while the back stage (Goffman 2004 [1959]) economic, political, and social opportunism contributed to compromising rain forest resource management and governance planning in the State of Chiapas.

Tourism contributed toward the failure of rain forest policies in Chiapas, and was heavily supported by international, federal and state agencies like the Secretaría de Medio Ambiente y

Recursos Naturales (SEMARNAT). In 2003, the Secretaría de Turismo, Subsecretaría de Promoción, Dirección de Capacitación y Servicios Turísticos and Departamento de Capacitación of Chiapas, sponsored basic training classes on rain forest conservation and hotel administration in Nueva Palestina. Conservation International (CI) was co-sponsor and paid for lunch and snacks for all participants. Earning a Diploma in Administration Basico de un Proyecto Turistico y sus Aspectos Legales (Tourism Administration) was the objective. Twenty-eight people from both Nueva Palestina and Lacanjá attended the class, nine women and nineteen men.

Workshops were customarily held in Lacanjá or Nueva Palestina. For this occasion, the workshop was held in a new tourist accommodation on the outskirts of Nueva Palestina. Comisión Forestales provided the funding for tourist camp. At the camp there were seven deer for tourist to see and pet. Surrounding camp rain forest measured 5-7 meters high, with the remaining 98 percent of the rest deforested. Nueva Palestina, was one hour away from Lacanjá and had 17,000 residents compared to 352 residents in Lacanjá. However, unlike Lacanjá, Nueva Palestina had a primary, secondary, and high school for all its residents. Further, the town also had a plaza, one public phone, and the medical doctor had Internet connection at his office.

SEMARNAT booklets distributed at the training session depicted Lacandón men wearing traditional long tunic and conserving the rain forest. Moreover, SEMARNAT emphasized conserving the Lacandón rain forest in order to promote tourism. Only one woman was illustrated in the training manual and it portrayed her as a woman needing to feed her children because of declining coffee prices in Chiapas.

One Lacandón man informed the Secretaría de Turismo facilitators that their Lacanjá Campamento Collectivio (tourist accommodations collective), composed of eleven families, no longer existed since 2000. Instead of dealing with the reasons behind the collective break-up,

facilitators instead elaborated the need of having a harmonious relationship with nature. “La gente aquí, Lacandónes, está en armonía con la naturaleza” [The people here, Lacandónes, are in harmony with nature].

Environmental concerns also intertwined with social issues. One instructor added “when you are frustrated and angry don’t take it out on your spouse and children.” Quickly a young Lacandón man remarked, “todo seres humanos le gustan la paz” [all humans like peace].

Carefully, I interjected that “a veces las mujeres turistas quieren guías que son mujeres porque no quieren bañarse en las cascadas con hombres desconocidos” [sometimes women want women guides because they do not want to bathe in the waterfalls with unknown men]. Rojillo Kin, a young Lacandón declared, “la selva se enoja sí no se banan desnudas” [the rain forest gets angry if they do not bathe in the nude]. Yet, having only male guides is a delicate issue for some tourists. Maria Martinez, a cook at a Lacandón campamento (tourist camp), commented “how some foreign tourists were afraid to walk in the rain forest alone without a female guide.”

By 2004, there was a class on “cooking for tourists” in Lacanjá. I mentioned to the two women facilitators from Conservation International and Secretaría de Turismo (Secretary of Tourism) that gender needed to be included in resource-use training. Both women became very serious after hearing my comment, but added, “Las mujeres no saben como hablar. No pueden hablar con los turistas” [The women do not know how to talk. They cannot talk to the tourists]. It was shocking to think, that both the representatives from Conservation International and Secretaría de Turismo (Secretary of Tourism) actually believed that the women were not capable of talking to the tourists. Women knew how to talk to tourists. The women’s tourism craft economy depended in part, in the women’s traditional ecological knowledge (TEK) of forest resources needed for their craft products, and knowing how and what to sell to the tourists. Most Lacandón

women readjusted their craft design in order to meet the artistic and practical demands of their buyers.

Predominately men, whether Lacandón or not, attended these thematic tourism courses offered outside of Lacanjá. It was a hardship for women to attend tourism classes because they had to bring their children to these sessions, and could not offer transportation costs. Men were generally given preference in service tourism because they were considered by external governmental and non-governmental agencies as sole head-of-household. Men held vocal power in public space.

Women on the other hand, evolved from a shared labor into becoming sole head-of-care activities that included household reproduction work tasks, such as, child rearing, food production and preparation, gathering of forest resources, and general cleaning in the private space. Service tourism paid more money per hour than women were paid in craft tourism. Male tourist guides would charge in 2004, 100 pesos (\$10.00) for an hour tour, while women were paid 100 pesos (\$10.00) for a two-hour tour of the local landscape or Lacanjá ruins.

Financial challenges were constant in the tourism economy. Usually, federal government promotes funding for tourist enterprises through its Secretaría de Turismo (Secretary of Tourism), which is dually responsible for setting up tariffs for tourist accommodations. In most circumstances, owners charged a price to make a profit, but in the Lacandón case, they were required in 2003 by the Secretaría de Turismo (Secretary of Tourism) to charge tourist 200 pesos (\$20.00) per night. Each Lacandón were required to buy mattresses for each room and bed linen. Purchasing mattresses required a trip to Palenque. Typical tourist accommodations near Bonampak usually only required buying a hammock instead of investing money in purchasing both bed frames and mattresses.

An obvious problem with inflated tariffs was that the Lacandón rain forest usually attracted off-the-beaten track tourists. Normal tariffs in Lacanjá on average charged 30 pesos (\$3.00) per night without a meal in 2003 and 2004. Back in 1991, I only paid 15 pesos (\$1.50) per night to stay with Nuk Yuk and her family. Many Lacandón men felt that “they had not received lucrative returns on their initial investments” in tourist accommodations in 2003 and 2004. Nuk Yuk commented, “That another problem with tourism was that there were not enough agencies sending people equally to all the tourists’ camps.” Nuk said, “no mas hay dos agencias que mandan personas aqui, pero con otras familias hay mucho mas agencies” [there is only two agencies sending persons here, but with other families there are many more agencies].

On June 29, 2004, issues of tourism and communal land tenure were under community discussion and attack. One hundred men and seven women met in Lacanjá outside the primary schoolhouse next to the abandoned two-engine airstrip. I rooted myself quietly on the grass as their guest.

An architect working for Inmobiliaria San Martín Obispo, S.A. (hereafter Sanmo), from México City was commissioned for twelve months. His role was to determine a structure design for a five star eco-hotel that was being built on Gilberto Kin Faisán’s property in Lacanjá. Sanmo already built a children’s library for everyone’s use on Kin Faisán’s land. Moreover, Sanmo had already agreed to donate all the construction supplies and labor for building a secondary school for the children in Lacanjá.

Striking architecture design showed 25 guest cabins suspended in air resembling tree houses. Visitors would have the freedom to choose their personal engagement with local wildlife and flora. Gerardo Turrent Riquelme, Sanmo developer, discussed preliminary work done by fifteen Lacandón men hired by Sanmo to assist in excavating and clearing the land owned by

Faisán. In 2004, men were paid 100 pesos (\$10.00) per day, roughly 2,400 pesos (\$240.00) monthly. Problems ensued when community members argued about communal lands and legal problems associated with Faisán selling any portion of his land to outside investors and developers like Sanmo. Carlos Kin jumped into the discussion and pointed out how Sanmo's five star hotel project generating income for the young men and their families living in Lacanjá. La Jornada on December 11, 2002 reported:

"A pesar de sus reclamos y denuncias, los indígenas afectados sólo han encontrado indiferencia en la Procuraduría Federal de Protección al Ambiente (PROFEP), la Comisión Nacional de Areas Naturales Protegidas y la Secretaría del Medio Ambiente y Recursos Naturales (SEMARNAT). El delegado de Semarnat en Chiapas, Ramón Aguirre, ha reconocido que su dependencia tan preocupada siempre por Montes Azules, no puede intervenir, "pues se trata de un proyecto de la Secretaría de Turismo" [Despite their claims and complaints, the affected indigenous people have found only indifference in the Federal Environmental Protection (PROFEP), the National Commission of Protected Natural Areas and the Ministry of Environment and Natural Resources (SEMARNAT). The delegate of SEMARNAT in Chiapas, Ramon Aguirre, has acknowledged that his unit always so worried by Montes Azules, can not intervene, "because it is a project of the Ministry of Tourism (Hermann Bellinghausen 2002)].

Fundamentally, the Lacandónes wanted a five-star resort being built in Lacanjá, and they also wanted individual financial rewards. Turrent Riquelme, offered the Lacandónes 10 percent total of hotel earnings with 5 percent going to the community and remaining 5 percent given to Gilberto Kin Faisán. They refused adamantly. Lacandónes would not take anything less than 50 percent of hotel's total profits. Indigenous representative from Nueva Palestina and Frontera Corozal rebuked the idea of having a five star hotel in Lacanjá. Tzeltal and Chol community members demanded financial compensation from Sanmo. They too wanted five-star hotels in their towns.

Carlos Kin made another public plea to Tzeltal and Chol representatives, "the community should not be envious of other people's projects. The youth of Lacanjá needs to feed their families and did not want to be given anything for free. Jobs are needed." Already several men

worked for Sanmo, including: Manuel Kin (42 years old), Pepe Kin (25 years old), Noel Kin (29 years old), Marian Kin (28 years old), Manuel Kin (21 years old), Alberto Kin (18 years old), Zacharias Kin (20 years old), Pedro Kin (30 years old), David Kin (26 years old), Alexandro Kin (23 years old), Kayum Kin (20 years old), Bernardo Kin (18 years old), and Ulysses Kin (18 years old). According to my interviews in 2004 none of these men worked in the milpas (agriculture plots) anymore.

Carlos Kin and other Lacandón men reminded the Chols how they already had boats transporting tourists to and from the Yaxilan ruins. And Nueva Palestina had their projects too. Carlos in frustration asked, “What do we have? Do you want us to have boats too?”“ Turrent Riquelme immediately jumped into the debate, “No estamos aquí para dividir las comunidades. Y este es sólo una propuesta que se puede cambiar si hay algo que no les guste. Tiene el derecho de decir esto no me gusta y nosotros podemos decir lo mismo. Estamos aquí para ser socios y no para regular algo” [we are not here to divide the communities. And this is only a proposal that may change if there is something you do not like. You have the right to say I do not like this and can say the same. We are here to be partners and not to regulate something]. Needless to say, women had very little to do in the dialogue or community discussion.

Hiring non-Lacandón women for service tourism was common by 2003 and 2004. Maria Martinez and her husband, along with three primary school age daughters, had moved in 2001 to Lacanjá from Tabasco. Maria worked as a cook for Campamento Rio Lacanjá. She was 30 years old and had three school age daughters in the primary school. Two years had passed without her being given a day off. Her husband found work in another town, so she was left alone with her three daughters. They all lived in a small shack with cement floors. Maria stated, “She was tired of never being able to leave the camp, not even for a day to go to San Javier.”

I, asked Maria Martinez, what she thought were the most dramatic changes taking place in Lacanjá since the year 2001? Maria answered, “Las mujeres siempre estan trabajando y los hombres no. Usan su recursos para su beneficio cuando les dicen a otros que no los usen” [The women are always working and the men are not. They use resource for their benefit while telling others not to]. Specifically, non-Lacandón individuals get monetary fines for killing animals or cutting down trees, but Lacandónes can do both if they want to at any time. Maria said, “Hay menos arboles y las mujeres tenen que caminar mas desde la manana a la tarde para encontrar la madera jobillo y ceiba” [there are less trees and women have to walk from the morning until the afternoon to find jobillo and ceiba timber].

According to Maria Martinez, traveling far for natural rain forest resources made financial sense considering that in 2003, small woodcarvings sold for 40 pesos (\$4.00), 50 pesos (\$5.00), 70 pesos (\$7.00), or maybe 100 pesos (\$10.00) each. Maria said, “Well, at some point someone will buy what someone else left behind.” Lacandón women can earn a lot of amount of money from jobillo made utensils and plates, which sold from 300 pesos (\$30.00), 500 pesos (\$50.00), or 800 pesos (\$80.00). But they have to travel further in El Monte (hillsides) to find, cut, and carry the wood back home.

Maria Martinez also mentioned other social changes too. “Los hombres siguen las costumbres que les gustan como tener mas de una mujer, pero se cortan su pello, usan pantalones largo, y no guieren usar la túnica como en el pasado” [Men like to follow customs that they enjoy like having more than one woman, they cut their hair, wear long pants, and they do not want to wear tunics like in the past]. She also felt that in some cases, women had power in the marriage.

Maria Martinez cited Rosa Yuk as a woman with power. “Rosa her own milpa (agriculture plots), took care of her milpa (agriculture plots) everyday. Rosa was more equal to her husband than other women.” I asked her about the timber being used to build a five star-hotel on Gilberto Faisán’s property? She said that, “timber was bought and brought from Frontera Corozal and Nueva Palestina, and that timber was definitely not from Lacanjá.

Carlos Kin spoke about social change in Lacanjá. Carlos remarked, “Young men do not work and he blames it on their parents. Adding that since the milpas (agriculture plots) have only three seasons, after the agricultural seasons are over, there is no work for youth except tourism.” Second, “there is more alcoholism among the youth than ever before. I asked him if there wasn’t any work or money, why drink? His response, “They don’t care and they still drink.” Adding, “The highway has greatly influenced Lacanjá.”

Nuk Yuk and Carlos Kin were in agreements that although there were better accommodations for tourists, campaigns promoting all new tourists accommodations did not exist. Carlos felt, “units needed a table and chair, and better food services for tourist.” He furthered believed that, “The Secretaría de Turismo (Secretary of Tourism) had given eleven families in Lacanjá extravagant tourist units to families already operating tourists businesses. The Secretaría de Turismo (Secretary of Tourism) was in charge of creating the minimal base tariff charge per room.”

Carlos Kin felt that “the tariffs were too high for the typical tourist, so the rooms remained empty.” Another aspect of chang was the increase of malaria cases in Lacanjá. Deforestation without any concrete reforestation plans might have encouraged more larvae. However, malaria would scare some tourists away from the Lacandón rain forest. Carlos commented “how there are traditional plants that could be used to treat symptoms, but he had not seen people use

traditional medicines even though they would be less costly than buying medicine.” In 2004, Dr. Lara Martinez, medical physician, in Lacanjá confirmed that he treated several cases of malaria in town.

Enrique Martinez, an associate of Ricardo Kin at Campamento Rio Lacanjá, commented in 2004 how his tourist camp, now catered to educational programs in Lacanjá. To date, four middle schools are participating: one from Comitan; one from Tuxtla Gutiérrez, two from San Cristobal de las Casas. Enrique preferred working with the school groups than general tourists. Adding, “Cada grupo tienen 30 estudiantes y les pudes dar de comer al mismo tiempo – es mas facil. Los turists normalmente comen cuando quieren a todas horas” [Every group has 30 students and you can feed them all at the same time – it is more simple. Usually tourists eat when they want at all hours]. Moreover, like other of the camps in Lacanjá, Campamento Rio Lacanjá has been certified as an Eco-Index Sustainable Tourism by the Rainforest Alliance and the Instituto Mexicano de Normalización y Certificación A.C. - Requisitos y Especificaciones de Sustentabilidad del Ecoturismo, Norma NMX-AA-133-SCFI-2006. The Inter-American Development Bank funds the certification of the Eco-Index Sustainable Tourism sites. In fact, the Rainforest Alliance referred to the Lacandones in their website as:

“The Lacandon community has a culture that, despite the years, has maintained its traditions that are strongly rooted in and immersed in the forest. Despite the transculturalization that is occurring internationally, the people’s way of thinking passed on to them by their Maya culture has not been transformed. The Río Lacanjá campground has become a sustainable tourism example in this region. This group is using several eco-techniques to reduce the impact of tourist affluence, it is working on rescuing local traditions (such as the Lacandon ceremonies), and it is also the base of many conservation events. Due to their culture and tradition, the Maya today are a culture rich in knowledge, much of which is being applied by investigators in rescuing the forest. The Lacondons themselves who have best been able to maintain it and help it survive, using their ancestral farming techniques with their respect for and stewardship of the forest” ([http://eco-indextourism.org/en/rio\\_lacanja\\_mx\\_en](http://eco-indextourism.org/en/rio_lacanja_mx_en), 2010).

Enrique Martinez, spoke about Kayum Kin, a Lacandón adopted by Trudy Bloom of Na Bolom, who during a discussion at Na Bolom on development funding benefiting the Lacandón community, he stood up and stated that “todo era mentiras que Na Bolom ayuda los Lacandónes” [it is a lie that Na Bolom helps the Lacandónes]. Yet, Kayum took full advantage of the tourism economy by charging tourists in 2004, 450 pesos (\$4.50) to see him conduct a ritual cleaning which he never learned from his family. “Los hace por el dinero” [He does it for the money].

Enrique Martinez, also remarked, “how often agencies call him requesting that he place a ceramic god-pot in the Lacanjá ruins and have the Lacandónes talk in Maya as a ritual exhibition.” He refused on the principle that he felt that it was a form of exploitation toward Lacandónes. Adding, “It is not real because Lacandónes do not do these ceremonial rituals anymore.” Enrique instructs travel agencies and tourists who insist on seeing an authentic Lacandón ritual, to talk to the Lacandónes directly in order to see what happens.” Enrique’s parting words were “No voy a hacer parte de las mentiras” [I am not going to be part of the lies]. Tourism in Lacanjá prevailed greatly in the realm of men’s work by creating a need for hyper-authentic indigenous experiences.

Tourism affects natural resource-use on different levels. Dietary practices changed dramatically among the Lacandónes. In 1991, all Lacandón women made their own tortillas from corn harvested on their milpas. By 2003 and 2004, many women bought and used Maseca, an instant corn mix that is manufactured in Irving Texas, to make their tortilla and other dishes.

Dr. Lara, community medical doctor, reported in 2004 that some Lacandónes were paid to attend preventative health care sessions sponsored by the IMSS Progress Programa (figure A-15). He added, “The Lacandón community had an unprecedeted amount of teeth decay and obesity cases caused by Lacandónes eating too many candies and top-ramen instant noodles and

less fresh produce." The outlook among youth was processed food was delicious and instant. Instant needs and gratifications by youth subdued earlier parental perceptions and connections to the local rain forest landscape as a source of balanced nourishment.

### **Maps as Landscape**

Both maps and cultural heritage building played an eminent part in creating a greater Mexican landscape in Lacandón rain forest in Chiapas. The Lacandón Rain Forest and Lacandones are now televised on commercials and videos on YouTube as Patrimonio Natural Nacional [National Nature Heritage]. In 2009, Ricardo Kin, a Lacandón, is seen as an Estrellas de México [Stars of México] Internet video promoting tourism in Lacanjá. Maya archaeological sites such as Bonampak, Yaxchilán, Palenque, and partial excavated Lacanjá ruins became cultural patrimony markers for the Lacandones and nation.

Moreover, Article 27 of the Mexican Constitution was a significant factor in creating the imagined Lacandón region. Article 27 stated that all land and water were owned by the nation and thus, had the rights to transfer ownership to particulars. It gave federal government the right to claim land and redistributed it to landless people; thus, giving birth to ejidos (communal lands) in the entire country. If as Bauman suggests that the "complete mappa mundi-a vision of a world made coherent through the ideal of humanity's common heritage" is true; then, one is forced to explain how maps and rain forest policy in Chiapas, México created a cultural Lacandón territory out of a neotropic secondary rain forest already inhabited by Chol, Tzeltal and other non-indigenous communities?

At best, the map created by Mexican government was an act of appropriation of landscape detached from any sole authentic Maya heritage. Instead it was a desperate need to lay claim, control and secure land that had once legally belong to Guatemala as part of the greater Meso-American heritage. Cultural heritage rights became a backdrop of land tenure and national

security disputes. Maps sequentially became artifacts “in how the landscape is controlled and power is exercised through it” (Smith 2003:73).

Everyday women, men, and children create their own culturally determined maps by interacting with their physical landscape in the Lacandón rain forest. The process of land cultivation and land-use is critical to understanding “how it means” to “dwell” (Heidegger 1977) and be a Lacandón in Lacanjá. “How it means rather than what it means” (Gillespie 2003: personal communication) to be a Lacandón is central to uncovering the veneer of identity creation. Trees and milpas (agricultural plots) in the physical landscape indicate fluid sites of symbolic “gathering” of meaning, history, identity, and boundaries. The Lacandónes were able to give cultural meaning to their landscape by fostering an ecological history that spoke about natural resource-use, and how trees and shrubs established boundaries around specific communal lands. Being a Lacandón implied working like a Lacandón in the rain forest.

Since 1886, local municipalities considered trees, stones, and other types of fences to be a “boundary maker between properties” (Craib 2004:83). Coveted properties in Lacanjá all have a stream or river running through their property and the trees ridges separate the land parcels between neighbors. Each tree ridge has an entryway between properties, recognized by Lacandónes. These entryways decreased the amount of time walking between properties, and also allowed people to walk in a private space without being noticed by the tourists roaming in the public space. History and spatial knowledge become meaningful and intertwined in a unique public space that advocated Lacandón community memory and private entry.

Community memory was informed by both the use and non-use of rain forest resources in their local regions. Interactions of men and women within their local landscapes resulted in Lacandón representational space. The Lacandóns’ representational spatial settlement practices,

rain forest resource-use and management in the Lacandón rain forest were the Lacandón's conservation identity markers. Conservation identity was connected to their work activities in the rain forest.

The Lacandón have become an iconic cultural artifact symbolizing forest preservation. Local government agencies constructed a landscape narrative of the Lacandón being Guardias de la Selva [Guardians of the Rain Forest] in order to promote theme tourism and ecotourism in the State of Chiapas. Federal management policies overlooked simple issues such as involving local gender inclusive stakeholders in co-creating policy formation, evaluation, agenda, formation, adoption, implementation, and re-evaluation. Through governmental interventions and faltering rain forest management policies in Chiapas, the Lacandón had become a living museum for local and foreign tourists. The Maya were “left hostage to their colonial past, their impoverished present, or their increasing uncertain future” (Watanabe 1995: 34).

Attachment to the landscape resulted from daily activities performed by every member of the family whether in the home, fields, or in the rain forest, and may be seen as simply as “memories of sounds and smells, of communal activities and homely pleasures accumulated over time” (Tuan 1977:159). Hence, to be a Lacandón illustrated how the “spatial organization of society is integral to the production of the social, and not merely its result” (Massey 1994:4).

There are several reasons for researching the Lacandónes' perceptions on gender and landscape. Lacandóns' sense of rain forest space and use of resources created a familiar place attachment in the landscape. For women, their use and non-use of natural resources in the Lacandón rain forest contributed to their identity formation of being a Lacandón. Men on the other hand, in 2004 were considered Lacandón by simply having a Lacandón father, whereas, in 1991 to be Lacandón required having either a Lacandón mother or father.

