

## Beyond Nature Appropriation: Towards Post-development Conservation in the Maya Forest

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### Abstract

The establishment of biosphere reserves in Mexico was followed by alternative livelihood conservation/development projects to integrate indigenous groups into Western style conservation under the idea of sustainable development and participation. In this paper, I discuss the outcomes of two forest wildlife management projects in one Maya community along the Sian Ka'an Biosphere Reserve in the state of Quintana Roo. Both projects ultimately failed and the community mobilised and expelled the NGO from the community. I argue that the failure of these projects involved two dynamics: 1) lack of coherence between the objectives of state agencies, conservation NGOs, and the local community; and 2) unequal ethnic relations, reproducing relations of colonial inequality and dictating how indigenous groups can participate in managing a territory for conservation. If collaboration and local participation are key in conservation management programs, these case studies suggest that greater institutional accountability and community autonomy are needed to make the practice of conservation more democratic and participatory. The expulsion of the NGO as a conservation and development broker also opened the space for, and possibilities of, post-development conservation practice that challenges the normalising expectations of Western biodiversity conservation.

**Keywords:** wildlife conservation, political ecology, post-development, social movements, Zona Maya, Sian Ka'an Biosphere Reserve, Quintana Roo, Mexico

### INTRODUCTION

After close to two decades of collaborating with various NGOs and Mexican Natural Resource agencies on conservation projects, the community of Tres Reyes in the state of Quintana Roo, Mexico had had enough. As a local community leader told me in 2009, "We had to kick all (NGOs) out of here. We don't want to know any more about 'aprovechamiento' or conservation." In Mexico, non-governmental organisations (NGOs) have been instrumental in implementing projects for what Mexicans call the "aprovechamiento" —the idea that

local populations should "take advantage of" or "benefit from" natural resources. Before the current biodiversity conservation era, *aprovechamiento* entailed economic development or an economic benefit. In today's conservation era, it has tilted discursively towards sustainable development, and has become the *mantra* of development and conservation in Mexico presupposing both the sustainable use of environment and the ensuing monetary resources for development of local communities. Since the establishment of the biosphere reserve in 1986—but particularly between 1993–2006—any new project seemed to be titled *aprovechamiento*, whether the resource was honey or timber or orchids.

The leader quoted above was referring to projects for sustainable use and management of parrots and butterflies. What would prompt such a drastic decision to collectively declare independence from NGO intervention after more than a decade of collaboration with similar projects? From this leader's point of view, the decision had nothing to do with being against conservation or against protecting the forest. Rather, the extensive time and effort the people of Tres Reyes had spent

Access this article online	
Quick Response Code: 	Website: <a href="http://www.conservationandsociety.org">www.conservationandsociety.org</a>
	DOI: 10.4103/0972-4923.138417

working on initiatives with different NGOs were perceived to have resulted in few, if any, benefits to the community, because government bureaucracy, environmental agencies, and NGOs were unable to implement and sustain effective projects they claimed to be participatory.

The establishment of protected areas for conservation, particularly in the so-called third world, creates a set of conflicts over land-use and nature, as groups in power impose new engagement practices upon people who often have little or no power over how policies are conceived and implemented (Haenn 2005; Vivanco 2005; West 2006; Li 2007; Brockington et al. 2008). Proposed changes in inhabitants' engagement with conservation projects comes from an assumption that Western scientific concepts are the sole gauges and must regulate how people use natural resources in every case disregarding whether local inhabitants had contributed historically to increasing and managing biodiversity or had overexploited resources (Escobar 2008; Peet et al. 2011). While conservation NGOs propose that these changes benefit the overall society, they can also impose extreme hardship on local cultures and communities. Despite a discourse of inclusive local participation at the academic or managerial level, at the local level this discourse is often not reflected in material local practices.

In the late 1980s, the United Nations Environment Programme (UNEP) partnered with World Wildlife Fund (WWF) and International Union for Conservation of Nature (IUCN) to create the WCS (World Conservation Strategy) with the goal of establishing consistent national conservation strategies globally. Since this time, conservation NGOs have often been responsible for implementing project-based conservation programmes based on a local participation paradigm (Lisen Schultz and Folke 2010, MacDonald 2010) with the stated goal of integrating conservation and development (Brockington and Igoe 2008). These projects are devised to curtail practices deemed by conservationists to be detrimental to wildlife or the natural landscape (e.g., slash and burn agriculture), to promote and regulate *aprovechamiento* as a different way of earning income and relating to their environment, and also to meet the expectations of those funding these development projects. Often, as demonstrated in this paper, participatory initiatives designed from above have failed to appreciate or incorporate local worldviews, such that their implementation has engendered a clash of viewpoints grounded in unequal power relations that have consequences for local communities and for biological conservation efforts.

