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Miami, Florida

THE EMERGENCE OF A MASS COMMUNITY-BASED ECOTOURISM THEME
PARK: THE CASE OF EJIDO CHACCHOBEN, QUINTANA ROO, MEXICO

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by

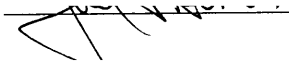
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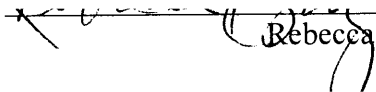
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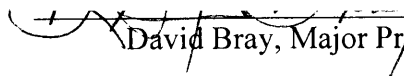
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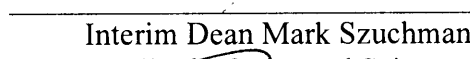

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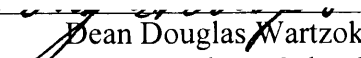

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ABSTRACT OF THE THESIS

THE EMERGENCE OF A MASS COMMUNITY-BASED ECOTOURISM THEME PARK: THE CASE OF EJIDO CHACCHOBEN, QUINTANA ROO, MEXICO

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In 1998, a dispute between a federal government agency and the local community of Chacchoben resulted in the emergence of a community-based ecotourism (CBE) enterprise to be fully owned and operated by the community in conjunction with a complex arrangement of agreements and partnerships with external actors. CBE is usually framed as a lower-impact, often small-scale alternative to mass tourism and as a conservation and development strategy that can hypothetically protect biologically diverse landscapes while improving the lives of marginalized peasant and indigenous communities through their participation. This case study analyzes the roles of common property land tenure and social capital and how the unique dilemma of a mass community-based ecotourism theme park emerged in Chacchoben. Findings indicate that local decisions and processes of development, conservation, and land use are affected by the complex interaction between local and external institutions and fluctuating levels of social capital.

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CHAPTER 1

Community-Based Ecotourism: Integrated Conservation and Development from Below

1.1 Introduction

In 1994, the *Instituto Nacional de Antropología e Historia* (INAH) began excavating and restoring the archeological site Chacchoben in the southern zone of the state of Quintana Roo, Mexico. Four years later, the lives of the inhabitants of Ejido Chacchoben¹ began to change as they had never imagined before. On the grounds that archaeological sites in Mexico are always considered “national patrimony,” INAH attempted to expropriate 71 hectares upon which the ancient structures rested; its normal practice. But the *ejidatarios* of Chacchoben rejected the insulting compensation of \$2000 pesos per hectare offered by INAH, arguing that it was not enough. They asserted that the “national patrimony” is located on their *ejidal* territory, property that is constitutionally guaranteed, and according to them, “non-negotiable.” Under federal law, INAH has expropriated and opened numerous archaeological sites for mass tourism throughout Mexico, marginalizing local communities in its path, but this was the first time documented in history that they were ever denied access by a local community claiming ownership and ultimately contesting the notion of “national patrimony.” After INAH labeled Chacchoben as a “conflictive” community, a series of negotiations followed, resulting in an agreement between INAH and the *ejido*, the first ever of its

¹ The creation of *ejidos* in Mexico is one of the many outcomes of the Mexican Revolution (1910-1917). *Ejidots* are communal territories granted to landless peasants under Article 27 of the 1917 constitution. *Ejidatarios* are required to work the land in exchange for usufruct tenure. The first major wave of *ejidal* lands in Mexico were established during the administration of Lázaro Cárdenas (1934-1940). Ejido Chacchoben was established on November 20, 1940 by presidential decree.

kind. The state government, as mediator of the dispute, signed an additional agreement with the *ejido*, one that would support them and assist them in achieving their demands. The compromise finally materialized in 2002, when the *ejido* was granted the concession to the commercial area of the archaeological site for their own benefit and *Pueblo Chiclero*, Chacchoben's communally-owned and operated, community-based ecotourism enterprise was designed.

Community-based ecotourism (CBE) is usually framed as an alternative to mass tourism and as a conservation and development strategy that can hypothetically protect biologically diverse landscapes while improving the lives of marginalized peasant and indigenous communities through their participation. Many scholars and policy-makers have advocated community-based conservation (CBC), community-based development (CBD), and community-based natural resource management (CBNRM) suggesting that the transfer of responsibility in ecosystem management promotes sustainability and overall stewardship of the environment. Depending on the analytical perspective, CBE can be categorized as CBC, CBD, or CBNRM representing a direct link between local-level conservation and local-level sustainable development. The benefits of CBE could be enhanced if implemented properly under the guiding principles of sustainable development that imply a balance between ecological protection, economic needs, and social concerns. However, any assessment of whether or not a specific project in CBE is meeting the goals of sustainable development would not be complete without an examination of the contextual factors that can either limit or enhance its viability. To understand why the prescriptions for these new approaches do not always translate to practice, and what processes and factors influence decisions local communities make

about their environments, it is necessary that case studies analyze the origins of CBE, the steps in the process, and the context in which CBE is embedded.

Most studies on ecotourism and CBE are feasibility studies, impact studies, or instruction manuals with little or no emphasis on any kind of theoretical framework that identifies and explains its appropriateness or the factors that precipitate its emergence, such as collective organization, reciprocal exchanges between multiple stakeholders, and institutional interactions with natural capital. Few studies on ecotourism and CBE emphasize the importance of land tenure and local institutions that create and enforce rules about resource use. Furthermore, case studies tend to limit the activity of ecotourism to formally protected areas where the communities have been seen as problems in “participation” not as autonomous actors on their own lands (Bray et al 2005, Honey 1999a). This case study of CBE on *ejidal* lands in Mexico provides an unusual opportunity to analyze the roles of common property land tenure, existing community institutions, and social capital in the development of a community ecotourism enterprise (CEE). With the exception of Cornejo (2004), Paré and Lazos Chavero (2003), and Bray et al. (2005), there has been little research about CBE in common property regimes, and even less research about the social organization in Ejido Chacchoben.

In the face of the imposition of mass tourism development, the community of Chacchoben responded through grassroots organization that led to the creation of a project in CBE as an alternative development strategy for their community. What factors led to the emergence of the capacity to resist a federal agency and force government support for CBE in Chacchoben? Are the *ejidatarios* of Chacchoben natural conservationists or is ecotourism one of those bandwagons that everyone seems to be

jumping on these days? Are community-based approaches likely to achieve conservation and sustainable development outcomes? How do local institutions adapt to form a market-oriented enterprise based on a novel form of ecotourism, one that has been termed “mass community-based ecotourism?” These have been the principle questions that have inspired this research that traces the processes that led up to the emergence of CBE in Chacchoben. An examination of institutional interactions and how they shape conservation and development outcomes is a valuable tool for the implementation of conservation and development projects, and can further help explain the successes and pitfalls of ecotourism in other localities and in similar landscapes. Furthermore, this research is significant because it addresses broader questions about the precipitating factors of sustainability and sustainable landscapes.² This thesis on CBE in Quintana Roo, Mexico demonstrates that it may be useful to rethink community-based conservation and CBE as environmental governance and conservation that starts from the ground up, but deals with cross-scale relations (Berkes 2004).

1.2 Ecotourism: Definitions, Impacts, Successes, and Failures

Tourism has often followed a socially and ecologically destructive path, especially in the third world where it has accelerated the globalization process, intensified uneven economic development, and trampled “pristine” forests and beaches. Ecotourism

² Bray *et. al* (2004) define sustainable landscapes as landscapes where deforestation rates are low, or with no net forest loss or even expansion of forest cover, and where multiple institutional processes are occurring that tend toward the preservation of ecosystem structure, composition, and processes.

is one of the many new paradigms of sustainable tourism³ that have emerged in recent years. The Ecotourism Society defines it as “Responsible travel to natural areas that conserves the environment and improves the overall well-being of local people.” Honey (1999a) elaborates, “ecotourism is travel to fragile, pristine, and usually protected areas that strives to be low impact and (usually) small scale. It helps educate the traveler; provides funds for conservation; directly benefits economic development and political empowerment of local communities; and fosters respect for different cultures and human rights” (Honey 1999a:25). While most of the literature on ecotourism distinguishes it from other forms of tourism, Daltabuit et al. (2000) suggest that ecotourism itself can be divided into different categories, including archaeo, ethno, nature, and adventure since each of these categories have the potential to minimally impact the environment, promote environmental and cultural awareness, generate funds for conservation of biodiversity or cultural/historical sites, and incorporate the important elements of sustainable development. Like other areas throughout the developing world, many ecotourism enterprises in the Yucatan Peninsula offer some combination of agro, eco, cultural, and archaeo-tourism, representing both the biological and cultural richness of southeast Mexico.

For the purpose of this thesis, the idea that ecotourism is ‘travel to protected areas’ or ‘pristine areas’ is extended beyond ‘natural areas’ since most of the landscape in the Yucatan has been anthropogenically modified for over 2,000 years (Diamond 2003, Wilson 1980). Secondly, the field of ecology itself is experiencing a conceptual shift to

³ The World Tourism Organization (WTO) defines “sustainable tourism” as tourism that meets the needs of present tourists and host regions while protecting and enhancing opportunities for the future.”

more integrated approaches that link natural and social systems. As Agrawal and Gibson (1999) point out, to categorize landscapes as natural or human-influenced is a false dichotomy since humans have modified ecosystems greatly for millennia. Finally, a cultural element is often tied to the natural history or natural environment of a region and the natural world has often influenced how societies have lived (Fennell 2002), therefore human-environment interactions should be reflected in ecotourism.

While ecotourism lacks a clear definition and guidelines about where it should be implemented, there is some consensus about the objectives, outcomes, and conditions necessary for implementation: to promote conservation and sustainable development through participatory approaches⁴ in any area of ecological interest. Ecotourism has been described as “responsible, alternative, caring, and green” (Belsky, 2000: 286). Other scholars have labeled it as a “for-profit form of conservation” (Price 1994) or more commonly, “market-oriented”. In theory, ecotourism could generate environmentally-sound development, funds to promote conservation, and jobs for local inhabitants, while promoting environmental awareness and education, alleviating unsustainable resource use, and ensuring local populations control over their own resources (Boo 1993, Brandon 1993, Young 1999a), exaggerated expectations of an industry, especially one that is supposed to be low-impact and small-scale. For this reason, preliminary assessments of the ecotourism industry in a variety of cultural and biophysical settings reveal numerous drawbacks to its viability (Young 1999a).

⁴ According to Brandon (1993), local empowerment is achieved through “participatory approaches,” in which communities are actively involved in the process of their own development. However, most protected area management plans try to involve local communities through what she labels “beneficiary approaches”, in which local communities receive benefits, but decisions and planning are typically made by external actors who are often not familiar with local realities.

Many studies suggest that ecotourism alone is not enough to curb the social and ecological impacts that are also associated with mass tourism development. In some cases, ecotourism may actually accelerate environmental degradation, or not represent local communities in development (Belsky 2000, Boo 1993, Forsyth 1997, Young 1999a). In fact, many conservation and development projects have often been promoted by large-scale interests from the outside undermining local needs and preferences that should be incorporated into the planning process (Belsky 2000, Brandon 1993). In many cases, foreign investors continue to receive the benefits from tourism, including those projects labeled as ‘sustainable tourism’ (Neumann 1995). Explanations about why prescriptions for ecotourism have often failed when implemented can be attributed to a number of factors. First, the practitioners of ecotourism may lack experience or the consistent funding needed to get the projects off the ground. Second, ecotourism involves the collaborative interaction between multiple stakeholders (Bray et al 2005) each often representing their own interests and agendas.⁵ Finally, there is a great deal of concern that practitioners and the tourism industry have overused the term ecotourism by “greenwashing” the industry or wrongfully using the ‘eco’ label (Fennell 2002, Honey 1999a, Honey 2002), which inhibits its ability to meet the outcomes of conservation and sustainable development.

Despite problems of definition and problems of translating rhetoric to practice, ecotourism continues to be actively promoted around the world as one of the fastest growing subsectors of tourism (Honey 1999a). In general, conservationists want to know

⁵ For a discussion on the challenges compromising different agendas between different stakeholders, see Chapin M. 2004. A Challenge to Conservationists. *World Watch Magazine* November/December 2004: 17-31.

if ecotourism is a legitimate tool for preserving biodiversity and promoting sustainable development, a hypothesis that needs to be validated or rejected through case studies (Boo 1993). Among the most pressing issues is how to make poor, rural communities equitable stakeholders in protected areas and in ecotourism endeavors (Honey 1999b). The dilemma of how to empower local communities has been addressed more thoroughly in the literature on CBE and will be discussed in more depth in the following sections.

1.3 Community-Based Ecotourism, Participatory Approaches, and Institutions

Community-based ecotourism (CBE) is a growing phenomenon throughout the developing world (Epler Wood 2002). A growing body of literature suggests that the transfer of responsibility in ecosystem management to local communities promotes sustainability and improves overall stewardship of the environment (Agrawal & Gibson 1999, Antinori & Rausser 2003, Bray et al 2003, Campbell & Vaino-Mattila 2003, Huanca 1999, Norris et al 1998). The involvement of local communities in conservation and development projects may empower them and encourage them to value their resources and land in new ways. From the traveler's perspective, tourists are given the opportunity to learn about traditional customs, local ecology, and how the local community perceives its natural setting, potentially leading to long-lasting bonds between community members and their visitors (Epler Wood 2002). In this sense, CBE promotes a sound form of intercultural educational exchange of ideas about ecology and culture. Furthermore, local cultural and ecological knowledge can contribute to the design of the ecotourism project, ensure long-term support, and reduce the potential negative cultural, ecological, and economic impacts (Anderson 1993, Brandon 1993).

CBE is defined as ecotourism enterprises that are owned and managed by the community (Cornejo 2004, Sproule & Suhandi 1998), while initiatives from and controls stay within the community (Mowforth & Munt 2003). In the context of conservation theory and practice, CBE is a form of community-based natural resource management (CBNRM), a popular choice of activities in an enterprise-based strategy for biodiversity conservation (Salafsky et al 2001) and a common element in integrated conservation and development projects (IDCP) with the goals of promoting revenues for local communities and improving attitudes towards conservation (Kiss 2004). Most studies on CBE recognize local participation as a central element but are often remiss in explaining the institutional processes and contextual factors that facilitate participatory approaches. There are various ways to measure the degree of local participation. Epler Wood (2002) cites three different models of local participation in CBE:

- 1) The community owns and manages, all members are employed by the project in a rotating system, and the profits are allocated into the development of community projects
- 2) Family or group initiatives within the community
- 3) Joint venture between the community or a family and an outside business partner.

However, there are no neat models for participation in the real world since many cases of CBE represent a combination or do not fall into Epler Wood's categories at all. Participation largely depends on the way community is defined, the institutions communities have created or that have been created around them, and other exogenous factors such as historical power relations, socio-economic forces, and environmental conditions (Belsky 2000, Milne 1998, Mowforth & Munt 2003, Sproule & Suhandi 1998). Participation imposed by an external actor "from above" is likely to have

different results than participation generated within the community “from below.”

Community can be defined as a group of people, who live in the same geographic area, manage their affairs by practices of reciprocity, and identify themselves as belonging to the same group, but should not be thought of as homogeneous (Milne 1998, Sproule & Suhandi 1998). Berkes (2004) cautions that the term “community” in CBC is a gloss over a complex phenomenon because social groups are not cohesive, static, or isolated; rather they are elusive, constantly changing, multi-dimensional, cross-scale, social political units or networks changing through time (Berkes 2004). CBE should be understood in terms of differing interests among community members, their relationships with external actors, and the institutions that affect both; therefore, a focus on institutions rather than community is likely to be more fruitful (Agrawal & Gibson 1999).

Institutions are defined by Berkes and Folke (1998) as humanly devised formal constraints (rules, laws, constitutions) and informal constraints (norms of behavior, conventions, and self-imposed codes of conduct) that structure human interaction. Institutions, both formal and informal, support and define customs, laws, land tenure/property rights, rules of use, and access. When actors do not share common goals for resources or when power is unevenly distributed institutions are significant because they help structure and define interactions around resource use (Agrawal & Gibson 1999). Property rights are human institutions: sets of mutually recognized claims and decision-making powers over resources (Gibson et al 2000). Since communities are not isolated or static entities, and are contained within larger systems such as the broader context of society, then institutions such as those that determine land tenure and property rights should be considered in how they influence local participation in CBC and CBE.

The larger context in which these institutions are embedded, such as history and the relationships of power can also influence the way that local participation is perceived and carried out. In some cases, participation can simultaneously veil and legitimize existing structures of power distribution (Belsky 2000, Cousins & Kepe 2004, Mowforth & Munt 2003).

As noted in the discussion above, institutions are a crucial element to participatory approaches that involve communities in the process of their own development. Strong local institutional organization exists in the Community Baboon Sanctuary (CBS) in Belize, where local private landowners have taken a pledge to protect the riparian forests on their individual properties to promote conservation of the Black Howler monkey. However, the community remains poor and underdeveloped since conservation and CBE profits have been modest. Horwich et al. (1992) identify three main problems with CBE in the Community-Baboon Sanctuary (CBS) in Belize: 1) the inexperience and consequent lack of tourism planning 2) the isolation of the sanctuary and 3) foreign investments reflect foreign interests, undermining community initiatives. Among the lessons learned from the CBS experiment in conservation and multiple land-use methods on private land in Belize, was that ecotourism demands new community institutions such as a local cooperative, and that outside financial support is necessary.

The Gales Point Manatee Project (GPMP), began in 1991 as a proposal to the government of Belize by Community Conservation Consultants following the model of CBS and involving the collaboration between multiple stakeholders, including government support from the Belizean Ministers of Natural Resources and Tourism and the Environment (Horwich & Lyon 1998). In 1992, there was strong local support, with

over 50% of the villagers getting involved with the newly formed Gales Point Progressive Cooperative to promote sustainable economic development and preserve the natural environment of the region (Horwich & Lyon 1998). The outcomes of CBE and CBC in GPMP were quite favorable from a conservationist perspective. Interactions between the local community and external institutions resulted in a land zoning plan including a biological corridor along the Manatee River, a management plan for the protection of the watershed and the endangered manatee, and the trickling in of funds and technical assistance for conservation and community development from a variety of sources, including USAID, United Nations Development Program (UNDP), and the Belize Tourist Board (Horwich & Lyon 1998). On the other hand, not all analysts have interpreted the case of Gales Point as a success story of CBE.

Belsky (2000) offers a cultural and political critique of CBE in Gales Point suggesting that greater attention be paid to historic political struggles and outcomes. Institutional change can exacerbate community conflicts or reinforce existing asymmetrical relationships of power. Belsky argues that in the case of the Gales Point, the CBE plan was not initiated by the community nor built upon historical management traditions, and in many ways the project highlighted the contradictions of CBE and CBC from the “traditional cooking” that was not really traditional since it became prohibited to hunt bush meat, to the weaving of overpriced, poor-quality baskets made exclusively for wealthy tourists encouraging poor local community members to use plastic bags or other less environmentally sound alternatives. The creation of the reserve placed restrictions on farming and hunting, generating a relationship of dependency on expensive imported food. The only beneficiaries were wealthy foreigners who had invested in land and the

tourism industry in Gales Point, widening the economic rift between poor local community members and foreign elites.

Similarly, in the Vizcaino Biosphere Reserve in Baja California Sur, inhabitants had been marginalized by the very conservation process meant to engage them as key actors in promoting environmental protection because of central-driven infrastructures that iterate the paradox of CBC; it continues to be defined by experts and implemented from the top (Young 1999b). As mentioned earlier, ecotourism is usually discussed in the context of protected areas in which communities only passively participate in conservation. The theory of CBE and CBC places communities at the center of conservation rather than the mechanism for achieving it, such as in park projects, land use zoning, and buffer zones, ultimately allowing local people to take ownership of conservation, thus promoting their support for it (Campbell & Vaino-Mattila 2003). Therefore real examples of CBE as a tool for achieving conservation and sustainable development by allowing more local control over resources may not be feasible in protected areas or areas in which land tenure is more centrally controlled. Few researchers have considered environmental protection and social equity through CBE within the context of common property regimes (CPR) and the community transformations that occur in the transition from traditional community organization to organization based on the creation of a commercial enterprise. The ability of a traditional rural community to organize itself as a commercial enterprise depends on pre-existing forms of land tenure, social organization, experience, and resources (Antinori & Bray 2004).

1.4 Common Property Regimes and Environmental Stewardship

Research from scholars of common property has shown that community management of resources can be more successful and sustainable than state and private management, highlighting important place-based knowledge that local communities possess and the institutional arrangements they forge to achieve successful, local level resource management (Agrawal & Gibson 1999). Today there is a worldwide trend toward privatization and dismantling of common-property regimes that have great potential to protect biodiversity (McKean 2000, Vargas 1999). The challenge of maintaining common property regimes in Latin America can be attributed to the popular perception of them as ‘open-access’ areas vulnerable to the inevitable ‘tragedy of the commons’ in the face of market pressures and population growth (Richards 1997). However, as McKean (2000) points out, common property is a form of “shared private property” since access is restricted to a finite group of users rather than an infinite group of users, as in open-access areas; therefore, common property should be of great interest to anyone who believes that private property rights promote long time horizons and responsible stewardship of resources.

In a common-property regime (CPR), discount rates tend to be low since CPR institutions are shared by user groups who expect their children to inherit the land, thus creating an incentive to use the land sustainably and conserve the resources (Ostrom 1990). Some studies have shown that individuals who lack secure rights to forest resources are strongly tempted to use up the resources before they are lost to the harvesting efforts of others, replicating an “open-access” scenario without effective institutional arrangements and organizational mechanisms to enforce rules (Banana &

Gombya-Ssembajjwe 2000). In some ways, CPR institutions may be more effective in managing resources than private property tenure arrangements because collective action, in which users devise, monitor, and enforce rules of use (Vargas 1999) based on trust and norms of reciprocity, networks and forms of civic engagement, and both formal and informal institutions (Ostrom & Ahn In Press) that can act as a system of checks and balances. The social capital hypothesis suggests that users who trust each other are more likely to restrain their use of common-pool resources and comply with the agreed upon limits of resource use (Dolsak & Ostrom 2003). The model of social capital begins with civic engagement which lead to social networks, interpersonal trust, effective collective action, and individual and social benefits that feed back into civic engagement (Rohe 2004).