Since 1991, five out of five development projects and one fire prevention project, sponsored by Conservation International, have failed in Lacanjá because of lacking cultural awareness toward gender inclusion, landscape and rain forest resource-use. In essence, women were predominately clearing, weeding, and tilling the land; whereas, men were walking on top of the land as tourist guides.

I suggest that tree ridges gather symbolic and contemporary meaning. Both the tree ridges and land-use can be considered referent features that both orient and provide order to Lacandón worldview. The trees and milpas “are topographic features that anchor past and present memory” (Knab and Wendy Ashmore 2000:125) into the landscape, which indicated land boundaries between families in Lacanjá. Trees are referents in the landscape. Tree ridges are physically visible features encased with meaning invisible to the outsider. Once the trees are given meaning by the Lacandónes they can be located both horizontally and vertically in the local horizon.

Space becomes “a practiced place” (de Certeau 1984:117) through daily clearing of weeds along the tree ridges and by maintaining the milpas (agricultural plots). In 2003 and 2004, the women indicated that they maintained the tree ridges, and that the tree ridges had no medicinal or eating benefits to their households. This process of land-use was a form of “place-making” (Feld and Basso 1996:5-8) among the Lacandón and continues to change as tourism becomes more embedded into their economic infrastructure. Gendered work activities and value are their mechanics of social integration and exclusion.

Lacandónes’ use of landscape is socially reproduced through engendered stylized acts of performance (Salih 2003:88-98; Moore 1986:6; Bourdieu 1977:76) or work activities. The landscape essentially is transformative as communal land space evolves into place through landscape changes, alterations, and modifications. These landscape changes indicate levels of

significance values and economic changes (Feld and Basso 1996:8-9; Gray 2003:224) in the region. John Barrett argued that landscape was created from “natural and artificial features that become culturally meaningful resources through its routine occupancy” (Knapp and Wendy Ashmore 2000:7-8).

Other writers described landscape as “the relationship existing between two poles of experience and resulting as a cultural process” (Hirsch 1995:5), while Kuchler viewed “landscape as process rather than an inscribed surface from which social and cultural relations can be read off” (Kuchler 1993:86; Bender 1993:11). For my study I used the definition of landscape as “material manifestation of the relation between humans and the environment” (Ashmore and Knapp 2000:6), a place “where management practices have the potential of impacting rain forest resource-use at sub-regional scale” (Moran 2000:316).

Moreover, landscape is both personal and communal. “The person’s identity-his place in the total scheme of things-is not in doubt because the myths that support it are as real as the rocks and waterholes he can see and touch. He finds recorded in his land the ancient story of the lives and deeds of the immortal beings from whom he himself is descended, and whom he reveres. The whole countryside is his family tree” (Tuan 1977:157). These “signs serve to enhance a people’s sense of identity; they encourage awareness of a loyalty to place” (Tuan 1977:159). Place existed at different scales and can be defined as being:

“Whatever stable object catches our attention. As we look at a panoramic scene our eyes pause at points of interests. Each pause is time enough to create an image of place that loomed large momentarily in our views. The pause may be of such short duration and the interest so fleeting that we may not be fully aware of having focused on any particular object; we believe we have simply been looking at the general scene. Nonetheless these pauses have occurred. It is not possible to look at a scene in general; our eyes keep searching for points of rest. We may be deliberately searching for a landmark, or a feature on the horizon may be so prominent that it compels attention. Many places are viscerally significant yet has little visual prominence” (Tuan 1977:136-162).

The Lacandón rain forest offered tourists a visceral destination of calmness, tranquility, and transcendence without the unpalatable taste of seeing people catastrophically living in poverty or being displaced from their homes.

“Landscape becomes humanized when rain forest areas are engaged with life. The fields belonging to one village adjoin those of another. The limits of a settlement are no longer clearly visible. They are no longer dramatized by the discernible edges of the wilderness. Henceforth the integrity of place must be ritually maintained. To local people sense of place is promoted not only by their settlement’s physical circumscription in space; an awareness of the other settlements and rivalry with them significantly enhance the feeling of uniqueness and of identity” (Tuan 1977:166). For the Lacandón their landscape explained their genesis and origin.

### **Lacandón Social Milieu**

#### **Genesis and Origin**

Lacandónes, like many communities around the world have “an account of the origin of the world, the creation of mankind, and the appearance of their own society. “First is myth -- justifying the foundation of a society that corresponds to a timeless past, the second is a cyclical middle period -- the working of present day society, and the third deals with linear time -- description of casual change, perceived as a disturbance of legitimate order” (Vansina 1985:23).

In the Popul Vuh, a Maya 18<sup>th</sup> century manuscript recorded by Dominican priest Francisco Ximénez, stated that once the second creation came to an end the descendants of these men who had been made from wood returned to the trees of the forest in the form of monkeys (Bruce and Perera 1982:16). It is also in the rain forest that Lacandón pixan (souls) were believed to wander about with other souls while dreaming which they thought gave them insight into future events (Bruce 1979:29). Trees became a central symbolic figure for the Lacandón.

Past Lacandón religious system included a pantheon of thirty major gods. Copal incense was burnt at the *u yatoch k'uh* (god house) in a ceramic *ulakil k'uh* (god pot), each of which had the face of the god embodied molded onto one side of the pottery. During the late nineteenth century Lacandónes believed that their gods lived in Bonampak, Palenque and Yaxchilán, but this assertion could have derived from a basis other than their literal descent from the people who built these centers (Taylor 1989:188) Jose-Pepe Chanbor Kin indicated in 1991 “that in the past the Lacandónes would take part in religious rituals that were seldom practiced in Lacanjá anymore.” Yet, he omitted any geographic reference associated to any gods’ locations.

According to Lacandón traditions regarding their historical origins, they believed that they were made from clay and corn; then, returned to the floor of the rain forest by *Hachakyum* (True Lord) who created the animals, jungle, people, and stars that were considered as the seeds of plants (McGee 1990:182; Bruce and Perera 1982:16). In short, they believed they were created and placed in the rain forest because their oral traditions taught them that they lived in the rain forest since pre-Columbian times (Dichtl 1989:44).

Once they were taught “gods watched over the Lacandónes, rewarding and punishing them according to their behavior. In order for the gods to convey their will to the Lacandónes, gods gave them a series of technical rituals that helped them utilize local plants as intermediaries between humans and environment. Burning copal provided a medium of communication with the gods” (Dichtl 1988:30). However, by 1995, it was evident that although there were urgent needs for sustainable rain forest resource-use, the reasons were no longer part of their religious belief system. Instead, Lacandónes based their interaction in nature on their ecological knowledge and influences coming from external development agencies’ persuasion.

Carlos Kin remarked in 1991 that Lacandónes protected the rain forest because "es nuestra casa y porque la selva es nosotros" [it is our home and because we are the rain forest]. He added that "mas tarde no va llover - esta es el unico pulmon de la selva" [later on it will not rain - this is the only lung of the rain forest]. In many ways, his words echoed the external mythos that had been thrust upon them by federal agencies – the noble auto conservationists.

Both Carlos Kin and Enrique Kin commented in 1991 how their grandfathers prayed to other gods that protected their environment. They said "Nostros no queremos quemar la selva, queremos vivir como en los antipasados" [We do not want to burn the rain forest; we want to live like in the past].

Ricardo Kin added that his father like most others in Lacanjá did not teach him to pray or sing to the Lacandón gods. When he asked his mother about traditional religious beliefs and rituals, his mother answered "es un pecado" [it's a sin]. Ricardo remarked in 1995, "I don't understand because I believe in God, but I want to know our customs. The church said it is a sin to know about the Maya religion." Substituting the Lacandón religious system for a Christian system has inadvertently minimized the importance of the traditional ecological knowledge (TEK) base. New avenues for sustainable rain forest resource-use, medical plant identification, and natural medicinal treatment knowledge were needed.

## **Oral Traditions**

Oral traditions referred to both a process and to its cultural products. "Products are oral messages based on previous oral messages, at least a generation old. This process is a message transmission" (Vansina 1985:3). The "sources of oral histories are reminiscences, hearsay, or eyewitness accounts about events of the past as well as those that occurred during the lifetime of the informants. They have passed from person to person, for a period beyond the lifetime of the

informants. The two situations are typically different with regard to their analysis of recent events and the person's objective is to save the sources from oblivion" (Vasina 1985:12-14).

Functions of oral traditions were typically "influenced by the fact that every particular society holds cultural mores in relation to community or society at large. This was called a function" (Vasina 1985:100). In the case of the Lacandónes, their oral traditions regarding rain forest conservation functioned both as an obstruction and as a physical means for survival.

Rain forest sustainability was embedded in their oral traditions. For example, when I asked the Lacandónes in 1991 about deforestation in the region, they all stated that the federal government and missionaries had told them that they should not clear any rain forest because it would destroy the environment. These same agencies and individuals never offered or fully discussed the economic alternatives or choices they had in return for not harvesting the rain forest resources. Lacandónes already knew about the problems associated with harvesting the rain forest. Several Lacandón men spoke in 1991 about being taught by their fathers, grandfathers, and great-grandfathers that "if you cut down the jungle the rain will cease to exist." Manuel Kin, in 1991 stated, "Los árboles traen la lluvia, pero el gobierno es un negocio que trae la gente" [The trees bring the rain, but the government is a business that brings in the people]. However, they like many other people living in the Lacandón rain forest needed viable means of survival too.

In 1991, 1994, and 1995, the Lacandónes socially constructed their links to their history, present and future by maintaining their oral traditions regarding rain forest conservation. There were certain aspects of their oral traditions such as traditional ecological knowledge (TEK) that took into account agricultural techniques, irrigation systems, and weather forecasting. Attitudes toward their natural order of crops, rain forest, and social dissemination of ecological knowledge

from one generation to another in 2003 and 2004 demonstrated their local cognitive experiential knowledge. Traditional Lacandón belief system placed trees at the center of life since it provided people with a mythical explanation of the mechanism of birth. “Children were once told that their forbearers were born within the trunks of ceiba trees. However, once their gods saw that the ceiba trees were few and distant, then they were being born among the papayas in their milpas (agricultural plots)” (Boremanse 1978:80).

Scarcity and distance of the ceiba trees in 1995 could account for the environmental degradation in the Lacandón rain forest that caused some Lacandónes to migrate to different parts of the rain forest. The dynamic mythological interconnection between nature and the Lacandón created a cultural framework for their cultural community identity indicator. Furthering the importance of the rain forest was the Lacandón integration of their reverence for the rain forest in their songs and dance. For example, they made reference to dancing by the ceiba in the house of god and when they are in heaven they will dance by the sacred ceiba (Malmstrom 1969:11, 13). Ceiba trees were considered perfect replicas of ear flares worn by the Classic Maya kings - the kings were the human embodiment of the ceiba as the central axis of the world (Freidel, Schele, and Parker 1993:394).

Drought was associated with environmental neglect and deforestation. Lacandónes spoke about Palenque as their example of what happens to a city if you deplete the area of trees. Hotelkeepers in Palenque verified that they felt that their city had warmer weather and less rainfall than towns near the Bonampak ruins. Essentially, the Lacandónes were still being taught in 1995 that trees were needed in order to assure that there was moisture in the lower atmosphere, which was important for plant growth. By 2004, the Lacandónes like most other individuals in the region, where looking toward increasing tourism into the State of Chiapas.

## **Power Structures**

Residents living in Lacanjá historically did not have a centralized political system; instead, a few men's eminence, wisdom, and skillfulness allowed them to exercise some influence upon their kin and neighbors. Their influence was mainly due to their moral and psychological qualities (Boremanse 1978). Lacandónes do not have a word for leader. As an alternative, they referred to men who inspired others with respect and fear as *tah* (fierce and brave) (Boremanse 1998:69).

Jose-Pepe Chanbor Kin was considered a *tah* in Lacanjá since the 1950s. According to traditional order of succession, he became the *T'o'ohil* (great one who has the powers of a clairvoyant) a spiritual leader, distributor of land, and teacher of the Maya traditions. He was also responsible for showing the Bonampak ruins in February 1946 to Giles Healey, an American photographer working for the United Fruit Company in the United States. The Bonampak ruins discovery lead to further exploration of the archeological site by Mexican and foreign scholars.

In the early 1970s Jose-Pepe Chanbor Kin was given legal political power by the federal government when he was appointed from 1970-1976 as representative of all the Lacandónes in the region. He became the administrator of the communal lands. When I first met him in 1991, he spoke lucidly about the local rain forest environment, “There are less trees, but more tree than elsewhere.” Chanbor’s charismatic nephew Chankin Kin spoke fondly about how his uncle had approached Mexican President Luis Echeveria (1970-1976) asking him bluntly “Are we losing our land to the people of the State of Guerrero? Are you planning to buy up the land?”

Chankin Kin added that like his uncle Jose-Pepe Chanbor Kin, “We do not want to burn down the rain forest, we work in the milpas, and it is hotter for example in Mexico City because there are very few trees.” Jose-Pepe Chanbor Kin worked on behalf of the Lacandón but died of

a heart attack in 1993, leaving behind Carmelo Kin as Lacanjá's Commissioner and Jorge Kin as Treasurer. Chanbor Kin's son-in-law Manuel Kin was left as spiritual minister. In 2004, no one had ascended to the role of T'ó'ohil (great one who has the powers of a clairvoyant) in Lacanjá.

### **Definition of "Other" - Linguistic**

Lacandónes referred to their language as *hax t'an*, meaning real language (Bruce 1982:5; Dichtl; 1989:44). Their speech has twenty-seven different phonemes consisting of six vowel phonemes and one vowel-lengthening phoneme. One could use four different sounds without changing or destroying the meaning of the word (Bruce 1968:19). The southern Lacandónes refer to the northern Lacandón living in Lacanjá as *Huntul Winik* (other people). Subtle language variations in 1991 kept some women from having a formal social exchange between each other since one group may gossip and accuse the other of spousal cheating and stealing.

Some scholars believe that there are linguistic indicators showing that some of the Lacandón are descendants of the Maya of Palenque since their language is recognizable in terms of Maya codices and glyph inscriptions at the site. In fact their numerical classifiers and syntactic use is the same (Bruce and Perera 1982:12). Basic Lacandón language principle focused on possession and location. Everything has an owner and a position in relation to everything else (Bruce and Perera 1982:15). I argue that linguistic variations at best proved linguistic acculturation by neighboring migratory groups throughout the ages, but without any further archaeological and linguistic evidence, nothing more can be proven at this date of time in 2010.

Perceptions of being different have further historical roots. Difference between Lacandónes was seen as the early 1970s when Lacandón families began migrating from Najá between 1975 and 1985. Didier Boremanse, an Oxford University trained anthropologist at the Universidad del Valle de Guatemala, attributed the Najá migration to Lacanjá as the result of "conflict, scarcity of land, and the important fact that there is still some rain forest in the Southeast" (Boremanse

1998:12). Boremanse furthered detailed how Jacques Soustelle (1935:340), French anthropologist and past Vice-Director of the Musée de l'Homme believed that the Southern Lacandón were descendants from communities in Lacantún, Chixoy and the Pasión area, whereas, the Northern Lacandón migrated from northwestern Petén (Boremanse 1998:7). Karl Theodor Sapper (Sapper 1897:256), German geographer, thought that the Lacandón were on the “verge of extinction by the end of the nineteenth century” (Boremanse 1998:6).

American anthropologist Robert Bruce (1976:7-8) believed that “Northern and Southern Lacandón spoke two different dialects of the same Maya language, and were distinguished by several other cultural particulars, such as their clothing, and adornments, hair styles, kinship terminologies and principles of marital residence, ethos, mentality, and oral traditions. Bruce lived with both Lacandón groups in the 1950s, and wrote, “It would be an error to consider Northern and Southern Lacandón as a single ethnic group. Northern and Southern Lacandón are linguistically nearly as different from one another as either is from Yucatec... Their cultural similarity is due to the fact that both groups had approximately the same degree of isolation and freedom from Occidental influences” (Boremanse 1998:7).

Language distinctions were definitely evidence of being different from others in Lacanjá. Throughout my stay in Lacanjá starting in 1991, I encountered family members from Najá who stated that “there was a language pronunciation difference that was slight but apparent at the same time.” This slight language difference was no longer an issue by 2004. The two groups of Lacandónes living in Lacanjá understood each other perfectly and would speak Spanish to visiting tourists in town. In 2004, Dr. Didier Boremanse and I spoke at length in Lacanjá about my impressions regarding the social exclusion of non-Lacandón workers in the town and

reflected about the growth of tourist economy within the traditional household economy and the impact it had on the local rain forest environment.

### **Onens (Family Names)**

Social identity was maintained and defined in kinship terms, as well as through onen terms. An "onen" was translated as "that by which one is known" and it functioned as a surname for the Lacandónes (Bruce 1968:20). Moreover, the Lacandónes were once divided into onen divisions that identified certain localities. For instance, in Najá, a Lacandón village north of Lacanjá, *ma'ax* (monkey) and *k'eken* (boar) onen existed. In Lacanjá, *k'ambul* (curassow), *k'eken* (boar), and *yuk* (deer) onens were found (Bruce and Perera 1982:16). My findings among the Lacanjá residents in 1991 indicated a prefix and suffix of *yuk* (deer) could be a remnant of past migrations from residents who traveled from the Rio Lacantun area south-east of Lacanjá. Yuk (deer) onens were also discovered near the shores of the Lacandón River (Tozzer 1907).

Onens should not be mistaken for being totemic, a belief in a mystical relationship between a common ancestor group and an animal, plant, or other category of nature. Lacandónes had no prohibitions against consuming one's onen animal, nor do they believe in a *nagual* which is when a human being transforms into an animal by his or her own power (McGee 1990:48). More importantly, onens helped determined which and how a Lacandón god cured an illness. Both illness and cure could be analyzing through dreams of the ill or individuals associated (kin or non-kin) with the person (Bruce and Perera 1982:17, 75). Dreams were also an important source for divination rituals and for understanding one's own psyche and interpersonal relations between people.

General dream principles of the Lacandón system were *ba'tik u tus* (kind of lie), showed reversal of attributes and alternation between people and animals by means of the onen. *U k'in* (prophecy) was a symbolic metaphor, and *hach u pixan* (the real soul) was a representation of the

whole or the associated object (Bruce 1979:20). Wayak (dream) was what the pixan (soul/located in the heart), sees when it leaves the body when it is asleep and wandering around, and if someone dreams about somebody else; it means that their soul has gone to meet the other person's soul (Boramense 1978:85 & 340).

Dreams also spoke of fears and wishes that were reflected back to the person, draped in the garments in his natural environment (Redfield and Rojas 1967:210). U k'ins (prophecy) had symbolic meanings. K'in translated into sun or day, but its symbolic meaning was age or era (Bruce 1968:77). Fulfillment of a u k'in (prophecy) could vary from either the next day to years in the future (Bruce 1979:34). Moreover, the traditional focus on dreams was so intertwined in everyday life that as one said goodnight, ki' wenew tech (sleep well, you) one answered with ki' I ba' a wilik (be careful what you see and dream) (Bruce 1979:28). By 2003 and 2004 people made no reference to traditional dream analysis practices.

## **Marriage Patterns**

Laws of marriage and descent expressed bonds between people, and indicated which individuals followed the same practice (Tylor 1889). This explained the evolution of a community through a given period of time. Marriage regulations within a clan displayed oppositions; also they acknowledge ties of kindred and usually allied by language (Tylor 1889).

Traditional matrilineal endogamous marriage partners were determined by the compatibility of onens. Lacandón believed children were born either k'eken (boar) or bolom (jaguar) onens whom had larger heads, while babies from ma'ax (monkey) onen had smaller heads. Customs allowed k'eken, bolom, and ma'ax (only the men) onens to marry and bear children. *Ma'ax* women only married ma'ax men since it was believed to be easier to give birth to smaller babies than larger babies (Bruce and Perera 1982:16). Aside from onen compatibility being a focal issue in a marriage, bride service was another factor involved in the marriage

decision. Every new marriage arrangement generated a marriage bride service agreement between the husband and his future in-laws in 1991. Lacandón men worked for their in-laws for free for several years. By 2004, labor bride service given to the in-laws was no longer required or a common practice among the Lacandón.

Felipe Kin and Miguel Kin asked, “Whether men in the United States were required to work for their father-in-law as a form of bride service? They thought that men in the United States were only required to work for six months in the United States for the in-laws.” When I asked whether a man could marry more than one wife at a time, Miguel remarked “that they had only one wife in 1991.” Generally, Lacandón men claimed that polygamous marriages did not exist compared to 43 percent of polygamous marriages indicated in the past (Boremanse 1978:317). Kinbor Kin, on the other hand, remarked that “some men did have more than one wife.” Enrique Kin stated, “That he did not follow evangelical teachings regarding marriage monogamy, and had more than one wife.”

However, Nuk Yuk mentioned in 1995, “that women did not want their husbands to have other wives.” In general, the Seven Day Adventists who influenced the Lacandónes of Lacanjá discouraged polygamous marriages. By 2003 and 2004, several Lacandón women reported that “their husbands had more than one wife, and men were no longer expected to work for his in-laws as a marriage exchange between families.”

### **Kinship System**

Matrilineal (tracing descent through the maternal line) and matrilocal (home centered around residence of the wife’s family) patterns started to change once the evangelist movement under the direction of Phillip Baer, a Baptist missionary of the Summer Institute of Linguistics, flourished in Lacanjá. Baer was able to construct and impose his particular vision of the social world (Bourdieu 1994). Neither polygamy nor the pantheons of Lacandón gods were acceptable

within Baer's social world, it became inevitable that kinship patterns began to change once the Lacandónes were encouraged to practice monogamy and taught to believe in only one god -- Jesus Christo. Baer succeeded in converting Jose-Pepe Chanbor in the 1950s, and others followed. One result was a change from matrilineal (tracing descent through the maternal line) to patrilineal (tracing descent through the paternal line) descent in Lacanjá. In 1991, children always resided with their mother and her family even in cases of separation or divorce. However, in 2003 and 2004 children were expected to live with their father and his family regardless of marital status or childcare arrangements.

### **Secular Education**

Secular teaching took place in Lacanjá's only primary schoolhouse (shown in photo, figure 3-4). Academic levels ranged from the first through sixth grade. Parents who wanted their children to continue their education beyond primary school had to either walk for 10 kilometers (6.2 miles) or pay for transportation during the week in order to reach the nearest school in Nueva Palestina, a town of 5,000 Tzeltal that was founded in 1976. Most parents choose not to send their children to Nueva Palestina. Some scholars believed that one reason was because the Lacandón historically referred to the Tzeltals as *putun* (barbarian) and the Tzeltal language as *putun-t'an* (barbarous) (Bruce 1968:3).

Other scholars wrote that the Lacandón referred to their Chol neighbors living in Frontera Corozal and Tzeltal in Nueva Palestina "by the term *Kah*, which meant place or village in Maya. Non-Lacandón individuals lived in concentrated settlements, unlike the Lacandón, who tried to keep their clusters of household spread out as much as they could" (Boremanse 1998:7).