This paper presents an ethnographic analysis of the political ecology of conservation and development in two participatory *aprovechamiento* projects based on the fauna of the Yucatan, and Yucatec parrots and butterflies, in one Maya community whose *ejido*<sup>1</sup> borders the Sian Ka'an Biosphere Reserve. Political ecology examines the complex interactions between humans and the environment over use, access, and distribution of natural resources, and the power relations and cultural practices that mediate such interaction, from local knowledge

to global ideologies (Escobar 1999, Martínez-Alier 2002, Biersack 2006, Peet et al. 2011). More specifically, the political ecology of conservation examines the political, cultural, and economic processes involved in environmental degradation or in the implementation of conservation programs (Haenn 2005; Li 2007). As Peet et al. (2011) argue, "Political ecological work has revealed... that many efforts at conservation... have been inattentive to these underlying forces and have instead drawn upon dated, indeed frequently colonial, models of environmental management" (2011: 27). It is through conservation NGOs that the agenda to link development and neoliberal practices with biodiversity conservation comes together (MacDonald 2010). Elsewhere, I have called this dynamic the "coloniality of nature" (Martínez-Reyes 2004; see also Escobar 2008: 120-121) to underscore that there is a particular structure of subalternising peoples' relation to the environment they inhabit and depend on for a livelihood. I borrow from Mignolo's idea of the 'coloniality of power' (2000) that argues that although the classic distinction of coloniser and colonised has disappeared, traces of colonial relations—what Mignolo calls 'colonial difference'—are still being played out in our world (2000: IX). Thus, the 'coloniality of nature' is the condition in which an essentialised notion of nature as 'other', outside of the human domain, offers a new field in which to create and dominate landscapes through the "subalterization" of indigenous knowledge (Mignolo 2000). This approach's underlying assumption is that the only way that nature can be managed is by Western "expert" knowledge through the use and application of the science of ecology. This "expert" form of knowledge becomes dominant and as a consequence subalternises all other forms of knowledge, particularly in this case, local knowledge about the environment and people's connections to place, thus, creating new environmental subjects (Agrawal 2005).

Comprehending how these participatory programs are created and put into practice is essential to grasping the complexities and changes generated by conservation practices. I argue that the primary reason these projects failed was not due to lack of local Mayan interest in collaborating in conservation activities, but because NGOs, state agencies, academics, and conservationists in Mexico and abroad continued to implement top-down, institutionally-sponsored conservation projects that reproduce relations of colonial inequality rooted in the subordination of local Mayans as subaltern subjects, despite encouraging local engagement under the discourse of participation and co-management. Conservation promoters from both the state and NGOs see the Maya as simply one among many 'stakeholders' rather than as people with a profound sense of place and ties to their forest (Li 2007, Escobar 2008, Blaser 2009), and fail to recognise their worldview and traditional ecological knowledge.<sup>2</sup>Secondarily, this research examining the implementation of these projects clarifies the increasing power of large international NGOs and the growing influence they have on environmental governance (MacDonald 2010). Finally, this paper raises questions of post-development practice (Escobar 2007, 2008, Sidaway 2007),

particularly the question of opportunities for the Maya to reassess, on their own terms, their identity and their relation to the forest.

### METHODS

This work is based on qualitative research undertaken as part of a broader ethnographic inquiry conducted in 2002, as well as follow-up fieldwork in the summer of 2009 in Quintana Roo, Mexico. I conducted participant observation, formal and informal interviews, and one focus group interview. The focus group was conducted with 5 participants from the total of 10 men who participated in a parrot management project. The remaining participants were informally interviewed at different times during fieldwork. I also conducted open-ended interviews with three leaders of a local NGO and three leaders from a regional NGO working in the community of Tres Reyes. The butterfly project was carried out in the same community, and I likewise conducted participant observation as well as informal and formal open-ended interviews with many of the women participants in that project. Archival and document revision work were done in Cancún, Felipe Carrillo Puerto, and Chetumal. The results presented in this paper are based on the analysis and interpretation of documents and interviews as well as patterns and themes observed during fieldwork.

### THE ZONA MAYA, THE SIAN KA'AN BIOSPHERE RESERVE, AND MEXICAN CONSERVATION

A political ecology of conservation must consider how the contexts and colonial relations between the Maya and their forest has shaped what is taking place today in the community of Tres Reyes, part of a larger territory called the Zona Maya (Figure 1). The Zona Maya is the heart of the Mayan population of the state of Quintana Roo, the majority of whose inhabitants are Maya speakers and descendants of the rebel *Cruzo'ob* Mayas who fought against the Spanish speaking Yucatecan elites during the Caste War of the Yucatan from 1847 to 1901 (Reed 2001). Since then, and throughout most of the twentieth century, the Zona Maya of Quintana Roo has been characterised as a region of Maya resistance (Sullivan 1989). The *Cruzo'ob* Mayas were reputed to be fierce rebels, which kept Mexican capitalist exploration and extraction companies away for many decades. After the 1901 arrival of the Mexican army in the capital, Chan Santa Cruz (now Felipe Carrillo Puerto), a pacification and colonisation campaign began which included the establishment of schools for children (Reed 2001, Villa Rojas 1978). The lasting effects of the Mexican revolution of 1910–1917 began to be felt in the region after 1934 when President Cárdenas implemented agrarian reform in Quintana Roo.