Modern common property is anything that involves a number of stakeholders to make decisions about a resource, property, the environment, or an enterprise (Dolsak & Ostrom 2003). Long-enduring CPR institutions are characterized by the following set of design principles: clearly defined boundaries of the common-pool resource, rules of use about the resource, collective choice arrangements for moderate use of the resource, the ability of resource users to monitor stocks and flows of the resource, graduated sanctions (for those who do not comply with the established rules), conflict-resolution mechanisms, and recognition of rights to organize (Dolsak & Ostrom 2003, Ostrom 1990). If benefits of using a common-pool resource accrue to users at multiple levels, then users of the resource have to devise institutions at each level and link them (Dolsak & Ostrom 2003). CBE can also benefit different stakeholders at multiple levels, thus demanding a clear,

open dialogue between stakeholders allowing flexible organizational design and adaptive co-management within an appropriate institutional context.

The management of CBC or CBE in a common property regime would appear to be the ideal case for ensuring not just participation, but full ownership of the project, as well as equitable distribution of revenue generated from the enterprise, and an efficient system of environmental monitoring. However, equity, transparency, and accountability are still a challenge in CPR and maintaining an equitable distribution of profits is even more a challenge, stemming from the conversion of a traditional community governance practices into an enterprise (Antinori & Bray 2004, Cornejo 2004, Paré & Lazos Chavero 2003). The transformation of a community can exacerbate inter-and intra-community conflicts by shifting the goals from traditional community organization to enterprise structures based on more individualistic economic pursuits (Drumm 1998). Competition can disrupt collective community interests and cause or exacerbate existing social divisions. Equality should be the guiding principle for community-based projects, although it is rarely possible to achieve since community members with poor housing and less land or income tend to be excluded from ecotourism enterprise development (Sproule & Suhandi 1998).

The problem of increased inter-community conflicts is apparent in the case of X-Maben (Cornejo 2004), where the management of common pool natural resources in the *ejido* was first disrupted by the emergence of the community forestry enterprise (CFE), and more mildly with the emergence of CBE enterprise (Bray, personal communication). Cornejo documents that community members were initially skeptical of ecotourism and therefore many of them were reluctant to support it during the early stages. X-Maben

represents a case in which an enterprise formed from a group of people living in the *ejido* who were not necessarily *ejidatarios*. Only one of the members of the ecotourism group was a legal member of the *ejido*, with legal rights to the common property resource (the lake) that was exploited for ecotourism. As revenue began to grow, community leaders became more interested in capturing the profits and tensions over the common pool resource began to grow. At one point, *ejidal* authorities with little understanding or interest in ecotourism expropriated the enterprise from the ecotourism group. This sadly led to a tragedy during a busy weekend, which prompted them to relinquish the responsibility back to its founding community members. To address the rising levels of intra-community conflicts and because of logistical problems in providing services at the lagoon, the ecotourism group eventually diversified its offerings by incorporating a cultural package to include more community members and bring profits to a wider range of individuals. In this case, cultural tourism had more appeal among community members in Ejido X-Maben than the original ecotourism plan since it entailed a greater degree of local participation.

The above cases not only demonstrate that strong local institutions but also that fluid, cross-scale institutional interactions between local and external institutions is a necessary prerequisite for CBE. First, a local community must organize itself into a cooperative or a small company of shareholders (Epler Wood 2002). Then, the establishment of partnerships and local networks is needed since local communities cannot be expected to provide the physical, human, and financial capital for the preliminary investment in community-based development, and furthermore, it is unlikely that they will be able to match the financial resources available to external investors

(Mowforth & Munt 2003). Communities often need outside assistance to obtain and assert their legal rights, organize themselves, and understand their obligations in partnerships (Kiss 2004).

1.5 Partnerships, Intra-institutional Interaction, and Social Capital Investment

Given the inevitable need for outside support and resources, three types of partnerships between communities and external actors or stakeholders have been identified in the CBE literature: 1) Private sector-community partnerships 2) NGO-community partnerships and 3) Government-community partnerships. Private sector-community partnerships have distinct advantages. For example, private partners might be more likely to invest in more promotion to ensure their own returns. However private company interests are for profit, and not in community development (Kiss 2004). In many cases, profits from ecotourism are very modest (Cornejo 2004, McClintock 2000). Therefore, private enterprises cannot be expected to take on too much risk or wait too long for a modest return on investments (Kiss 2004). In contrast, NGOs often have a vested interest in community development before profit. NGOs have no need to cut corners on adequate planning and instead focus on community benefits (Drumm 1998), but they may have limited knowledge or experience with markets and enterprises, which affects the relative capability of an ecotourism enterprise to generate profits (Bray et. al 2005). The third type of partnership, government-community has been identified by Cornejo (2004) in the community of Chacchoben, the case study of this thesis representing a tripartite relationship between the government, the *ejidatarios* of Chacchoben, and a private company.

Partnerships and investments of financial and human capital can build social capital among stakeholders. Social capital is defined as relationships based on trust, norms, and reciprocity that lead to collective action outcomes that bring material benefits and urge policy makers to widen their perspectives (Ostrom & Ahn In Press). It is important to make the distinction between horizontal and vertical engagement since horizontal engagement is not enough and members of the community often need to be engaged with external individuals and organizations (Rohe 2004). External agents can invest in social capital by providing local communities with financial and technical support to build their confidence in the relationship. In many ways, partnerships can strengthen confidence since they represent a legally binding agreement, as long as they maintain reciprocity and trust between actors. Dolsak and Ostrom (2003) argue that groups with a longer tradition of mutual trust and closely knit communities that enable reciprocal exchanges are more likely to succeed in devising and sustaining strong institutions, however, social capital can be created in a relatively short period of time and furthermore influenced by public policy (Bray et al nd, Krishna 2000). One of the limitations of social capital theory is that national and regional governments strongly affect the level and type of social capital available to individuals to pursue long term development efforts (Ostrom & Ahn In Press).

1.6 Economic and Social Incentives and Community Transformations

Many studies of ecotourism and CBE in developing countries provide an assessment of economic benefits. Indeed, perceived benefits are a major incentive for poor rural communities to take an interest in ecotourism. A study by Salafsky et al.

(2001) found that CBC, when promoted as an enterprise could be highly successful, but that the community-based enterprise strategy can only lead to conservation under limited conditions. The hypothesis of the of the study was divided into three parts and tested in 39 conservation project sites: 1) CBC must be financially liable and linked to an enterprise 2) the enterprise should generate economic benefits for stakeholders in biodiversity and 3) a community of stakeholders must have the capacity to counter internal and external threats to biodiversity (Salafsky et al 2001). The study over-emphasizes the importance of economic incentives for conservation at the risk of oversimplifying other processes involved in CBE. Creating a CBE enterprise is a manifold process that involves multiple incentives resulting in both positive and negative impacts on communities.

Stronza (2000, 2001) asserts that when ecotourism is truly participatory, it is more than an economic incentive for protecting natural resources; it is also a fundamental change in how people see themselves and their environment. She argues that exchanges between tourists and their hosts can signal transformations beyond market transactions. Stronza's case study of Posada Amazonas in the Peruvian Amazon illustrates some of the complex outcomes and impacts of ecotourism. She suggests that ecotourism can transform communities in positive ways by increasing their power, confidence, environmental awareness, and awareness of themselves (Stronza 2001). Furthermore, CBE can renew a sense of cultural pride and interest in preserving cultural traditions (Cornejo 2004, Stronza 2001), much in the way that other CBNRM initiatives, such as community forestry in Mexico, have increased environmental consciousness through movements of local control and management of forests (Bray 1995).

Communities set up their own CBE projects when there is discontent with the existing relationship between the community and the tourism industry and because they can diversify rural economies by providing alternatives in rural development (Drumm 1998). However, if little or no improvement in biodiversity conservation is required or expected of a CBE, then the project is not meeting the goals of conservation and sustainable development as suggested by the concept of ecotourism, and is ultimately just another type of rural development (Kiss 2004). If CBE is to meet the goals of conservation and sustainable development, then institutional mechanisms ought to be put in place to facilitate the participation of local residents in tourism planning, encourage their enthusiasm for the conservation of their ecosystems, and ensure equitable distribution of gains. Partnerships are needed to provide consistent financial support and to create and strengthen local institutions that assist communities in organization and assertion of their legal rights to land. Even though local politics and institutions are systematically structured by external interests, agendas, and policies, including those that are guided by the principles of sustainable development and conservation, strong local institutions will allow villagers assert both their local ecological knowledge and their autonomy, thus facilitating the success of CBE.

The following conditions have been identified in the literature as forming a preferable institutional context for the implementation of CBE 1) effective institutions that support and define customs, local rules of use or laws and secure land tenure rights, including traditional informal institutions 2) partnerships and institutional interaction involving multiple stakeholders and incentives 3) supportive policy environment 4) economic and 5) social incentives for cultural and biological conservation. The review of

the literature on ecotourism, CBE, CBC, common property, and social capital theory, has raised several questions that are explored in this case study of Chacchoben in Quintana Roo, Mexico. First, how does collective action and local institutional organization lead to the emergence of “successful” CBE? Second, how do common property institutions adapt to form a market-oriented enterprise? Third, what is the role of social capital in institutional interaction between multiple levels? Finally, how has the phenomenon of “mass community-based ecotourism” emerged and what are the implications for conservation and sustainable development in Quintana Roo? The processes that led to the emergence of CBE in Chacchoben are examined to understand the roles that cross-scale institutional interactions, common property regimes, and social capital play in the implementation of CBE and whether or not CBE contributes to sustainable landscapes.

1.7 The Research Design

Prior research carried out under the Community Ecosystem Management Project directed by Dr. David Bray surveyed CBE in Quintana Roo, Mexico (Cornejo 2004). In this research, Chacchoben was identified as an unusual case of government-private sector-community collaboration and as “mass community-based ecotourism,” which merited further study. Chacchoben is also of interest because it represents a microcosm of historical ecology and economic development in the entire Yucatan Peninsula with its diverse array of economic activities including chicle extraction, milpa, hunting, chili, logging, apiculture, cattle ranching, archeological and cultural tourism, ecotourism, and extraction of *palmas de huano* (*Sabal mexicana*), used to make thatched roofing in traditional Maya homes. Most importantly, Chacchoben has had prior experience in

administering a community enterprise and selling a product in the marketplace through its pre-existing community forest enterprise. The trajectory of development in Ejido Chacchoben reflects the ever-changing policy, environment, and development landscape in the Yucatan Peninsula.

Bray and et al. (2004) have pointed out that most studies on human-environment relations often focus on the institutional drivers that underpin the proximate causes of environmental degradation and that few studies emphasize enough the institutional factors that 'drive' the maintenance of forest cover and result in sustainable outcomes. Sustainable outcomes are achieved through multiple institutional processes. When Puerto Costa Maya was completed in the year 2000 in Mahahual, a small fishing village on the coast, Chacchoben was devising a CBE plan. Chacchoben represents a seemingly well-organized community which, through solidarity and collective action, took a stand against mass tourism development that reputedly has a parasitic relationship with the environment and communities around which it develops.

An examination of the history of social organization can help explain contemporary institutional interaction around natural resources. Certain periods in history, such as the rise of the chicle industry and Agrarian Reform have played crucial roles in the origins of social organization in modern *ejidos*. In addition, community forestry under the *Plan Piloto Forestal* has demonstrated that institutions around community forestry, in interaction with federal government policies and regulations have shown the capacity to make adjustments in a transition to more sustainable forest management (Bray et al 2004), epitomizing the interaction between local institutions and external forces, organizations, politics, and markets. Considerable evidence suggests that

with the appropriate policy and institutional support, CPR institutions are more likely to achieve environmental and equity goals than other forms of tenure because of collective action (Ostrom 1990, Richards 1997, Vargas 1999). Collective action is the outcome of the interaction of combination of variables, such as social capital (networks, institutions, and trust) and contextual variables, such as external processes (Ostrom & Ahn In Press).

Finally, the case of Chacchoben is an interesting place to study the emergence and institutional precipitators of CBE because of the negotiations that resulted in the first—and perhaps not the last—partnership between the government and an *ejido*, an arrangement that should facilitate the process of community-based and community-initiated development. From this point on, ecotourism in Chacchoben would be developed alongside the archeological site already receiving a little over 4,000 tourists per month on average (INEGI 2002, INEGI 2003, INEGI 2004), tapping into the mass tourism market and having the potential to become what Cornejo (2004) has labeled, “mass community-based ecotourism.”

1.8 Methodology

This research involved multi-method qualitative approaches involving three processes. First, secondary data and literature on ecotourism, CBE, CBC, common property, social capital, and environment and institutions in Mexico was collected and reviewed. Fieldwork took place over a period of six weeks in Chacchoben, Chetumal (the capital of Quintana Roo), Mahahual, and X-Maben. Methods of collecting data included participant observation of local institutional organization, semi-structured and unstructured open-ended interviews and focus groups. To examine local-level processes,

focus groups and unstructured interviews were conducted with local community members and local governing bodies. Semi-structured interviews were conducted with the participants and the seven directors of the *Pueblo Chiclero* project in Chacchoben. To examine external processes and understand the interactions between local and external institutions, government officials and private enterprises involved with the development of *Pueblo Chiclero* were also interviewed. In Mahahual, semi-structured interviews were conducted with local businesses, tourists, Global Vision International,⁶ and a representative of the research station, a branch of the Universidad de Quintana Roo. In X-Maben, interviews were conducted with members of the ecotourism group.

The interview questions were designed to understand the institutional dynamics in the design and implementation of CBE and to observe the degree of social capital among community members in the affected communities and in their relationships to external organizations. While social capital is difficult to empirically observe and measure, some indicators have been suggested by Ostrom and Ahn (In Press). Social capital can be assessed by examining the degree of trust and norms of reciprocity, networks and forms of civic engagement, and formal rules, informal rules, and institutions that lead to collective action outcomes.

One of the questions explored in this thesis suggests that with appropriate policy and institutional support, CPR institutions are more likely to achieve environmental and equity goals than other forms of land tenure (Richards 1997, Vargas 1999). There are obvious limitations of the questions land tenure in this study since there is no control case

⁶ A British non-government organization involved with the monitoring of the Mesoamerican reef in Banco Chinchorro National Park.

to compare CPR to other forms of tenure. Therefore in the analysis, references are made to the case of Mahahual that represents a tenure situation other than CPR and Ejido X-Maben, which represents another CPR, however with a strikingly different outcome than Chacchoben. X-Maben receives only a fraction of financial support from external institutions and an unnoticeable number of visitors compared to what Chacchoben is expected to receive. Participant observation, interviews, and focus groups were much more extensive in Chacchoben than in Mahahual and X-Maben, however, the magnitude of this bias is unlikely to affect the results of this study. The fieldwork for this study conducted in X-Maben and Mahahual complements the works of Cornejo (2004) and Barrett (2004) respectively. The ecotourism situation in Mahahual and X-Maben is discussed in Chapter 4 to support the theories of CBC, common property, and social capital discussed in Chapter 1. However, the focus of this study is on Chacchoben.

Chapter 2 reviews the literature on human-environment relations in the Yucatan Peninsula and the institutions that have evolved over time. Chapter 3 examines the precipitating factors that have led to the emergence of “mass community-based ecotourism” in Chacchoben, including the conditions that have been identified in the literature as conditions necessary for the development of CBE. Chapter 4 examines the concept of “mass community-based ecotourism” compared to CBE and ecotourism in other areas of Quintana Roo and the implications for sustainable landscapes. Results and recommendations for further study are presented in chapter 5.

CHAPTER 2

Environment, History, and Social Organization in Quintana Roo

2.1 Introduction

Since the biophysical geography of a region is closely related to land use and economic livelihoods for human populations, this analysis of social organization, conservation, and CBE development in Chacchoben, Quintana Roo, Mexico requires a basic understanding of the geography, environment, and the history of natural resource management organizations in the Yucatan Peninsula. The historical ecology of the Yucatan reveals that the ancient Maya engaged in extensive deforestation and the resulting disturbances may have encouraged the current proliferation of commercially valuable species such as mahogany and *chicozapote*, making the current region an anthropogenic forest. After their mysterious collapse, followed by the Spanish conquest, the state of Quintana Roo remained sparsely populated up until the twentieth century when the region became re-populated, coinciding with the establishment of forest *ejidos* characterized by common property institutions. Twentieth century development has mostly been centered upon economic priorities without giving much consideration to environmental protection or to peasant communities that have often been considered a hindrance to economic progress. However, since 1983, at a time when the economy of Quintana Roo was moving rapidly towards an overwhelming focus on mass tourism development along the northern coast, the federal and state governments took steps to halt the deforestation which had begun to rapidly spread in the southern part of the state.

The implementation of the *Plan Piloto Forestal* (PPF) possibly reflects the changes in development strategy that would now involve local communities in the management of the forestry industry.⁷ Community-based ecotourism is also emerging as an alternative, low impact diversified strategy for rural communities, which can arguably reduce biodiversity loss (Cervigni 2001) cited in (Bray et al 2004). Even the mass tourism industry has begun to expand its offerings beyond the four S's paradigm⁸ to diversify its offerings and promote alternative and more sustainable forms of tourism, such as eco, archaeological, and adventure through the "Grand Costa Maya"⁹ project. The Mexican Tourism Secretary, Leticia Navarro, expresses that the current administration's tourism policy is to ensure sustainable destinations (Cornejo 2004). "Achieving tourism of low impact and alternative tourism is one of the strategic objectives for development in the south of the state of Quintana Roo" (Hendrix-Diaz et al 2000).¹⁰ Finally, according to its developers and promoters, the "Mundo Maya" project involving an international alliance between Mexico, Belize, Guatemala, Honduras, and El Salvador, claims the mission to promote sustainable development of tourism in the Maya region, and to help preserve its cultural heritage and environment for future generations.

⁷ Prior to the PPF, the forestry industry was dominated by large concession areas that placed restrictions on the local communities' use of the forest. The PPF devolved forested areas back to communities upon the disintegration of the last forest concession, to promote community-based natural resource management.

⁸ Mass tourism anecdotally referred to as sun, sand, sea, and sex tourism.

⁹ A new profile for the alternative development of "lower impact" tourism in the southern zone of Quintana Roo. Destinations include the Bay of Chetumal, Costa Maya, Bacalar, Ribera del Rio, and the archaeological corridor consisting of Chacchoben, Kohunlich, Dzibanche, Kinichná, and Oxtankah (SEDETUR. 2004. Campaña de Promoción Turística "Gran Costa Maya". pp. article. Chetumal: Secretaria de Turismo de Quintana Roo

¹⁰ Author's translation from *Periodico Oficial del Gobierno del Estado de Quintana Roo*.

In this chapter, I present a brief description of the biophysical geography of the Yucatan Peninsula, and the state of Quintana Roo in particular, illustrating that the Yucatan truly possesses the necessary natural capital to promote in Mexico's ever-expanding tourism industry. Then I attempt to reconstruct a brief history of human-environment relationships in Quintana Roo, with a focus on natural resources in the interior of the state, beginning with the Classical period of ancient Maya civilization and ending with the post-revolutionary period marked by specific events, such as the chicle boom (1913-1929), the agrarian reform during the Cárdenas era (1934-1940), the forest concessions (1910-1982), and the beginning of community forestry (1983-present). Finally, the trajectory of tourism development on the Yucatan Peninsula is presented to provide the context in which CBE is attempted in Chacchoben.

2.2 Biophysical Geography of the Yucatan Peninsula

The total area of the Yucatan Peninsula is 222,000km². The peninsula is a limestone plain slightly elevated above sea level and surrounded by the Gulf of Mexico to the west and the Caribbean Sea to the east. The topography of the region is predominantly flat with a few elevated areas in the west. The peninsula is divided into three states, Campeche on the Gulf coast, Yucatan on the northern tip, and Quintana Roo on the Caribbean coast. The geological base of the peninsula is karst—a highly porous terrain made up of mostly dolomite and limestone rock. Hydrological processes have carved out the peninsula's unique geophysical features including caverns, underground rivers, and *cenotes* (sinkholes). Karst bedrock contains vertical cracks and cave systems that drain rainwater and leach soils of their nutrients.

The soils in the Yucatan are thin and infertile. Soils range from deep, with poor drainage, to shallow, with large areas of rock outcroppings and patches of stony soil (Faust 2001). In Maya taxonomy, the predominant soils of Quintana Roo are the *kakab* (red or brown), *tsekel* (rocky), and *kankab* (red) that, according to the Food and Agricultural Organization (FAO) soil classification system, belong to the order Redzinas and suborder Calcomorfs, which have low fertility levels, good structure and drainage, and a high content of calcium, carbonates, bicarbonates, and organic matter (Barrera de Jorgenson 1993). Beneath the zone of chemical weathering lies a softer, partially eroded limestone bedrock locally known as *sascab*, an almost pure calcium carbonate material used to make cement (Foster & Turner II 2004, Wilson 1980).

Few surface streams exist on the peninsula, underscoring the importance of lakes, *cenotes*, and *aguadas* to both the ancient populations and to the booming tourism industry today. *Cenotes* are sinkholes, collapsed limestone surfaces exposing underground streams. *Aguadas* are shallow depressions that collect rainfall and runoff, many of which are anthropogenic (Klepeis 2003). There are an estimated 34 shallow lakes and numerous *cenotes* and *aguadas* located throughout the state. The only surface river in Quintana Roo is the Rio Hondo, which forms the southern boundary with Belize and drains into the Chetumal Bay (Barrera de Jorgenson 1993). Savannahs, lakes, and *aguadas* are replenished during the hydroperiod which is at its height during the hurricane season in September.

The climate in Quintana Roo is warm and humid with a hydroperiod from May to October. Annual precipitation ranges from 900mm to 1600mm, with a rainfall gradient running from the drier northern region to the wetter southern part of the state, and the

mean temperature is 20 to 25 degrees Celsius (Barrera de Jorgenson 1993, Wilson 1980). Rainfall may vary as much as 30% from the long term average and variation from one year to the next, and from local area to local area, is common (Wilson 1980).