I differ on the general belief that Lacandón refused to send their children to the schools in Nueva Palestina or Frontera Corozal based of ethnic differences. After speaking to women in Lacanjá in 1991 and 2004, the reasons for not sending their children to Nueva Palestina was

based on finances and distance. In 2004, it cost 40 pesos (\$4.00) a day in transportation to send their children to other towns and it definitely too far 10 kilometers (6.2 miles) to make the daily journey roundtrip alone. Women also mentioned in 2004 “a petition had been sent to the federal government requesting that a middle school be built and that trained middle school teachers be hired, so their children could continue their studies in Lacanjá.”

In 1991 Manuel Martinez and Javier Martinez, both primary school teachers, noted that there were forty students in all who attended school from 9:00 a.m. to 2:30 p.m. Monday through Friday. There were six girls and eleven boys in the first and second grade, which was more interactive than the older group of students in class. Third and fourth grade had only six boys and two girls attending school.

Young girls showed greater strength in math than they did in reading out loud in class. This may be attributed to the fact that reading out loud would force the young girls to speak in a loud voice, something that was rarely seen or done under most social interactions with each other in Lacanjá. Attending school was one of the few opportunities that young girls from all of Lacanjá had to talk together without being accused of gossiping like adults.

Javier Martinez, a schoolteacher in 1995, remarked that children adjusted well to school, but that parents mostly brought their sons to school and not their daughters. Parents asked the teachers for permission to take their children out of school for up to two weeks in order to work in Bonampak as guides and helpers. Kinbor Kin later added in 1995 that “his reason for not sending his daughters to school like some others was that his daughters might seek employment outside Lacanjá if they became educated.”

In 2003, Augusta Martinez, 27-year-old schoolteacher from Palenque, and her husband Domingo Martinez, also a schoolteacher, spoke about school attendance in Lacanjá. There were

52 children enrolled. Students attended school Monday through Friday for approximately 2.5 hours a day. This was a dramatic decrease in school hours considering that in 1991, students attending school for 5.5 hours a day. Augusta mentioned, “Children went home and played with friends, completed their chores or sold necklaces at the Bonampak ruins. I also inquired about any socio-economic changes taking place in Lacanjá? Augusta answered, “Youth, especially boys, were losing their traditions. No more túnicas, long hair and they wear shoes.” She attributed “change to tourism and television. Both tourism and television gave them different ideas.” Suddenly, mainstream television and satellite access made it possible for youth to watch commercials like never before. Media showed Lacanjá youth everything they lacked materially. Tourism offered the community hard cash in exchange for them using their traditional ecological knowledge (TEK) to guide tourists toward their in-nature experience.

Augusta Martinez also noticed in 2003 that there were fewer trees than when she first arrived in 2001. Moreover, she added, “Las mujeres tienen el poder en Lacanjá, las mujeres pueden tener su propia milpa y trabajar en la milpa” [Women have power in Lacanjá women can own and work in the milpa]. Las mujeres se engargan de todos los asuntos aquí en Lacanjá” [The women are in charge of all the affairs in Lacanja]. She mentioned how “Young girls, ages 13 years to 15 years old were obligated by their parents to marry young. As for women’s work, women made artesanía (crafts) like woodcarvings and made necklaces or bracelets from tree seeds. Seeds were easy to find and children helped locate and gather tree seeds. Children often fought over trees.” Families needed timber to make small and large animal woodcarvings.

Finally, Augusta Martinez added, “The tourism season meant children missing school and helping their parents with tourists, because the children could 100 pesos (\$10.00) per person. La mujeres caminan más para encontrar la madera necesaria para hacer artesanías” [Women walk

further to find the necessary timber to make crafts]. I asked her, who attends school regularly boys or girls? Augusta Martinez said, “La mayoría son los niños. A veces las madres no mandan su hijas porque piensan que la escuela es para encontrar un novio” [The majority are boys. Sometimes mothers do not send their daughters because they believe school is a place to find a boyfriend]. Yet, she added “that girls already learned about dating from soap operas on television.”

Dr. Lara, community medical doctor, stated in 2004, “that even though all children have rights to attend state and federal funded schools, only Lacandón children had rights to attend school in Lacanjá. Three boys were already prohibited from attending school because their father was not Lacandón.” I mentioned that I knew two young girls in 2003 that attended school in Lacanjá even thought they were non-Lacandón.

Dr. Lara added that in 2004, “if non-Lacandón children attended school they would not receive a certificate proving their attendance or meeting academic regulations. Non-Lacandón children could only attend schools in Nueva Palestina and Frontera Corozal, which in 2004 transportation cost were 40 pesos (\$4.00) per day roundtrip.” Average salary for men per day in the same year, was 20 pesos (\$2.00), 40 pesos (\$4.00), and no more than 50 pesos (\$5.00) per day.

Non-Lacandón labor families could ask for medical attention and medicine was free. However, Dr. Lara remarked, “that if this bothered the Lacandónes; then, he would have to stop providing medical services to Non-Lacandón.” He added “in 2003, a female health practitioner from Ocosingo came from family services to speak to women about their rights and children. Only men showed up to the meeting and they asked the health practitioner to leave. The men did not want her to put ideas into their womens’ head. She left and never returned.”

Young women as young as 13 are raped and cases go unrecorded because of the young women's fear of outcome. Families remain silent too because they do not want any problems. When Dr. Lara attempted to tell families, after seeing a naked women drunk in Bethel, that "no esta bueno ver esto [it is not good to see this]." He was silenced by the Lacandón men, and told to "mind his own business or else they would denounce him!" People in a nearby town had already held him hostage for two days and threatened to kill him for his interference in their medical affairs, so he had to be extremely careful or be possibly held hostage again.

By medical affairs, Dr. Lara explained that it meant his refusal to document Progressa Programa (health awareness workshops) attendance of individuals not attending the classes in which the residents were getting paid in 2004, 310 pesos (\$31.00) every two months to attend by the federal government. He did not want to be liable for fraud, and felt that the health classes were essential for public health. Dr. Lara added that "beating women is a way of life here in Lacanjá, and that children are not taught to respect the mothers. They shout at them and since they see their fathers hit their mothers, they assume that it is their right to hit women too."

In 2003, I had the opportunity to be a school Madrina (Godmother) for one of the young girls being promoted from kindergarten and going into the first grade. Carlos Kin and his wife Rosa Yuk quickly called on me to be their daughter's Marcela Yuk's sponsor and I attended in glee hoping to see this young child move ritually to her next level in life. Celebration festivities included la rasca dance, and music from different regions in México followed by a delicious chicken mole meal.

### **Residential Settlement Patterns**

Traditional Lacandón spatial settlement patterns (figure 3-5 below) were matrilocal (normal residence was near or with the wife's matrilineal family), which could have enhanced survival in the rain forest in the following ways: "minimized warfare and conflict among people

by the scattering of related men over large regions, made it difficult for them to support each other's interests" (Divale 1984:12). "Gods were believed to have resolved conflicts so that confrontations did not occur in their world. Instead conflict took place in the world of gods and not between human beings," (Boremanse 1978:318). Avoiding conflict encouraged the Lacandón to focus on their household reproduction and production work activities, which was their main means of survival in the early 1990s.

### **Defining Time and Space**

Every community "has cultural representations concerning spatial connotations. Both time and space imply a relational notion that held a temporal and spatial value. Within space, certain facets are more prominent than others and some are recognized while others are only loosely perceived" (Vasina 1985:125).

In certain "cases the production and reproduction of social spaces are the results of the practices of people, whose very identities and practical orientations are influenced by the space in which they have been socialized" (Lomnitz-Adler 1992:61). "Knowledge and power have shaped and reshaped space in conformity to the ideas produced in discourse" (Foucault 1988).

Carlos Kin discussed in 1991, how "Lacandón ancestors used to tell them that in destroying the rain forest a desert would be created and there would be no rain." Their social space and power in the world as they understood it would be transformed into a barren wasteland, constantly ticking to an end unless they attempted to sustain the rain forest and its vital resources.

"Time, that was measured in ecological terms dealt with recurrent natural phenomena, such as the cycles of the day, moon, season, and year," (Vasina 1985:174). For the Lacandónes throughout the 1990s, they still emphasized their position within the rain forest indicating their social place attachment to the rain forest. Aside from providing a home and means of

subsistence, the rain forest was “a site which had material, symbolic, and functional meaning in relation to their past which connected them to their actions and events taking place in the present” (Nora 1989:7-48). For example, their milpas (agricultural plots) fields connected them to a land that nourished and provided natural resources for them. Agricultural work also provided seasonal and yearly frameworks that permitted traditional ecological knowledge (TEK) regarding agricultural and forestry techniques to flourish.

Traditional ecological knowledge (TEK) was transmitted from generation to future generations. By 2004, spatial understanding and ecological knowledge became an identity badge for many of the Lacandón interviewed. To be Lacandón implied working like a Lacandón. Similarly, the rain forest landscape developed into a site of autobiographical identity even as they intensified their resource-use and some men were no longer maintaining their milpas by 2003 and 2004.

### **Landscape Autobiographies- Spatial Premise of Identity**

Space both as a concept, substance, meaning, and purpose fascinate scholars. Aristotle in Physics declared “place and space had six phenomenological directions – up versus down, in front versus behind, left versus right, and all directions were imposed on the world by our bodies” (Levinson 2001:3). Newton later defined space “as an infinite three-dimensional void in which things happen to be, an empty box, that could be people with the objects of the universe” (Levinson and Brown 1994:4). Whereas, Leibniz (1715) portrayed space as “our name for the relations between things” (Levinson and Brown 1994:3), space is rendered obsolete of meaning unless humans invested meaning into it.

Immanuel Kant (1768) articulated in the First Ground of the Distinction of Regions of Space that “space was neither a set of relations between things nor an ethereal stuff, but rather a subjective framework we impose on the objective world” (Levinson and Brown 1994:3). Hence,

the imperative question being why, when and how did space exist altogether? Cognitive anthropology managed to confront these questions by “describing cultures from the inside out rather than from the outside in” (Tyler 1969).

Space as a cultural unit may be the invisible ethos in process of becoming visible. Or an experiential awareness that takes place through performativity (Butler 2004 [1988]). Space cognizance in the Maya realm can illustrate both ecological and social behavior toward self and personhood using their own worldview, and illustrates how natural rain forest resources are manipulated according to Lacandón emic spatial boundaries and values.

Some author’s perceived space as the point where “human experience of freedom and home are felt” (Tuan 1977). Nevertheless, can experience or qualities of freedom or home constitute an internal navigating system? Or is knowledge of spatial areas an indicator of “space being a practiced place” (de Certeau 1984)?

First, one needs to examine the kinesthesia of humans through space; “beginning with extension of one’s hand in space, feeling the wind blowing on one’s hand, and seeing vastness in the horizon are all markers of bodily activities. Human movements in, around, and through space are haptic, visual and visceral. Space becomes suddenly becomes manifested and “transformed into place as it acquires definition and meaning” (Tuan 1977). Expressing motion in space postulates a person’s experience in space possibly leading toward creating a cognitive social map or other forms of coordinate systems as found within Maya communities. Awareness of Lacandón cognition of space offered a glimpse at their worldview, and specified how environment affects absolute and relative terms in spatial language.

Aristotelian coordinal concepts of right or left have practically become a universal canon. However, anthropologist seeking to uncover the truth about directionality definitions looked at

Maya communities as their source of information. Cognitive anthropologists asked, “How can one know how people unconsciously think about space? What nonverbal concepts are employed to distinguish positions and directions, and what are their properties” (Levinson 1998)? While working with Tenejapans in the state of Chiapas, México, Levinson learned that the Tzeltal language “favor use of cardinal directions like absolute coordinates reliably employ absolute coordinates in a wide range of tasks” (Levinson, 1998; Levinson and Brown 1994:22).

Absolute coordinate directions are viewpoint independent that indicate that an object does not change its location in space when one turns around. For example, an absolute indicator of an object in space is the fork is to the north of the spoon; in Tzeltal the fork is uphill of the spoon since uphill implies south and downhill designates north coordinate directions. Relative coordinates are viewpoint dependant and change as a person turns around. Meaning that in relative terms the fork is to the left of the spoon.

In other cases, Mopan speakers of Belize use an intrinsic coordinate direction system that helps explain the spatial relations between objects, in their case the fork is at the nose of the spoon. These types of spatial studies proved that Aristotelian coordinal concepts were not universal, and that individuals using absolute systems could describe spatial maps even if physical paths, routes, or roads did not exist to the mere observer (Majid et al. 2004; Levinson 1996b, 1998). Thus, different types of coordinate systems decoded peoples’ spatial relationship to objects, but also defined their physical landscapes. Space helps define landscape as a personal history made visible to everyone. People’s land manipulation, use, and non-use may be a method of creating history and placing it symbolically into the landscape.

Work by Brady and Ashmore used landscape as the framing reference for describing the impact of space on individuals and groups of the past. Maya landscapes became “nested scales of

space, time, and architectural metaphor, families could ritually lay claim to continuity with the earth and its primordial past, and kings literally positioned their claim to rulership” (Brady and Ashmore 2000). Space as a unit of analysis in archeological work continues to shed light upon relationships between people and their historical ecology (Palka 2005).

Another area of interest within anthropology is the impact of space on gender roles. According to some scholars “space only acquired meaning when actors invoked it in practice” (Moore 1986). In short, individuals “share the same conceptual structure but enter into it in different positions and therefore subject it to different interpretations” (Moore 1986). Space once again becomes a practiced place through the interactions of individuals and the performance of their gendering activities. However, if one performs gendered activities through movements in space does it then define physical attributes found in the landscape? Tree ridge perception, among the Lacandónes, act as a conceptual marker, which anchors them to their past practice of settlement land boundaries between families. For example, in 2003 and 2004, tree ridges were physically visible markers in the landscape that had certain invisible meaning too.

In all, ecological anthropology gained insight from genderscape because it furthered our understanding of how individuals and community interact with each other and their spatial environment. Movements and experiences in space offer a unique method of measuring knowledge that would otherwise go unstudied. Lacandón identity may be expressed through specific movements in space. And if linguistically it has been proven that language can be influence by physical environments as in Tenajapa; then, one can examine the types of relational spatial systems existing within Lacandón community to date.



Figure 3-1. Pig in the milpa

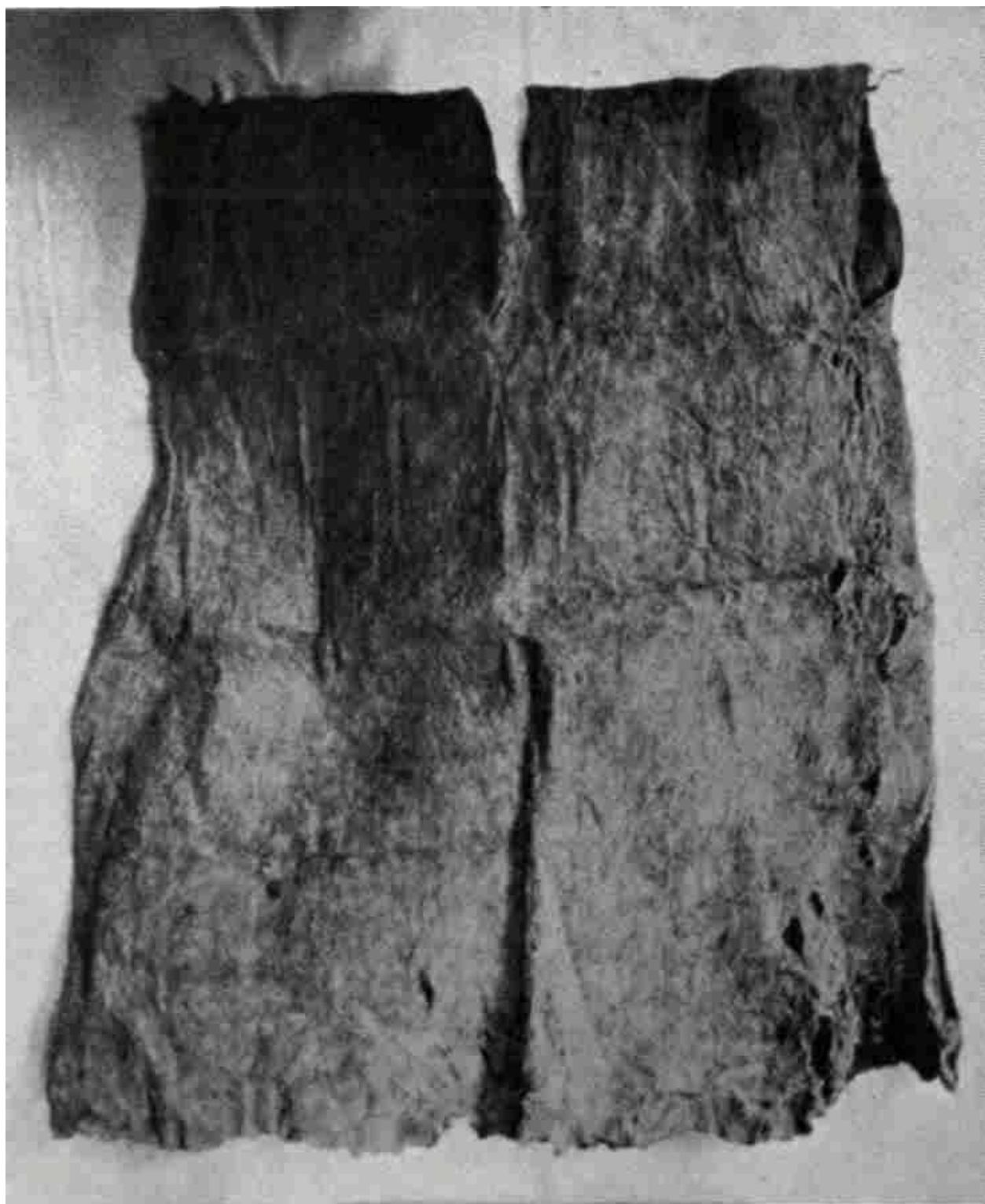


Figure 3-2. Fiber dress of the Lacandones, by Alfred Tozzer (Photo courtesy of © Dr. Sebastian Roeling 2004-2008 at [www.mayaweb.ni](http://www.mayaweb.ni))



Figure 3-3. Traditional tunic (cotton), 2005 (Photo courtesy of © Dr. Sebastian Roeling 2004-2008 at [www.mayaweb.ni](http://www.mayaweb.ni))



Figure 3-4. Contemporary tunic of mahaguabark, sold at Na Bolom, 2007 (Photo courtesy of © Dr. Sebastian Roeling 2004-2008 at [www.mayaweb.ni](http://www.mayaweb.ni))



Figure 3-5. Lacandón woman spinning the native cotton. The spindle rests in a gourd and the mass of crude cotton rests on the shoulder, 1903-1904 by Alfred Tozzer (Photo courtesy of © Dr. Sebastian Roeling 2004-2008 at [www.mayaweb.ni](http://www.mayaweb.ni))



Figure 3-6. Lacandón woman beginning the weaving of a piece of cloth on a native loom the by Alfred Tozzer (Photo courtesy of © Dr. Sebastian Roeling 2004-2008 at [www.mayaweb.ni](http://www.mayaweb.ni))

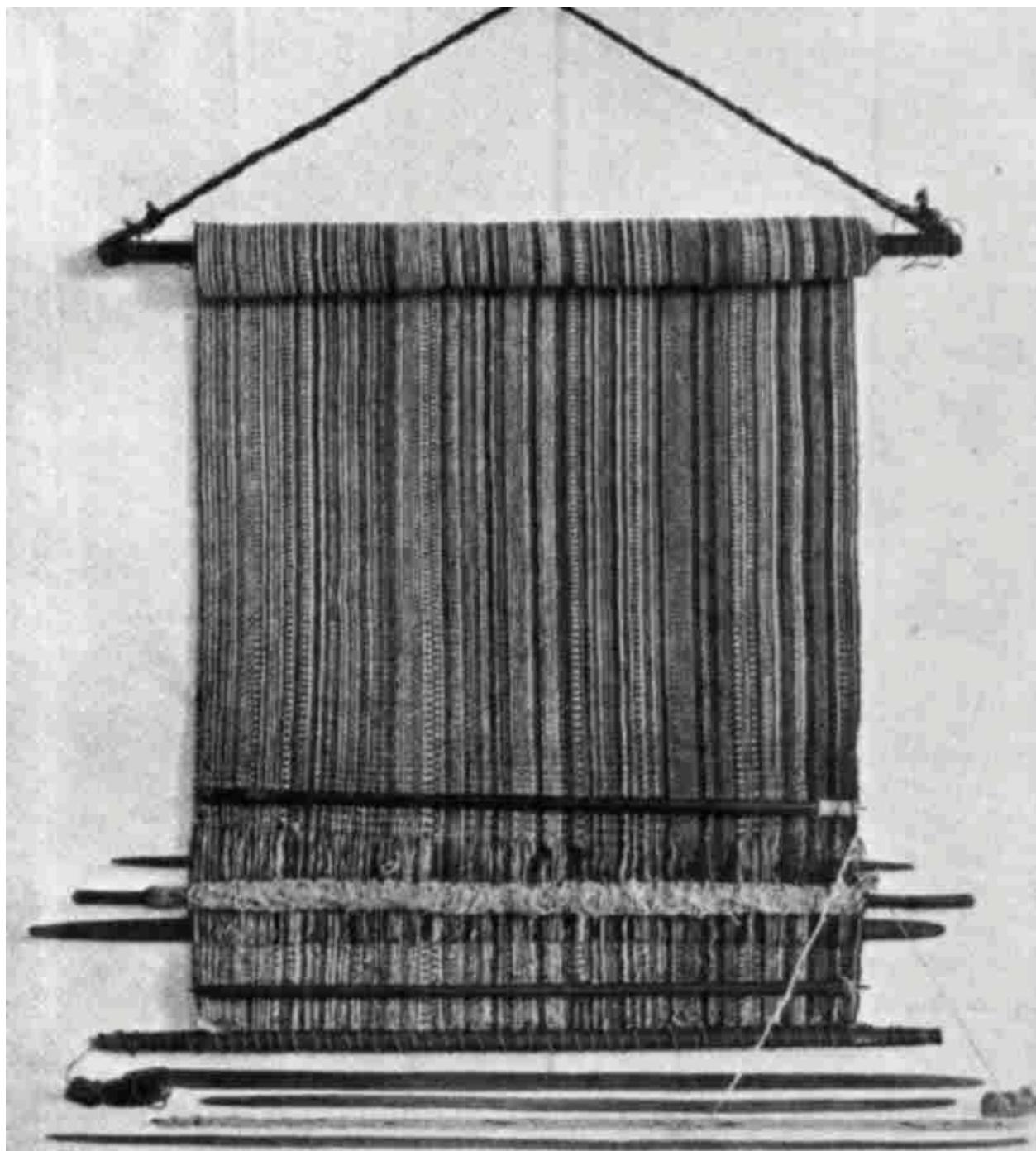


Figure 3-7. Lacandón loom, with utensils for weaving, 1903-1904 by Alfred Tozzer (Photo courtesy of © Dr. Sebastian Roeling 2004-2008 at [www.mayaweb.ni](http://www.mayaweb.ni))



Figure 3-8. Tapir wood carving, 2004



Figure 3-9. Wooden spoons, 2004



Figure 3-10. Woodcarved plate. 2007 (Photo courtesy of © Dr. Sebastian Roeling 2004-2008 at [www.mayaweb.ni](http://www.mayaweb.ni))



Figure 3-11. Terra cotta incense burner. Photo by Georgette Soustelle. 1903-1904. Photo first published in Collections Lacandons (Catalogues de Musée de l'Homme, Paris 1966) (Photo courtesy of © Dr. Sebastian Roeling 2004-2008 at [www.mayaweb.ni](http://www.mayaweb.ni))



Figure 3-12. Small pained godpot sold at Na Bolom, San Cristobal de la Casas, Chiapas, 2007  
(Photo courtesy of © Dr. Sebastian Roeling 2004-2008 at [www.mayaweb.ni](http://www.mayaweb.ni))



Figure 3-13. Necklace of brown seeds with three wooden pendants, 2007 (Photo courtesy of © Dr. Sebastian Roeling 2004-2008 at [www.mayaweb.ni](http://www.mayaweb.ni))



Figure 3-14. Bracelet of brown seeds in crosspattern with pink cord, 2007 (Photo courtesy of © Dr. Sebastian Roeling 2004-2008 at [www.mayaweb.ni](http://www.mayaweb.ni))



Figure 3-15. Bracelet of brown seeds with flower motive of precatory beans, 2007 (Photo courtesy of © Dr. Sebastian Roeling 2004-2008 at [www.mayaweb.ni](http://www.mayaweb.ni))



Figure 3-16. Photograph of Lacandón children in primary school in Lacanjá 2004

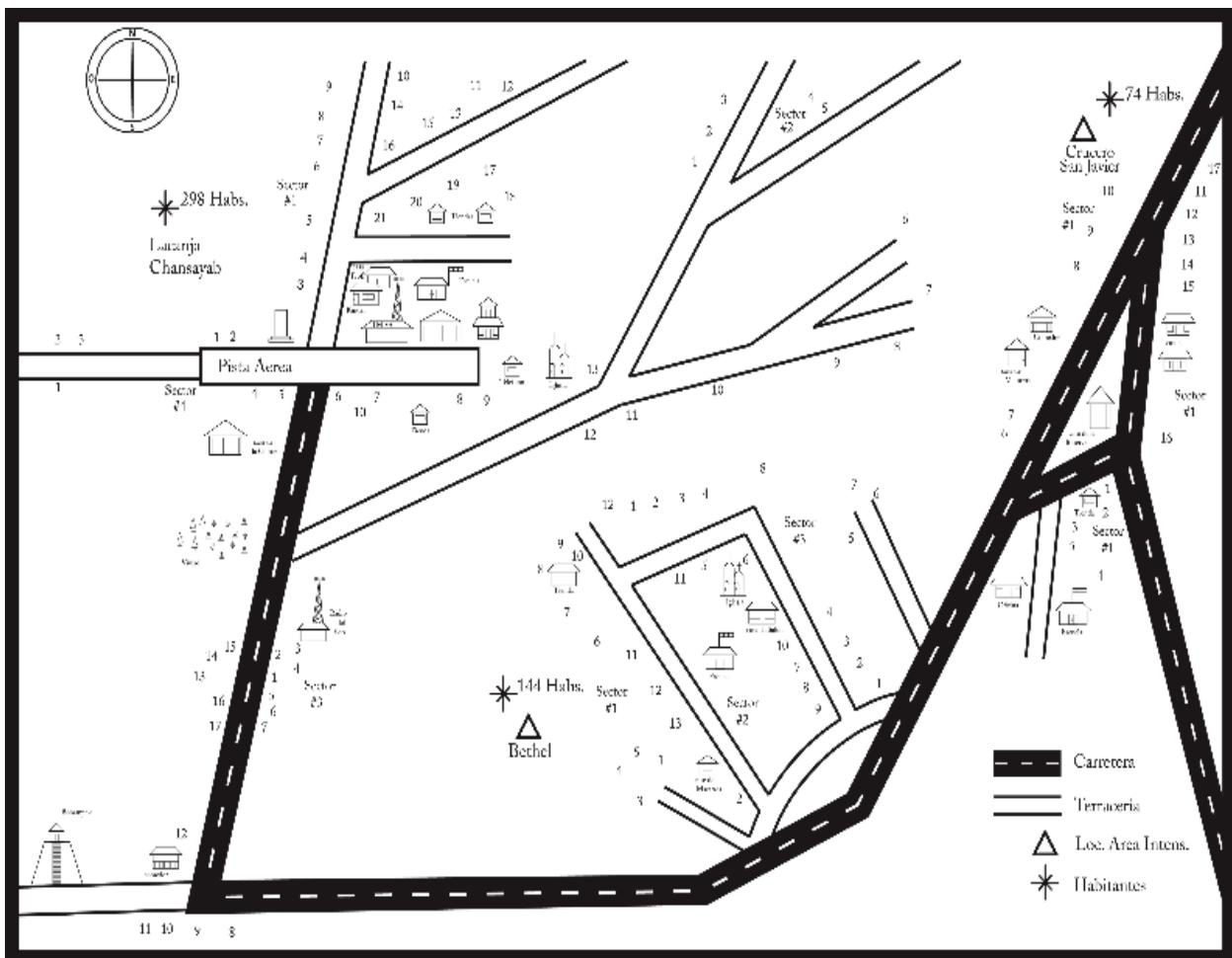


Figure 3-17. Map of residential settlements in Lacanjal Chansayab, México (Courtesy of Robbie Reed)

## CHAPTER 4

### RAIN FOREST POLICIES AND PRACTICES

Landscape background about the Lacandón region provides a current state of rain forest conditions, as well as a snapshot of everyday life among the Lacandones. It is a cornucopia of social-economic issues facing each community member in Lacanjá. My research indicated that complicating matters most was the federal government's mandate to maintain and conserve the rain forest environment, while meeting economic growth demands of the nation.

In 1989, under Carlos Salinas de Gortari (1988-1994) presidency, the government passed a forestry ban in the Lacandón rain forest that affected 38 ejidos (communal lands) in the State of Chiapas. However, the ban did not offer people any economic alternatives. People illegally harvested the rain forest as a result of the ban (Harvey:218). The Lacandón rain forest and its natural resource base attracted national and international conglomerates into the Lacandón rain forest for timber or palma camedor (xate) harvesting, hydroelectric exploration, and tourism purposes.

#### **Lacandón Rain Forest Practices**

The Lacandones socially constructed their past, present and future by maintaining their oral traditions regarding rain forest conservation. Certain aspects of their oral traditions took account of agricultural techniques, irrigation systems, and weather forecasting.

One of several other causes of environmental degradation in Lacandón rain forest was the federal governments' lack of cross-sectored forestry policy collaborations. Teams of environmental scientists and governmental agencies often worked on the same issues but apart, and without any coordination with local stakeholders. Exclusion of other indigenous groups such as the Chol community of Frontera Corozal and Tzeltal of Nueva Palestina in the area makes policy implementation and enforceability nearly impossible to comprehend. Under Article 27<sup>th</sup> of

the Constitución Política de los Estados Unidos Mexicanos of 1917 ejidos (communal lands) were established, which gave all citizens an opportunity to have their own land. Social justice and ethics seemed to be integrated into this decision-making process regarding agrarian reform, but fell short in administrative guidance within the Lacandón rain forest.

Rain forest policies in México are an ambivalent Pandora's Box filled with rival interests from all corners of the country. Past rain forest policies in the Lacandón rain forest limited itself to disjointed micro and macroeconomic-social analyses from a global to local level. An overarching dilemma, among many, is the lack of understanding how and why gender, landscape and spatial practices influence rain forest resource-use and access in the Lacandón rain forest.

Politics as usual, influenced historical, institutional, and agrarian policies prior to and post the Reformation of Article 27 in the Constitution in 1992. President Jose Salinas de Gortari (1988-1994) instituted Reformation on Article 27 of the Constitution in which he declared that ejadatarios (communal land owners) had legal rights to rent, sell, sharecrop or mortgage their ejidos (agricultural plots). In the meantime, federal rain forest policies continued to contribute toward faltering myopic rain forest policies in the Lacandón.

Unfortunately, Mexican federal rain forest policies continued to support non-sustainable economic landscapes along gender lines, and contributed to territorial struggles among indigenous and non-indigenous groups. Federal rain forest policies can be viewed as promoted through political spatial settlement control. Space continuously modifies according to power struggles between the federal government and landless poor. And socially, the social space has enforced the separation between male versus female work and household tasks.

Out of these spatial and gendered struggles, came the making of a place, a dwelling (Heidegger 1977) for the landless people. Land ownership in the Lacandón rain forest became

representations of political space, which promoted demographic border security by creating a geographic buffer zone between México and the rest of Central America. Shifting livelihoods from an agricultural base economy to tourism had changed rain forest resource-use, management, and increased rain forest harvesting between the Lacandón and non-Lacandón neighbors.

Taking a genderscape approach to rain forest policy in México can quickly determine how government officials on all levels have exploited the very same rain forest that they were supposed to protect. Rain forest policy has to be constant with the overall use and economic needs of local communities. In the case of the Lacandón rain forest, it has been a systematic case of inaction and a stubborn lack of interdisciplinary vision that has paved the way for further rain forest mismanagement and destruction. Forest mismanagement has equally created in-group fighting among those with limited land or rain forest resources.

Complexities such as top-down governmental policies have chocked sustainable rain forest planning, management, and evaluation. There were no signs of any base of the pyramid (BoP) economic approach, where women and men were seen as copartners and innovators to redevelopment in the Lacandón rain forest zone. Instead rain forest conservation, resource management, and governance in Chiapas faced dramatic increases in population growth along with diminishing economic resource allocation that only seemed to worsen deforestation.

In fact, in 2003 within ten-kilometer (6.2. miles) from Lacanjá, there were 17,000 Tzeltal residents living in Nueva Palestina. Both State and Federal government policies need to switch from their systematic one size fit all rain forest policy to an adaptive gender inclusive rain forest management, restoration, and governance model approach.

It is also pivotal to understand where all these people came from and why? Clearly there had been a wide diversity of people living within the Lacandón rain forest. This factor has an important affect on environmental sustainability. Migration and immigration in the Lacandón played a central part. To start, the present populations of the Lacandón rain forest are not the original inhabitants; instead they migrated from places like Campeche, Petén and Tabasco during eighteenth century” (de Vos 1991: personal communication).

### **Migration**

One reason for the migration of people into the Lacandón region was caused by the Catholic missionary work from 1559 to 1712, which resulted in the capturing, killing, or relocation of the majority of the inhabitants of the region (Duby-Blom 1984; Duby-Blom 1991, personal communication). In 1570 Fray Pedro Lorenzo de la Nada, a Dominican priest, and Bishop of Chiapas, in 1560, attempted to evangelize the Lacandón by offering them "La paz de dios y del rey (Peace of god and the king)" (de Vos 1980:16; McGee 1990:18). Needless to say, neither peace from colonial oppression nor religious tolerance toward their traditional religious beliefs was ever offered to the Lacandones.

Then in 1695 Fray Pedro de la Concepción, a Franciscan priest, along with Capitan Nicolás de Valenzuela, arrived in the region from Huehuetenango with four Indians guides from San Mateo, Ixtatán. With the assistance of three missionaries along with nine hundred soldiers from Ocosingo, a Tzeltal village, and an additional two hundred soldiers from other areas, they succeeded in imposing the name of Nuestra Senora de Dolores del Lacandón on the settlement of Sac-Bahlán (White Tiger). However, within thirty years the village disappeared because of numerous medical epidemics in the region (de Vos 1980:14-16; Hellmuth 1973:18; Thompson 1970:49). Migration and relocation resulted in ecological instability in Chiapas as well as moving local traditional ecological knowledge (LTEK) that encouraged subsistence resource-

use. From an institutional management level often political and business bureaucrats behaved like mice being left in charge of taking care of the cheese. Both political and business interest centered on making profits at all costs.

Consequently, Spanish colonial rule from 1695-1715 resulted in the relocation of Choti-Maya, predecessors of the Lacandón from the Lacandón rain forest into the northern foothills of Bachaján and Yajalán where they worked in Spanish haciendas (Nations 1994:31). At this time Chol and Yucatec-Maya from Guatemalan Petén fled into the rain forest because rain forest density prevented missionaries, colonists, and other unwanted visitors from easily reaching them. Moreover, lowland weather conditions made the region susceptible to malaria and other tropical diseases. Thus, Chol and Yucatec-Maya became part of the rain forest population by the early 18th century. Given this detail, one sees how the Lacandón rain forest from its earliest times was diverse in population and cultural traditions and rituals.

President José de la Cruz Porfirio Díaz Mori (1876-1911) in 1884 created forests policies that above all encouraged foreign investment in Mexican from the United States. New policies allowed “the exploitation of Mexico’s natural resources” (Weaver 2000:2, De los Santos Valdez 1994). During “1909 eager industries ready to launch coffee enterprises in Chiapas flooded from the United States and England, France, Germany, and Spain” (Marion-Singer 1988:43). Cheap labor was robust as was fertile land.

Later in 1926 the Forest Protection Zones and National Parks Law created to confront conservation needs was sidetracked by the government’s “land reform that valued crop and livestock production on non-forested areas” (Weaver 2000:2, De los Santos Valdez 1994 [1989]). Individuals with little or no credit fell prey to new injections of economic investment. Many agreed to deforest areas of land in order to build shelter and feed their families.

Population diversification became more evident later in the 1930s when the settlers of Lacanjá, like the rest of the Lacandón in northern Najá, emerged partially as products of "circulation theory" the temporary mobility of certain segments of a population from other areas in the rain forest (Knab no date:1). Moreover, familial pedigrees demonstrated how the 20th century Lacandónes had relocated from one area to the other area in the past (Amram 1942:15-26; de Garay and Bowman 1975:1-28). By this process they were able to maintain certain cultural aspects, language, religion, and agricultural systems, while discarding other practices such as piercing the septum last reported among the Lacandónes in 1955.

Historically, the Lacandón rain forest showed no substantial increase in population pressures. This changed in the 1940s. From 1863 up until the end of the 1940s, deforestation was provoked by transitional wood companies who feverishly wanted to harvest oak, pine, and mahogany trees.

Then in 1942, a new law awarded "control over forestlands to ejidos and communities while government controlled management and production. The Secretaría de Agricultura y Fomento, later called the Secretaría de Agriculturas y Recursos Hidráulicos (SARH), were responsible for creating regulations and plans and projects to maintain balance between preservation and the lucrative exploitation of the nations' forest" (Weaver 2000:2, De los Santos Valdez 1994:22; World Bank 1995:34). At best it was one lobby group fighting against the interest of another elite lobby corporation. However, in this case, the protector was also the exploiter.

By 1949 Tabasquenos and Chiapanecos abandoned wood exploitation in the Lacandón rain forest, and the cattle ranchers had not yet initiated their conquest of the territory (Balboa 1991:73; de Vos 1991, personal communication; Dichtl 1989:44).

During the 1950s, population expansion began with the re-entry of the Tzeltales and Choles from the municipalities of Altamirano, Bachajón, Chilón, Oxchuc, Ocosingo, Pantelhó, Tila, Tumbalá, Sabanilla, Sitalá, Yajalón, and the Salto de Agua. Later this was followed by the arrival of the Tzotziles, Zoques, and Tojobales who came from Comitán and Margaritas (Arizpe, Paz and Velazquez 1993:80; Balboa 1991:74; González-López, Alarcón-Lavín and Freyermuth-Enciso 1991:37). It was also in 1952 that México established a policy for increasing road construction and electrical services to isolated mining areas. Changes in infrastructure and services encouraged migration of poverty stricken people to remote parts of the country like Chiapas and in particular the Lacandón rain forest.

In the 1960s the Departamento de Asuntos Agrarios y Coloniza (DAAC) published in the Diario Oficial de la Federación that 590,000,164 hectáreas of the rain forest was cleared in order to establish agriculture and cattle raising colonies by ladinos (persons born in México of Indian and Spanish ancestry) from the states of Aguascalientes, Chihuahua, Coahuila, Sonora, and Zacatecas. It was also in 1960 that the Mexican government passed the first forestry law that revitalized the 1948 regionalization of forestry services. It included maintenance and jurisdiction “over conservation, marketing, and profitable exploitation of forest resources” (Weaver 2000:3; De los Santos Valdez 1994). Vested interest in the Lacandón rain forest came from different sectors of society, but each party had different views on the sustainability of the environment.

President Luis Echeverría Alvarez’s government (1970-1976) conceived of a plan in 1971 to maintain sovereignty in Lacandón rain forest by giving sixty-six Lacandón families of the eastern lowlands communal title to 614,521 hectáreas rain forest. Both the “president and state elites knew that Lacandón community would easily relinquish control of substantial portions of their lands to rancheros and other logging companies (de Vos 1980:21; Nations and Nigh 1982).

President Luis Echeverría Alvarez's government (1970-1976) ordered the area's campesinos and indigenous residents to relocate to several larger communities or to move out entirely. Only after major protest by these occupants, who suddenly found themselves being declared squatters in their own lands, just then were some of their land titles recognized. Government relocation programs continued in the region, and private timber companies' secured rights to extract timber (Howard, Philip and Homer-Dixon, Thomas 1996).

Moreover, President Echeverría Alvarez in 1971 allowed PEMEX to conduct oil exploration. "México's economic growth depended to a large extent on the development and performance of its energy sector. Although the energy sector only accounts for 2.6 percent of GDP and 7.9 percent of all exports, it is a critical component of México's fiscal balance. In 2007 oil revenues made up almost 40 percent of the national budget" (Secretaría de Hacienda y Credito Publico 2007) PEMEX ranks as "the country's top earner with net income of \$104.5 billion in 2007, and top exporter with 15 percent of its income associated with the current balance of payments. México is the sixth largest global oil producer and nineteenth largest gas producer" (Secretaría de Energia 2008).

By 1973 the federal government owned Nacional Financiera, S.A (NAFINSA), purchased the Mexican owned lumber companies in the rain forest in exchange for the Lacandones, selling their lumber rights to them (Nations 1994:32). It is evident that every time that the national border is threatened, it is at that precise moment that the federal government begins to create new rain forest conservation and preservation policies or laws which in reality were only political buffer zones. Additionally, none of the governments' policies formulated to assist either indigenous or rural least advantaged had any concrete data indicating land-use and rain forest resource-use in the region. Business and political interests were exploitative in nature.

By November 1975 just four years after the establishment of the Lacandón as a national park by the federal government, the Lacandónes received five million out of seven million pesos promised by the government owned Nacional Financiera, S.A (NAFINSA). Seventy percent of the money went to a mutual fund that was controlled by the Fondo Nacional de Fomento Ejidal and the Lacandónes divided the remaining thirty percent. Financial breakdown per Lacandón family household head was 4,862 pesos (\$195) in August 1975 and November of the same year, an additional 6,060 pesos (\$240) were received (McGee, 1990:40). Part of the money was used for building a medical clinic and a grocery store. Lacandónes were not expected to bear any financial responsibility nor future maintenance costs associated with either establishment since they were governmentally funded projects.

Steady migration continued during the Presidency of José Ramón López Portillo (1976-1982), as indigenous families and Ladinos from the central, north, southeast, and lower part of the state of Chiapas flocked to the Lacandón rain forest. As a result, 70 percent of the total population was indigenous and the remaining 30 percent were ladino (Vasquez-Sanchez and Ramos-Olmos 1992:22). However, one central issue that captivated his administration's attention was the necessity to "strengthen the country's economy by increasing both government spending and industrial production. His program was paid for through industrial loans secured against anticipated oil revenues" (Lucero 2003:472). It is no surprise that fields rich in oil had been discovered in Chiapas, Campeche, and Tabasco, areas of great federal government influence and political intervention.

In 1977 the federal government partitioned an additional 3,312 square kilometers of the Lacandón rain forest in order to create Monte Azules Biosphere Reserve under Project Eight of the United Nations Educational Scientific and Cultural Organization's (UNESCO) Man and the Biosphere Program (MAB). Biosphere Reserves contrast to National Parks, which were usually chosen to protect genetic biomass and not simply picked because of its majestic beauty. The following year in 1978, PEMEX declared the Lacandón rain forest as one of the nation's wealthiest oil fields and began exploring 2,500 square kilometers of the rain forest (Nations 1994).

The colonization of the rain forest, however, was encouraged by the politics of the Mexican government, according to Luis Hernández Dávila, Representative of the Reforma Agraria and Julio Sabina, President of the Unión de Ejidos in México. Luis remarked:

"La colonización de la selva de hecho es inducida por la política del mismo gobierno. Nostros nos preguntamos que si realmente la solución que se dió con la selva era para proteger la frontera o más bien los latifundios que existen en los estados, ya que hay tierra; fue una medida de sacar a los campesinos de esas tierras para proteger los intereses y mandarnos aquí, ésa es la realidad de la colonización de la selva" [The colonization of the rain forest is induced by the politics of the same government. We ask ourselves if really the solution that was given for the rain forest was for the protection of the border, or better for the latifundios (large land owners) that existed in the state. And since there is already land, and by sending us here, it was a method of getting rid of the peasants on these lands in order to protect their business interests. This is the reality of the colonization of the rain forest].

Two hundred thousand colonists had settled in the rain forest by 1993 (Arizpe, Paz and Velazquez 1993:69, 81) without having such basic amenities as potable water, grid electricity, sewage disposal, schools, or access to medical care. In 1994 the World Bank reported that the population Lacandón rain forest since the 1960s had grown from 6,000 people to 300,000 making it increasingly difficult for conservation programs to viably exist. Tensions and distrust grew among competing indigenous groups fighting for the same resources in the rain forest.

A case in point, in 1995 the Libertad Justicia Democracia (National Commission for Democracy in México) reported that “in Najá, the Lacandónes were being invaded by residents from El Jardín and Villa las Rosas and these new inhabitants were attempting to expel the Lacandónes from their land” (Villagran 1995). Then, in 2000, “ARIC-Independiente Democrática and members of the Interinstitutional Commission had to broker a tentative agreement when the Lacandónes threatened to invade a Tzeltal settlement in the Montes Azules Biosphere Reserve where the Tzeltal vowed not to leave the Lacandón community. A total of 311 families were affected. Fifty percent of the settlers in the 12 communities were relocated” (Nash 2001).

Policy makers and international advocates working on behalf of the indigenous communities and rural people needed to encourage full participation of women into the rain forest resource-use management paradigm in order to ascertain the best sustainable natural resource base in regional area. Policy makers could have created a viable environmental critical limits model, which would indicate both environmental and social carry capacities needed for sustainable growth and environmental resilience. Local community capacities have to be addressed before entire communities are forced to re-settle elsewhere due to bureaucrat indecisions. In 2002, federal government was only spending 2 to 3 pesos (30 cents) per person in the rain forest to combat deforestation (World Bank 2008).