Despite the thin soil cover, rocky surface, and dry climate, dense secondary growth vegetation proliferates in what Wilson (1980) describes as “a never-ending cycle of succession.” Current forests have recovered from extensive deforestation during the ancient Maya period, but hurricanes, natural fires, and slash and burn agriculture create a mosaic of mature forest, secondary succession, and agriculture. The vegetative cover has provided habitat for a variety of species of flora and fauna including jaguars (*Panthera onca*), howler monkeys (*Alouatta Pigra*), ocellated turkey (*Agriocharis ocellata*), tapir (*Tapirus bairdii*), white-lipped peccaries (*Tayassu pecari*), Morelet’s crocodile (*Crocodylus moreletii*), and white-tailed deer (*Odocoileus virginianus*). There are 537 known species of birds, representing approximately 50% of all species in Mexico. There are about 1,500 varieties of plant species including those of high commercial value such as Spanish cedar (*Cedrela odorata*) and mahogany (*Swietenia macrophylla*) and those of both commercial and cultural value, such as *chicozapote* or Sapodilla tree (*Manilkara zapota*), from which latex is collected and processed to produce chewing gum. As a result of the PPF, in Quintana Roo, over 500,000 hectares have been designated as “permanent forest areas.” The central part of the state, including the area of study in the south, has been shown to have the lowest rate of deforestation of any region of tropical Mexico (Bray et al 2004).

The state of Quintana Roo (50,843km²) is divided into three zones: *Zona Norte*, *Zona Central* or *Zona Maya*, and the *Zona Sur*. There are three biosphere reserves,

including the reefs of Sian Ka'an, the Sian Ka'an Biosphere Reserve, and the Banco Chinchorro (INEGI 2004). Additionally, three areas have been designated for the protection of flora and fauna, including Otoch Ma'ax Yetel Kooh, Uaymil, and Yum Balam. Finally, there are five national parks: Tulum, Isla Contoy, Costa Occidental de la Isla Mujeres, Punta Cancun, and Punta Nizuc, and the reefs of Cozumel and Puerto Morelos, protected marine areas within the Mesoamerican Barrier Reef system, the largest in the northern hemisphere extending from Isla Mujeres on the northern tip of the Yucatan Peninsula to southern Belize. Quintana Roo's Sian Ka'an Biosphere Reserve, established in 1986 and Campeche's Calakmul Biosphere Reserve, established in 1989 preserve an estimated 104 tree species in the Yucatan's tropical forests (Cornejo 2004). In southeastern Mexico, communally managed forests represent the "biological corridors that connect protected areas such as Sian Ka'an and Calakmul (Wilshusen 2003). Archeological sites scattered throughout the peninsula provide insight to ancient patterns of human development in the region. Until recently, most ruins outside of Tulum and Cobá in the northern part of the state remained unexcavated and were known only to archaeologists. The archaeological sites in the *zona zur* represent a "filling in" of popular maps of ancient Maya civilization, making the southern part of the state a "Maya ruin tourism frontier" (Bray, personal communication).

2.3 Historical Ecology of the Ancient Maya Civilization

The earliest inhabitants of Mesoamerica arrived at the end of the Pleistocene epoch, or Ice Age, sometime between 40,000 and 10,000 B.C. (Carmack et al 1996). Domestication of Mesoamerican plants took place sometime between 8000 and 2000

B.C. during the Archaic period, and by around 5000 B.C., maize, beans, squash, tomatoes, chilis, avocado, and other plants had already been transformed from their wild ancestors into useful food sources (Carmack et al 1996) that remain the staples of the modern-day Maya society diet to this day.

Maya civilization is typically divided into three distinct periods: the Pre-Classic Maya (1000 B.C. – A.D. 250), the Classic Maya (A.D. 250 - 900), and the Post-Classic Maya (A.D. 900 – 1521). The Pre-Classic Maya emerged out of egalitarian hunter-gatherer societies that were most likely based on social exchanges of reciprocity in non-hierarchical contexts. Population growth eventually required those societies to form human settlements revolved around agricultural production and a stationary village life. As time progressed, state-level societies characterized by writing, cities, social stratification, and powerful kings began to emerge, signaling the development of the complex civilizations of the Classic period (Carmack et al 1996). Countless structures and ceremonial centers were erected and a sophisticated irrigation system was developed during this period. The Classic Maya civilization consisted of several city-states, each with their own divine kings, nobility, and peasant communities. Relationships between city-states were either hostile and warring or amicable with good trade relations. While actual population sizes are debated, the population curve, which rose rapidly to 150 persons per km² by A.D. 800, indicates that there was a great demand on sources of food, fiber, and wood fuel that led to significant changes in the landscape (Foster & Turner II 2004).

Between the years 800 and 1000 A.D. the Classic Maya civilization suddenly collapsed. The causes for the sharp decline are not entirely clear. Possible causal factors

include war and intercity conflict (Appenzeller 1994, Hodell et al 1995), overpopulation (Diamond 2003, Hodell et al 1995), and drought (Curtis et al 1998, Diamond 2003, Hunt & Elliot 2005, Mackey 1996). Explanations of drought vary from natural (Hunt & Elliot 2005) to anthropogenic (Curtis et al 1998, Diamond 2003, Hodell et al 1995). Hunt and Elliot (2005) found that the droughts were limited to the Central American region without obvious linkages to other regions and that the drought episodes were a consequence of fluctuating wind systems. Curtis et al. (1998) found that the accelerated deforestation and erosion that were so widespread during the Classic period eventually subsided after the demise of Classic Maya civilization, and that recovery and soil stabilization began around 1100 A.D. Foster and Turner II (2004) point out that the paleo-environmental record exhibit a wide array of indicators demonstrating an increasingly disturbed human environment, including major increases in grasses and non-arboreal woody species.

The implications and impacts of the drought on the ancient civilizations remain hypothetical. Archaeological records show that despite the previously widespread beliefs that the Maya were a peaceful people, wars became more intense and frequent toward the end of the Classic period when climatic conditions coincidentally became drier. Increased conflict could be attributed to population growth and limitations of food supply and transportation that made it impossible to unite the region in a single, unified empire (Carmack et al 1996, Diamond 2003). Archaeological evidence suggests that, the lowlands were densely populated in some areas and intensely managed. Ancient populations were highly dependent on swidden agriculture, which requires large areas for cultivation, and other systems of agriculture that involved the construction of raised fields in wetlands, terracing, and kitchen gardens. It is generally agreed upon that no single

factor can account for the fall of ancient Maya civilization; rather several related factors contributed to the failure of elite institutions (Carmack et al 1996). Furthermore, not only were there several related causes, but also several collapses of Maya Civilization. There were at least two smaller Pre-Classic collapses and some post-Classic collapses, suggesting that cities in different parts of the Maya region rose and fell on different trajectories coinciding with the repeated occurrence of droughts (Diamond 2003, Faust 2001).

By the time the Spanish arrived in the 1500s, the Yucatan peninsular center was sparsely populated. Most of the 300,000 inhabitants were situated in the north or on the coast. Society was characterized by three main social classes—nobility, commoners, and slaves—and the region was divided into 18 political entities regularly at war with one another (Gabbert 2004). Other areas had been completely abandoned, such as the present-day Petén, where Cortés found nothing but jungles when he arrived in 1524 (Foster & Turner II 2004). Gabbert (2004) points out that little is known about the precise land tenure of the pre-colonial period, however it is highly probable that several forms of property and usufruct existed. Fallow and woodland were most likely communal property and orchard and cocoa groves were privately owned (Gabbert 2004).

The Maya archeological sites are located on ecologically marginal land. Despite its apparently fragile environment caused and exacerbated by persistent drought and geological characteristics, the Maya lowlands had one of the pre-industrial world's greatest population densities. The degree to which the fragile environment is related to the periodic collapses in different regions is debatable, however most archaeological and paleo-climatic evidence points to the combination of and the interrelationship between

drought, deforestation, erosion, population growth, degraded farmland, decreasing trade, water scarcity, increased conflict, and ultimately, a vulnerability to Spaniards.

As Jared Diamond (2003:43) earnestly cautions, we should learn from the mistakes of our ancestors. “Few people, however, least of all our politicians, realize that a primary cause of the collapse of those societies has been the destruction of the environmental resources on which they depended” (Diamond 2003). Have Mexican politicians learned from the past? The next section is brief discussion of the relationship between economic development and environmental degradation in the Yucatan Peninsula from the colonial period until present. Perhaps, intentionally recognizing the ecological fragility of the peninsula and understanding its environmental constraints, or merely submitting to the worldwide rhetoric urging a policy shift toward sustainable development, the Mexican government together with local communities have begun to shift their development strategy in Quintana Roo to reflect sustainability, beginning with the *Plan Piloto Forestal* in 1983, the development of the “Grand Costa Maya” in the late 1990s, and its involvement in the five-country “Mundo Maya” project. How much of this policy shift in Quintana Roo is motivated by market demands and how much is driven by truly shifting interests in conservation and sustainable development is among the many implications that will be examined in the case study of CBE in Chacchoben.

2.4 Human Ecology and Institutions in Quintana Roo

For most of the 20th century, governments have emphasized economic development over ecological protection and sustainability. Development planning and the management of natural resources have normally been dictated by market demands

rather than by science. As weak as it was during the 20th century, even the conservation movement had to be justified by some kind of economic utility, except for the few conservationists such as Miguel Angel de Quevedo who founded the Mexican Forestry Society in 1922 (Simonian 1995). However, to a certain extent, the Yucatan's natural capital, characterized by seasonally dry tropical forests with unpredictable rainfall and shallow soils, compounded by the demands of the global political economy have shaped 20th century development in the region. The physical characteristics of the peninsula have limited agricultural production, thereby making extractive forest industries among the most important since the mid-1500s.

During the colonial period, the east, center, and south of the Yucatan Peninsula was essentially a refuge for northern and coastal Maya fleeing colonial rule, however the state of Quintana Roo remained sparsely populated well into the early 20th century (Foster & Turner II 2004, Gabbert 2004, Klepeis 2003). More intensified land use began slowly in the 19th century with chicle and hardwoods extraction. Independence in 1821 was accompanied by a deep economic crisis followed by the introduction of agriculture on a large scale, population growth in inland regions, the extension of a road network, improved access to regional markets, and the Caste War (1847-1848),¹¹ which reversed population growth (Gabbert 2004). Since 1850, the inhabitants of Quintana Roo have engaged in extensive shifting agriculture for *milpa*, the traditional system of cultivating intercropped beans, maize, and squash (Bray et al 2004).

¹¹ The Caste War began when a group of Maya rebels arose and slaughtered the white people of Tepich or when the authorities in Valladolid murdered a the *cacique* of Chichimilá (variations depend on the source). Intense fighting lasted for about one year. The war was devastating to populations and to farmlands. Rebels retreated and took refuge in the jungles of central Quintana Roo where their ancestors continue living to this day.

By the end of the 19th century, national and international entrepreneurs opened up the southern peninsular zone for logging, corresponding to the liberal policies of the Porfio Diaz regime (1876-1910). In accordance with *Las Leyes de Deslinde y Colonización* (the Laws of Delimitation and Colonization), *terrenos baldios* (unoccupied vacant lands) were quickly surveyed, land grants awarded, colonization schemes enacted, all toward national development goals with the hopes of subduing the rebel Maya factions in the *Zona Central* and stabilizing the region for settlement (Klepeis 2003, Klepeis 2004). The centralized approaches to development and management of Quintana Roo's forests by the Diaz administration and the economic elite have greatly contributed to the legacy of depleted hardwoods, large areas of permanently cleared forest, a complicated system of land allocation, and long-standing tensions between economic, social welfare, and environmental goals (Klepeis 2003).

The chicle industry has largely governed land use, economic activity, and population dynamics in Quintana Roo. Chicle is a Non-Timber-Forest Product (NTFP) that gives substantial value to standing forest (Bray et al 2004). The exploitation of chicle in the Yucatan Peninsula began in the late 1800's corresponding to a shift from chicle extraction in the Huasteca region of Veracruz to peninsular sources (Konrad 1995). Chicle became an important export for Mexico after it was introduced to the United States market in 1836, coinciding with the export-oriented liberal policies of the Porfiriato regime (Konrad 1995). At the turn of the century, large concession areas of chicle and logwood were exploited primarily by foreign enterprises (Gabbert 2004) until President Lázaro Cárdenas (1934-1940) established several forestry *ejidos* in Quintana Roo that were conceived not only as a subsistence base for rural communities, but also as

a basic unit of organization for forest exploitation of chicle and timber (Barrera de Jorgenson 1993).

The chicle industry reached its first peak around 1913 and remained at its height during the First World War and throughout the 1920s when chicle from the Yucatan accounted for about forty percent of Mexico's total exports (Barrera de Jorgenson 1993). While the original *chicleros* were outsiders who were violently attacked and killed upon their arrival to the Central Zone of Quintana Roo (Cornejo 2004), regional peasants and indigenous people eventually learned tapping skills and benefited from the seasonal wage labor. Their cash income was determined by international demand and corresponding price structures that fluctuated by boom periods created by commercialization success and international conflicts (Konrad 1995). The life of the *chiclero* was arduous, lonely, and dangerous. *Chicleros* were separated from their villages and families for periods of six to eight months. Upon the establishment of the bush camp, *chicleros* began to harvest the chicle resin from the *chicozapote* trees nearest the campsite. Chicle is harvested by making a series of diagonal incisions all the way to the top of the tree. The *chiclero* uses only the support of a rope to climb thirty to forty feet up the tree trunk. As the trees nearest the campsite became exhausted, *chicleros* began the strenuous task of moving on to a new camp. The packing, moving, and construction of a new campsite usually lasted about two days without compensation, and during unfavorable weather conditions, such as prolonged dry spells or periods of excessive rainfall, the *chicleros* either remained in camp or abandoned their contractors, some of which were unscrupulous and exploitative (Konrad 1995).

The Great Depression dramatically upset the economy of Quintana Roo and the chicle industry, reducing chicle production by 87% and causing the prices of chicle to drop (Merino-Perez 2004). The second peak in the chicle industry occurred during the Second World War followed by another subsequent decline due to two main factors: the discovery of a petroleum-based substitute and the depletion of sapodilla trees in several areas, making the supply of natural gum less reliable and more costly (Barrera de Jorgenson 1993). Despite the fluctuating cycles dictated by the global economy, chicle extraction remains an important industry in Quintana Roo to this day (Barrera de Jorgenson 1992). The creation of government protected chicle cooperatives, many of which still exist today, combined with the consolidation of the Agrarian Reform during the Cárdenas period (1934-1940) are among the most important institutional developments that have shaped human-environment relations for the remaining part of the 20th century.

2.5 Agrarian Reform, Chicle Ejidos, and Cardenismo (1934-1940)

In the 1920s and 1930s chicle markets and institutions of Agrarian reform “were a crucial formative force in subsequent patterns of forest preservation and land tenure” (Bray *et al.* 2004:340). These two historical periods symbolically mark the beginning of modern social organization in Quintana Roo in which three types of land tenure situations exist: private property, public property, and common property regimes (CPR) or *ejidal* land. *Ejidos* are communal land grants farmed by peasants and under usufruct tenure that resulted from the Mexican Revolution (1910-1917). Wilshusen (2003) defines the *ejido* in terms of its geographical dimension, which refers to the physical location, and its

institutional dimension, referring to the community of beneficiaries. The *ejido* is governed by an *asamblea* (popular assembly) and the *comisariado* or *ejidal* commissary of about three members, including the *comisario* (head of the commissary). Decisions are shared by the entire popular assembly and the commissary is responsible for the administrative work.

In the 1917 constitution, Article 27 promised land to those who had been displaced by the heritage of colonialism and the *Porfiriato*. In the political culture, the *ejido* became mythicized as a “revolutionary” entity through which indigenous people and impoverished peasants would have access to land promised to them by means of abolishing the *latifundio* (Vásquez Castillo 2004). Nowhere was the “revolutionary” pulse more apparent than during the Cárdenas Administration (1934-1940). *Cardenismo* is defined as “the project of political inclusion, social transformation, and economic nationalism implemented by the president and his key collaborators” and has been described as “revolutionary change from above” (Fallaw 2001). In 1934, Cárdenas tried to cancel all forest concessions and devolve authority back to the peasantry through the establishment of 26 *ejidos* and 43 cooperatives in Quintana Roo (Klepeis 2003). Cárdenas believed that the “collective *ejido*, along with education, would instill sobriety, patriotism, industry, and secularism” along with the idea that modernization would eradicate social vices such as drinking and gambling so that the modern Maya could be saved from their oppressive, unjust, provincial social order and flourish once again like their ancestors (Fallaw 2001). It was not until the Cárdenas period that the Mexican government took real control of the unstable region through the establishment of *ejidos*. The creation of forestry *ejidos* was fundamental to the extraction of chicle because it

involved the preservation of standing forest to promote the chicle industry. Chicle cooperatives organized to receive credits and political support, enabling *chicleros* to escape control of their contractors (Merino-Perez 2004).

Cárdenas, influenced by de Quevedo, was also somewhat of an environmentalist. His administration created numerous parks, reserves, and protected areas in response to soil degradation and deforestation (Klepeis 2003, Simonian 1995). He created the Department of Forestry, Fish, and Game, the first autonomous conservation agency in Mexico that was dedicated to reforestation, the administration of protected areas, scientific investigation, and forestry schools, furthermore embracing some form of community forestry long before peasant control over their own resources became fashionable in public policy (Klepeis 2003). Consequently, conservation declined after the Cárdenas administration because forestry became a priority for national development (Simonian 1995).

The romanticized version of the Cárdenas story glosses over some critiques that I believe illustrate the hurdles encountered by policy makers embracing sustainable development and conservation in Quintana Roo throughout the 20th century. First, the *Departamento de Asuntos Indigenas* (DAI) created by the Cárdenas administration did not foster the development of grassroots organizations to the rural populations; rather it distributed resources bureaucratically and paternalistically and organized development programs (Gabbert 2004). Secondly, in some cases, positions in the *ejido* administration often meant access to a certain amount of wealth and power (Gabbert 2004), posing the risk of re-creating colonial systems of *caciquismo*, or local boss rule. Traditionally, the *cacique* expresses authority by either violence or paternalism. While violence by

caciques is not a major problem in contemporary Quintana Roo, although it certainly persists elsewhere in rural Mexico, paternalism and opportunities for corruption by the *comisario* is often expressed through favors, *compadrazgo* (godparenting), or parties (Fallaw 2001). Finally, Klepeis (2003) argues that the Cárdenas model of development—in which the community controls the resource base, the government facilitates rural development with numerous agrarian programs, and sound resource management was practiced—did as much damage to the environment as the policies under the highly centralized *Porfiriato* period (1876-1910). Despite Cárdenas’s pioneering social and economic policies that were designed to maintain ecological equilibrium, the rates of deforestation and extraction were not slowed down. This paradoxical effect is articulated by Klepeis (2003:549), “by encouraging settlement via land grants, the reforms increased the extent of deforestation.” However, all of this took place around the time that the parastatal logging concessions moved into the area.

2.6 Parastatal Logging, Transitions, and the Emergence of Community Forestry

For most of the 20th century, Mexican communities only had putative claims to the forests on their lands because the government still claimed rights to the disposition of forest resources granting logging concessions to private companies and state-owned enterprises (Bray et al 2003). The private forest concessions dominated the landscape in Quintana Roo from the 1940s to 1982. While agriculture for subsistence and chicle were essentially controlled by the *ejidatarios*, logging was controlled by Mexican concessionaires who prohibited logging by local communities (Klepeis 2003), illustrating the juxtaposition of centralized approaches to land management and decentralized,

community-based approaches. The relationships between the private forest concessionaires and the communities were often tenuous. Negotiations were often asymmetrical and abusive, generating corruption among *ejidal* authorities with respect to the *derecho de monte* or stumpage rights (Merino-Perez 2004).

By way of the *Ley Forestal* of 1940, the government authorized approximately 30 twenty-five-year concessions in Oaxaca, Chihuahua, Durango, Chiapas, and Quintana Roo that imposed restrictions on the affected communities' uses (Merino-Perez 2004). The most intensive logging in Quintana Roo was undertaken by *Maderas Industrializadas de Quintana Roo* (MIQROO), a parastatal company with a 29 year concession of 462,894 hectares beginning in 1954. Despite the fact that MIQROO was a pioneer with the first tropical forest management plan in Latin America, massive subsidies simultaneously became available for deforestation, ranching, and agriculture (Bray 2004).

Fueled by an international oil boom in 1975, the southern peninsular region was opened up for colonization and cattle ranching under the *Programa Nacional de Desmonte* (National Deforestation Program) that provided subsidies and loans to smallholders who would have to convert upland forest into pasture and cropland (Klepeis 2004). Various factors led to the colonization programs. The Southern Yucatan was physically isolated from the rest of Mexico, the forest economy was declining, more people were needed to attain statehood, and colonization would alleviate the problems of low food production and overpopulation in other areas of the country (Klepeis 2003). Thus, peasants on *ejido* lands were squeezed by the combination of restricted access to the forest concession areas and the colonization programs promoting agriculture and

cattle ranching. Around the same time, however, in the mid-1970s, reformists in the government forestry agency, combined with grassroots mobilizations aided by university-trained rural activists, helped focus government policy and community organizing on the potential for community management of forests for the commercial production of timber (Bray et al 2003, Bray & Wexler 1996).

2.7 The Spirit of Cardenismo Revived: *Plan Piloto Forestal* (1984-2000)

The *Plan Piloto Forestal* (PPF) redistributed former forest concessions and institutionalized local community participation in forestry as a strategy for conservation (Merino-Perez 2004). The PPF rejuvenated the spirit of *Cardenismo* by devolving forest management responsibilities for timber production to local communities in a path-breaking experiment in community forestry. With devolved community-level control over forestry, community governance structure has adapted with more specialized organizations capable of addressing forestry management and timber production, however with high organizational variability across communities (Antinori & Rausser 2003). Early stages involved the transformation of the community into an enterprise by developing organizational structures and management practices for the commercial production of timber (Antinori & Bray 2004, Bray et al 2004). A series of institutional management innovations including the monitoring of inventory, the formation of second-level organizations to serve as channels for donor support, negotiations, and technical assistance have contributed to the preservation of intact forest masses (Bray et al 2004). One of the most significant contributions of the PPF has been the establishment of permanent forest areas (Merino-Perez 2004) that would provide the necessary

environmental services allowing for the diversification of other economic activities in other parts of the *ejido*, such as tourism, apiculture (beekeeping), orchards, chili, chicle extraction, subsistence *milpa*, and other cash crops such as tomatoes, oranges, and mangos.