### **Immigration**

Immigration from Guatemala proved to be the back door justification for most governmental agencies to veto any policy created by the President of México. There was a wave of Mixtecos, Nahuas, Kekchés, Quichés, Kakchiqueles, and Purpéchas refugees from Guatemala who settled in the Lacandón rain forest after the 1950s. By 1980 through 1984 about 140,000 to 150,000 Guatemalan refugees seeking safety from military persecution fled into México, nearly

50,000 to Chiapas alone (Balboa 1991). During the same period the Mexican government suddenly proposed colonization of the rain forest to landless peasants of Chiapas and Oaxaca in order to protect its land borders from Guatemala (Balboa 1991; Nigh 1991, personal communication). In the end, rain forest colonization became nothing more than a strategic command over space by the government. Having control over land in Chiapas maintained a sense of national unity back at the national capital in Mexico City.

In 1982, the administration of President Miguel de la Madrid Hurtado (1982-1988) settled 26,000 people in an 18,000 square kilometer block of the Marqués de Comillas. This land extends into Guatemala and is among the country's most diverse rain forest. PEMEX was responsible for drilling twelve wells from 1984-1989 (Harvey 2007). What should be recognized was the fact that President de la Madrid Hurtado (1982-1988) had worked as Vice Director of Finance for PEMEX from 1970-1972 (Lucero 2003:480). It was his government cabinet officials whom opted to occupy the Lacandón rain forest with non-indigenous Mexican farmers in order to establish and maintain firm national control over the isolated oil rich region (Balboa 1991). A muralla humana (human wall) had been created at the expense of rain forest conservation and natural resource-use management.

Miguel Alvarez del Toro, Director, Instituto de Historia Natural de Chiapas, indicated that "In the last 40 years 70 percent of the rain forest in the Lacandón had been destroyed by cattle ranchers, tree cutters, and campesinos (peasants) who were encouraged by the Mexican government to migrate to the rain forest" (Balboa 1991). In 1991, Manuel Kin, added that "the government is a business, and it brings in people to the rain forest." While the government spoke about the problems of deforestation in the Lacandón at both national and international forums, it cloaked its own financial and political interests in natural reserves. States such as Chiapas were

rich in oil, hydroelectric, and timber resources, but too small politically to make any real demands of its government agencies.

By 1986, there were “150,000 inhabitants living in the rain forest, compared to 140,000 in 1983 and 69,762 in 1976. Any ecologically balanced environment could not sustain this population growth” (Eugenio and Carrillo 1990:5). Immigrants and migrants needed land but government needed its own security more.

Additionally, in 1986, 425,509 hectáreas more were given to the Lacandónes (Balboa 1991:75). During the same year the Acuerdo de Cordinación Intersecretaría para la Protección de la Selva Lacandóna (InterSecretariat Coordination Agreement for the Protection of the Lacandón Rain Forest) was signed. This agreement was presided over by the governor of Chiapas and was overseen by the Secretaría de Gobernación, La Secretaría de Programación y Presupuesto, La Secretaría de Energía, Minas y Industria Parastatal, La Secretaría de Agricultura y Recursos Hidráulicos, La Secretaría de la Reforma Agraria, and PEMEX (CIES 1987).

The last three parties signing the agreement were the most questionable since they all benefited financially from unresolved land and natural resource-use issue disputes. For example, PEMEX had already begun oil explorations in the State of Chiapas. People asked how could there not be any conflict of interest on part of the Board of Directors when three of its members had historical exploitative ties to the rain forest. México’s rain forest policy managed to blame indigenous people for destroying the Lacandón rain forest, when in actuality government was to blame. It was the government who encouraged population density in order to protect its national borders, and used rain forest conservation as their rationale.

Manuel Parra Vázquez, an agronomist, stated in 1991, “The 1973 oil boom in México encouraged PEMEX to explore for new possible oil sources in the Marqués de Comillas,

Chiapas. As the new roads were built, campesinos (peasants) moved into the rain forest. Campesinos (peasants), however, rarely used slash-and-burn agriculture techniques in the neotropic lowlands or had limited familiarity with local ecology. Thus, a great ecological disturbance ensued" (Parra Vázquez 1991: personal communication). In 1991, Carlos Kin, agreed that "the colonization of the Lacandón by the Chol and Tzeltal lead to more clearing and deforestation of their surrounding rain forest because new comers wanted land to settle on and live."

Complicating matters further was the lack of state or federal capital or credit assistance being given to financially and landless people. Business interest from Tabasco and Veracruz hit the Lacandón rain forest severally since wealthy cattle ranchers paid salaries to farmers willing to permit them to graze their cattle on farmer's land. Otherwise, cattle ranchers had no access to lands in the Lacandón rain forest (Parra Vázquez 1991: personal communication). In the years 1991, 1994, and 1995, my fieldwork data indicated that the outcome of cattle grazing meant further deforestation. Secondary rain forest was harvested and cleared to accommodate the cattle on the land or to build additional housing for new and growing families.

According to biologist Javier Jiménez-González of the Instituto de História Natural, Departamento of Areas Naturales, Chiapas, in 1991, federal laws post 1964 prohibited selling of rain forest ejidos (communal lands) lands. Population pressures after 1964 resulted in land distribution by the Reforma Agraria, a federal agency, and Consejo Agro-Mixta, a state agency, to people who had applied for land in the Lacandón rain forest despite legal provisions that prevented them from doing so. Clearly there was confusion on part of these two agencies whom went against their own presidential government's decree. In 1991, María de Lourdes Márquez Gómez, Instituto de História Natural, Chiapas, added that "more people meant more land was

needed for work, thus, it was inevitable that the land would be depleted of its rich resources in order to accommodate the new population pressure in the Lacandón.”

### **Hydroelectric Power**

On one hand, federal laws were protecting the rain forest on the surface, but national business interests like PEMEX and the Federal Electric Commission were constantly compromising underground resources such as oil and gas. By 1980 the “Federal Electric Commission had exploited Chiapas’ hydroelectric capacity which not only could make the state of Chiapas energy self-sufficient, but it also provided 20 percent of the nation’s electric power” (Cancian and Brown 1994:22-23). One has “to wonder about the success rate of fifty projects devoted to the conservation and development of the Lacandón rain forest since 1986, knowing there are great national business interest involved” (Vasquez- Sanchez and Ramos-Olmos 1992:19). Even with all the electric power potential small rural towns like Lacanjá were last on the receiving line. In 1991, the medical office in town was the only building to have electrical wiring. By 2004, most of all the residents of Lacanjá had access to grid electricity.

### **Oro Verde: Green Gold – Palma Camedor (Xate)**

Traditionally, palma cademora (xate) was utilized in divination rituals and birth ceremonies in Lacanjá. According to Carlos Kin, rituals like many others were no longer being practiced in Lacanjá. Declining traditional rituals in Lacanjá is in partly due to the evangelization of the town. Evangelical Christian beliefs and rituals replaced ancestral rituals. Palma cademora conservation and management were not incorporated into the new religious creed. Evangelical clergy seldom spoke about rain forest conservation as being part of their religious teachings.

During the 1980s palma camedor (xate) extraction became a vital cash crop in the Lacandón rain forest. Economically speaking, the market began in the 1960s, “when a flower importer from Texas developed a market for the palma camedor (xate) leaves that were used as

background decorative foliage for floral arrangements. Palma camedor (xate) was widely marketed in Europe and in the United States of America, and was “regarded as one of the best appreciated palms for ornamental use not only because of its aesthetic appeal but also because of its dual properties of rigidity and resistance to wilting if handled properly” (Alianza para un Mundo Justo Petén, Guatemala 2004:4). By 2004 Sam Bridgewater and Holly Porter Morgan reported in their annual report for Alianza para un Mundo Justo Petén, Guatemala, entitled, “Darwin Initiative visit to Alianza para un Mundo Justo,” that the palma camedora (xate) was worth \$1.2 billion, with the majority dealing with potted plants, and the leaf market was worth \$146 million” (Alianza para un Mundo Justo Petén, Guatemala 2004:179).

Louis Martinez, a forty-four year old xatero, a person who harvests or sells camedora palma (xate), from Campeche in 1991 spoke about “working independently within Lacanjá's margins, along with four other Lacandónes, Chol, Tzeltal, and campesinos (peasants) like himself. Palma camedora (xate) in the local area sold for 1,500 pesos (\$1.50) per roll, 100 plants made up a roll, in contrasts to 1,000 pesos (\$1.00) outside of the Lacandón.” Rolls were later exported to the United States as an ingredient needed for making cosmetics.

Palma camedora (xate) normally had to be cut at an angle away from the plant with a machete (blade) in order not to damage the leaf shoots or hinder plant regeneration due to water causing rot in the stems. Nevertheless, in 1991, xateros faced strenuous exporter's deadlines, it took eight days to cut and gather 5,000 plants, often they had to cut the palma camedora (xate) horizontally which was the quickest method of cutting. It is also the most detrimental harvesting method. Traditional Lacandón palma camedora (xate) harvesting methods used for ritual purposes resulted in a limited use of natural resources. External palma camedora (xate)

commodity trading had no built-in restraints and was relentlessly ecologically and labor exploitative.

Lacandón men, women, and children were encouraged by small companies to use their traditional ecological knowledge (TEK) of the rain forest to harvest and gather palma camedor (xate). On average it took the Lacandónes more than five hours in the rain forest to find sufficient amount of palm leaves. “Exclusive operation rights had been awarded the Lacandónes” (Marion Singer 1990:5). Moreover, with the 1983 frontier highway built, a dirt road that ran by their community in San Javier, Lacanjá became more connected to global markets in Palenque and other commercial cities such as San Cristóbal de las Casas, Ocosingo, Tenosique (Tabasco), Tuxtla Gutiérrez, and Villahermosa. The road created an in-and-out flow migration mechanism for individuals seeking land and work.

Non-Lacandón indigenous and other landless peasants moved into the Lacandón rain forest in search of green gold – the palma camedora (xate). With migration of more people, “Lacandónes became the intermediaries between the workers living in camps in the mountains and the buyers. Each Lacandón charged a percentage in palma camedora leaves. They would sell these stored palm loads directly to the buyer” (Marion Singer 1990:5). In turn, immediate cash flow allowed some families to build and maintain local stores in Lacanjá. Equally important Lacandónes benefited directly from their legal land and resource-use privileges to earn money while never leaving Lacanjá. In other words, migrations drivers that pushed so many people to new lands were minor factors for the Lacandónes.

#### **Petroleum - Petroleos Mexicanos (PEMEX)**

At the same time, PEMEX had “contracted several Lacandón men to do maintenance work for them via their PEMEX San Javier outpost that was right outside Lacanjá. Secretary of Urban Development and Ecology (Secretaría de Ecología y Desarrollo Urbano (SEDUE), also hired

Lacandón men to monitored and maintained their research station in San Javier. Following their example, the Ministry of Agricultural and Hydraulic Resources (Secretaría de Agricultura y Recursos Hidráulicos (SARH), hired Lacandón men for forest monitoring and control" (Marion Singer 1990:5). This was a tremendous change of economic engagement that the Lacandónes had with outside agencies.

In Lacanjá alone, by "the late 1970s there had been one Lacandón man working for Instituto Mexicano del Seguro Socia (IMSS) denominado Plan Nacional de Zonas Deprimidas y Grupos Marginados (IMSS-COPLAMAR, created in 1979 and predecessor of IMSS-Solidaridad) in the community health clinic. In the 1980's, there were twenty Lacandón families financially dependent on federal and private sector salaries" (Marion-Singer 1990:5). Dependency on external financial sources for everyone was evident.

Unfortunately, the new threat was not the influx of people from Central America, but the federal and states government's inability to deal with issues raised (Subcomandante Marcos presented a clear set of demands to President Ernesto Zedillo in twelve words: "work, land, shelter, bread, health, education, democracy, liberty, peace, independence, and justice) that lead to the Zapatista Uprising on January 1, 1994. Instead, both federal and state government ignored the environmental, demographic, and social-economic crisis that it created in the name of neo-liberal economic policies in the age of globalization. Government has used rain forest conservation as its personal Trojan Horse, hiding its own economic business interest with little regard to people living in the Lacandón rain forest.

President Vicente Fox Quesada's National Action Party (PAN) government (2002-2006) "had taken a proactive stand against deforestation in much of México by sending police and soldiers to arrest illegal loggers and evict squatters in rain forest lands. But such tactics have not

been used in the Lacandón rain forest for fear of fueling support for the Zapatista. Obviously the strategy is being applied differently in each area," alleged Raul Arriaga, a senior official of México's Environmental Ministry.

In turn, President Fox Quesada (2002-2006) proposed economic development in the State of Chiapas through conservation and development initiatives. It was part of his neo-liberalism and neo-corporatism agenda for the state of Chiapas. The Zapatistas, and many other indigenous groups; however, rejected the plan stating that it benefited elite and foreign interests. And with local education levels being abysmally low and non-farming jobs largely nonexistent farmers were forced to either seek more land to till or look toward tourism as its sole economic salvation. The rain forest continued to be deforested (Howard, Philip and Homer-Dixon 1996). Porfirio Encino, the Secretary of Indian Affairs for the State of Chiapas estimated that "the rain forest's population could reach one million people by 2015 which will cause serious problems among all the Indians, problems between brothers, between cousins, between villages" (Althaus 2000).

Federal government has taken on a divide and conquers approach in its rain forest management policies in the state of Chiapas. By splitting the environmentalists and indigenous versus rural rain forest inhabitants, the federal government managed to conceal its true interest in acquiring more monetary funding from international agencies promoting conservation and development via the Puebla Panama Plan (hereafter PPP), Paseo Pantera (hereafter PP), and the Mesoamerican Biological Corridor (hereafter MBC).

Puebla Panama Plan, sponsored by the World Bank and the Inter-American Bank, was developed to create development in Latin America. From an ecological standpoint, it attempted to consolidate conservation and sustainable use of the ecosystems within North and Central America. It would be an "area within the natural protected areas. In January 2001, the World

Bank and World Environment Fund approved 19.1 million dollars to finance the Mexican portion of “this network of tropical jungles and other virgin ecosystems with a large biodiversity” (Perez 2001).

Paseo Pantera (PP) program was established in 1991 as a five-year project “addressing the need for improved wildlife management through regional and site-specific activities. One project activity was to create a multidisciplinary research team at the University of Florida in 1992 that was mandated to look at the potential use of Geographic Information Systems (GIS) to aid in the design of a Mesoamerican Biological Corridor. And assist in identifying key areas of land that needed conservation and protection” (Lambert, David and Carr Margaret 1993). Several agencies provided funding including, the Regional Environmental and Natural Resources Management Project (RENARM) and United States Agency for International Development (USAID) Regional Office.

Lastly, the Mesoamerican Biological Corridor (MBC) was established and endorsed in 1997 by seven Central American President including: Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama, and Mexico. MBC’s focus was to conserve biological diversity while fostering sustainable development along the corridor. Its mission was to integrate conservation, sustainable use, and biodiversity within a framework of sustainable economic development for local communities (Sader, Haynes, Irwin, and Saatchi. 2001).

The overall MBC schema was establishing ecological corridors that provided freedom of movement for animals and facilitated genetic exchange, which was deemed vital to their survival. At the same time, it was acknowledged that MBC had to produce biological, economic, and social outcomes if the program were to be successful. MBC’s inception came on the heels of the Path of the Panther (Paseo Pantera) project that tried to secure biodiversity by linking

protected areas from southern México to Panama. The MBC had the financial commitment from governments in the United States, Europe, donor agencies, and non-governmental organizations, ranging from \$85-600 million (Miller, Chang, and Johnson, 2001). If one examined the funding levels of all three programs, one can quickly ascertain why the Mexican government supported conservation and development initiatives in Chiapas, simply in an attempt to obtain its own financial piece of the pie. One also had to ask if the rain forest ecosystem is failing because of financial instability, or to what extent will government purge its own rain forests of non-tourists citizens, in the name of conservation and economic development?

On May 2, 2000, Reuters reported “Mexican officials were trying to convince seventeen indigenous communities in the troubled state of Chiapas to leave their homes in order to save the land from rain forest fires. Interior Minister Diodoro Carrasco said federal and local officials were negotiating with residents of the Montes Azules Biosphere Reserve to stop slash-and-burn farming that can lead to rain forest fires.” Ironically it is not as though the local farmers do not know how to monitor their milpas (agricultural plots) properly. In 1991, 2003, and 2004 alone, I witnessed several families successfully clear and control burn their milpas (agricultural plots). Yet, Mexican authorities only offered the indigenous residents relocation options without employment incentives or work opportunities. Carrasco was quoted as saying; “Opposition legislators have claimed that the government was sending police and army reinforcements into the area to increase its military presence around the jungle hide-outs of the Zapatista rebels” (Reuters 2000).

Andrea Becerril also reported in La Jornada on May 4, 2000, that:

“The federal government had announced that it would be dislocating Zapatista communities from the Lacandón rain forest, deputies and senators belonging to the Commission of Concordance and Peace (COCOP), academics, members of non-governmental organizations and other representatives of civil society scheduled a

trip to Las Canadas, Los Altos and the northern region of the state. The issue was never debated at the Permanent Committee of the Congress of the Union session, since although a parliamentary group tried to bring it to the platform other political forces requested that it be deferred until another day stating that they were not prepared for the discussion, according to (PRD) Deputy Jesus Martin del Campo, and Mario Saucedo, (PRD) Senator, remarked that the government strategy is quite obvious, as revealed by the Commissioner of the Federal Preventive Police (PFP), Wilfrido Robledo, when he stated he was reviewing the government request to go to the Lacandón rain forest, and to fight the fires in the Montes Azules Biosphere Reserve, and eventually to dislocate the indigenous who are settled around that protected area. Felipe de Jesus Vicencio Alvarez, (PAN) Deputy, considered it to be extremely grave and rash to try and carry out dislocations in the EZLN area of influence, since it could lead to a confrontation with the rebel group's support bases. "I don't know what the government is betting on with this tactic, but it would appear that what they're looking for is to establish new police enclaves in the area, without thinking about how explosive an action like that would be" (Becerril 2000).

The federal government had quickly tried to dismantle any form of unity among the indigenous groups in hopes of driving them off the lands that would allow for biodiversity planning and execution of the corridor with the minimum costs or delays.

Many local farmers had also reached a point where they accused environmentalists of valuing plants and animals over the needs of human beings. They charged that the real villains were the Mexican government and foreign companies that exploited the rain forest's resources as well as government policies that persecute indigenous people. Many indigenous leaders and their supporters stated that they saw a conspiracy behind conservation efforts to save the rain forest. The campaign's real purpose, they declared, was to drive the haggard peasants from their lands to benefit business interests such as those of Grupo Pulsar.

Grupo Pulsar, "produced everything from cellulose to genetically modified seeds, owns tree plantations in the State of Tabasco, and a seed facility on the fringes of the Lacandón rain forest, but raised some local suspicion when it contributed \$3.5 million to Conservation International. Pulsar is a member of Conservation International's Board of Directors" (Althaus 2000). It is clear and essential that any sustainable resource-use management planning include

proper technology transfer to people most impacted by rain forest policies in Chiapas, and to document, share, and inform agencies working on behalf of the indigenous and rural poor of the implications of any environmental studies being conducted in the region. Moreover, environmental agencies have to take into consideration the repercussions associated with having members on their Board of Directors who have financial conflict of interest.

### **Access-Ethics and Distributive Justice**

Methods of analyzing whether or not rain forest policies are successful and gender inclusive is to compare them to an access-ethics and distributive justice model. Land-use policy in Lacanjá, México is a prime example of ecological, social, and ethical contradictions unfolding in the Lacandón rain forest. Ecology and indigenous authenticity sells as a tourist commodity for the Lacandónes to showcase. Socially, the Lacandónes are externally perceived as the guardians of the rain forest, but their attention—especially among the men—is shifting away from the farming fields toward the unguided trails offering tourists a veneer glance at indigenous life and nature. Ethically speaking the rights to distributive justice is limited to the Lacandónes while other indigenous groups stand at the margins waiting for greater access to resource-use or any other forms of employment alternatives.

Formulating a viable land-use policy in Lacanjá is problematic unless policy makers account for the “physical and biological feasibility, economic efficiency, economic equity, social or cultural acceptability, and operational or administrative practicality, and ethical consequences” of their land and rain forest resource-use design (Clawson 1975; Peterson 2001). Before us is a classic question, which came first, the chicken or the egg? In this case, does rain forest policy create inequalities or do inequalities beget policy formation? I offer two oppositional philosophical treatments of distributive justice by John Rawls (1971) and Robert

Nozick (1974) along with Simon Smith Kuznets' (1955) model for explaining the relationship between income inequality and income growth - his noted Inverted-U model.

First, distributive justice can beneficially affect resource-use policy in the Lacandón rain forest. John Rawls is best known for Kantian deontology tradition of categorical imperative which succinctly asks individuals to first “act only in ways that they would be willing to see generalized as universal law, and second calls on individuals to act in ways that never treat themselves or others as means to an end but rather as an end in themselves” (Rawls 1971).

Rawls’ work was directly inspired by Hobbes concept of the social contract. In Rawls’ seminal work *A Theory of Justice* (1971), he rendered two basic principles of justice within a state and between people. The first principle of justice declared “each person is to have an equal right to the most extensive total system of basic liberties compatible with a similar system of liberty for all. The second principle asked for an equal distribution of social primary goods (i.e. income, political liberties, opportunity, wealth, and self respect), unless an unequal distribution is to the advantage of the least favored” (Peterson 2001; Rawls 1971). Rawls’ principles hit at the core of inequality in most land and resource-use policies. However, it is a Herculean task to address everyone’s needs on multiple levels without making another person less unequal as a direct result of a governing environmental policy.

In contrast to Rawls’ distributive justice principles, Robert Nozick’s work in *Anarchy, State, and Utopia* (1974) espoused a libertarian approach to justice. He declared that people could acquire property in two ways “initial acquisition and trade or exchange” (Peterson 2001; Nozick 1974). A just acquisition of property occurs when people use their own labor to take possession of something that is not owned by someone else. Once a person owns a parcel of property it is permissible to use, bequeath, sell, or barter the property (Nozick 1974; Peterson

2001). Moreover, he indicated that if the “distribution of goods in a particular society have been generated by just acquisition and just exchange, that distribution is just and should not be altered by the state even if it is highly unequal.”

In 2004, Lacandónes made it clear that regardless of the Reformation of Article 27<sup>th</sup> to the Mexican Constitution; they still had power to hinder any fellow Lacandón from leasing or selling their property. This understanding would preclude redistribution policies, because they violate the rights of those whose income or wealth is transferred to others. This type of right violation represented an unjust exchange. Nozick also argued that nations should be limited to functions of protecting all its citizens against violence, theft, and fraud, and to the enforcement of contracts - the rights of the individuals are primary (Peterson 2001; Nozick 1974).

Nozick viewed government with Lockean eyes stating that “rational individuals in a state of nature would naturally form associations for mutual protection from the actions of others. Associations are created through voluntary agreements among the members with no violation of the principle of just acquisition and exchange” (Nozick 1974). Thus, “a minimal state would arise through a sequence of voluntary agreements in which no individual rights are violated” (Petersons 2001). However, he failed to acknowledge the discrepancies of equality among exchangers in a market or political and economic conditions rendering some individuals less equal than others in the same field. Initial inequality in a system tends to produce more inequalities.

Simon Smith Kuznets, an economist, began to model the relationship between inequality and income distribution in countries. Economic growth and greater distributional equality were both desirable and generally consistent goals of any country in his view. His Inverted-U model showed how “income inequality would tend to decline once a society had passed a certain level

of development, and sooner or later modernization would bring about a steady redistribution in favor of the poor” (Kuznets 1955).

This has been far from the truth in the State of Chiapas where individuals’ level of income and well being continued to decline through lack of access to education, employment opportunities, agriculture and capital credit, and legal land tenure or natural resource-use rights. However, what his model assumed was that both federal and state governments and citizens in general equally redistributed their wealth. In many cases, distributing policies are manifested through land and rain forest resource-use policy, welfare, and other social programs, but like in many household economies, not everyone has equal access to resource ownership, resource-use, or monetary gains.

Redistribution on many levels is still centered on men being perceived hierarchically as head-of household production – the moneymaker at home. And yet, “households are not necessarily egalitarian and can operate as sites of co-operative conflict in which men as a group use their privilege access to resources in the household and public domain to defend and promote their own interests at the expense of women and girls” (Kabeer 2003). Unfortunately, Kuznets’ model displayed income distribution in utopian states and any interference by government to make economies more equitable invalidates itself in a Nozick tradition.

Having examined the essence of these theories as expressed by Nozick, Kuznets and Rawls, I analyzed how their theories applied to land and rain forest resource-use policies in Lacanjá, México. Policy frameworks can assist in illuminating the complexity of rain forest resource-use in Lacanjá. By “narrowing discussions to the physical and biological feasibility, economic efficiency, equity, social acceptability, and administrative practicality of policy

making in any country" (Clawson 1975), one can witness the development or failure of natural resource-use entitlements.

Resource-use policy in Lacanjá is economically, socially, and politically problematic for both non-Lacandónes living in Lacanjá due to marriage, and other individuals living in the outskirts of Lacanjá. Land and resource-use policy since 1971 in Lacanjá has been tied to communal tenure rights bequeathed upon the Lacandón by the la Reforma Agraria and Consejo Agro-Mixta. If we were to take either Rawls' or Nozick's distributive justice theory and apply it to policy, in all cases someone would be on the losing end of the spectrum. Policies become more contentious as the federal government was forced to step in and pay the Lacandón for their land. And the government had to guard land already given for redistribution to landless people.

Rawls' perception on land and resource-use could possibly prevent land tenured Lacandónes from maintaining their legal rights to land. On the other hand, if one simply gave land away without any other forms of education or credit assistance will that increase environmental problems? Individuals lacking knowledge of sustainable farming techniques in the rain forest may be forced to exploit natural resources on and around their land plots. Who would be charged with managing new lands, unless the Lacandónes become full-fledged park rangers with salaries provided by the federal government? In 2004, several the Lacandón men were already paid employees at the Bonampak ruins.

Kuznets's model would have us believe that inequality would decrease as incomes in the area flourished, but the day-to-day reality point to different outcomes. Money through ecotourism has increased income wealth for a few families in Lacanjá. The Secretaría de Turismo (Secretary of Tourism) built eleven motel-like structures for families that already owned tourists camps for travelers staying on their property.

Each structure had three separate rooms with indoor plumbing, access to hot water, and a back patio. Nevertheless, the Secretary of Tourism mandated that all guests in 2003 pay 200 pesos (\$20.00) for a room in a place where most people camped and paid only 30 pesos (\$3.00) a day. Most rooms went unused in the summer of 2004. Rooms were too expensive for local tourist needs or were perceived as being non-authentic for tourists seeking a visceral experience with nature and glimpse at indigenous life in Chiapas. The only exception was Campamento Rio Lacanjá, which ran in partnership with Enrique Martinez, an associate from San Cristóbal de las Casas. By 2010, Campamento Rio Lacanjá was charging 800 pesos (\$80.00) per person in a four-person cabin.

Two vital issues come to mind using Kuznets' model; first, government gave additional resources only to those families that already had accommodations for tourists. Initial state inequality was amplified by government policy. Second, income distribution in Lacanjá is not equalitarian. With few exceptions, it is the Lacandón men whom are employed as tourists' guides, and have greater access to service tourism economy. Some community men were given cars in order to drive tourist in and out of the Bonampak ruins nearby Lacanjá. Lacandón women were not offered or were given a taxi car. Tourists were typically informally prohibited from driving their own vehicles to the ruins. Some of these taxi drivers were the same men that once tended to their milpas (agriculture plots) with their wives and children.

Tourism have situated women in the private space called home. When tourists need to eat or drink the women are the ones preparing and serving the food. And since tourists tend not to have fixed hours of departure, it is once again the women who wait for the next tourist to come and go. It is not to say that women did not gain any financial benefits whatsoever from tourism. Women subverted the hierarchical economic system by earning their own money by selling their

crafts to tourists. However, in 2004, there was a great disparity in time spent and money earned. The men in service tourism were better paid than the women, especially if you take into account the time spent by women looking for timber and seeds in the rain forest.

Equality in policy becomes further complicated if one takes into account administrative practicality of monitoring the social needs of people, and biological sustainability needs at the same time. Land and resource-use policy in Lacanjá is part of a larger conservation agenda since land owned by Lacandónes is part of Monte Azules Biosphere Reserve. Nozick could argue that land given legally to Lacandónes supersedes any conservation need. However, Rawls' theory could also be used to design a means of finding employment and economic alternatives given the position that people should not be worse off than others.

One of the most striking elements of using normative ethics, as a background for formulating both land and resource-use policies in Lacanjá is the complexity created when policy has to be economic efficient. Kuznets' Inverted-U model would not find economic growth and equity incompatible. Yet, it requires that land-use policy criteria take into account trade-off costs associated with new policies in place. All market and non-market costs and benefits have to be considered. Both the federal and state governments in México would have to restructure their land and forestry policies in order to accommodate human and conservation capacities and needs.

The final stage for land and rain forest resource-use policy success in Lacanjá has to be based on genderscape. Resource-use rights and ownership have to be socially and culturally accessible. Governments and environmental agencies have to examine the role that gender, resource-use, and ownership plays on local beliefs, values, and perceptions of the people living in and outside the town of Lacanjá. General welfare based on gender, indigenous culture,

biodiversity, and ethics relating to resource-use and people have to be fully explored for any land-use policy to work (Clawson 1975). Ethics as distributive justice in land and resource-use policies allows for an open, inclusive and comprehensive dialogue with direct stakeholders seeking their fundamental rights to land titles and natural resource-use entitlements.

## CHAPTER 5

### LIVELIHOODS OF EMPOWERMENT – CONCLUSION

In 2003, Maria Martinez stated, “No se como mandan las mujeres, pero si mandan” [I do not know how women are in charge, but they do take charge]. She credited Rosa Yuk as a woman with power. “Rosa her own milpa (agriculture plots) takes care of her milpa (agriculture plots) everyday. So she is more equal to her husband than other women.” I asked her about the timber being used to build a five star-hotel on Gilberto Faison’s property? She said that the “timber was bought and brought from Frontera Corozal and Nueva Palestina, and that timber was definitely not from Lacanjá.”

Maria Martinez further commented that for eight months government provided the community of Lacanjá water from a natural spring in San Javier. Residents still preferred to use rivers to bathe, wash cloths, and dishes. Maria also confirmed that Lacandónes were using pesticide in their milpas (agriculture plots) to kill insects. They also grew single crops. Corn was grown alone without intercropping of other fruits and vegetables. She had noticed that some trees had been cut in the rain forest and left to die, which she found wasteful. “Si lo van a cortar, pues no lo dijen no mas allí” [Well, if they are going to cut it do not just leave it there]. Some guano palm was still being harvested sustainable since it was widely used for making roofs for houses and tourists accommodations (figure A-20).

Marianna Yuk (40 years old) worked on her milpa (agriculture plots) in 2004, growing pineapple, yucca, papaya, corn, bananas, and beans. She mentioned how women would go fishing and hunting. She spoke about the time before service tourism arrived in Lacanjá. “Before tourism in Lacanjá, I had to travel to Bonampak at 4:00 a.m. in order to sell my crafts before the highway was built. Women only made crafts for self-use when there was no highway thirty years ago. Men worked with the tourists, they lead them, and women would explain plant use to

people." Adding, "Hay arboles en la selva, pero tenes que buscar lejos para encontrar el jobillo. Me gusta caminar en la selva cuando estoy aburrida" [There are trees in the rain forest, but you have to look far to find jobillo. I like walking in the rainforest when I am bored].

Patricia Yuk (36 years old) commented, "some men work in the milpa (agriculture plots), but if they do not, then the women do. Every day she tended to her pineapple, yucca, corn, and bananas in her milpa (agriculture plots) from 6:00 to 9:00 am." She added, "Camino en la selva" [I walk in the rain forest].

Cox Yuk (37 years old) and a single parent with a delightful six-year-old daughter voiced a perspective, which was shared by many women in Lacanjá. She remarked, "We live for tourism. Life is better with the milpas (agriculture plots). I like to walk in the rain forest and enjoy fishing. Men help less in the milpa (agriculture plots). The milpa (agriculture plots) determines property." She was one of few female waterfall and ruins guides in Lacanjá during 2004 that earned 100 pesos (\$10.00) per person or 200 pesos (\$20.00) if the tourist was not affiliated with a tourist agency.

There were other perspectives too, Carolina Yuk (30 years old) mentioned, "How money earned from making crafts was solely for women; whereas, earnings from the husband paid for families needs. Women only work in the milpa (agricultural plots) if they have no husbands." In 1991, women who had migrated from Najá rarely went to the fields to *chapayar* (clear) weeds. However, in 2004, virtually (figure A-1) 40 percent of women's time was spent on household reproduction, another 10 percent on household production, 10 percent on service tourism, and finally 40 percent on craft tourism. Moreover, if one accounted for women's seasonal work patterns (figure A-4), one sees how women worked more per season and daily hours than men (for men see figure A-2 for daily, figure A-5 for seasonal, table A-1 for underlying data).

Atris Yuk, 23 years old, added, “If a man does not have a job, then he has to have his milpa (agriculture plots). But, if a man has a job, then he has no milpa (agricultural plots).” Most men in Lacanjá lacked full-time work on a daily basis. Instead they relied on tourism as their primary employer. My surveys and data indicated (figure A-2) that men dedicated 77 percent of their time to service tourism, 17 percent to household production, 5 percent to reproduction, and 1 percent to craft tourism. In all, men waiting around for tourists to appear and spend less or no time working in their milpas (agricultural plots).

Equally important was women and men’s perception and attitude toward doing specific types of work in the household and tourism economy. Lacandón women (figure A-7) and non-Lacandón women (figure A-9) perceived men as doing all agricultural work, and men (figure A-8, table A-2 for underlying data) also perceived household production as man’s work. However, in reality, women were on daily work hours (figure A-21) undertaking most of the household production work tasks as well as their own reproduction work, compared to Lacandón men (figure A-22) and non-Lacandón women (figure A-23).

Nuk Yuk added in 2004 that, “she still had a milpa (agricultural plots) although not very big a half of a hectare, but she grew corn.” Nuk had to balance her craftwork and feeding her family and tourists with little time left over for her to work in her milpa (agricultural plots). I asked her about property boundaries. She said, “Of course I know where my land is.” How do you know, I asked? Nuk answered, “It is where I plant those flower plants and that is how I know where my land starts and ends.” Cada familia tenen su rio y los arboles, y la milpa (agricultural plots) es la casa de alguin” [Every family has its river and trees, and the milpa (agricultural plots) is someone’s house]. I inquired if the ridges of the trees and plants physically marked a separation of land between people? Nuk said “yes.” Which residents were allowed to

cross through the in-between trees and plants? Nuk responded, “Sóla la familia, tu venistes antes que los otros turistas, muchos años antes cuando los turistas se cuedavan cerca de Bonampak, antes de la carretera” [Only the family, you came before the other tourists, many years before when the tourists stayed near Bonampak, before the highway]. Nuk Yuk’s comment echoed Carolina Yuk’ remarked, “the milpas (agriculture plots) defining one’s tierra (land) you never went beyond your milpa” (agriculture plots).

In 2004, Rosa Yuk remarked “women traditionally made crafts in the past, but they did not have to sell them. Everything was for self-use. However, as men insist on keeping their own money earned in tourism, women had to produce more crafts.” The most expensive crafts items were the woodcarvings. In 2004, a small wood carved piece sold for 50 pesos (\$5.00) and wood carved plates and wood spoons sold for 500 pesos (\$50.00) each. However, women needed to harvest more timber in order to replenish their woodcarving craft supplies.

Following the Lacandón woman’s statement, I asked Ricardo Kin, in 2004, how he knew for sure where his land was located since there were no apparent street names, numbers, or visible borders? He commented, “Sabemos dónde está nuestra tierra, porque nuestros padres y abuelos siempre crecían sus milpas (agricultural plots) allí. Cuendo vieron árboles allí paraban” [We know where our land is because our fathers and grandfathers always planted their milpas (agricultural plots) there. When they saw trees they stopped].

Asking for more details, I remarked, whether there were signs or markers distinguishing land partitions. Ricardo Kin responded, “Los arboles son los marcos entre la tierra” [trees are the frames between the lands]. Ricardo added, “In the past, definitions of the land were determined by where you worked – milpa (agricultural plots).” Now tulipanes (palms) and native trees created a visible fence. Ceiba trees and tulipanes (palms) were the doors in the land. The trees,

tulipanes (palms), and shrubs mark an area's limit. All Lacandónes according to Ricardo recognized the tall trees and areas of private households. On that summer afternoon, the mystery behind landscape modification and ownership was clarified. Everywhere you looked in the horizon toward the hillsides and up close in the milaps (agricultural plots), there were trees and tulipanes (palms) growing and marking off properties between families.

Moreover, Ricardo Kin, immediately stated “Por matrimonio sagrado el hombre es el dueño de la tierra. Pero si se muere entonces la mujer se cuada con las tierras” [Through matrimony, a man is owner of the lands. But if he dies, then the woman is left with the lands]. In any case, the landscape was being modified on a daily basis through women working on the milpas (milpas plots), and maintaining and the tree ridges around their property.

I will now turn toward the implications and recommendations dealing directly with similar communities such as Lacanjá, and the effects it can have on the community, government, anthropology and gender studies.

First, my research detailed how rural indigenous communities facing socio-economic structural inequalities tended to be part of development projects that lacked forest resource-use management, which furthered deforestation and gender inequalities. The Mexican Revolution of 1910 fell short of fully integrating its rural and indigenous communities into its economic fortunes. Instead, the economic transformations that had been encouraged by the governments' indigenous policies and promoted by Mexican anthropologist Gonzalo Aguirre- Beltrán, Manuel Gamio and Miguel Othón de Mendizábal (Friedlander 1986: 363), did not fully fight against the multiple business interests in Chiapas or other *regiones de refugio* (regions of refugee) in the nation. Governmental policies were at best the instigators of faltering rain forest resource-use planning and management. And at worst, government assistance to the rural poor and indigenous

communities advocated tourism without giving communities members the necessary training or business-marketing infrastructure needed to compete in global market.

Vital community development recommendations have to come in different shapes and forms to Lacanjá. However, there are two types of planning tools that I recommend be used for contextualizing and encouraging sustainable rural community development – community visioning and community assets.

The first is community visioning (Green and Haines 2002:43), which allowed community members to recognize their purpose as a community cohort, and to plan for their future with specific plans for achieving their goals. Community visioning acknowledges the individual and their personal expectations of securing better socio-economic opportunities for self and family, but challenges an individual to think beyond self and strive for community achievement. In many cases, women were left out of the economic and social advancement equation. Government politics generated training programs that perpetuated their own endemic structural hierarchy and gender inequalities. Community visioning in essence was a means by which power and resistance was granted and shared by all participants regardless of age, ethnicity, gender, physical abilities, sexual orientation or socio-economic levels.

The second recommendation is for governmental agencies to view Lacanjá and similar communities as possessing community assets with individual capacities and capabilities (Nussbaum 2000, 2001; Sen 2000) for advancements. Typically, development planning looked at rural communities primarily through a needs assessment outline. Problems, social deficits, and economic vulnerabilities were in the forefront of development planning and management, whereas, capabilities assets, skills, and knowledge, were overlooked or minimized. Communities and especially women would be better served if they were not seen as a means to an end, but a

vital contributor in a nation's prosperity and well being. In others words an adaptive management plan that examined community assets and not just needs would consistently involve working with both women and men. Women's genderscape that is, resource-use, ownership, responsibilities, and management would become an essential part of rain forest and community development success.

My third recommendation would be for governmental agencies to tie program success with the inclusion of women and men into their progress and achievements reports. It would be a mistake to measure the resilience of natural resource-use and rain forest management only by short-term goals. Data needs to be collected and shared among local stakeholders and agencies indicating that women and men are actively participating on all levels of decision-making, planning, pre-post evaluations, and execution in the training sessions. Better locations for training sessions have to be established because women only attend project orientation and training if the classes are held near their homes during specific times during the day. Proper childcare for women attending the training sessions is essential for greater attendance and participation. In some cases, an instructors' gender also has to be considered because some men will not allow women to be left alone with non-kin male members for any reason.

My forth recommendation deals directly with the roles that anthropology and gender studies plays in rain forest resource-use and identity politics. First one has to recognize that the anthropological schools of thought in Mexican and United States have different historical trajectories. Mexico faced the after shock of its revolution in 1910 and ushered in a need for a unified national identity; whereas in the United States racism prevailed in the country. Both movements shared similar structural-functionalist theoretical paradigms, but one pivotal difference between the two countries was their point of inception. Anthropology in the United

State was housed within the walls of academic institutions throughout the country. As a discipline, United States based anthropology was influenced by the sociological thoughts of Weber Durkheim. Conversely, anthropology focused on understanding of other cultures through different measurements of cross-cultural, environmental, spatial and temporal experiences.

Méxican anthropology in contrast to the United States anthropology was established in 1916 and was under the jurisdiction of the Secretaría de Agricultura (Secretariat of Agriculture). In the aftermath of the Méxican Revolution, México was in need of a collectively grown identity – anthropology would help locate it. From its very inception, government and political needs influenced Méxican anthropology. Méxican anthropologists examined the indigenous policies in the nation. The hope being that economic transformation and prosperity for everyone as promised by the Méxican Revolution would be achieved and endure.

Anthropology and gender studies have a significant role in working together with governmental and non-governmental agencies (NGO) to assure that gender inclusive programs and training sessions are offered and evaluated. Numerous funding evaluations are based on the number of people in attendance with little regard to natural resource ownership or responsibilities. Gender studies can help locate how and where power becomes gendered by outside agencies. Along with anthropology locating the capacities, capabilities and community assets that can increase the success rates of natural resource-use and rain forest sustainability. In all, both anthropology and gender studies could further the essence of Méxican anthropology and its initial challenge of empowering the most disempowered in México through education and socio-economic inclusion. Women as stakeholders would be a vital part of the sustainable development and rain forest management planning, execution, and evaluation.

Every morning and late afternoon, women with their traditional ecological knowledge (TEK) worked in household production work tasks normally perceived by everyone as being male activities. Yet, women completed the work. Women managed to undertake their household reproduction work tasks and still find the energy and time and to work in their milpas (agriculture plots). Most women engaged in traditional men's work because they needed to survive. Other women worked in the milpas (agriculture plots) because it permitted them to maintain a sense of working like a Lacandón devoid of any gender work regulations. In addition, working and weeding around the milpas (agriculture plots) allowed them to sustain tree ridges that marked the land with symbolic meanings of ownership and resource-use.

Women seldom relied on tourism as their primary source of income. Craft tourism allowed some women to have greater levels of financial independence, but for many women it was their only means of earning an income. Lacandón women immediately recognized that tourism, as promised by the government, was only Trojan Horse. The main beneficiaries of the tourism still continue to be the federal and state governments.

Government policies have not been gender inclusive on any level. Comparing tourism to real life working conditions, women found needs to spatially manage the resilience of their ecosystem. Women chose resource-use sustainability over exploitation—otherwise they would not have enough timber or non-timber resources for making their crafts. Milpas (agriculture plots) was a space used for farming and nourishing themselves and their families. It was a place where women came together. It was a site where women planted seeds to germinate, but it was more than just farming, it meant maintaining a history usually spoken through words – their narratives of life had a place within the landscape.

Customarily, Lacandónes have been portrayed as a community on the verge of extinction. This is far from true. Since 1639, the Lacandónes, at worst were seen as being “barbarous and wild” (Zemurray-Stone 1986:2), or at best as “harmless agricultural people” (Tozzer 1912; 1984:2). What is not being recognized is the Lacandónes’ brilliant aptitude toward change and adaptation under any socio-economic change in the State of Chiapas. Regardless of promises or deals made with the federal government, highways being built, introduction of electricity, and immediate migratory, immigratory, and economic challenges, they constantly found ways of dealing with socio-economic shifts of power and money. Genderscape looks at these “processes by which power is gendered and explored sites of resistance” (Krishna 2004:54). Work activities for women are in essence, their personal and public sites of resistance. Local rain forest environment is the landscape stage where they interact and sustain their power base through work and maintaining a means of livelihood through natural resource-use sustainability. In short, the Lacandónes are not disappearing and have been visible as always since 1639.

In the end, to be a Lacandón woman meant maintaining their narratives and work activities in a landscape for all to see and understand. My understanding of the Lacandón rain forest will never be truly complete, but I had an opportunity to see Lacanjá go through processes of change, adaptation, and resilience since 1991. On my last day in Lacanjá in the Summer of 2004, a truly unique moment occurred, after all these years, Rosa Yuk gave me a endearing gift, a full set of jobillo wood carved utensils to bring back to the United States for my daughter Zoë to see. Any mistake that might have been incurred in my research, I take full and all responsibility. Any acceptance of me being Mexican by Lacandónes I give them all the credit.