Despite a history of centralized control over natural resources, the success of the PPF has been attributed to the building and strengthening of social capital (relationships based on trust and reciprocity) between the technical assistants and the *ejidatarios* within the context of government support, the establishment of permanent forest areas, improved marketing, the rotation of delegates (to avoid the concentration of power), strong institutional support, and ultimately, *ejido* control over management (Herrera et al 1995). In essence, the cooperation between state and local governments has built and strengthened institutional capacity and social capital at the local level and between local and external institutions (Bray 2004). Since this thesis is about social organization in a common property regime for the development of a CBE enterprise, the next section will turn to the trajectory of mass tourism development in Quintana Roo to illustrate the context in which CBE in Chacchoben is embedded.

2.8 The Trajectory of Tourism Development in Quintana Roo

In 1974, Quintana Roo became a state with its economy propelled by the expanding tourism industry (Herrera et al 1995). Today, Quintana Roo captures about one third of all foreign tourist expenditures in Mexico (Juarez 2002, SEDETUR 2001). Tourism development in Quintana Roo began around the 1970s in the *Zona Norte* with the building and promotion of the large megaresort Cancun, funded primarily by the

federal agency FONATUR and foreign investors. Cancun was a small fishing village in the 1970s that rapidly exploded into an immense tourist city. In the blink of an eye it grew further outward into the massive coastal development project of the Cancun-Tulum Corridor, also known as the *Riviera Maya*. The social and ecological impacts of mass tourism development in the Yucatan Peninsula within recent decades have been well-documented (Barrett 2004, Bascope 2004, Cervantes Borja & Sanchez 1993, Juarez 2002, Rosado-May & Kissman 1998, Torres & Henshell Momsen 2004, Torres & Skillicorn 2004). Despite the government rhetoric about changing tourism development strategies to promote more sustainable forms of tourism (SEDETUR 2004, Gobierno del Estado 2004, Hendrix-Diaz et al. 2000), ambitious programs for training and awareness, two important components for the development of ecotourism, are truly lacking (Ceballos-Lascurain 1998). Furthermore, based on the experience of Cancun, doubts have arisen about the effectiveness of instruments for environmental protection, such as the *Ordenamiento Ecológico Territorial* (OET),¹² or ecological zoning program for development planning (Rosado-May & Kissman 1998).

The *Secretaría de Desarrollo Urbano y Ecología* (SEDUE) under President Miguel de la Madrid Hurtado (1982-1988) was put in charge of regulating development and protecting the environment. As a result, the OET, created with limited participation from non-government organizations (NGOs) and local communities, and a strong role for investors, was the first of its kind in the country, thereby inducing its vulnerability to failure (Rosado-May & Kissman 1998). Despite the fact that some regulations were in

¹² According to a 1996 report by the Secretariat of Environment Natural Resources and Fisheries, (SEMARNAP) *Documento del Medio Ambiente (1995-2000)*, ecological zoning (OET) is a process of planning and managing natural resources in zones that the nation exercises its sovereignty and jurisdiction to preserve and restore the ecological equilibrium and protect the environment.

place for the development of the Cancun-Tulum corridor, the mega-project is often recognized as a chaotic, haphazardly planned development scheme that produced an environmental and social disaster. Rapid development of the tourism industry has created serious environmental and social consequences affecting the entire state.

The coast of Cancun has been modified by both natural geological processes, such as the slow uplift of the Caribbean shelf, and anthropogenic processes, such as the activities of dredging and filling lagoons to build the town and alterations to waterways which caused a disruption in the stability of aquatic and terrestrial environments (Cervantes Borja & Sanchez 1993). This massive development project has attracted major migratory flows from all over Mexico to work in the tourism industry. Some came from rural *ejido* lands in Quintana Roo's hinterland, as well as other parts of the country. The population increase in Quintana Roo from 1975 to present is the highest in the country, a fact that is tightly correlated with the growth and expansion of the tourism industry on the coast. The immigration rate of 55.6% balanced by a 4% emigration rate makes the net migration rate 51.6%, excluding people born outside of Mexico (INEGI 2001). In 1950, there were 0.5 persons per km², a number that jumped to 17 persons per km² in 1995 (Juarez 2002). The population explosion in the tourist areas of Quintana Roo has put a great deal of strain on the environment and existing infrastructure to this day. Improperly disposed garbage and wastewater have polluted the lagoons, contaminated aquifers, and damaged the reefs, dunes, and mangroves in some areas (Cervantes Borja & Sanchez 1993).

Hotel occupancy is dominated by four and five-star hotels (INEGI 2002, INEGI 2003, INEGI 2004) indicating that the encounter between affluent tourists and poor local

populations have exacerbated the already existing social stratification further widening the economic rift in Quintana Roo. Despite being one of the most prosperous states in Mexico, Quintana Roo has the fourth highest rates of malnutrition out of 32 states (Juarez 2002). In many cases, Maya populations have been displaced, ultimately paying the price for their severely altered environment of depleted forests, game, and coastal resources (Juarez 2002). Furthermore, while Cancun has been a success from a macro-economic standpoint, the industry's failure to develop linkages to other economic sectors, agriculture in particular, has resulted in uneven regional development that has left rural populations marginalized and impoverished (Torres & Skillicorn 2004).

Beginning around 1990, Mexico has begun to diversify its portfolio of tourism offerings, as expressed by the Tourism Secretary Silvia Hernandez, "I want to invite you to see our product not only as sun and sand, but also include people, food, music, and the environment" (Healy 1997). A recent article in the *Diario de Yucatán* reports that the present Secretary of Tourism, Rodolfo Elizondo has initiated an intense campaign in Europe promoting five types of destinations—sun and sand, nature, haciendas, business tourism, and adventure—suggesting that "if we do not protect the natural wealth of Mexico, it will be difficult for us to continue growing regionally in sustainable terms and for the rest of society."¹³ Apparently, Mexico has been responding to the demand for alternative tourism and the new wave of tourists desiring to visit natural areas, observe wildlife and exotic scenery, and partake in water activity, and outdoor recreation (Healy 1997).

¹³ Author's translation from "El Gran Futuro Turístico" *Diario de Yucatán*, 13 March, 2005

It seems that the concept of ecotourism is becoming a powerful marketing tool, appealing to the new demand for responsible tourism that contributes to conservation (Cornejo 2004). However, this new development strategy, presents the danger of “greenwashing” the ecotourism concept, as seen in various theme parks in Quintana Roo, such as X-Caret, which has dynamited the natural rock formations to install lighting and ventilation. Critics of sustainable tourism often point out that archaeological sites and Maya villages face being turned into giant theme parks (Mowforth and Munt 2003). For example, in Pac-Chen, Quintana Roo, many NGOs are concerned that social impacts are not taken into consideration (Cornejo 2005). On the other hand, Cornejo points out that numerous incentives have been offered to the community, including jobs, scholarships, the installation of phone service, the creation of an emergency vehicle service, hurricane refuges, ecological composting bathrooms, and solar panels. Based on her field research, Cornejo reports that local employees are content with the partnership (Cornejo 2004:96).

Quintana Roo’s “Grand Costa Maya” is based on low impact tourism along the coast south of the Sian Ka’an Biosphere Reserve, including inland attractions such as Laguna Bacalar and the archaeological sites such as Chacchoben, Dzibanche, Kinichná, Kohunlich, and Oxtankah (Alonzo Ovando personal communication, 2005). However, as the next chapters will demonstrate, the “low impact tourism strategy” that include diverse activities such as ecotourism, archaeological and cultural tourism, and adventure tourism, handicraft sales, agricultural linkages, and alternative energy sources, have a great potential to cause significant impacts (both positive and negative) on local communities and their environment. On one hand, ecotourism has become more than just a marketing tool, but a way to promote sustainable development and biodiversity conservation

through the diversification of local economies and supplementing traditional economic activities such as agriculture or timber harvesting (Cornejo 2004, Bray et al. 2004, Bray et al. 2005). On the other hand, as a government strategy for development, it may have a lot more to do with pragmatic assessment of economic conditions rather than a radically new way of managing nature (Klepeis 2003). Nevertheless, this new strategy represents extremely modest steps towards the idea of sustainable tourism. One manifestation of this has been the process of the implementing *Pueblo Chiclero*, undertaken by the members of Ejido Chacchoben as a complement to the opening of the archaeological site. *Pueblo Chiclero* was inaugurated in August 2004 as one of the great attractions of the “Grand Costa Maya” project.¹⁴ How did a small, community-based operation become part of such a tremendous development project? In the next chapter, an analysis of the field research data will explain the steps leading up to the emergence of *Pueblo Chiclero* with a particular focus on the role of social capital within the common property regimes at the local level and in their interactions with external institutions.

¹⁴ From the state Government newsletter, *Unidad del Vocero del Gobierno del Estado*, August 18, 2004

CHAPTER 3

The Emergence of “Mass” Community-Based Ecotourism in Ejido Chacchoben

3.1 Introducing *Pueblo Chiclero*: A Journey into the Past

In *Pueblo Chiclero* tourists are invited to experience a 45-minute romanticized journey into the past, in which the simulation of the extraction of latex from the sapodilla tree is observed. In the “middle of the jungle” with bird songs filling the air, the tourist is greeted by the local shaman and his two assistants who give their blessing to the *chiclero* before he begins his journey into the forest. The guide explains the various traditional and medicinal uses of plants and trees along the way. Then, the extraction of chicle is depicted, and the tourists move on to the “kitchen” area or chicle camp, where they can sit down on benches, taste a sample of chicle and some hand-made tortillas prepared by Mayan women wearing the *huipil*,¹⁵ and listen to stories and traditional music. Suddenly, the tourists witness an unexpected incident—a local drunkard barges in, causing a commotion that eventually breaks out into a fight. It turns out to be staged, a comedy scene depicting a typical day in the life of a *chiclero* during the early part of the 20th century. After having their snack, the tourists move along the nature trail observing a variety of orchards endemic to the Yucatan Peninsula. When they reach the end of the trail, the tourists encounter a large theatre constructed of all local materials where they enjoy a grand spectacle of traditional dances before heading to the commercial zone where they can visit the museum (a room with photographs of endemic species), purchase handicrafts, or purchase a snack and a beverage in the bar area.

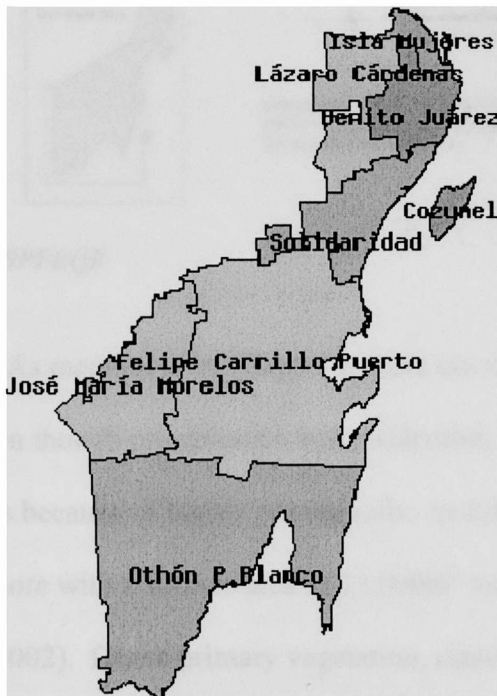
¹⁵ The *huipil* is the traditional white dress with floral embroidery around the collar worn by Mayan women.

The conceptual design for the journey into the past described above is the result of collaborative planning between local community members of Chacchoben, the state-level tourism Secretariat (SEDETUR), and Maya World, a travel agency that was contracted by SEDETUR to provide training and capacity-building to the *ejidatarios* involved. This chapter examines the multiple processes that gave rise to *Pueblo Chiclero* in Ejido Chacchoben, exploring the interactions between local institutions and external actors for the development of CBE in Chacchoben. The research questions are derived from the following set of conditions identified in the literature as a precursor to CBC and CBE: effective institutions that support and define customs, local rules of use or laws and secure land tenure rights, including traditional informal institutions (Agrawal and Gibson 1999, Berkes 1998, Gibson 2000, Cornejo 2004, Bray et al. 2005), partnerships and institutional interaction involving multiple stakeholders and incentives (Agrawal and Gibson 1999, Berkes 2004, Bray 2004, Bray et al 2005, Epler Wood 2002, Mowforth and Munt 2003), supportive policy environment (Belsky 2000, Horwich & Lyon 1998), economic (Salafsky et al. 2001), and social incentives for cultural and biological conservation (Cornejo 2004, Stronza 2000 & 2002). Special attention is given to the roles of CPR institutions (Ostrom 1990, McKean 2000, Cornejo 2004) and social capital (Dolsak & Ostrom 2003, Bray 2004) in the transformations and challenges faced by communities who adapt to form market-oriented enterprises that promote conservation and sustainable development through CBE.

3.2 Biophysical Geography and Demographics of Ejido Chacchoben

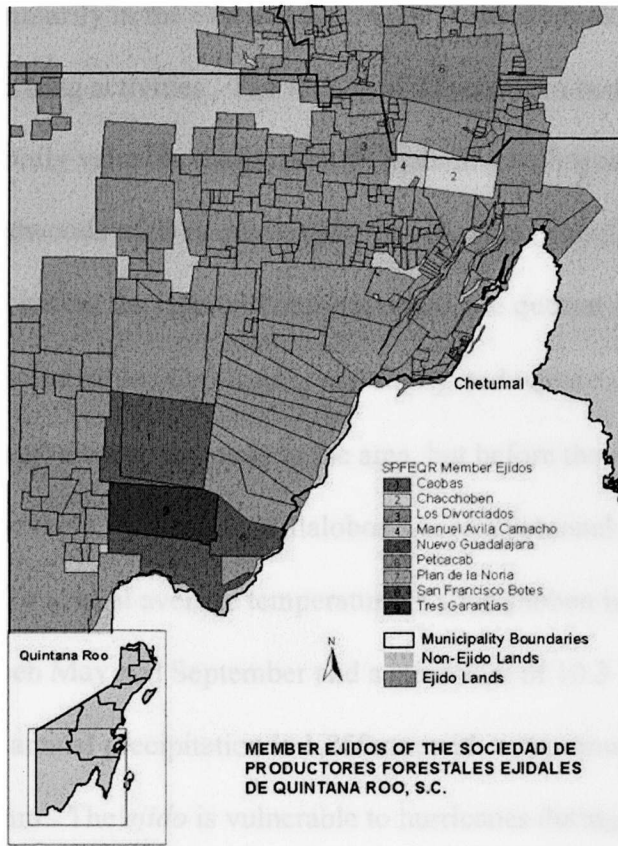
Chacchoben is located in the *Zona Sur* of Quintana Roo in the area known as the “Region of Lakes” of Municipio Othón P. Blanco (figure 3.1). It is located 85 km from the city of Chetumal and 75 km from the fishing village of Mahahual on the coast where the Costa Maya pier was recently constructed in the year 2000 as part of the tourism development strategy for the *Zona Sur* of Quintana Roo. Ejido Chacchoben forms part of a mosaic of other forest *ejidos* in the area and is a founding member of the *Sociedad de Productores Forestales Ejidales de Quintana Roo* (SPFEQR) (figure 3.2).¹⁶

Figure 3.1: Map of Districts in Quintana Roo



¹⁶ Founded in 1986 as part of the PPF, the *Sociedad* is a civil society organization that consists of 9 member *ejidos* representing a total of 250,000 ha, of which 133,580 ha have been designated as permanent forest areas. The *Sociedad* has its own technical direction financed by a membership fee generated by each member *ejidos*' profits in the forestry industry. The mission of the *Sociedad* is to promote sustainable management of forests. (Presentation by Celso Chan of SPFEQR to the directors of the Corridor Biológico de Mesoamérica de México (CBMM) on April 5, 2005.

Figure 3.2: Location of Chacchoben among other Forest Ejidos in Southern Quintana Roo.



Source: SPFEQR

As mentioned in Chapter 2, there are no surface rivers in the Yucatan Peninsula, and even though precipitation is considerable, water infiltrates rapidly into underground aquifers because of highly porous soils. In Ejido Chacchoben, there are four lagoons and one *cenote* with a surface area of 12,000m² and a depth of six meters in the center (Chan Rivas 2002). Dense primary vegetation, classified as semi-deciduous medium tropical forest or *Selva Mediana Subperenifolia*, covers 40% of the forested areas in Chacchoben while semi-deciduous low tropical forest (*Selva Baja Subperenifolia*) occurs in seasonal wetlands known locally as *bajos*, and is characterized by thorny vegetation, covering

about 10% of the surface area of Chacchoben (Chan Rivas 2002). Secondary vegetation occurs primarily in the east and *bajo* areas of the *ejido* as a result of agricultural and cattle ranching activities. The forests of Chacchoben boast an abundance of commercially valuable timber species including mahogany (*Swietenia macrophylla*), and other hardwoods such as *chicozapote* or sapodilla (*Manilkara zapota*). A variety of fauna, including the jaguar (*Panthera onca*), the quetzal (*Pharomachrus mocinno*), Morelet's crocodile (*Crocodylus moreletii*), and white-tailed deer (*Odocoileus virginianus*) are also endemic to the area, but before the days of population growth and highways, there were more (Villalobos Azcorra personal communication, 2005).

The annual average temperature in Chacchoben is 25.7 °C with a maximum of 38 °C between May and September and a minimum of 10.3 °C from December to January. Average annual precipitation is 1,250mm with a maximum of 1,500mm and a minimum of 1000mm. The *ejido* is vulnerable to hurricanes during the rainy season from May to November. The last major hurricanes to hit Chacchoben were Janet (1955) and Carmen (1974), both of which caused considerable damage to the forested areas.

There are two villages about 7 km apart in Ejido Chacchoben: Lázaro Cárdenas and Chacchoben. The village of Chacchoben was established in the 1920s by *chicleros* who organized into small groups that later formed chicle cooperatives. By presidential decree on November 20, 1940, Ejido Chacchoben was designated as a forest *ejido* with 18,530 ha. The inhabitants of Chacchoben are originally from Yucatán (80%), Chiapas, and Veracruz. Chacchoben is predominantly Maya, however Spanish is widely spoken. Occasionally, a blend of Maya and Spanish can be heard among elder residents. The village of Lázaro Cárdenas was established in 1971 as part of the government sponsored

colonization programs promoting cattle ranching and modern agriculture. Most of the inhabitants of Lázaro Cárdenas are migrants from northern Mexican states such as Michoacan, Sinaloa, and Coahuila, making Spanish the predominant language. There are 805 residents of Chacchoben and 485 residents of Lázaro Cárdenas accounting for a total population of 1,290 inhabitants (Chan Rivas 2002, INEGI 2002).

Principle economic activities include forest management for timber and non-timber forest products, especially chicle, agriculture and cattle ranching, and more recently, tourism. Community forest management for timber, established under the *Plan Piloto Forestal*, is a community enterprise (Antinori & Bray 2004) that generates profits for the 310 *ejidatarios*. Since all 310 *ejidatarios* are owners of the forestry enterprise, all issues about pricing, extraction, and markets related to forestry are presented and discussed in the monthly general assembly for the *ejido*. Under the PPF, timber is harvested selectively and reforestation programs are in place as a strategy to retain the forest cover. Agriculture, subsidized by *Programa Para el Campo* (PROCAMPO),¹⁷ is primarily for subsistence, with maize and beans as the principle crops. About 30% of the population has cattle. Meat is supplied to local markets by cattle ranching, which is subsidized by a variety of federal and state government programs and agencies such as *Alianza para el Campo*, *Mejoramiento de Ganadero*, and the *Secretaría de Desarrollo Agropecuario Rural e Indígena* (SEDARI). Tourism has emerged with the opening of the archaeological site in 2000, followed by CBE represented by *Pueblo Chiclero*, which

¹⁷ Programa para el Campo is a program under the *Secretaría de Agricultura, Ganadería, Pesca y Alimentación* (SAGARPA) whose purpose is to support the modernization and development of rural areas, strengthening investment in agriculture and ranching, and to promote market integration and competition. Subsidies are implemented as part of the North American Free Trade Agreement (NAFTA) to provide protection to Mexico's small farmers.

was officially inaugurated in August 2004. Additional activities include chicle extraction, beekeeping, subsistence fishing, and the extraction of *huano* palm leaves (*Sabal mexicana*).¹⁸ Hunting is officially illegal. The activity of chicle extraction, the roots of the community, is still practiced by those who know how and want to do it. Managed according to the guidelines set by the PPF, chicle production yields are as high as 8,000 kg during the rainy season from June to January (Villalobos Azcorra personal communication, 2005).

Agriculture and cattle ranching is extensive and vulnerable to ecological constraints such as soil degradation, pest infestation, disease, and drought. Forestry is vulnerable to both natural and anthropogenic forces, such as overexploitation and extreme weather patterns such as drought and hurricanes. Tourism is vulnerable to unregulated practices that can lead up to land degradation, pillaging of archaeological sites, and problems of waste disposal. For example, the biggest disturbance caused by tourism impact in archaeological zones throughout Mexico is soil erosion, which could be irreplaceable (Ceballos-Lascuráin 1998). All three sets of activities are dependent upon market demands. CBE, owned and operated by the community under the CPR institutions that determine rules of use, laws, access, and sanctions, could potentially alleviate some of the anthropogenic pressure on the landscape as a presumably low-impact alternative to traditional production, encourage monitoring and protection of the ecosystem's health, promote environmental education among local community members and tourists, and generate jobs and revenue for community development and

¹⁸ *Huano* is the palm leaf used to make thatched roofing in traditional Maya homes. It can also be written as *guano*.

conservation. Tourism and CBE in Chacchoben is expected to grow into the *ejido*'s largest industry, which is projected to expand into hospitality, service, and a diversified array of tourist activities including horseback riding, nature trails, canoeing, kayaking, and bird-watching, with the goal of eventually replacing agriculture and forestry (Villalobos, personal communication, 2005)

Even though Ejido Chacchoben has relatively economically attractive forests (Flachsenberg & Galletti 1998), migration out of Chacchoben has been ongoing by *Chacchobeños*¹⁹ in search of jobs and education, although few pursue education beyond primary school because of the economic burden for their families. Many *Chacchobeños* have migrated to the northern part of Quintana Roo to work in the ever-expanding tourism industry. Others have migrated to Chetumal, Bacalar, and the United States. Some estimates of emigration are as high as 50%. Like other forest *ejidos* in the area, the lack of economic alternatives and insufficient support for basic human needs, such as health and education, contribute to the instability of the region (Norris et al 1998). Land degradation further exacerbates these conditions, thus emphasizing the importance of conservation and sustainable development in *ejidos* such as Chacchoben.

In southeast Mexico, communally managed forests represent the “biological corridors” that link protected areas (Wilshusen 2003). Chacchoben lies directly in the path of the biological corridor Sian Ka’an – Calakmul, part of the Mesoamerican Biological Corridor (Klepeis 2004), making the *ejido* a strategic location to implement ecotourism within the “Grand Costa Maya” megaproject of the *Zona Sur* and the “Mundo Maya” international project that promotes archeological, cultural, and ecotourism. The

¹⁹ A person from Ejido Chacchoben, not necessarily an *ejidatario*.

archaeological site, also called Chacchoben,²⁰ covers 71 ha. The permanent forest area of Chacchoben, the logging estate established by the PPF which is not subject to land use change, covers 4,243 ha (Chan Rivas 2002). *Pueblo Chiclero* now conserves an additional 1,000 ha of forest area for conservation to protect native arboreal species and a variety of orchids (Villalobos Azcorra personal communication, 2005). Plans to connect *Pueblo Chiclero* to other local sectors are in process, since many *ejidatarios* have aspirations of opening restaurants, hotels, and more nature trails that connect Chacchoben's other natural attractions. But before any plans for expansion of CBE in Chacchoben are even conceptualized, some realities should be recognized. Ejido Chacchoben has adequate infrastructure for transient tourists, including paved roads, electricity (since the 1970s), potable water (since the 1980s), and a health clinic. However, for the development of hotels and restaurants, more investment is needed in infrastructure.

Out of the 350 houses in Ejido Chacchoben, about 80% have access to running water, sewage waste disposal, and electricity (POET 2002).²¹ However, potable water is brought from outside because the groundwater is naturally contaminated (salty) that some *ejidatarios* have commented that it is not even suitable for their cattle. About 50% use fuel wood for cooking and others use gas that is transported by individual community members from Chetumal. Finally, while a system of solid waste collection exists, it is inadequate. Discrete dumping sites can be found behind the bushes lining the road that

²⁰ Chacchoben has commonly been interpreted as "*Lugar del maíz colorado*" or "place of the colored corn."

²¹ This figure might be closer to 100% with access to water, 80% with septic tanks, and 95% with electricity (Villalobos Azcorra M. personal communication, 2005. Interview with Director of *Pueblo Chiclero* by author. Chacchoben, Quintana Roo)

connects the two villages. Many people burn their garbage on their properties or on the side of the road in town, including plastics, metals, glass, and tin.

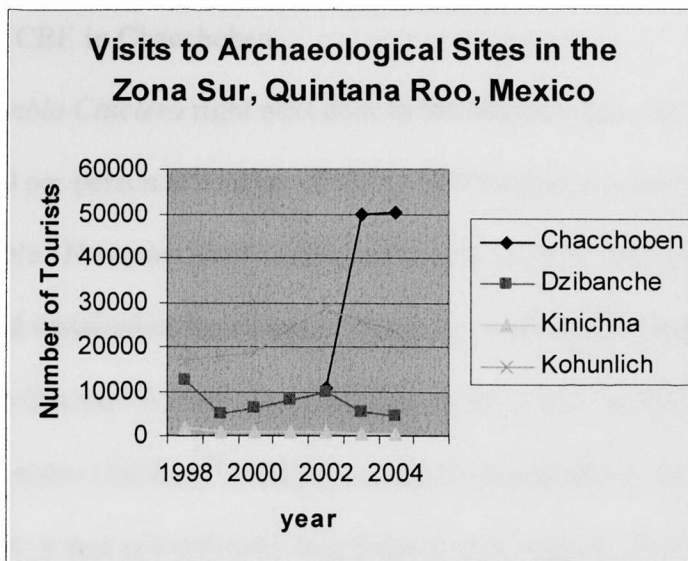
While tourism is becoming the primary economic activity for Chacchoben, CBE represents some hope of stability for the people of Chacchoben. Now there exists the possibility for those who have emigrated to return home because CBE has been developed alongside the relatively secure mass tourism market. Since the completion of the “Costa Maya” pier in Mahahual, the Chacchoben archaeological site receives on average over 4,000 tourists a month surpassing all of the other archaeological sites in the southern zone (see table 3.1 and figure 3.3).

Table 3.1 Visits to Archaeological sites 1998-2004

	1998	1999	2000	2001	2002	2003	2004
Total	---	---	---	---	---	1,349,301	---
Region Norte Total	---	---	---	---	---	1,254,589	---
Coba	93,730	115,703	126,871	129,642	139,929	192,884	150,848
Tulum	693,153	683,103	703,494	667,252	793,881	923,527	886,381
Region Sur Totals	---	---	---	---	---	94,712	---
Chacchoben	---	---	---	---	10,784	49,841	50,336
Dzibanche	12,280	5,027	6,018	8,158	9,585	5,541	4,326
Kinichna	1,617	947	838	997	961	654	661
Kohunlich	16,984	17,975	18,728	23,858	28,341	25,915	23,372
Oxtankah	---	---	---	---	---	12,761	---

source: SEDETUR 2005b

Figure 3.3



Source: SEDETUR (2005b)

Typically, the benefits from tourism to archaeological sites in Mexico rarely trickle down to the community. Archaeological sites in Mexico are legally expropriated from local communities when they are opened for tourism and local communities rarely receive any direct benefits from tourism. Under the *Ley Federal sobre Monumentos y Zonas Arqueológicas Artísticas e Históricas*, “archaeological patrimony is property of the nation and its safekeeping is entrusted to the custody of INAH; for this reason, there is no possibility that INAH will ever give up the rights to the archaeological site” (Petatán 2003).²² However, as this thesis demonstrates, the case of Chacchoben does not entirely reflect this trend. Special agreements and partnerships have been designed so that a small

²² This commentary by Rubén Regnier Petatán, the Director of Communications of INAH appeared in the editorials of *La Jornada* in response to an article published in *La Jornada* on September 29, 2003. (Author’s translation from Spanish).

percentage of benefits from tourism to the Chacchoben ruins would be invested into the development of CBE in Chacchoben.

With *Pueblo Chiclero* right next door to the Mayan ruins, the proposed admission fee of US\$15.00 per person at a range of 150 to 900 tourists per day has great potential to be quite profitable. However, there is one last hurdle to jump before a balance of conservation and sustainable development can truly be attempted through CBE in Chacchoben. In October of 2003, Tourism Subsecretary Jose Alberto Alonzo Ovando announced that *Aldea Chiclera*²³ would be ready for the public in November of that year.²⁴ However, it was not officially inaugurated until August 2004, and furthermore, as of April 2005, it has still not been opened to the public. The phrase, “We still have to finalize a few minor details...” remains the vague explanation from both *ejidatarios* and government officials about why the great vision of *Pueblo Chiclero* that represents the unique partnership and cooperation among institutions at multiple scales has not yet unfolded. If strong local institutions, fluid interaction between local institutions and external institutions, and investments in social capital are to lead to conservation and sustainable development outcomes, then the processes leading up to this speed bump in the road should be examined. The next section describes local institutional organization and the common property land tenure system in Chacchoben to elucidate the local context in which CBE has emerged.

²³ “Pueblo Chiclero,” is often referred to as “aldea chiclera” (chicle village) by the state government of Quintana Roo. The preferred project title for the *ejidatarios* of Chacchoben is “Pueblo Chiclero,” therefore this name is used throughout most of the analysis.

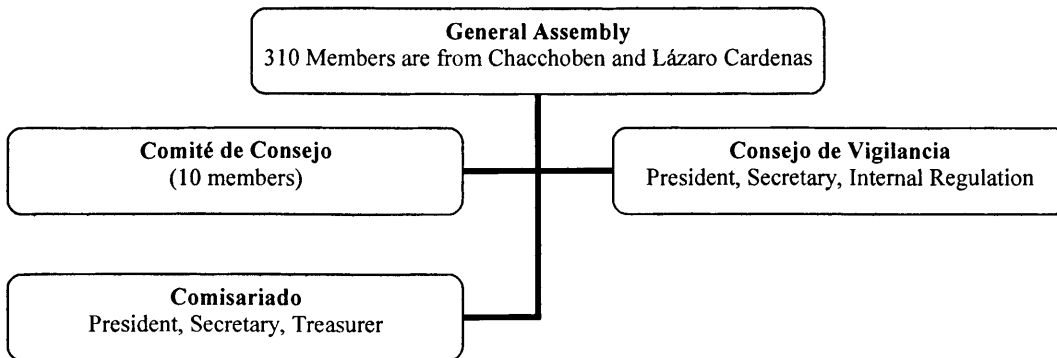
²⁴ Vocero del Estado de Quintana Roo, October 14, 2003, “A mediados de noviembre estará lista la ‘aldea chiclera’ de Chacchoben.”

3.3 Local Institutions and Common Property in Chacchoben

After a slight expansion in 1971, corresponding with the foundation of Lázaro Cárdenas Pueblo, the surface area of Ejido Chacchoben now extends over 18,654 ha upon which 310 of the 1,290 inhabitants are *ejidatarios* or legal community members that have legally recognized usufruct right to land and resources within the *ejido* boundaries. The *ejido* is geographically divided according to economic activity and demographics. The permanent forest area (PFA) is designated for communal use, in which all *ejidatarios* receive some benefits from its exploitation. Agricultural plots and cattle ranches are owned privately by both *ejidatarios* and non-*ejidatarios*. In Chacchoben, each *ejidatario* is entitled to 60 hectares, but there are some who don't have any land because of countless years of informal buying and selling of *ejido* rights (Uc-Medina personal communication, 2005). As a result, the distribution of land within the *ejido* is not even.²⁵ Most *Chacchobeños* use their ranches as a kind of individual social security investment. Community logging, which is based on management plans authorized by the federal government's environmental agency, *Secretaría de Medio Ambiente y Recursos Naturales* (SEMARNAT), represents an income floor for all legal members of the *ejido*. The *ejido* is governed as a common property regime (CPR) consisting basically of the general assembly and the locally elected *comisariado ejidal*, the *Comité de Consejo* (advisory committee), and the *Comité de Vigilancia* (vigilance committee) (Figure 3.4).

²⁵ The privatization laws of the 1992 reforms to article 27 legalized the sale and rental of *ejidal* plots, however, as Uc-Medina has pointed out, these kinds of transactions have been going on informally and illegally since the beginning of Agrarian Reform. This unevenness also explains the way *pobladores* (migrants) who are not *ejidatarios*, own their own plots of land.

Figure 3.4: Local Governance in Chacchoben



Local governance in Chacchoben is directed by the general assembly represented by the *comisariado ejidal*, the locally-elected three-member committee consisting of the president (*comisario*), the secretary, and the treasurer. The *comisariado* is elected every three years. Local governance is supported by institutions that devise rules about resource use, such as the CPR design principles described by Ostrom (1990): clearly defined boundaries, rules of use about the resource, collective choice arrangements for moderate use of the common pool resource, the ability of user groups to monitor stocks and flows, graduated sanctions (for those who do not comply with the rules), conflict resolution mechanisms, and the recognition of rights to organize. It is important to note that the common property governance structure in Mexico is a result of government agrarian reform, and not the result of natural evolution from centuries of common property management.

In Ejido Chacchoben, the vigilance committee, which is responsible for monitoring the *comisariado*, has been put in charge of internal regulation and

enforcement of rules around resource use. While the larger government mandates a system of natural resource regulation, which prohibits the cutting of tropical forests, the *ejidatarios* of Chacchoben recognize the economic value of the forest and are enforcing their own rules (Bray, personal communication). The posting of signs demarcate the specific boundaries of the permanent forest area so that subsistence agriculture takes place exclusively in areas designated for agriculture and ranching. To protect the permanent forest areas from clandestine hunting and timber extraction, brigades are coordinated by the vigilance committee (Chan Rivas 2002). The *ejidal* authorities and the vigilance committee are on high alert during periods of drought to prevent forest fires. The vigilance committee played an especially important role during the time that INAH and the *ejido* began their negotiations in the late 1990s, keeping the general assembly informed about the progress (Villalobos Azcorra personal communication, 2005).

After about two years of dormancy, another committee, *Comité de Consejo*, was reestablished in March of 2005 to filter and prioritize community conflicts with intentions of resolving them before bringing them to the general assembly. Similar governance bodies have been created elsewhere; however, these are genuinely local inventions that emerged outside of the original structure of the Agrarian Reform governance system. Graduated sanctions can be economic or political and often depend on the type of crime and the degree of the crime. Typically, the general assembly meets once a month to discuss issues around areas of communal use and conflicts. However in Chacchoben, various community members mentioned that in March 2005 that it had already been several months since the last general assembly because of some unspecified problems. The *Comité de Consejo* meets twice a week, the administrative committee of the

commercial zone in the archaeological site meets once a month, and the 10 directors of the *Pueblo Chiclero* meet once a month, while remaining “on-call” for any tour group that makes a reservation.

Last year, the General Assembly asked the former *comisario*, to step down before his time was up because of alleged corruption charges. Interestingly, the former *comisario* has expressed that his vision for the future of CBE in Chacchoben is to conserve flora and fauna to save it from ranching and agriculture, eventually replacing those activities. He also commented on the importance of collectivism in the *ejido*, and mentioned that the common property regime is threatened by a slew of exogenous factors, such as privatization, which allows the influx of newcomers who do not have the collective vision and do not understand collective action (Uc-Medina personal communication, 2005). In Uc-Medina’s vision, the common property organization around common pool resources is at stake and economic activities that epitomize CPR, such as community forestry and CBE, should be pursued and preserved. In contrast, the vision of the current director of *Pueblo Chiclero* hopes that ecotourism will some day replace community forestry because it does not generate enough economic benefits, as tourism does (Villalobos Azcorra personal communication, 2005). He suggests that farming and ranching should continue because people will always need to eat. CBE represents a supplemental activity to the community and to people like himself who have their own ranch. In his view, it is important to conserve the forest for the tourists because the tourists bring the much-needed revenue. Indeed, the collective action and grassroots organization evident in the late 1990s in Chacchoben, to be described below, have more recently been accompanied by some internal conflicts that may have hindered the

progress of implementing *Pueblo Chiclero*. The fluctuating degrees in which people invest in social capital at the local level becomes apparent in the in the next section that traces the roots of CBE in Chacchoben.

3.4 Collective Organization and Local Social Capital: The Rise of *Pueblo Chiclero*

From 1957 to 1983, the principal economic activity in Chacchoben was logging under the 25 year concession of Maderas Industrializadas de Quintana Roo (MIQRO), a parastatal logging company. During the period of the concession, *ejidatarios* were excluded from use of the concession areas that were designated as national forest areas. However, *Chacchobeños* were not entirely excluded from the benefits of logging under MIQRO and received a stumpage fee. Many of them worked as employees; however, without a clear understanding of what it meant to be an employee, corruption was widespread, and community organization was fragmented and weak (Villalobos Azcorra, personal communication, 2005). Finally, in 1984, direct management of the forested areas was devolved to the *ejido* under the PPF and little by little, the *ejidatarios* began to “organize themselves from a thousand pieces” and regained control of their own resources, with the help and support of the *Sociedad de Productores Forestales Ejidales de Quintana Roo* (SPFEQR), of which Chacchoben is one of the founding members (Villalobos Azcorra, personal communication, 2005). The community forest enterprise (CFE) created by the PPF is directed by the *Comisariado*, that functions as enterprise manager, and which manages the accounts and the employees directly. *Ejidatarios* are employed in community forestry, and technical assistance comes from engineers and forestry experts employed by SPFEQR. After paying the costs of operation and of labor,

the profits are distributed equally during the general assembly meetings among all the 310 *ejidatarios*. Since Chacchoben has high rates of emigration, it is not clear how the profits have been distributed to those *ejidatarios* not present. The internal operations of managing accounts is not necessarily public information, though some observers suspect that the leftover amounts were possibly used for other activities or distributed (illegally) among those in leadership positions and their friends. Or it is possible that the profits from timber sales were recalculated to reflect the actual number of *ejidatarios* present.

INAH began the restoration of the archaeological zone located in Ejido Chacchoben in 1994 after the community already had about ten years of experience managing their own community forestry enterprise (CFE) under the PPF. By 1997, plans to open the site to the public were underway, correlating with the state government's larger plans to develop "El Caribe Mexicano", "Costa Maya" and the "Grand Costa Maya."²⁶ When former Governor Villanueva was thrown into jail for in 1998, he sold the plans and lease agreements of Puerto Costa Maya, the newest cruise ship port in the Caribbean in which he had personally invested, to Isaac Hamui Abadi, the president of the Miraro Group, a multi-million dollar company in Cancun (Barrett 2004). The Chacchoben ruins, only 75 kilometers from the coast, are the closest archaeological site to the Puerto Costa Maya in Mahahual and therefore an ideal location to herd the masses of cruise ship passengers. SEDETUR gave money to INAH to accelerate the process of

²⁶ These are the tourism promotion campaigns for Quintana Roo. "Costa Maya" is promoted as lower-impact tourism development along the southern coast south of the Sian Ka'an Biosphere Reserve. The "Grand Costa Maya" includes the "Costa Maya" region and the archaeological sites inland. "El Mar Caribe" promotes its comparative advantage—all that other Caribbean destinations don't have—ancient Mayan culture and archaeological sites.

excavating the archaeological site at Chacchoben (Alonzo Ovando personal communication, 2005).

Since the beginning of 1997, Ejido Chacchoben and INAH were engaged in a dispute about the expropriation of 71 ha upon which the Chacchoben ruins were located. On one hand, ruins are “national patrimony” which belong to the federal government. On the other hand, *ejido* lands are constitutionally guaranteed. To understand the implications of tourism development in small rural communities, a group of *Chacchobebños* paid a visit to the nearby archaeological site Kohunlich. At Kohunlich, they observed that no benefits from tourism were generated to the *ejido*. As a result, Chacchoben rejected INAH’s offer of 2,000 pesos of compensation per hectare (1,000/ha to the *ejido* and 1,000/ha to the *ejidatario* who worked the plot) (Villalobos Azcorra 2005). The then-president of the *comisariado*, Miguel Villalobos (2001-2003), who is currently the director of *Pueblo Chiclero*, predicted that the federal government would be in charge of and receive the profits from all ticket sales, the state government would concession the service area to outside investors, and the *ejido* would remain as passive onlookers who do not receive any benefits at all. Various activists in Chacchoben emerged, blocking the entrance to the archaeological site (Villalobos Azcorra 2005). Publicity for the plight of *Chacchobebños* arrived all the way to the national press and the federal government when the following comment appeared on the 24th of August, 2003 in *El Universal*:

“We arrived all the way to the Senate of the Republic. It was a two-year struggle and we made them change the law...How did we convince them? It was a discussion like

this: to begin, to whom does the archaeological site belong?
To the nation? And who is the nation? The INAH?!”²⁷

As mentioned earlier, archaeological sites in Mexico are legally expropriated from local communities when they are opened for tourism under the *Ley Federal sobre Monumentos y Zonas Arqueológicas Artísticas e Históricas*. Bascope (2004) documents a similar situation in Cobá, Quintana Roo, where local *ejidatarios* protested INAH’s failure to employ them in the excavation process despite their many years of experience and employment in restoration. Since 1986, the men and boys of Cobá were employed on an equal-pay, rotating basis for a few weeks during the summer by Archaeologist David Friedel of Southern Methodist University/ Selz Foundation (SMU/Selz). In 1996, the community, NGOs and SMU/Selz team presented a comprehensive long term plan to the governing board of the “Mundo Maya” project, calling for scientific investigation of the site, and training and support for community members to become leaders in the tourism and development projects related to the site. They were denied their permit and INAH archaeologists began consolidation of the site, bringing in stonemasons from other parts of the state. INAH hired some *ejidatarios*, but did not employ community members on an equal-pay, rotating basis as under the former, disrupting CPR institutions. The community of Cobá protested to INAH that they were all equally needy because of crop failure, and as *ejidatarios* they share democratic values and should have equal access to work on their own lands. In the end, they finally convinced the INAH archeologists to

²⁷ Uc-Medina cited in El-Universal MDF. 2003. Curanderos, empresarios. In *Diario de Quintana Roo*, pp. 4. Chetumal. (Author’s translation from Spanish).

accept the rotation system and not import workers from other parts of Mexico (Bascope 2004).

However, the case of Chacchoben proved to be somewhat different from Cobá. The *ejido* refused to grant SEDETUR and INAH permission to develop the site for tourism, and they felt entitled to receiving some benefits despite the federal policy on national patrimony (Alonzo Ovando personal communication, 2005). As a result, the negotiations had to involve a plan to involve the *ejidatarios* directly. The case of Chacchoben represents the first time ever in Mexican history that *ejidatarios* were granted concession rights to 30 ha to be designated as the commercial zone (Alonzo Ovando personal communication, 2005). Two agreements were signed: *Convenio de ocupación previa* and the *Convenio de cooperación* (Velázquez personal communication, 2005). The “*ocupación previa*,” refers to the remaining 41 ha of the 71 ha expropriated by INAH under federal law. The *Convenio de cooperación* is the additional agreement that emerged as a compromise to the dispute between INAH and Ejido Chacchoben, in which admission to the archaeological site is charged by INAH and the earnings from the commercial zone are collected by the *ejido* (Petatán 2003). The *Convenio de cooperación* is the first of its kind in the country (Velázquez personal communication, 2005). The *ejido* rents spaces in the commercial zone to *ejidatarios* who are entitled to their own individual profits while the income generated from their rent is distributed to all 310 *ejidatarios*. However, the most important outcome of the negotiations was the logistical support from SEDETUR, who agreed to support a CBE project to be 100% owned and operated by the *ejidatarios* of Chacchoben.