APPENDIX A  
TABLES AND FIGURES

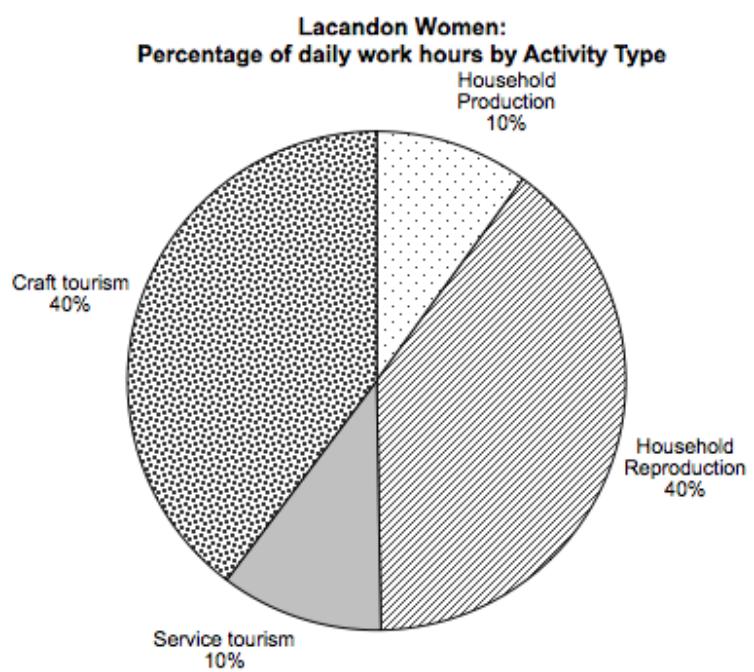


Figure A-1. Lacandon women daily work by activity type

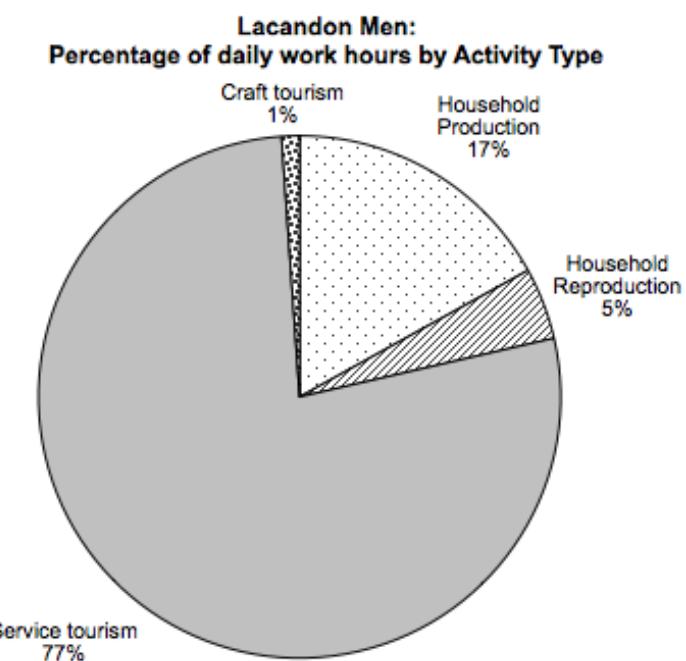


Figure A-2. Lacandon men daily work by activity type

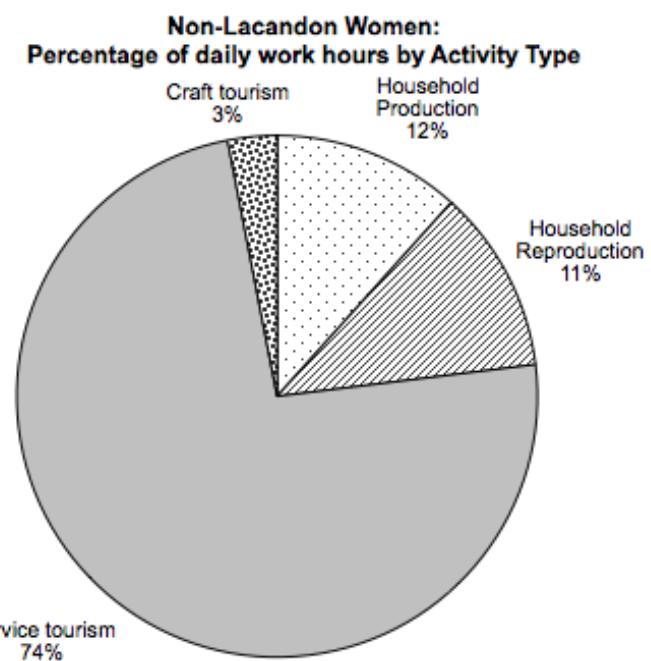


Figure A-3. Non-Lacandon women daily work by activity type

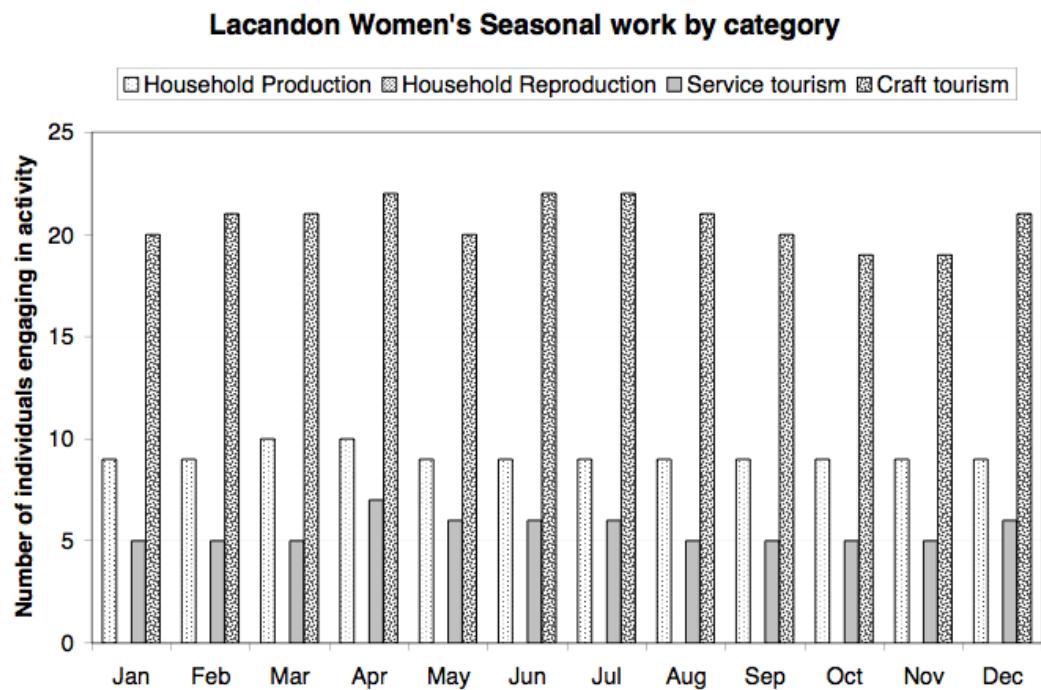


Figure A-4. Lacandon women's seasonal activities

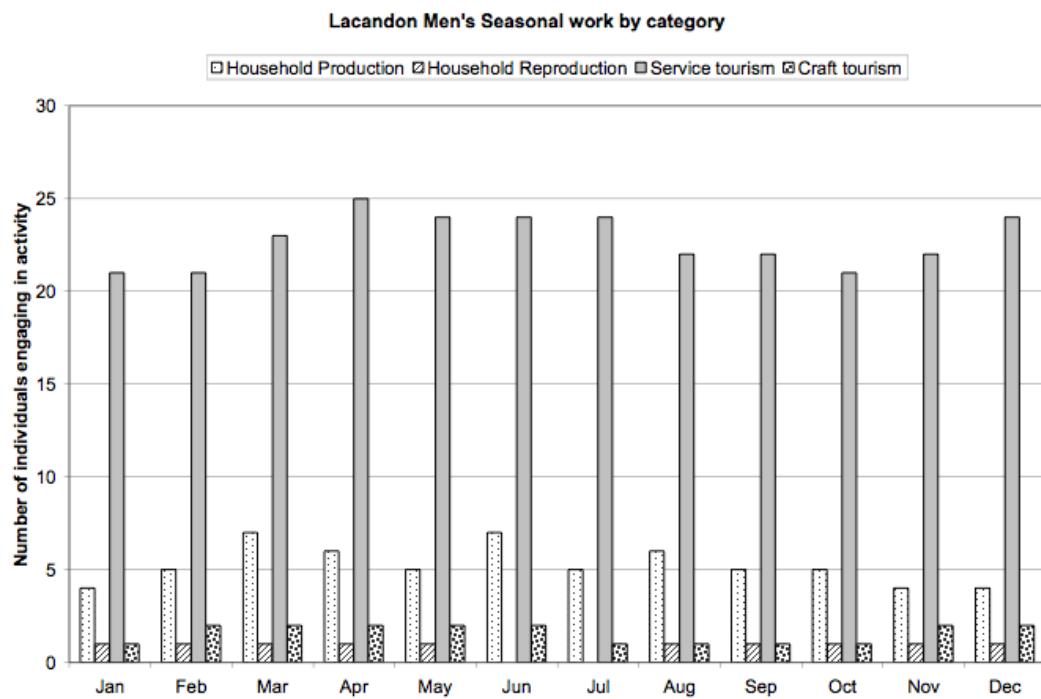


Figure A-5. Lacandon men's seasonal activities

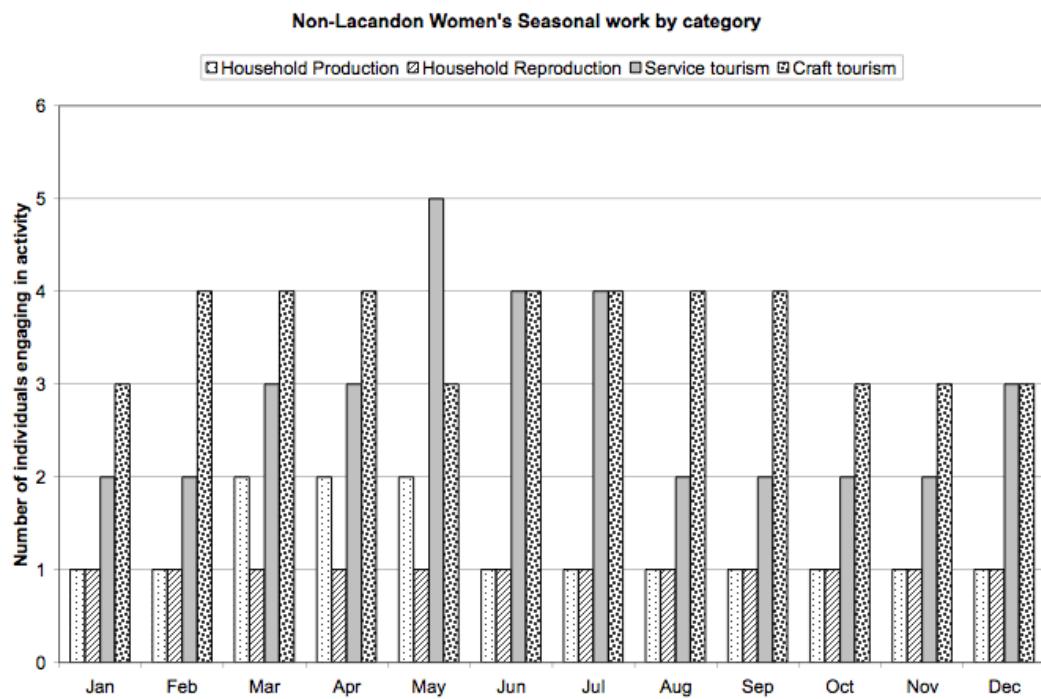


Figure A-6. Non-Lacandon women's seasonal activities

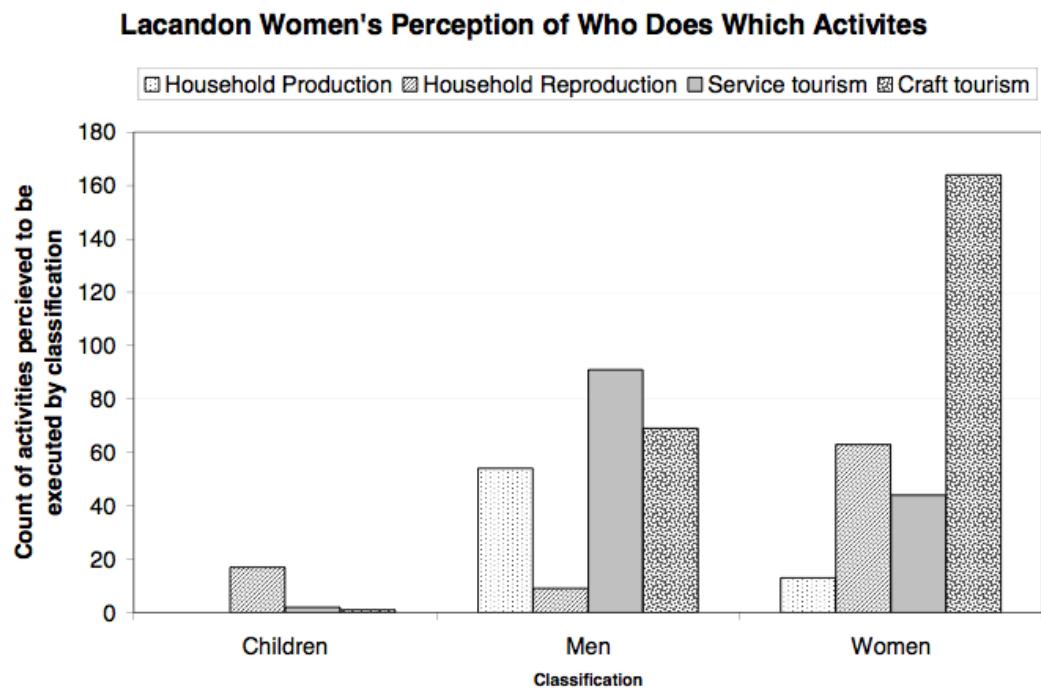


Figure A-7. Lacandon women's perception on gendered work tasks

### Lacandon Men's Perception of Who Does Which Activities

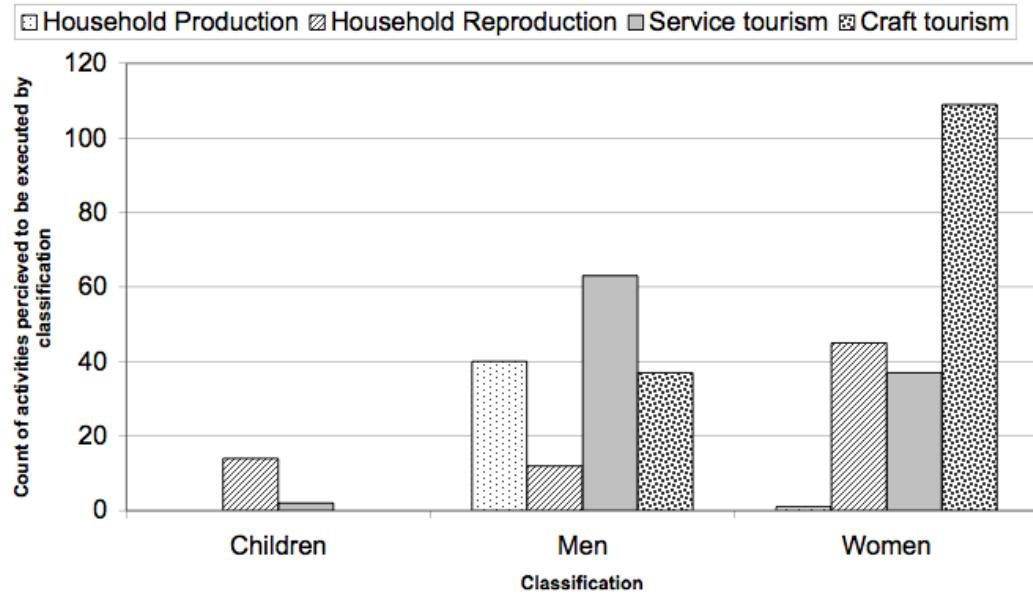


Figure A-8. Lacandon men's perceptions of gender of activities

### **Non-Lacandon Women's Perception of Who Does Which Activities**

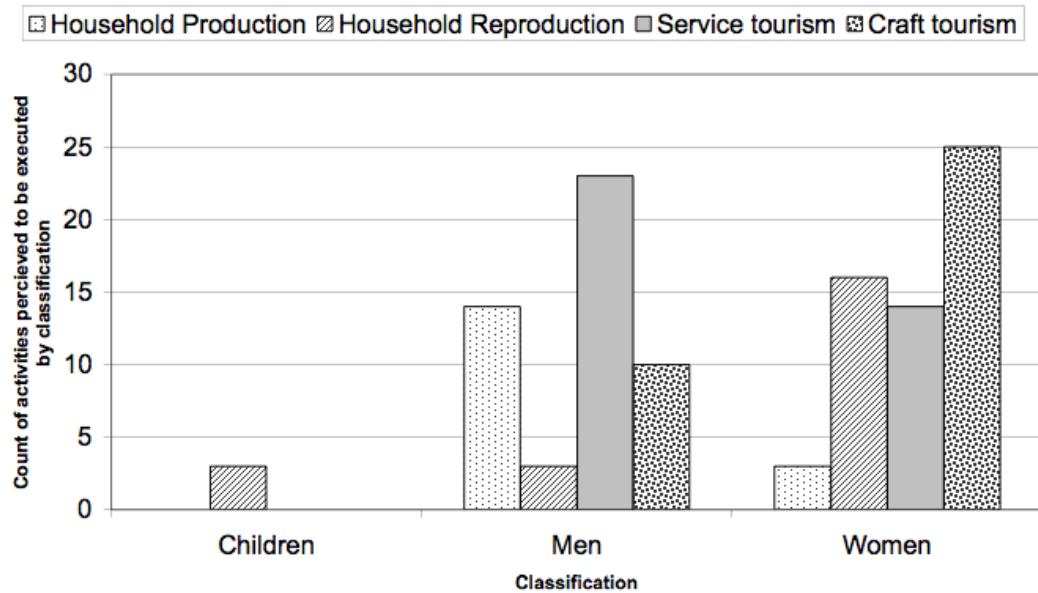


Figure A-9. Non-Lacandon women's perceptions of gender of activities

		Actividad/Activity	Tiempo/ Time	Sitio de Trabajo/ Location of Work
Mujer/Woman				
Niños/ Children				
Mujer & Hombre/ Women and Men				
Hombre/Man				

Figure A-10. Free-form survey instrument for generating record of daily work activities

	Mujer/ Woman	Hombre/ Man	Niños/ Children	Mujer & Hombre/ Women & Men
Flechas de Plumas/Arrows				
Pulsera de Semilla/Seed Bracelet				
Collar de Semilla/Seed Necklace				
Platos de Madera/Wood Plates				
Cucharas de Madera/Wood Spoons				
Figuras de Barro/Clay Figures				
Escuela de Primaria/Primary School				
Juguar de Madera/Wood Jaguar				
Campamento/Camps				
Bolsa Tejida de recursos de Madera/Bag				
Tienda/Store				
Túnica de Algodón/Cotton Tunics				
Cazar/Hunting				
Lavar Platos/Wash Plates				
Lavar Ropa/Wash Cloths				
Milpa/Agriculture Farm Plots				
Pesca/Fishing				
Barcos de Madera/Wood Boats				
Cuidar Niños/Childcare				
Guía de Ruinas/Ruins Guide				
Taxista/Taxi Driver				
Guía de Caminos/Sigheeing Guide				
Guía de Cascadas/Cascades Guide				
Caminar en la Selva Para Trabajar Buscar Madera y Semilla/ Walking in the rainforest for work-looking for wood or seeds				
Caminar en la Selva Para Placer/ Walking in the rainforest for pleasure				
Extracción de Palma Xate/Xate Extraction				

Nombre/Name: \_\_\_\_\_

Edad/Age: \_\_\_\_\_

Fecha/Date: \_\_\_\_\_

Figure A-11. Survey instrument for recording perceptions of work gender

Actividad/Activity	Enero/Jan	Febrero/Feb	Marzo/Mar	April/Apr	Mayo/May	Junio/Jun	Julio/Jul	Agosto/Aug	Septiembre/Sep	Octubre/Oct	Noviembre/Nov	Diciembre/Dec	Precio y Control del Dinero/Price & Control of Money
Caminar en la Selva para placer/ Walk in Rainforest for Pleasure													
Caminar en la Selva para buscar trabajo/ Walk in the Rainforest for work													
Guía de Cascadas/Waterfall Guide													
Guía de Cármenes/Sightseeing Guide													
Flechas de Plumas/Arrows													
Pulsera de Semillas/Seed Bracelet													
Collar de Semillas/Seed Necklace													
Platos de Madera/Wood Plates													
Cuchara de Madera/Wood Spoons													
Figuras de Barro/Clay Figures													
Escuela de Primaria/Primary School													
Jaguar de Madera/Wood Jaguar													
Campaneta/Canteen													
Bolsa Tejida de recursos de Madera/Bag													
Tienda/Store													
Túnica de Algodón/Tunics													
Cazar/Hunting													
Lavar Platos/Wash Plates													
Lavar Ropa/Wash Cloths													
Milpa/Agricultura Farm Plots													
Pescar/Fishing													
Barcos de Madera/Wood Boats													
Cuidar Niños/Children													
Guía de Ruinas/Ruins Guide													
Taxista/Taxi Driver													

Figure A-12. Survey instrument for recording seasonal work

UMR: Lacanja Chansayab, 12-23-03		Lacanja	Bethel	San Javier	Total
TECHO	Concreto, Ladrillo o teja	0	0	0	0
	Lamina o asbestos	68	41	14	123
	Lamina de carton	0	0	0	0
	Madera	0	0	0	0
	Palma	4	0	0	4
	Otros	0	0	0	0
PISO	Cemento, mosaico o piedra	41	39	10	90
	Madera	0	0	0	0
	Tierra	31	2	4	37
	Num. de ventanas	115	52	40	207
AGUA	Fam. Participantes tx. agua	87	45	21	153
	potabilizacion con cloro	10	0	0	10
	potabilizacion con ebulucion	77	44	21	142
	potabilizacion con plata c.	0	1	0	1
	otro metodo tx.	0	0	0	0
	Fuente de abasto communal S/PR	0	0	0	0
	Fuente de abasto communal C/PP	1	1	1	3
AGUA ENTUBADA	Intradomiciliaria	2	0	0	2
	En el patio	69	41	14	124
	Hidrante publico	0	0	0	0
AGUA NO ENTUBADA	Pozo	0	0	0	0
	Alebrije	0	0	0	0
	Rio	1	0	0	1
DISPOSICION DE EXCRETAMENTOS	Fam. Participantes en tx. excret	79	45	20	144
	Excusado Ingles	0	0	0	0
	Ecologico	0	0	0	0
	Fosa Septica	7	37	3	47
	Letrina	54	3	10	67
	Pozo negro	0	0	0	0
DREN	Ras del suelo	11	1	1	13
	Conexion a dren. Publico	0	0	0	0
	Con expulsion a suelo	0	0	0	0
OTROS	Fam. part. tx basuras	87	43	21	151
	Fam. part. control f. novica	86	43	21	150
	Total de camas	176	83	41	300
	total de pabellones	172	75	41	288
	Pabellones impregnados	89	60	37	186
	Fam. que duermen en el suelo	2	2	0	4
	Viviendas sin fogon	0	0	0	0
SATISFACTORIO	Cocinan en el suelo c/fogon su	0	0	0	0
	Electricidad	67	41	14	122
	Television	22	7	6	35
	Refrigerador	21	2	8	31
	Gas	12	0	4	16