Both SEDETUR and the *ejidatarios* agree that the idea of creating a CBE enterprise was inspired completely by the *ejidatarios* of Chacchoben who argued that the compensation offered by INAH was not enough and that they should be given the opportunity to develop something of their own beyond the stores in the commercial zone of the archaeological site. Achieving this level of cooperation and compromise by the federal and state government of Quintana Roo can be attributed to the relatively high social capital at the local level, collective action, and strong local organization during the time:

The origin of the idea to create a CBE enterprise in Ejido Chacchoben came completely from the ejido. When INAH came in, it only offered 1,000 pesos per hectare, but we knew the land they were trying to expropriate from us was worth much more. We knew that the benefits would not trickle down to us. So we negotiated, and INAH did not want to negotiate. A lot has to do with the leadership within the *ejido* at the time. The *comisariado* was very passionate and generated a lot of interest among community members about the archaeological site. No one wanted to feel like they were being taken advantage of. *Asambleas* were held all the time since everyone was interested in the implications of opening of the archaeological site. That is why the archeological site is the principle and ultimate driver (behind *Pueblo Chiclero*), combined with the leadership at the time. Because interest was there long before the archaeological site opened. When the site opened, people saw the huge number of tourists coming in and many of them became even more aware of the potential opportunities (Villalobos Azcorra personal communication, 2005)²⁸

At first it wasn't clear what kind of tourism enterprise would be created for the *ejido*. It started with an idea to make an interpretive trail for the nature in the area, but then, through creative collaboration between the state government, the *ejido*, and Maya World, a private tour agency contracted to assist with training, the idea transformed and

²⁸ Author's translation from Spanish.

exploded into a theme park in which actors would perform the simulation of chicle extraction, a shaman act, a mini skit depicting the day in the life of a *chiclero*, and a grand finale of traditional dances. “We worked together and came up with the idea of ‘Aldea Chiclera’ seeing that chicle was something that we could sell to the tourists”(Alonzo Ovando personal communication, 2005). A total of 80 *ejidatarios* are promised employment by *Pueblo Chiclero*, including six directors of each sector: guides, shamans, chicle cooks, tortilla cooks, dancers, and *chicleros*.

As mentioned, *Pueblo Chiclero* was inaugurated in August of 2004, but some minor details need to be finalized before it can be opened to the public. The first set of “minor details” are currently being completed: the construction of the service and commercial area, including a museum exhibiting photos of endemic species, a lounge, a restaurant and bar, a number of boutiques to be rented to *ejidatarios*, ecological bathrooms, solar panels, the ticket booth at the entrance, and an emergency service area and ambulance (Villalobos Azcorra personal communication, 2005). According to a representative from SEDETUR, the “little details” include plans to widen the trails to increase the capacity of visitors, a rest area for the elderly, and more space around the entertainment areas (Bernadino personal communication, 2005).²⁹ Other details that need to be addressed include the costumes to be worn, since in the days of the *chiclero*, it is unlikely that their clothes were pressed and clean, or that they wore glasses and watches (Alonzo Ovando personal communication, 2005). To the guides, the details that need to be finalized include the provision of English classes, considering the large number of

²⁹ Currently there are benches and bleachers in the entertainment/rest areas to support a capacity of 15 to 20 tourists at a time. A rest area has been constructed in the commercial area.

English speakers in the tourist market. But most importantly, internal problems must be resolved. The community cannot agree upon schedules and the number of working hours. The owner of Maya World Travel Agency in Chetumal, who was directly involved in the training of the community commented that they should learn to function more like a business and less like a cooperative. In a cooperative, management changes frequently, as in a system of rotation, but this creates the potential problem that new management might not have the capacity to manage old problems. In a business, a fund for expenses is created, but the people don't trust each other, limiting their capacity to manage accounts; in other words, anyone can put up a building or build a hotel, but managing it is a whole different experience (Parra Calderon personal communication, 2005).

External actors seem to have the perception that *ejidatarios* are unwilling to work, they are disorganized and trapped in an outdated social system, such as cooperatives that do not function well in the globalized world. The biggest problems are of marketing, achieving solidarity, the fact that they must learn to work together as a business and not as a cooperative, and finally, they need to learn how to manage themselves because right now, they receive external assistance (Alonzo Ovando personal communication, 2005). It is clear from the enthusiasm for *Pueblo Chiclero* I observed in Chacchoben that the above perceptions of *ejidatarios* as lazy and disorganized are not necessarily accurate. The employees are anxious to work and feel somewhat frustrated about the time, money, and confidence they have invested so far. They recognize their disorganization, but do not see it as an obstacle. They consciously avoid appearing disorganized in front of the external partners for fear that they may have the partnership taken away from them. "We

are organized now and we are ready” (Villalobos Azcorra personal communication, 2005). The biggest “little detail” that needs to be finalized is the agreement between Aviomar, the *ejido*, and SEDETUR, which still needs to be signed. The mobilization of 80 employees depends on the assurance that a certain number of cruise ship passengers will visit the *Pueblo Chiclero* paying the admission of US\$15.00 per person. However the stakeholders representing private interests are reluctant to sign for reasons discussed in more detail in the next section.

3.5 Investing in Social Capital: the Role of Money, Alliances, and Partnerships

Given that poor rural communities cannot be expected to provide the physical, human, and financial capital for the preliminary investment in CBE, the establishment of partnerships is necessary (Mowforth & Munt 2003). Funding for CBE in Chacchoben was generated by a variety of investments, but mostly by *Fondo Chacchoben*, a fund created and managed by a tripartite agreement between the *ejido*, SEDETUR, and Aviomar, large travel agency based in Cozumel with additional offices in Cancun, Merida, Playa del Carmen, and the Puerto Costa Maya.³⁰ The relationship between Aviomar and Isaac Hamui, the owner of Puerto Costa Maya is not entirely clear, however, they may be partners, at least in the way that they collectively represent the private interests in the tripartite partnership between Ejido Chacchoben, SEDETUR, and Aviomar.

³⁰ Octavio Molina is the owner of Aviomar the travel agency and *Fundación Aviomar*, a philanthropy organization, both of which share the same address in Cozumel. The travel agency is an enormous operation that administers cruiselines, airlines, and local tour operators.

In 2002, during the first stage of the project, special agreements with SEDETUR and SECTUR provided an investment of about \$224,242 in U.S. dollars (see table 3.2). In 2003, the federal government invested \$57,176 through an agreement between INAH and SEDETUR. *Fondo Chacchoben* was established in the same year to collect two dollars for every tourist that enters the archaeological site on a tour operated by Aviomar or Isaac Hamui. During 2003 the private agencies invested \$54,320 and in 2004, *Fondo Chacchoben* received \$51,272.

Table 3.2: Investments in “Pueblo Chiclero” in Ejido Chacchoben

Year	Stage	Agreement	State Investment	Federal Investment	Private Investment	Total Investment
2002	Stage one	Special Agreements (SECTUR and SEDETUR)	149,494	74,747		224,242
2003	Stage two	Agreement between INAH and State Government		57,176		57,176
2003	Stage three	Fondo Chacchoben			54,320	54,320
2003	Stage four	<i>Promoción de Desarrollo Forestal</i> (PRODEFOR)	27,272			27,272
2004	Stage five	Fondo Chacchoben			51,272	51,272
2004	Stage six	Special Agreements (SECTUR and SEDETUR)	45,454			45,454
2005		TOTAL INVESTMENT	222,220	131,923	105,592	459,735

Source: (SEDETUR 2005a)

* All values are in U.S. dollar amounts based on 11:1 exchange rate.

The stakeholders representing private interests, Aviomar and Isaac Hamui of the pier in Mahahual, did not want to sign an agreement directly with the *ejido* because they anticipated internal problems with the local administration stemming from their lack of experience in tourism (Villalobos Azcorra personal communication, 2005). *Ejidors* undertaking commercial operations do not charge or pay an IVA; therefore, their receipts are not recognized in the Mexican income tax returns, raising the challenge of working and forming partnerships with them (Parra Calderon personal communication, 2005). Furthermore, the manager of CBE enterprise has to be someone who has been trained how to do business (Uc-Medina personal communication, 2005). The *Sociedad de Producción Rural* (SPR),³¹ a union of two or more rural producers, was put in charge of legalizing Ejido Chacchoben as a legitimate enterprise. The role of the SPR is to channel technical assistance to the CBE enterprise and assist with management.

It is still unclear whether or not the contract between Ejido Chacchoben, Aviomar, and SEDETUR exists. *Ejidal* authorities assert that it exists, but two *ejidatarios* confessed in an interview that no one has ever seen the contract or the \$2.00 per tourist, raising serious questions about the existence of the contract, trust among *ejidatarios*, and trust of external stakeholders. The former *comisario* stated that in the beginning, “there was a polemical divide about the formation of tourism activity. The people believed that the \$2 was for equitable distribution” (Uc-Medina personal communication, 2005). It seems that an element of mistrust among *ejidatarios* persists. More transparency, such as access to a copy of the contract would alleviate some of the problem, some said.

³¹ Established under the Agrarian law article 111 to assume three types of responsibility: limited to support social capital, unlimited responsibility, or supplementary responsibility (from “Figuras asociativas definidas por la Ley Agraria”: available online at www.pa.gob.mx/publica/pa07dc.htm).

“Everyone talks about it, but when the time comes to make a formal complaint, you are alone.” The current *comisario*, who replaced the former who was ousted, claims that the two dollars per tourist is invested into a fund and made available to the development of infrastructure in Chacchoben and *Pueblo Chiclero*. The contract between SEDETUR, Aviomar, and the *ejido* exists, and is scheduled to be signed on April 5 (Reyes personal communication).³² As noted by Antinori and Bray (2004:8) about CFEs, “the emergence of enterprises from a matrix of community governance can create tensions between democracy versus hierarchy” and managerial efficiency versus representation and traditional customs.

This case also demonstrates that community enterprises are seldom entirely “self-organized” and depend heavily on state and civil society support (Antinori & Bray 2004, Bray & Merino-Perez 2002, Ostrom et al 1999). *Fondo Chacchoben* is administered by SEDETUR, Isaac Hamui, and Aviomar (Alonzo Ovando personal communication, 2005). The tour operator sells package tours to the archaeological site for US\$60 and will sell tours to *Pueblo Chiclero* for US\$90. One *ejidatario* has been put in charge of counting the number of buses and the number of passengers they contain at the archaeological site; however others are watching and keeping track as well. When the *ejido* wants to develop something or build something, they have to request the *Fondo Chacchoben* money—that per the agreement is rightfully theirs—from SEDETUR. Unlike most cases of CBE, the initiation of *Pueblo Chiclero* has not left any of the stakeholders with any kind of debt; on the contrary, the money represents a small percentage of profits that have been generated from the constant stream of tourism fed by Aviomar and the “Costa Maya”

³² *Pueblo Chiclero* was still not opened to the public when I left Chacchoben on April 10.

(Isaac Hamui). In most cases, ecotourism and CBE is vulnerable to failure because it lacks the economic resources to get the projects off the ground. In this sense, the case of Chacchoben is quite the contrary. The biggest hurdle seems to be structural barriers, weak institutions, the fluctuating levels of social capital between local and external institutions.

3.6 Economic and Social Incentives

Incentives for the development of CBE at the local level are fairly widespread since CBE represents economic development, jobs, and community development. At the government level, CBE is adequately supported because *Pueblo Chiclero* nicely fits into the government's development strategy. This section analyzes the incentives at the local level. The data collected for this section is based on interviews and focus groups with the participants in CBE and interviews with government officials.

In the early stages, community members were both inspired and empowered by the confrontation with INAH. However, initially, generating support for CBE was a challenge. At first, nobody anticipated that the economic impacts had such great potential (see table 3.1). One *ejidatario* remembering the early stages of CBE in Chacchoben mused, "It's like, for example, when INAH came saying that they wanted to open the archaeological site for tourism, nobody believed in the opportunities—What are they going to do with this pile of rocks? But now, we all see a pile of benefits from tourism!" There was fear of change in the community, people didn't understand and without knowledge and education, they were closed to the idea. There was a polemical divide and constant misunderstandings about the nature of the tourism activity.

People believed that the \$US2.00 was for equitable distribution, but we had to convince them that it was to further economic growth, social stability, and a future for the young people in the community... We had to explain to them that tourism and CBE would expand into multiple sectors, including handicrafts and service, but people wanted things to happen quickly without understanding that these things take time if they are to benefit everyone...The idea is that the community operates as a community project, moving business people to enhance their own business interests and the business interests of the collective organization. At first, the government did not have faith that we would have the ability to do it, but now we have the administrative security to do it (Uc-Medina personal communication, 2005).

Fostering local support for CBE and trying to achieve solidarity toward those goals has been one of the biggest difficulties (Villalobos Azcorra personal communication, 2005). However, “problems with organization are simply part of the process and in this way, we now serve as a model for other communities trying to implement CBE so that they don’t make the same mistakes” (Uc-Medina personal communication, 2005). Strong local organization is crucial for receiving government support. Despite the disagreements that broke out in the middle of a focus group, one participant suggested that they should behave, tell me what I want to hear and answer the questions I ask, as if having been “trained” to appear organized under a banner of solidarity. However the others in the group ignored his suggestion, explaining that my role was not to watch a show, but rather to document the reality. Social capital was at its peak when INAH first approached the community about the expropriation of 71 ha and the community responded by organizing itself in opposition, discussing the issues in general assemblies, and showing solidarity. This aspect led to institutional cooperation, a

necessary prerequisite for the logistical design of *Pueblo Chiclero*, however, there was some resistance to CBE and generating support was a challenge at first (Villalobos Azcorra personal communication, 2005). It was the economic incentives realized upon observing the potential economic impact of tourism at the opening of the ruins to the public that fostered support and the will to participate in CBE. The interviewees acknowledged that there still exists some opposition to the development of tourism in Chacchoben, but there is nothing that anyone can do about it. Overall, the perception of ecotourism is principally that it will generate economic benefits and everyone will eventually wish to participate.

First of all, it is important to mention that not all of the employees of *Pueblo Chiclero* are *ejidatarios*. Some are relatives of *ejidatarios* and others are simply *pobladores* of Chacchoben pueblo. The majority of employees are from Chacchoben, with only few participants from Lázaro Cárdenas. Explanations for why there are less participants from Lázaro Cárdenas varied: they are organized differently; they don't know about chicle because they are from another part of Mexico where chicle is not a traditional economic activity; they do not speak Maya; and there would be too much to teach them. Therefore most of the employees are from Chacchoben. One woman expressed concern that they were losing the Maya language. Maya is not taught in school and people have a tendency to mix it with Spanish. CBE presents the opportunity and social incentive to revitalize cultural heritage. The two young participants I interviewed claimed that they were not involved with CBE out of economic necessity, but for their interest in their culture, their heritage, and their desire to share it with others. For another woman, the decision to join was initially out of economic necessity since her husband

was planning to work in Canada through an exchange program. Concerned about how to take care of her four children, she asked his permission to work in the *Pueblo Chiclero*. She never went to school, and this was her first time working since she got married at age 19. She claimed that she was shy before, but her animated expressions and excitement suggested otherwise. A sense of independence and empowerment was reflected in the tone of her voice as she stated facetiously, “*Cuando uno se casa, es casa que quiere!*”³³

The men that were interviewed were all involved out of economic necessity. One man not involved in *Pueblo Chiclero* said in an interview that he would have been interested in participating, but they “already have their people named.” Two participants expressed their frustration about the time and money they lost waiting for *Pueblo Chiclero* to open and nothing yet. Despite the diverse array of economic activities in Chacchoben, there are still few jobs and the forestry sector is producing low timber yields (observation at general assembly meeting April 8, 2005). Furthermore, CBE could provide jobs for those who work seasonally in community forestry. As Don Miguel Villalobos pointed out, “tourism brings in more money than community forestry.”

Interest in the conservation of natural resources does not seem to be the primary motive for any of the participants interviewed. A lesson in ecology was offered during the training course provided by Maya World from January to May 2004. Some were attentive and interested, while others did not pay attention and chatted amongst themselves in the back of the classroom (Parra Calderon personal communication, 2005). “They were more interested in what to do and where to stand than anything else” (Parra Calderon personal communication, 2005). However, when asked specifically about

³³ A local expression that translates as, “when one marries, it’s the house she wants.”

conservation during is field research, most of the interviewees seemed to understand the concept as something important. Through their experience with community forestry, Chacchoben already has a lot of experience with sustainable use of resources (Chan Rivas personal communication, 2005). On the other hand, not all participants in CBE have been involved in community forestry and therefore, motives for and understandings about conservation varied. One man suggested that conservation of the forest is important because the tree provides oxygen. Two of the interviewees suggested that the forest should be conserved for wildlife and that without it, there would be no hunting. Another suggested that the standing forest represents a refuge for people who wish to escape the city. Another acknowledged that conservation is important for our children and their future. Alternative tourism permits sustainable use in the long term (Villalobos Azcorra personal communication, 2005).

CBE is centrally concerned with the potential to conserve natural resources while generating economic benefits and distribute them equitably. Those who were not able to define ecotourism now will most likely be able to define it in the near future, when *Pueblo Chiclero* finally opens to the public. Ecotourism is typically defined as “responsible travel to natural areas” that strives to be “low impact and small-scale” (Honey 1999a). CBE in Chacchoben will involve a stampede of tourists over nature trails if it receives the projected numbers. The next chapter will discuss the incentives for CBE in Chacchoben at the state and regional levels, and the implications of “mass community-based ecotourism.”

CHAPTER FOUR

The bigger picture: “Mass Community-Based Ecotourism” in Quintana Roo

4.1 Awakening the Sleepy Archaeological Zone

Early in the morning, the handicraft vendors, all local *chacchobebños* renting a space from the *ejido*, arrive at the Chacchoben ruins to open up their stall to the public. When they are finished, they wait, chatting, gossiping, and fanning themselves as the sun scorches the pavement of the parking lot and the mid-day heat fills the air. A car pulls into the parking lot and searches for a shady spot under a tree with little luck. Then two small vans carrying about 15 tourists pull up into the parking lot. Their guide leads them to the ticket counter administered by INAH and they enter the site. Shortly after that, busloads of about forty to fifty tourists arrive, one after another. The tourists are herded into the archaeological site in groups of up to forty and fifty, with little time to browse through the commercial zone for souvenirs. Refreshments are available on the bus and offered by the transport operators, however, some tourists buy water and other refreshments and snacks from the snack bar or ice cream from the ice cream peddler. On some days buses bring as many as 900 tourists from the cruise ships at the pier in Mahahual. The *ejidatarios* know the cruise ship dates, schedules, and which days the biggest boats are in town 75 km away in Mahahual.

In this chapter, incentives at the state level are revealed as the bigger picture of “ecotourism” and sustainable tourism in the state of Quintana Roo is illustrated in more detail to elucidate the linkages between local institutions and their regional context. This chapter analyzes the impact of the tourism policy environment at the state level, strong

local institutions, and cross-scale building of social capital has on local communities. As mentioned in Chapter 3, there are three principle tourism development strategies for Quintana Roo. The “Costa Maya” is promoted as low-impact tourism development along the southern coast just south of the Sian Ka’an Biosphere Reserve. The “Grand Costa Maya” is also promoted as low-impact, sustainable tourism development in the for the entire southern zone, including the “Costa Maya” region, Chetumal, Lake Bacalar, Ribera del Rio, and the archaeological corridor consisting of Chacchoben, Kohunlich, Dzibanché, Kinichná, and Oxtankah. The “El Mar Caribe” or the “Caribe Mexicano” is part of a global campaign promotes Mexico’s comparative advantage—all that is offered by Caribbean destinations and more—archaeological sites and Mayan culture. Chacchoben represents an “ecoarcheocultural” tourism center that hopes to capture a larger number of tourists from the cruise ships at Puerto Costa Maya in Mahahual each time. In this chapter, the definitions of ecotourism and CBE are revisited and the impacts of the state’s sustainable development strategy rhetoric are assessed in the communities of Chacchoben, Mahahual, and Ejido X-Maben. This chapter offers a critique of the state’s tourism development strategy revealing why Chacchoben is considered a “success” story of CBE (SEDETUR 2005a) while other efforts at ecotourism and CBE in Quintana Roo have been plagued by challenges.

4.2 Quintana Roo’s Competitive and Comparative Advantages

To understand the political will and incentives for sustainable tourism at the state level, it is important first to point out a few characteristics that have facilitated the growth of the tourism industry in Mexico, particularly in Quintana Roo. With its white-sand

beaches, turquoise waters, archeological treasures, tropical forests, biological and cultural richness, and geological wonders such as the hidden underground *cenotes*, it is no surprise that the Quintana Roo has grown into one of the most popular tourist destinations in the world. More generally, tourism has been an important industry for Mexico (Paré & Lazos Chavero 2003). The World Travel and Tourism Council reports that in 2004, Mexico's travel industry generated approximately 681,350 jobs, about 2.4% of its total employment and 2.7% of its total Gross Domestic Product (GDP). Since tourism touches all sectors of the economy, there is a large multiplier effect: 10% of jobs and 9.4% of the total GDP. Despite leakage of profits due to foreign investment, tourism is generally regarded as an effective instrument for socio-economic growth, especially throughout the developing world; therefore Mexico has pursued an aggressive tourism strategy in the last few decades. Between 1974 and 1992, Mexico's tourism policy was focused on the promotion of large "megaprojects" funded by the government agency, *Fondo Nacional de Fomento al Turismo* (FONATUR), that has invested large sums of money into projects in Cancun, Zihuatanejo-Ixtapa, Loreto, Cabo San Lucas, and Bahias de Huatulco, which now account for 40 percent of Mexico's foreign tourism revenue (Cornejo 2004, Healy 1997). The *Secretaria de Turismo* (SECTUR) reports that Quintana Roo received 3.9 million international tourists and approximately just as many domestic tourists in the year 2002, almost eight times the state's population size of only 874,963 in 2003 (Cornejo 2004).

Mexico's proximity to the United States gives the Yucatan Peninsula a comparative advantage for tourism development over other developing countries. The kind of tourism that has been promoted in the Yucatan and in Quintana Roo has typically

catered to the mass tourism market and responded to mass tourism demands. Ecotourism has emerged in the last decade or so as a complementary activity to tourists staying in the big resorts (or disembarking the cruise ships) where the majority of earnings stay within the urban areas or with the big investors (Barrett 2004, Daltaubuit et al 2000), which is certainly the case of the archaeological site at Chacchoben. Finally, neither tourism nor ecotourism in the Yucatan has been promoted evenly. X-Maben is struggling to survive against the odds of competitive marketing while locales like Chacchoben have been reaping the benefits of government attention and paternalism and the local community of Mahahual has been marginalized by its own lack of local community organization.

4.3 Archaeological and Cultural Tourism in Chacchoben

Expanding upon Honey's definition of ecotourism,³⁴ archaeological tourism is tourism to protected areas, that educates the traveler, provides funds for restoration and conservation of cultural heritage and the surrounding nature areas. However, with the exception of Daltaubuit et al (2000), most scholars of ecotourism rarely consider archaeological tourism a type of ecotourism and furthermore, and it should not be "greenwashed" as such since it rarely strives to be low-impact or small-scale, and rarely does it generate benefits to local economies or community development. Significant investments are often made in infrastructural development such as airports and highways, but rarely match the critical areas of health, education, potable water service, sewerage,

³⁴ Ecotourism is travel to fragile, pristine, and usually protected areas that strives to be low impact and (usually) small scale that helps educate the traveler, provides funds for conservation, and directly benefits economic development and the political empowerment of local communities.

and garbage collection, resulting in an uneven development pattern between rural communities (Daltabuit et al 2000).

With the exception of Chacchoben, local communities are rarely empowered by the opening of archaeological sites nor do they receive many (if any) direct benefits from tourists. In Mexican archaeological sites, entrance fees are collected by INAH and profits sometimes trickle down only if local entrepreneurs are able to take advantage of selling artisans or snacks. Official commercial zones are usually managed by outside contractors, as in the case of Tulum's gift shop and locals often lack the education needed to become guides certified by the federal government. As mentioned in Chapter 3, in Chacchoben, the *ejido* has full rights and proprietorship over 30 ha of the archaeological site designated as the "commercial zone" under the *Convenio de cooperación* (cooperation agreement). This first-ever of its kind agreement is seen as a partial or potential path to economic development in rural communities, even though it is far from being the best solution since not all community members have benefited; only those with more power in the community have been able to benefit (Velázquez personal communication, 2005).

Concerning benefits generated directly by archaeological tourism in Chacchoben, only a small margin of profits are received by the *ejido*. Aviomar offers packages to the cruise ship tourists for about 60 dollars to the ruins at Chacchoben. The costs cover transportation, beverages, entrance fees, and guide. Under the agreement between Chacchoben and Aviomar, the arrangement is that two dollars per tourist are distributed into a fund for the *ejido* (Fondo Chacchoben). Aviomar pays out approximately three dollars per tourist to INAH for admission into the archaeological site. The remaining 55

dollars of the 60 dollars charged to each tourist by Aviomar is disbursed to the contracted syndicate of guides from Chetumal, the transportation operators, and to Isaac Hamui, the owner of the “Costa Maya” pier in Mahahual where Aviomar has an office.

Ecotourism is supposed to be low-impact and small scale and the goals of ecotourism are supposed to generate benefits to and overall improve the overall being of local people. Based on the findings of Daltabuit et al. (2000), Bascope (2004), and this field research in Chacchoben, archaeological tourism in Mexico is not ecotourism since it is not low-impact or small scale and the bulk of profits from tourism are not reinvested or disbursed back into the community. However, *Pueblo Chiclero* with its interpretive nature trail alongside the archaeological site could be CBE, since it involves the observation of human-environment relations through traditional livelihoods and because it is initiated and owned by the community. Since humans have interacted with their environment throughout history, ecotourism in Chacchoben is characterized by its unique offering of “traditional forest livelihoods tourism” that depicts the extraction of non-timber forest products and reveals human-environment relations and institutions of the late 19th and early 20th century Yucatan Peninsula.

4.4 Chacchoben: A Success Story of Community-Based Ecotourism?

The case of Chacchoben has been referred to as a “success” (SEDETUR 2005a). Based on the definition that CBE is an enterprise owned and managed by the community (Bray et al 2005, Cornejo 2004, Sproule & Suhandi 1998) with initiation from the community (Mowforth & Munt 2003), the case of CBE in Chacchoben indeed represents a success story. However, it can easily be argued that to date, CBE is not successful in

Chacchoben because of the pending agreements, structural barriers, and overall delay in opening to the public. What makes Chacchoben different from CBE in other locales is that there is an exceptional degree of external support rarely observed in other cases. The bulk of the investment for *Pueblo Chiclero* was generated from the profits collected by Aviomar, and its emergence results from complex institutional arrangements and agreements between the local community, the government, and Aviomar, demonstrating how CBE starts from the ground up, but deals with cross-scale relations (Berkes 2004). On one hand, the project of *Pueblo Chiclero* has set aside 1,000 ha for forest protection to be exploited for tourism. It seeks to educate the traveler; on the other hand, nothing is currently in place to provide funds for conservation or environmental education for the local community. The environmental education component of CBE in Chacchoben up to this point has been limited to the general training in tourism provided by the Maya World Travel Agency that was contracted by SEDETUR from January to May in 2003. It is too soon to assess economic and environmental impacts of CBE in Chacchoben since *Pueblo Chiclero* has not yet been open to the public. However, the funds generated by *Pueblo Chiclero* will be paid out to the 80 employees, and the rest will be divided up in the following way: a portion to the *ejitatorios*, a portion invested into infrastructure, and the final portion invested in a contingency fund (Villalobos Azcorra personal communication, 2005).

While *Pueblo Chiclero* may have started off as ecotourism, it seems to be rapidly evolving into a theme park that caters to the mass tourism market without a primary emphasis on conservation. What distinguishes Chacchoben from other theme parks in Mexico is that it is communally owned and operated. *Pueblo Chiclero* has the capacity

for groups of fifteen to twenty tourists at a time. With a goal of 25,000 visitors per year to justify the mobilization of 80 employees (Villalobos Azcorra personal communication, 2005), three to four groups of twenty will trample over the nature trails daily, indicating that tourist regulation must be closely monitored in order to meet the goals of conservation. Since Ejido Chacchoben represents a CPR form of land tenure, institutions are in place and could be adapted for monitoring the development and regulating the tourism industry. Maintaining a high level of social capital will be necessary to ensure that the institutions are effective; however, as pointed out in Chapter 3, levels of local social capital in Chacchoben have fluctuated according to circumstances.

Generally, the biggest challenges in CBE are marketing for a sustainable number of tourists, for sustainable economic growth, and generating local commitment and support. The people of Chacchoben have continuously asserted their role as a stakeholder and so far, their concerns, including marketing, have been addressed, thereby making it a “successful case of CBE.” Local commitment and support is encouraged by the potential economic benefits since *Pueblo Chiclero* is owned by the *ejido*. In contrast, the case of X-Maben faces the challenge of generating local support since the community ecotourism enterprise (CEE) is not a group of *ejidatarios* and their use of a common pool resource for tourism in the *ejido* has elevated the existing community tensions that can be attributed to their conversion into a community enterprise. Furthermore, Ejido X-Maben is trying to market the same ideas as Chacchoben, cultural-eco-adventure-tourism, but it is faced with many challenges because of inexperience with marketing, low local support, and inconsistent external support.

4.5 X-Maben Revisited

From the sleepy town of Felipe Carrillo Puerto, one can catch a *combi*³⁵ to the village of Señor in Ejido X-Maben where the CBE enterprise *X-yaat* has its office. For those who do not speak Spanish, the *combi* station may be difficult to find, despite the small size of Carrillo Puerto. It is a block of unmarked vans all lined up, and unless the tourist is able to communicate in Spanish or Maya, he/she risks the possibility of traveling to the wrong village. However, the local travel agency can arrange a tour to the lagoon in X-Maben and the Ecotourism Group welcomes anyone who visits, no matter how they arrive. This genre of tourism offered by the Ecotourism Group in X-Maben is the kind of tourism that attracts the more adventurous, independent traveler seeking a more authentic experience than the community theme park spectacle offered by Chacchoben. The Ecotourism Group prides itself upon its cultural heritage, Mayan tradition, and ecological wealth. They recognize the importance of preserving their culture and biodiversity primarily for the future of the *ejido*, and secondly for the development of tourism. However, it is this prioritized interest in conservation for the Ecotourism Group over economic development for the entire *ejido* that has exacerbated the conflict and divided opinions over CBE in X-Maben.

As mentioned in Chapter 1, it is important to note that only one of the eleven members of *X-yaat* Ecotourism Group is an *ejidatario* of X-Maben. Most of the members of the Ecotourism Group have a deep interest and a sense of commitment to conservation. However, they are young, reflecting the findings by Juarez (2002) that Mayan perceptions vary among different generations in Tulum. Most of the elders of the X-

³⁵ The local transportation service to villages and *ejidos* surrounding the town of Felipe Carrillo Puerto.

Maben do not understand the importance of cleaning up garbage around the lagoon or the concept of conservation of natural areas; however those that do understand are eager to get involved with the ecotourism enterprise by offering their services or participating in the cultural package (Cante personal communication, 2005).

For the Ecotourism Group, ecotourism is about the conservation of natural resources, and while community participation and stewardship of natural resources is an important factor, it was not part of the original definition offered by the president of the group. Since economic development and community participation are secondary concerns for the Ecotourism Group, they face the challenge of low tourist flow and low community support. As pointed out by Cornejo (2004), what is needed most is a marketing plan. *X-yaat* has received external support from a large community of national and international NGOs, multilateral organization stakeholders, and to a lesser degree from the government; however, their commitment has not been consistent and therefore the Ecotourism Group has to rely on this own tourism market to sustain itself as an enterprise. With the grant money received by United Nations Development program, the ecotourism enterprise purchased bicycles, built the tourism office, and purchased computers, but none of them know how to use them (Cante personal communication, 2005).

It is hoped that marketing will increase the tourist flow from 10 tourists per month to 150 tourists per month, approximately 5 tourists a day which is quite a contrast from *Pueblo Chiclero's* expected 70 per day. The main concern of the Ecotourism Group is to improve the level of life without changing the quality of life, "maintaining the culture and tradition without modernizing so that the impacts of tourism are very low and that the

community is not displaced” (Cante personal communication, 2005).³⁶ Since most of the members of the ecotourism group are young, many of them are not as dedicated as Marcos Cante, the president. If they have the opportunity to leave Señor for work or school, they will not hesitate to go. Furthermore, since the CBE enterprise in Señor is not owned by the *ejido*, as in the case of Chacchoben, fostering local support for conservation and ecotourism could remain a challenge. The original idea of the Ecotourism Group was to offer excursions to the lake, however since many of the community members felt excluded by the perceived benefits, a cultural component with traditional Mayan cooking, handicraft, home gardens, traditional medicine, honey production, and storytelling was later incorporated into the package, allowing a greater degree of local participation (Cornejo 2004).

The people of X-Maben are more open to the idea of conservation and ecotourism than they used to be, but a fear of change still persists, especially among the elders of the community (Cante personal communication, 2005). At the state level, until the kind of nature and cultural tourism offered in X-Maben becomes a major attraction for the current mass tourism market of the Cancun-Tulum corridor, the government is not likely to pay any attention to the CBE enterprise in X-Maben the way it has in Chacchoben. Clearly, Chacchoben’s tourism was of particular interest to the state government because of its proximity to the cruise ship pier in Mahahual. “The port needed an archaeological site to distinguish it from other Caribbean destinations. We offer all that the others offer, reef, snorkeling, diving, and on top of that, we offer Mayan culture and archaeological sites” (Bernadino personal communication, 2005). The next section will examine the

³⁶ Author’s translation from Spanish.

impact of tourism in Mahahual, in which the “Costa Maya” pier has become the gateway to the ecoarchaeocultural tourism in the *zona sur* of Quintana Roo.

4.6 The Marginalization of Mahahual

Seventy-five kilometers from Chacchoben is the small, fishing village of Majahual on the southern Caribbean coast of the Yucatan Peninsula. Mahahual is perhaps a replica of Playa del Carmen in the Riviera Maya about 20 years ago when Cancun was just beginning to spin out into uncontrolled mass tourism development. There are few services and many of the homes are concentrated in an area of 2 blocks by 7 or 8 blocks. Behind the two roads running parallel to the coast are mangroves and vast fields of low-lying wetlands, most of which is a state reserve area. The Costa Maya region along the coast covers about 117,000ha of distinct ecological zones representing about 313 species of plants, 232 species of animals, 173 species of fish, and 74 species of coral (Rosado-May & Kissman 1998). The Mesoamerican Barrier Reef system off shore is the largest in the Western Hemisphere.

Mahahual has become the recipient of a growing fleet of cruise ships as part of a recent government tourism development strategy, the “Grand Costa Maya” project designed to offer a lower-impact, a more ecologically and socially friendly alternative to its megaproject counterpart along the northern coast, the “Riviera Maya” or Cancun-Tulum corridor. The regional development plan initiated in 1998 by the state government of Quintana Roo was designed to be some form of ecotourism, protecting and promoting the biologically rich coastal habitats that include mangroves, coral reefs, and a lagoon while generating profits for the local community and respecting community traditions

(Barrett 2004). As mentioned in Chapter 2, the *Ordenamiento Ecológico Territorial* (OET) was created by the *Secretaría de Desarrollo Urbano y Ecología* (SEDUE) as an instrument to integrate both social and ecological processes in land zoning within a given region. The first OET implemented in Cancun was doomed to failure because it was the first of its kind. The *Programa del Ordenamiento Ecológico Territorial* (POET) for the Costa Maya was conducted under the supervision of SEMARNAP through the National Ecology Institute (INE) and Fisheries and Natural Resources (SIMAP) (Rosado-May & Kissman 1998). There is an OET for the Lake Bacalar region, which encompasses the area of Chacchoben, however it is in the process of implementation.

According to the urban design guidelines for Mahahual, “ecotourism should not conform to large institutions or installations, but small developments integrated with nature to prevent the overuse of natural resources,” however, in Mahahual, as witnessed through Puerto Costa Maya, the central government, major leading institutions, and multi-national companies are controlling the tourism industry (Barrett 2004). The biggest threat to biodiversity in Mahahual is political and private interests, despite the regulatory instrument (POET) in which the rules are stated, but are constantly broken by investors from the north (Iglesias Barron personal communication, 2005). For Barrett, Mahahual seems to be on the tourism development trajectory that Cancun followed. The ecotourism ideals of community empowerment and local management of the reef are not being met since many tourists visit the ruins at Chacchoben or take a “jungle tour,” which are both run by Aviomar or other travel agencies inside the cruise ship plaza that has restricted access to the public. Most of the pier and plaza workers are from the northern zone of the state since local residents from Mahahual were not prepared to take part in

tourism for their lack of essential skills in language and service to foreign tourists, landing them the lower sector jobs (Barrett 2004).

Ideals like sustainable development are very influential in the planning methodologies of developing countries, however these countries do not have the support structure and trained professionals, emphasizing the need for bottom up approaches to zoning to avoid another Cancun disaster (Rosado-May & Kissman 1998). There are institutions in Mahahual working for conservation, community development, and zoning for tourism development. To date they have made modest progress in community outreach and involvement. Amigos de Sian Ka'an, a local Cancun-based NGO has been working in Quintana Roo for many years conducting projects in environmental education and waste management for the communities of Mahahual and X-Calak, about an hour south. Global Vision International (GVI) is a British based organization with stations all over the world, to which volunteers pay for 5 to 10 week expeditions involving reef monitoring, teaching English, and beach cleanup in the case of Mahahual. NGOs are providing English classes to locals, enrolling about 17-20 students, mostly from the local cooperative (Iglesias Barron personal communication, 2005). Some of the people I interviewed commented that Isaac Hamui, the owner of the pier is developing the entire southern zone of the state and purchasing and controlling local businesses, posing a great threat of competition to local business owners with fewer resources and less experience with foreign tourists. There apparently is a local tourism cooperative, but it is not well-known by everyone in Mahahual.

As Hoffman (2005) points out in the case of X-Calak, about an hour south of Mahahual on the coast, the marginalization of the community can be attributed to a

combination of the imposition of tourism and the community's own actions and inactions. Hoffman describes the complaints about the process of legalizing any efforts in community-based tourism operations as being plagued by bureaucratic barriers of "*papaleo*" or "paper-chasing" that one has to conduct in order to obtain permits. Because of the hassles, many locals adopted a "wait and see" attitude about CBE in X-Calak causing a disjuncture about the roles to be played by the government and the local tourism cooperative. *Xcalakeños* with more patience and economic resources have been able to benefit from tourism creating a division between the haves and have-nots within town impeding the formation of a united front against the encroachments of outsiders (Hoffman 2005).

Weak community organization in Mahahual can be attributed to the fact that it is a highly transient community, in which "locals" are considered locals if they have lived there for five or more years. The community became established in 1982 when the government built the coastal highway and granted permission to five permanent and ten floating residents to build a fishing village (Barrett 2004). In the national census of the year 2000, it was reported that the total population of Mahahual was 149 individuals occupying 47 houses (INEGI 2000). The year 2000 was the first year that INEGI began collecting data on Mahahual. In 2005, the population is anywhere between 300 to 1000 (Iglesias Barron personal communication, 2005) since many come into town to work during the few days the cruise ship is in port, but do not live in Mahahual permanently. In 2003, out of the 48 households, 54% had moved to Mahahual from other areas of the state within the past five years (Barrett 2004). These transitory communities present a challenge for strong local organization for the management of natural resources;

however, Barrett reports that almost all community members surveyed stated that they were interested in the conservation of their natural resources for further development of tourism or despite tourism. Some of the people I interviewed claimed they migrated to Mahahual from Cancun or Playa del Carmen within the last five years to seek out a more tranquil quality of life because they were unhappy with tourism development in the Riviera Maya. Additional housing is currently being developed on the edge of the town to support the demand by the new migrants coming to work within the port barricades. The quality of life in Mahahual has improved somewhat since the completion of the pier in the year 2000; however, big plans for development of the southern zone representing the interests of a few big investors are ongoing (Iglesias Barron personal communication, 2005).

4.7 Linkages

If the state tourism development strategy says that it wants to promote sustainable tourism and even ecotourism, then why has it vested so much interest in places like Chacchoben? Chacchoben fits nicely into the five point adventure spots of the “Grand Costa Maya” and represents the “ecoarcho tourism center” of the southern zone of the state. It has a comparative advantage over X-Maben because of its proximity to the pier in Mahahual and a competitive advantage because of its strong local institutions, its ability to work collectively, and the immense amount of attention it has received from the government. The archaeological site of Chacchoben was strategically opened for the purpose of transporting tourists from the cruise ships; therefore, it will be challenging to implement tourism regulations in Chacchoben, such as those required of ecotourism

certification programs (Honey 2002). Through the anticipated contract with Aviomar, Chacchoben hopes to receive up to 25,000 tourists a year in *Pueblo Chiclero*, about half of the number that visited the Chacchoben ruins in 2003 and 2004, and most would be from the cruise ships (see table 4.1).

Table 4.1: Visits to Chacchoben by Type of Tourist

Type of Tourist	2002	2003	2004
National	-----	13,352	-----
Foreign	-----	36,489	-----
Total	10,784	49,841	50,336

Source: INEGI (2003) and State Government of Quintana Roo

It is the ecotourism group in Señor who seemingly has a deeper genuine interest and understanding of conservation and tourist regulation but they receive little support from the local, state, and federal governing bodies. Mahahual seems to be on a modified version of the development trajectory that Cancun followed because of the nature of its demographics, the lack of local organization, and its desirable profile for big investors. While the state rhetoric claims “lower impact” with an emphasis on ecotourism, archaeological tourism, and adventure tourism, the plans for the development of resorts and golf courses in the southern zone of the state could potentially smother biodiversity and stomp out any effort at preserving it through ecotourism.

CHAPTER 5

Conclusions and Recommendations

Ecotourism is responsible travel to natural areas that conserves the environment and improves the overall well-being of local people (Honey 1999a). CBE is an ecotourism enterprise owned and managed by the community while initiates and controls stay within the community (Cornejo 2004, Mowforth & Munt 2003, Sproule & Suhandi 1998). While definitions of ecotourism and CBE often vary, there is some consensus about the objectives, outcomes, and conditions necessary for implementation: to promote conservation and sustainable development through participatory approaches in areas of ecological interest. Until recent years, conservation and development have been seen as dichotomous. Sustainable development balances ecological, social, economic concerns, addressing environmental problems through market environmentalism and ecological modernization (Adams 2001). Ecotourism is both a form of market environmentalism, since it has become a powerful marketing tool especially for developing countries, and it can be a form of ecological modernization if it demands ecologically sound development, alternative energy use, and low impact during the construction of facilities, such as in the case of *Pueblo Chicleiro* in Chacchoben. Ecotourism is often promoted as an alternative to mass tourism and an alternative development strategy for marginalized peasant and indigenous communities. However, it remains a concept that lacks clear definitional boundaries.

Strict definitions of ecotourism imply that it is a tourism activity that involves the observation of nature. For those who tend to follow the more strict definitions, the case

of *Pueblo Chiclero* may not qualify as ecotourism or CBE because it depicts the human-environment relations and economic activities involving forest exploitation in the late 19th and early 20th century Yucatan Peninsula. In this sense, CBE in Chacchoben could be categorized as a new tourism paradigm “traditional forest livelihoods tourism,” or as ecotourism reflecting the conceptual shift in the field of ecology to more integrated approaches that link social and natural systems (Agrawal & Gibson 1999, Berkes & Folke 1998) and how that shift should be reflected in ecotourism (Fennell 2002). “Traditional forest livelihoods ecotourism” combines ecotourism and cultural tourism, based on the attraction of traditional human activities upon the environment. Like ecotourism, this new breed of tourism provides opportunities to educate both the traveler and local communities about their culture and environment. It could be practiced in buffer zones of protected areas or in other rural areas that are not formally protected such as the communally owned and managed landscapes that link protected areas in southeast Mexico.