Figure A-13. Census form of Lacanjá inhabitations

**Intituto Mexicano del Seguro Social**  
**Programa IMSS Solidaridad**  
**2004**  
**J.B. Piramide De Poblacion Global**

**Zona 34 Marques de Comillas**

**Lacanja Chansayab, 12-23-03**

<b>Hombres</b>				<b>Gropos de edad</b>				<b>Mujeres</b>
	<b>Total</b>	<b>San Javier</b>	<b>Bethel</b>	<b>Lacanja</b>	<b>Lacanja</b>	<b>Bethel</b>	<b>San Javier</b>	
12	1	3	8	<1	0	1	0	1
14	3	4	7	1	3	1	2	6
10	2	3	5	2	6	3	1	10
7	1	2	4	3	6	1	2	9
6	1	3	2	4	6	3	1	10
5	2	0	3	5	5	1	0	6
7	4	1	2	6	2	4	0	6
9	0	3	6	7	7	2	2	11
10	0	2	8	8	4	2	2	8
13	3	3	7	9	9	4	0	13
5	1	1	3	10	2	2	2	6
6	1	2	3	11	2	2	2	6
10	1	3	6	12	4	2	0	6
11	1	3	7	13	5	5	1	11
10	2	4	4	14	4	2	1	7
39	2	14	23	15 a 19	26	9	8	43
31	4	6	21	20 a 24	15	10	5	30
28	5	4	19	25 a 29	15	6	3	24
18	5	4	9	30 a 34	13	4	5	22
20	1	8	11	35 a 39	10	5	3	18
12	1	6	5	40 a 44	11	6	2	19
5	0	1	4	45 a 49	5	0	1	6
5	0	0	5	50 a 54	4	2	1	7
7	2	1	4	55 a 59	3	2	0	5
2	0	1	1	60 a 64	2	4	0	6
2	0	1	1	65 a 69	1	0	0	1
2	0	2	0	70 a 74	2	1	1	4
0	0	0	0	75 a 79	0	1	0	1
2	0	1	1	80 a 84	0	0	0	0
1	0	0	1	85 y +	0	1	1	2
<b>309</b>	<b>43</b>	<b>86</b>	<b>180</b>	<b>Total</b>	<b>172</b>	<b>86</b>	<b>46</b>	<b>304</b>

	<b>L.C.</b>	<b>Bet.</b>	<b>SJ.</b>	<b>Total</b>
<b>Total de Habitantes</b>	<b>352</b>	<b>172</b>	<b>89</b>	<b>613</b>
Menores de un año	8	4	1	13
Menores de 2 años prograsa	12	8	6	26
Menores de 2 años no prograsa	6	1	0	7
De 2 a 4 años prograsa	19	14	5	38
De 2 a 4 años no prograsa	10	1	3	14
De 6 7 y 8 años	29	14	8	51
De 5 a 14 años	93	48	25	166
Mujeres de 15 a 49 años	95	40	27	162
Mujeres de 12 a 49 años	108	49	29	186

Figure A-14. Census form of Lacanjá population

Instituto Mexicano del Seguro Social  
 Programa IMSS Solidaridad  
 2004  
 J.B. Piramide De Poblacion Oportunidades  
 Programa Progresa

Zona 34 Marques de Comillas

Lacanja Chansayab, 12-23-03

Total	Hombres			Grupos de edad	Mujeres			Total
	San Javier	Bethel	Lacanja		Lacanja	Bethel	San Javier	
11	1	3	7	<1	0	0	0	0
11	3	4	4	1	1	1	2	4
9	2	3	4	2	4	2	0	6
6	1	2	3	3	4	1	1	6
4	1	3	0	4	4	3	0	7
5	2	0	3	5	4	1	0	5
7	4	1	2	6	1	4	0	5
7	0	3	4	7	5	2	1	8
10	0	2	8	8	4	2	2	8
10	2	3	5	9	6	4	0	10
5	1	1	3	10	2	2	1	5
4	0	1	3	11	2	2	1	5
7	1	3	3	12	4	2	0	6
10	1	3	6	13	4	5	1	10
11	2	4	5	14	4	2	1	7
28	1	13	14	15 a 19	15	8	7	30
22	4	6	12	20 a 24	6	10	4	20
21	4	3	14	25 a 29	13	6	2	21
11	4	4	3	30 a 34	8	4	5	17
17	1	8	8	35 a 39	8	5	2	15
11	0	6	5	40 a 44	8	6	2	16
4	0	0	4	45 a 49	5	0	1	6
4	0	0	4	50 a 54	2	2	1	5
6	2	1	3	55 a 59	3	1	0	4
2	0	1	1	60 a 64	2	3	0	5
1	0	0	1	65 a 69	1	0	0	1
2	0	2	0	70 a 74	2	1	1	4
0	0	0	0	75 a 79	0	1	0	1
2	0	1	1	80 a 84	0	0	0	0
1	0	0	1	85 y +	0	1	1	2
249	37	81	131	Total	122	81	36	239

	L.C.	Bet	S.J.	Total
Total de Habitantes	253	162	73	488
Menores de un año	7	3	1	11
Menores de 2 años progres	12	8	6	26
Menores de 2 años no progres	6	1	0	7
De 2 a 4 años progres	19	14	5	38
De 2 a 4 años no progres	10	1	3	14
De 5 a 7 y 8 años	24	14	7	45
De 5 a 14 años	78	47	20	145
Mujeres de 15 a 49 años	63	39	23	125
Mujeres de 12 a 49 años	75	48	25	148
De 10 a 19 años	65	46	17	128
De 25 y mas años	75	56	26	157
Mujeres de 25 y mas años	52	30	15	97
Mujeres de 50 y mas años	10	9	3	22

RECOUNT: De 25 y mas años      97    56    26    179

Figure A-15. Census form of Progressa



Figure A-16. Lacandón women next to a Wayawa tree used for weaving bags



Figure A-17. Wayawa wood is placed in the river for the wood to soften before use



Figure A-18. Hand woven bag

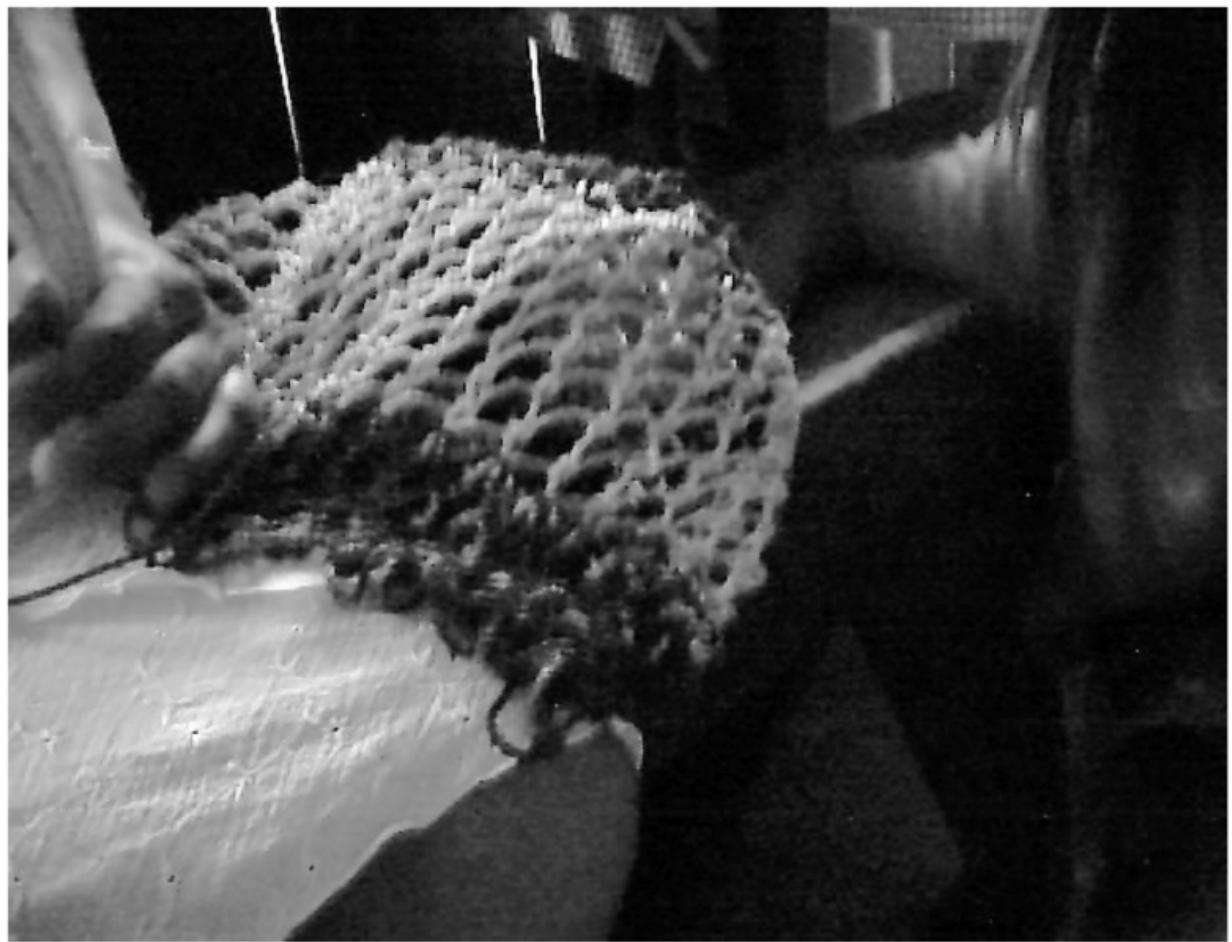


Figure A-19. Women individually handcraft bags



Figure A-20. Thatched accommodations for tourists

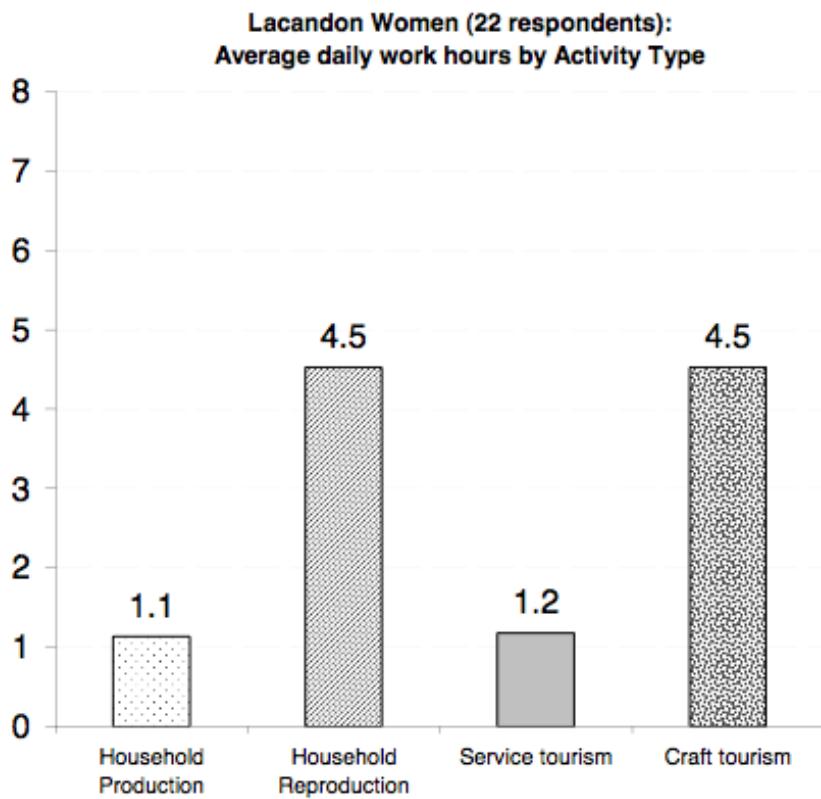


Figure A-21 Lacandón women average daily hours by work type

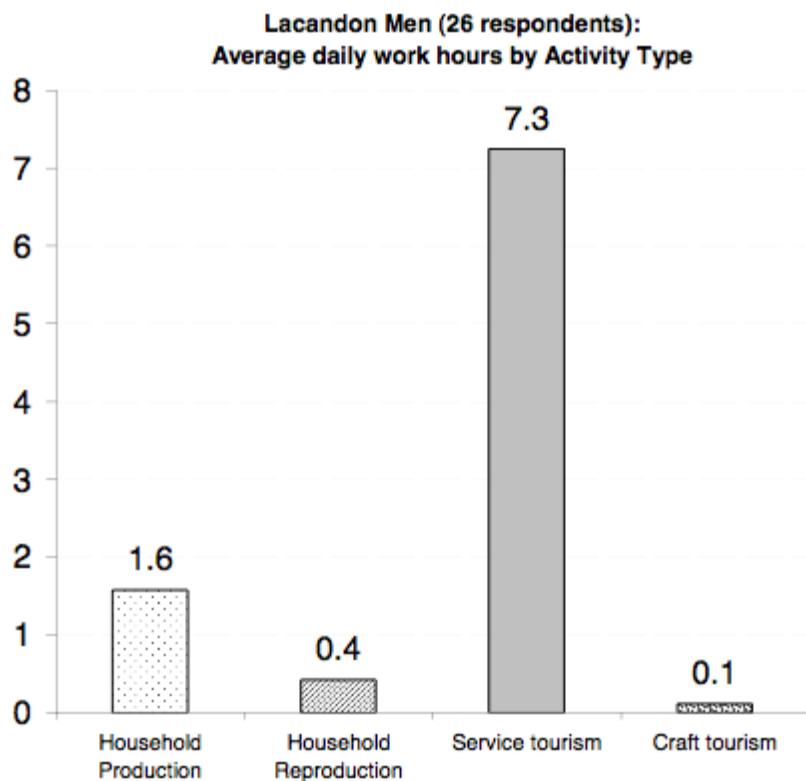


Figure A-22 Lacandón men average daily hours by work type.

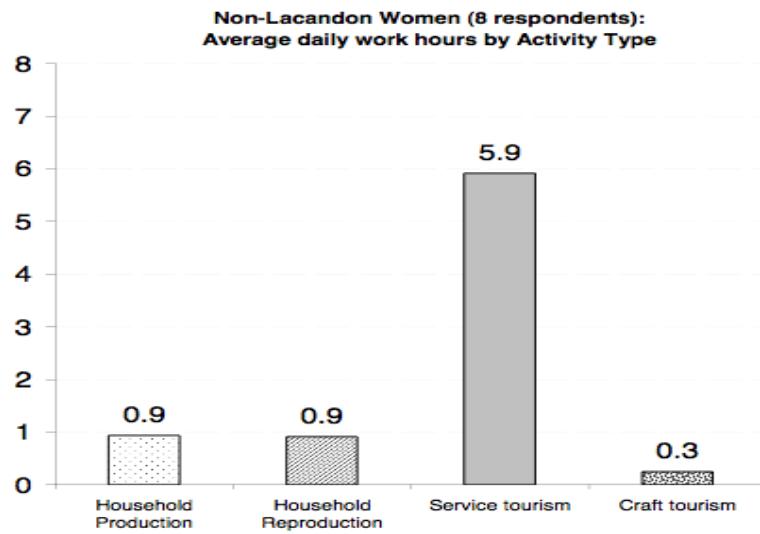


Figure A-23 Lacandón non-women average daily hours by work type

Table A-1. Hours Dedicated to Each Work Activity by Lacandón Women (F), including Non-Lacandón Women (FN) and Lacandón Men (M).

Lacandon	(All)	F (female Lacandon)	FN (female non-Lacandon)	M (male Lacandon)	
Performed by	Self				
Sum of daily hours	Activity type				
Id #	Household Production	Household Reproduction	Service tourism	Craft tourism	Total
F1		7	1		8
F2			1	2	3
F3	1	4			5
F4		6		1	7
F5		4			4
F6	1		2	1	4
F7	1	2		2	5
F8	2	7	1		10
F9		5		3	8
F10	1	4	1		6
F11		2		3	5
F12	1	7		1	9
F13	1	1		2	4
F14	1			1	2
F15		5	1	1	7
F16		2		2	4
F17		2		2	4
F18	1	5		1	7
F19		4			4
F20	1	6		2	9
F21	1	6		1	8
F22		4			4
FN23			1		1
FN24		3			3
FN25		4			4
FN26	1		1		2
FN27		1	1		2
FN28			1	1	2
FN29	1	1			2
FN30			1		1
Grand Total	14	93	12	26	144

Table A-1. Cont.

Lacandon	(All)	F (female Lacandon)	FN (female non-Lacandon)	M (male Lacandon)	
Performed by	Self				
Sum of daily hours	Activity type				
Id #	Household Production	Household Reproduction	Service Tourism	Craft Tourism	Total
M31				1	1
M32				3	3
M33	1			1	2
M34				1	1
M35				1	1
M36				1	1
M37	1	4		1	6
M38		3		2	5
M39	1			1	1
M40				1	1
M41	1				1
M42	1	1		1	3
M43	1			1	2
M44	1	1		1	3
M45				1	1
M46				1	1
M47				1	1
M48				1	1
M49				1	1
M50				1	1
M51				1	1
M52				1	1
M53				1	1
M54				1	1
M55				1	1
M56				1	1
Grand Total	7	9	28	2	45

Table A-2. Perceptions of work activities by gender category on free-listing

	Gender	(All)		Gender	(All)
	M		F		
	Count of Men			Count of Women	
	Activity	Total		Activity	Total
Arrows	32			Arrows	7
Boat wood carving	20			Boat wood carving	15
Bracelets	4			Bracelets	33
Camps	37			Camps	4
Child care	2			Child care	34
Dishes	10			Dishes	31
Fishing	31			Fishing	5
Hunting	30			Hunting	
Jaguar wood carving	10			Jaguar wood carving	29
Milpa	35			Milpa	11
Necklace	3			Necklace	34
Pottery	8			Pottery	31
Pyramid guides	33			Pyramid guides	20
School				School	
Spoons	11			Spoons	29
Store	13			Store	25
Taxi	31			Taxi	1
Túnica making	4			Túnica making	29
Walking guides	30			Walking guides	21
Walking in rain forest to forage for seeds	9			Walking in rain forest to forage for seeds	28
Walking in rain forest for pleasure/leisure	18			Walking in rain forest for pleasure/leisure	24
Wash clothes	2			Wash clothes	33
Wash dishes	2			Wash dishes	33
Waterfall guides	33			Waterfall guides	24
Woven bags	5			Woven bags	32
Xate harvesting	12			Xate harvesting	1
Grand Total	425			Grand Total	534

APPENDIX B  
QUESTIONNAIRE

1. Name:
2. Age:
3. Residence:
4. Location of previous residence:
5. Duration of current residence:
6. Marriage status:
7. How many years were you married:
8. Age when first married:
9. How many people live in the same house:
10. What are their ages and sex:
11. Do you live with your spouse's family:
12. Years living with spouse's family:
13. Did you attend school:
14. Years in school:
15. Do you have children that attend school:
16. Did the physical environment changed during the last ten years:
17. If you are Lacandón, do you work the same or differently from others whom are not Lacandón-How do you work:
18. What does is signify to be Lacandón-before and now:
19. What does it signify to you the trees, milpas, and rain forest:
20. What experiences do you have in the rain forest:
21. Do people walk in the rain forest for work or pleasure:

22. In the next fifteen years, what would you like to change in the community in Lacanjá:

23. What are the places in Lacanjá that you would like outsiders to visit and why:

24. What type of work do you do:

25. Where and when is the work done?

a. Agriculture

b. Forestry

c. Hunter

d. Fisher

e. Weaver

f. Other

26. What type of work do other members of your household do:

a. Agriculture

b. Forestry

c. Hunter

d. Fisher

e. Weaver

f. Other

27. Who taught you your type of work:

28. What type of machinery, tools, fertilizer, or pesticides do you use:

29. Did you learn any new techniques for work-what were they:

30. Did the new techniques for work help you produce more, less, or made no difference:

1. Did the physical environment change during the last ten years:
2. a. Air
3. b. Water
4. c. Land-use
5. d. Waste
6. e. Forest
7. f. Plants
8. g. Fires
9. h. Land-tenure
10. i. Natural resource extraction rights and who uses them:
11. j. Decision-making. Who decides to use land or natural resource:
12. Did the social environment change during the last fifteen years:
13. a. Education
14. b. Health
15. c. Employment
16. d. Religion
17. e. Marriage/Divorce/Non-legal Marriage
18. f. Politics
19. g. Gender Roles
20. h. Urban/Rural Migration
21. i. Tourism
22. j. Children's Roles in Family
23. k. Children's Roles at Work
24. l. Decision-making. What types of decisions do you make:
25. m. What are the costs/benefits/loss to your decisions:
26. n. Who is most effected by your decisions:
27. o. Who and when should have access to forests/other resources:
28. Search time for resource:
29. Handling time for a unit of resource:
30. Distance of resource/s from home
31. Distance willing to travel for resource
32. Who determined the distance of resource/s parameters:
33. How are resources allocation and re-distributed in the household:
34. How are resources allocated and re-distributed in the community:

Date: \_\_\_\_\_.

Location: \_\_\_\_\_.

Total Pages: \_\_\_\_\_.

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## BIOGRAPHICAL SKETCH

Luz Evelia Martín del Campo-Hermosillo, is a single parent born in Guadalajara, México and raised in North Hollywood, California. Luz started her post-secondary academic career at Bard College, and went on to finish her Bachelors Degree in Political Science and Masters Degree in Applied Urban Anthropology at the City College of the City University of New York-CUNY in New York City. She completed her Ph.D. at the University of Florida, Gainesville as an Alumni-Land Use, Environmental Change Institute (LUECI) Fellow from 2002-2006. In 2008, she was a Tenenbaum Leadership Initiative Fellow at the Milano School for Management and Urban Policy, New School University, New York.

Professionally, she was the Associate Director for the National Council of Women of the United States in New York City, a non-profit organization founded by Susan B. Anthony and Elizabeth Cady Stanton. Academically she worked on women and gender issues in her role as Director of the Women's Studies Program at Long Island University in Brooklyn. She also taught in the Anthropology Department at Long Island University, Brooklyn and Women's Studies at California State University, Northridge (CSUN), and the City College of New York-CUNY. And most recently, she devoted her time and socio-economic advocacy by working with Latina and Latino Street Food Vendors in New York City, Brooklyn, Bronx, and Queens, as Executive Director of Esperanza del Barrio, a non-profit organization based in New York City.

Her most significant joys are her daughter Zoë Judith Tamar Martin del Campo (10 years old) and best friend and life companion James Alan Karpe, who both inspired her to be a better, happier, funnier, and wiser person everyday. In the words, of U.S. President Calvin Coolidge, "Nothing in the world can take the place of persistence," this doctoral dissertation was no exception.