CBE is more often than not described as being plagued by challenges that hinder its development or emergence (Belsky 2000, Bray et al 2005, Cornejo 2004, Cousins & Kepe 2004, Horwich & Lyon 1998). The challenges include building of local support and participation (Brandon 1993), or local social capital (Dolsak & Ostrom 2003), inter-community conflict (Bray et al 2005, Cornejo 2004), a lack of external support (Horwich & Lyon 1998), or the imposition of external support that undermines local interests and community needs (Belsky 2000, Cousins & Kepe 2004). The case of Chacchoben seems to represent a very different kind of CBE that has not been previously described in the literature, not only for its central focus on human-environment interactions in a

community-based theme park extravaganza depicting Mayan history, culture, and environment, but also because of its “mass-community based” denomination that affords Chacchoben the potential to have high economic impacts and large-scale management of tourism. There have been no other cases of CBE in the literature that have made such an impact.

Combinations of both local processes and external factors have allowed Chacchoben the potential to grow into a “mass community-based ecotourism” theme park. At the local level, Chacchoben is distinguished by its situation of secure land tenure and local CPR governance regime that has generated high levels of social capital at a time when INAH, the federal government agency, attempted to expropriate “national patrimony” as the federal law dictates. Feeling a threat to their tenure security guaranteed to them by the constitution, the *ejidatarios* of Chacchoben became unified to assert their rights to their territory and latch onto the mass tourism market for their own benefit, rather than be marginalized by mass tourism development. At the state government level, CBE in Chacchoben was perfectly in line with the State’s tourism development strategy. Therefore, Chacchoben’s *Pueblo Chiclero* has been able to gain enough popularity and support among the external stakeholders who necessarily have the power to ensure its success through capital investment and investments in financial and human capital, and the ability to link it to the mass tourism market to ensure a constant stream of visitors. Without the hope of a high volume of visitors, CBE in Chacchoben would not have been planned the way it has. Of course, *Pueblo Chiclero* is not yet open to the public because of the “little details” that need to be finalized, such as the pending agreement between the *ejido* and Aviomar. This underscores the importance of

reciprocal trust among stakeholders. In other words, in the case of Chacchoben, private investors may be reluctant to work with the local community because of preconceived notions about the way they are organized for business. Learning to function as an enterprise is one of the biggest “little details” that will allow Chacchoben to jump over the hurdles of bureaucracy.

Most studies on land use change often focus on the institutional drivers that underpin the proximate causes of environmental degradation and few studies emphasize the institutional factors that ‘drive’ the maintenance of forest cover and result in sustainable outcomes (Bray et al 2004). This thesis examines the steps in the process that will soon lead to “mass community-based ecotourism” and “traditional forest livelihoods ecotourism” in Chacchoben and speculates about whether or not this new kind of tourism could lead to conservation and sustainable development outcomes. Understanding the role that reciprocal investments in social capital and institutional interactions with natural capital at multiple scales have played in the development of CBE in Chacchoben builds upon the literature on community-based conservation, common property theory, and social capital theory toward a theoretical framework for the study of CBE in a common property regime. Five conditions, including strong local institutional organization, partnerships and institutional interaction involving multiple stakeholders, a supportive policy environment, economic incentives, and social incentives identified in the literature have been explored and analyzed in this case study of Chacchoben since they have been hypothesized to provide a preferable context for the successful emergence of CBE. These conditions are summarized below.

A. *Institutions*. Chacchoben represents a common property regime in which the institutions are defined by a combination of governance procedures established in Agrarian law, collective action, local rules of use about natural resources, and secure property rights. As pointed out by Drumm (1998) CBE arises when there is discontent with the tourism industry, which is certainly true in the case of Chacchoben. With strong local institutions in place that define secure property rights, *Chacchobeños* argued on those very grounds to protect their *ejidal* territory from expropriation by a government agency for tourism development. The high levels of local social capital at the time enhanced the ability of *ejidatarios* to work collectively to assert their rights to land constitutionally guaranteed to them under the Agrarian laws and ensure their participation in tourism that was initially introduced from the outside. Since property rights are secure in Chacchoben and the community has the experience of collectively operating a community enterprise, such as the CFE, it has not been easy for external interests to penetrate the local level.

Despite the fact that Chacchoben is integrally connected to the mass tourism market, therefore having the potential to generate employment for a large number of community members rather than a small elite group, some degree of mistrust among community members persists. It appears that the level of social capital has declined since the days when INAH made its claims to national patrimony on *ejidal* territory. Chapter 2 points out that in some cases, positions in the *ejido* administration often meant access to a certain amount of wealth and power (Gabbert 2004). Some observers suspect that the real benefits from CBE in Chacchoben have only benefited the leaders of the community as usual, and not the entire population (Velázquez personal communication, 2005). Local

governance in *ejidos* remains highly centralized (Armijo-Canto personal communication, 2005) which poses a problem for the development of community enterprises. Lack of training can lead to poor money management, creating suspicion even when corruption has not occurred (Antinori & Bray 2004). Nevertheless, in Chacchoben, community members involved with CBE continue to be overall optimistic about CBE despite the occasional feelings of disappointment that *Pueblo Chiclero* has still not opened to the public.

Chacchoben and Mahahual are linked together by one significant event—the construction of the “Puerto Costa Maya” in 2000 and the sudden influx of tourists in massive numbers, however the two communities have resulted in very different outcomes. Community members in Chacchoben mobilized to force government support for their own CBE enterprise that would function alongside and in collaboration with the mass tourism directed at the archeological site. In contrast, Mahahual seems to be on a modified version of the development trajectory that Cancun has followed for the past 25 years (Barrett 2004) where external interests have dominated and undermined community preferences and needs. As discussed in chapter 2, Cancun’s mass tourism development has yielded a slew of environmental and social equality problems, while Chacchoben is on the path to something unique in the tourism industry, local community control and community-based approaches to conservation and development. Chapter 4 demonstrates that local organization in Mahahual is weak because it is a transient community, whereas

local organization in Chacchoben is strong because of its longstanding community institutions and relatively permanent core population.³⁷

B. Partnerships and institutional interaction involving multiple stakeholders and incentives. Both the state government of Quintana Roo and the local community have been interested in the development of tourism and CBE in Chacchoben, however, their interests have not always been in line with each other. Institutions help structure and define interactions around resource use when actors do not share common goals (Agrawal & Gibson 1999). Case studies of CBE should always consider the historical context to explain the emergence of CBE and understand the nature of local collective organization, the role of social capital and institutional interactions involving multiple stakeholders and incentives. As noted in the case of community-forestry enterprises, CBE enterprises are seldom entirely “self-organized,” but depend heavily on state and civil society support (Antinori & Bray 2004, Bray & Merino-Perez 2002, Ostrom et al 1999). As illustrated in Chapter 2, certain periods in history, such as the rise of the chicle industry and Agrarian Reform have played crucial roles in the origins of social organization in modern *ejidos*. In addition, community forestry under the *Plan Piloto Forestal* has demonstrated that institutions around community forestry, in interaction with federal government policies and regulations have shown the capacity to make adjustments in a transition to more sustainable forest management that has conserved forests to a greater degree than private industries and parastatals (Bray 1995, Bray et al 2004). While representing top-down initiated devolution of authority to local levels, the events in the recent history of the

³⁷ By “core” population I am referring to the high rates of emigration in rural Mexico. In Chacchoben, as many as 50% of the population has emigrated, but those who remain, the “core” population has been relatively stable.

Yucatan Peninsula, such as Agrarian reform and the *Plan Piloto Forestal* epitomize the interaction between local institutions and external forces, organizations, politics, and markets, which has provided the base for present-day CPR institutional organization in Ejido Chacchoben.

C. Supportive Policy Environment. Considerable evidence suggests that with the appropriate policy and institutional support, CPR institutions are more likely to achieve environmental and equity goals than other forms of tenure because of collective action (Ostrom 1990, Richards 1997, Vargas 1999). As for the policy environment, sustainable tourism is promoted actively in Quintana Roo, but as demonstrated in Chapter 4, the rhetoric seems to disguise “big business as usual.” The interests of outsiders continue to undermine the needs and preferences of local communities, especially those that are less organized, such as Mahahual. Chacchoben has been fortunate because of the state government’s paternalistic interest in the archaeological site and cultural tourism in Chacchoben. The state government’s rhetoric on sustainable tourism has been in line with local interest in CBE in the community of Chacchoben because the ability of SEDETUR to offer a “Caribbean destination that is different from all other Caribbean destinations” has allowed the government agency to be influenced by Chacchoben’s demands, thus forcing government support for CBE in their community.

D. Social and Economic Incentives. There are both social and economic incentives at local and state levels for CBE in Quintana Roo. Locals are interested in diversified economic development, tourism, and preserving the forest because that’s what attracts more tourists. The state government is interested in diversifying its offerings to be more competitive. The federal government (represented by INAH) is interested in

protecting national patrimony and if the locals want to be involved, they support them.

While the policy environment for sustainable tourism in the Yucatan has been favorable because of the state-level incentives to diversify the tourism market, the biggest challenge to achieving conservation through sustainable tourism is political will at both local and state levels. At the state level, a large degree of political will is needed for sustainable tourism to be evenly distributed across the region, not in pockets of support for one locale over another.

At the local level, community leaders will need social and economic incentives to strengthen local institutions to ensure that tourism is adequately regulated and not socially and ecologically destructive. The fact that CBE in Chacchoben is bound to become a “mass community-based ecotourism” theme park demonstrates that the state government has many incentives that foster their support for local community efforts. “Mass community-based ecotourism” in Chacchoben poses the threat of “greenwashing” the term ecotourism, which will require that tourism development is closely monitored and regulations be put in place. However, local-level monitoring and tourism regulation is possible in Chacchoben, given its history of institutional organization for the CFE. If CBE in Chacchoben is to follow the path of community forestry in which communities have shown a “heightened sense of conservation for its own sake,” local control and management CBE enterprises can foster an increasing amount of environmental awareness (Bray 1995) and result in conservation and sustainable development outcomes.

It is too soon to evaluate sustainability and measure the social, ecological, and economic impacts of tourism in Chacchoben, X-Maben, and in Mahahual. CBE in Chacchoben has only begun and it seems to be heading in a more sustainable direction,

despite its potential to become like other mass tourism theme parks linked to cruise ships. One thousand hectares have already been set aside for conservation and exhibition in the CBE project. Furthermore, CBE in Chacchoben has incorporated a great deal of ecodevelopment, including low impact construction of the facilities using all local materials, ecological bathrooms, and solar electricity. However, these areas of “ecodevelopment” are presently confined to areas within the boundaries of *Pueblo Chiclero* and in order to ensure outcomes of sustainable development, “ecodevelopment” should be extended beyond its boundaries. A great deal of investment in infrastructure, most importantly, a system of recollection of garbage, is still sorely needed in order to support tourism at such a large scale.

In recent years Mexico’s ever-expanding tourism industry has begun to promote the Yucatan Peninsula’s natural capital, the *cenotes*, the crystal-clear water and white sand beaches, the coral reefs, the forests that support about 1,500 varieties of plant species including rare orchids, and 537 species of birds, about 50% of the total species in Mexico. Up until this point, ecotourism has been offered as a complement to mass tourism in beach resorts and archaeological sites. The PPF has designated 500,000 ha of permanent forest area to support the wide varieties of flora and fauna which are now becoming major attractions for the ecotourist. The community of Chacchoben has opportunistically latched on to the mass tourism market pioneering a new form of CBE, “traditional forest livelihoods tourism.” However, as a “mass community-based” ecotourism theme park, much more research is needed to determine whether it is too ambitious a project for a small rural community of about 1,200 residents. First, despite the overwhelming amount of state-level support, the barriers of bureaucracy still have to

be broken down with the first step of signing of the agreement between Aviomar and the *ejido*. If Ejido Chacchoben is to gain the trust and commitment of private agencies, investors, and stakeholders, it must adapt its local institutions to a more enterprise fashion. Even though Chacchoben has years of experience managing a CFE, they still face problems of mismanagement, inexperience with managing money, and high expectations of immediate returns for *ejidatarios*, which limits the potential for reinvestment and sustainable growth and fosters a culture of mistrust. External actors continue to see *ejidatarios* as lazy and disorganized. However, local ambitions remain high. *Pueblo Chiclero* expects to receive almost 70 tourists a day, which will generate employment for 80 local community members. It is projected to expand further to create locally owned and managed hospitality services to be owned and operated by individual entrepreneurs from the community, and to diversify its offerings to include horseback riding, nature walks, canoeing, and kayaking.

Finally, as pointed out by Vazquez Castillo (2004), the privatization laws of 1992 can have a serious impact on the common property institutions of the *ejidos*. *Ejido* land can be parceled and sold under the reforms to Article 27 of the Mexican Constitution, which implies a redefinition of local land tenure regimes, the labor attached to them, its power hierarchies, and its internal organization including gender relations (Vazquez Castillo 2004). If CBE is to be successful in Chacchoben in the face of these structural transitions, a certain degree of political will is necessary at both the local and regional levels and investments in social capital should remain consistent. In this way, institutions can become stronger and provide the appropriate guidelines for conservation and

sustainable development for the local communities who assert their rights to their own resources and biological diversity.

The case of Chacchoben represents the first ever agreement of its kind between the government and an *ejido*, and possibility not the last. It is important to monitor the progress of Chacchoben over the next several years, because it can serve as model for the possibility for other local communities gaining access to mass tourism revenues without seriously compromising nature or their own cultural values. Chacchoben epitomizes the changing policy environment in the Yucatan Peninsula. Further study on CBE and CBC in Quintana Roo should be directed at documenting the longitudinal changes, transitions, how communities adapt to form market-oriented enterprises, and the social and ecological impacts imposed by tourism in local communities as long as Mexico's tourism industry continues to expand, particularly in the Yucatan Peninsula. "Traditional forest livelihoods ecotourism" satisfies a new tourism market niche and could have the potential to promote culture and conservation of nature, if managed properly within the framework of real working guidelines (a functional POET) and an emphasis on nature. Within the next ten years, the development strategies at both local and state levels will reveal their promises and it will be possible to examine the impacts of whether or not "mass community-based ecotourism" or "traditional forest livelihoods ecotourism" is meeting the goals of conservation and sustainable development.

List of Acronyms and their translations

CBC	Community-based conservation
CBE	Community-based ecotourism
CBNRM	Community-Based Natural Resource Management
CBS	Community Baboon Sanctuary
CEE	Community ecotourism enterprise
CFE	Community forestry enterprise
CPR	Common property regime
FONATUR	<i>Fondo Nacional de Fomento al Turismo</i> (National fund for tourism growth)
GPMR	Gales Point Manatee Reserve
INAH	<i>Instituto Nacional de Antropología e Historia</i> (National Institute of Anthropology and History)
INEGI	<i>Instituto Nacional Estadística Geografía e Informática</i> (National Institute of Statistics, Geography and Information)
PPF	<i>Plan Piloto Forestal</i> (Forestry Pilot Plan)
PROCAMPO	<i>Programa Para el Campo</i> (Rural Areas Program)
SAGARPA	<i>Secretaría de Agricultura, Ganadería, Pesca y Alimentación</i> (Secretariat of Agriculture, Livestock, Fish, and Nutrition)
SECTUR	<i>Secretaría de Turismo de México</i> (Tourism Secretariat of Mexico)
SEDARI	<i>Secretaría de Desarrollo Agropecuario Rural e Indígena</i> (Secretariat for Rural and Indigenous Development of Agriculture and Animal Husbandry)
SEDETUR	<i>Secretaría de Turismo del Estado de Quintana Roo</i> (State-level Tourism Secretariat for Quintana Roo)
SEDUE	<i>Secretaría de Desarrollo Urbano y Ecología</i> (Secretary for Urban Development and Ecology)
SEMARNAP	<i>Secretaría de Medio Ambiente, Recursos Naturales y Pesca</i> (Secretary for Environment, Natural Resources, and Fishing)
SEMARNAT	<i>Secretaría de Medio Ambiente y Recursos Naturales</i> (Secretariat for Environment and Natural Resources)
SPFEQR	<i>Sociedad de Productores Forestales Ejidales de Quintana Roo</i> (Society for Forest Ejidal Producers of Quintana Roo)

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APPENDICES

APPENDIX I: Semi-Structured Interview Questionnaires for CBE participants

1. ¿Nombre? ¿Edad?
 2. ¿Cuántos en su grupo?
 3. ¿De dónde viene usted? ¿Es ejidatario?
 4. ¿Como se involucró en el PC y que es lo que le interesa más del ecoturismo?
 5. Cuales eran los motivos para:
 - a. Organizarse
 - b. Convertirse a una empresa
 - c. Conservar el monte
 6. ¿Ha recibido algún entrenamiento?
 - a. ¿De dónde?
 - b. ¿Cuándo?
 - c. ¿De quién?
 7. ¿Que aprendió ud?
 8. ¿Ud tiene otro empleo en la comunidad? En qué?
 9. ¿Si alguna vez usted ha buscado trabajo fuera del ejido?
 10. ¿Desde el inicio del proyecto ecoturismo, el pueblo chiclero, usted tenía que buscar trabajo afuera?
 11. ¿Como defina usted el ecoturismo? ¿Que es lo que usted entiende del ecoturismo? ¿El objeto del proyecto?
 12. ¿Hay una relación entre el la empresa forestal y el ecoturismo?
 13. ¿Hay una relación entre el sitio arqueológico y ecoturismo?
 14. ¿Cuales son las instituciones externas que les dan más apoyo?
 15. ¿Cree usted que la conservación del bosque es necesario para el futuro? ¿Por qué?
-

APPENDIX II: Interview questions for state government officials

1. Me gustaria empezar si usted puede hablar un poco sobre la historia de Chacchoben y PC:
2. ¿Porque decidió INAH el Chacchoben?
3. ¿Quién administra fondo Chacchoben?
4. ¿Como defina usted ecoturismo?
5. ¿Es el Pueblo Chiclero ecoturismo?
6. ¿Había mucho impacto del medio ambiente durante la construcción?
7. ¿Cuales son los obstáculos/retos principales de implementar ecoturismo en Chacchoben?
8. ¿Cuales son los retos de implementar ecoturismo en QR?
9. En el Pueblo Chiclero, ¿hay un convenio? ¿Y es posible obtener una copia?
10. ¿Cuál es el papel de SEDETUR en PC hoy?
11. ¿Entrenamiento?
12. ¿Motivos para invertir/tomar interes en Chacchoben? ¿Cual es la importancia de Chacchoben en el gran esquema turistico?
13. En su opinion, ¿es la comunidad más organizada ahora o antes de empezar al PC?
14. ¿Como es trabajar con un ejido? ¿Propiedad común?
15. ¿Que es la visión y el futuro de “Costa Maya” o “la Grand Costa Maya?”

APPENDIX III: Semi-Structured Questions for Private Agencies Involved with Training

1. ¿Cómo se involucró usted con Chacchoben?
2. ¿Interes/participación de la comunidad?
3. Explique un poco sobre los cursos de capacitación:
4. ¿Dónde creció la idea del espectáculo?
5. Usted dijo, “trabajar como equipo” ¿Cree usted que estaban bien organizados?
6. ¿Es Pueblo Chiclero “Ecoturismo?”
7. ¿Cree ud que la comunidad son ecólogos?
8. ¿Que fue la motivación por su participación en su opinión?

APPENDIX IV: Semi-Structured Interview Questions for Community Leaders and Civil Society Organizations

Lo que quiero entender un poco mejor es un poco de la historia de PC:

- 1) ¿ Como se organizaron, y en que contexto?
- 2) Las instituciones y las interacciones entre si mismos:
- 3) Los motivos para organizarse:
- 4) Los motivos para convertirse a una empresa:
- 5) Los motivos para conservar el monte:

General:

1. ¿Nombre?
2. ¿Organization? ¿Proposito de la organización?
3. ¿Hace cuánto que usted está involucrado con esta organización?

Historia de PC:

4. ¿Como se organizaron y en que contexto?
5. ¿Cuales son las instituciones más importantes y la relación entre ellas (estructura orgánica)
6. ¿Motivos para organizarse/formar una empresa/conservar?
7. ¿Retos de convencer al pueblo en el principio y ganar el apoyo de la comunidad?
Describe el proceso:
8. ¿Hay una relación entre el CFE y CEE?
9. ¿Hay una relación entre el sitio arqueológico y CEE (PC)?
10. ¿Había mucho impacto sobre el medio ambiente con la construcción del PC?
11. ¿El papel de tenencia? ¿Hay un convenio? ¿Entre quien? ¿Quien lo tiene?

Organización de la comunidad:

12. ¿Cuántas veces al mes hacen la asamblea? _____ ¿Ahora? _____
13. ¿Antes cuando ud era ejidatario? _____

14. ¿Cuándo fue la última asamblea?
15. ¿Monitoreo ecológico en el ejido? ¿Quién lo hace y como?
16. ¿Actividades económicas en Chacchoben?
17. ¿Educación ambiental? ¿De quién? ¿A quién?
18. ¿De dónde vienen los fondos para la infraestructura general? ¿Comunidad o Federal o Estatal?

Organización de la empresa PC:

19. ¿Cuántos? _____ % de LC _____ y % de Chacchoben? _____
20. ¿Porque menos de LC?
21. ¿De dónde vino la idea de formar/crear PC?

Opinión:

22. ¿Problemas de organización? Específicamente?
23. ¿Las instituciones locales son más débiles o más fuertes ahora (en su opinión)?
24. ¿Cree ud que la conservación del monte es necesario para el futuro del pueblo?
¿Por qué?
25. ¿Cuales son los retos para la conservación en Quintana Roo?
26. ¿Cuales son/han sido los retos principales para implementar ecoturismo en Chacchoben?
27. ¿Como defina ud el ecoturismo?
28. ¿Ha traído el turismo (refiero al sitio arch) cambios positivos o negativos a la comunidad?

APPENDIX V: General Unstructured Interview Questionnaire for Community Members

1. ¿Nombre?
2. ¿Edad?
3. ¿Hace cuanto tiempo que usted vive aquí?
4. ¿Usted está involucrado con ecoturismo?
5. ¿Entrenamiento? ¿Cuándo? ¿De quién?
6. ¿Asistencia financiera?
7. ¿Usted tiene otro trabajo?
8. ¿Ha buscado trabajo en otro lugar fuera del ejido?