Over the years, new challenges emerged to test Maya resilience and management of their environment amid capitalism-based development projects sponsored by the state. For instance, throughout most of the twentieth century there were concessions to Mexican and foreign companies to

exploit mahogany, cedar and, more intensely, the *chicozapote* or *chicle* (gum) tree (Konrad 1991: Redclift 2004, 2006). It was between 1935 and 1936 that the young Mexican anthropologist Alfonso Villa Rojas began doing fieldwork in the community of Tuzik as part of the Carnegie Institute Maya research under the guidance of Sylvanus Morley and Robert Redfield (Villa Rojas 1945). He was able to document the tensions when *ejidos* were established. “Land is the communal property of the entire subtribe. Buying or exchange of land has for the native no meaning. When the federal government announced its policy of granting *ejidos*, the natives became angry, not only because this *exercise of authority* was considered interference in their affairs, but because it also seemed to them wrong that land should be divided as if it were something which could be privately owned. This latter idea persisted even after they were willing to accept the *ejido*” (Villa Rojas, 1945: 68 my emphasis). Anthropologist Paul Sullivan revisited Tuzik in the mid-seventies to carry out a follow up study on fieldwork previously done by Villa Rojas. He documents several changes that occurred with respect to land and the frustration of the natives about their subaltern position under Mexican law. In his study, Sullivan sets out to explain the causes of apocalyptic prophesies of the Maasewal Maya. “It is the increased inability to make for themselves the kind of living they know best—to farm and to hunt in the forest, market some of its product and subsist off the remainder—and their increasing *obligation to submit to a foreign people's law*” (Sullivan 1983: 169; author emphasis), that he sees as the cause of their foreseeing the end

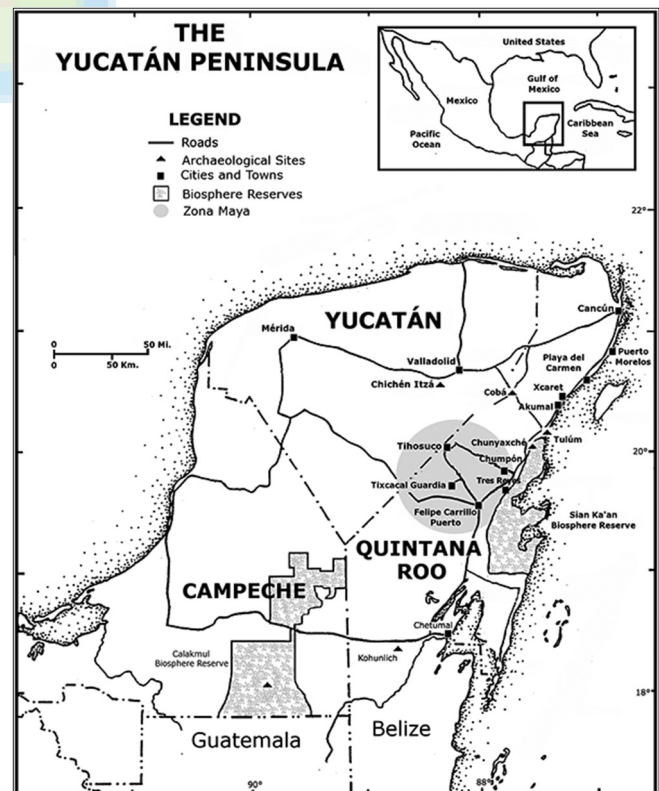


Figure 1  
Zona Maya, Quintana Roo, Mexico



of humankind. Both Villa Rojas' (1945) and Sullivan's work (1983) are testament of the coloniality of nature in Quintana Roo in the twentieth century.

This exploitation of natural resources as a rationale base for development strategies began to diminish somewhat in the 1980s, when Mexico promoted tourism as a tool for economic growth. This was particularly important in Quintana Roo, where the resort city of Cancún was developed in the 1970s. Since then, Quintana Roo has been one of the fastest growing states in Mexico, economically and demographically. The population doubled from 1990 to 2000 due to migration from other Mexican states. The massive tourism industry has profoundly transformed the 90 km coastline between Cancún and Tulúm by creating new tourist spaces along virtually every beach (Pi-Sunyer and Thomas 1997; Juarez 2002). Through the capitalisation of Mayan cultural symbols and the natural areas themselves, the government and developers created a new landscape for a tourist market. Tourism marks a continuity of colonial relations under a new guise. Although economically successful in the eyes of the government, tourism has had enormous repercussions on migrating labourers from inland communities (Dufresne and Locher 1995, Juarez 2002), on the environment, and nutrition (Pi-Sunyer and Thomas 1997). The consequences are not only economic and environmental, but also extend to issues of negotiating culture, identities, and 'being Maya' (Pi-Sunyer and Thomas 1997, Juarez 2002), as well as of inclusion and exclusion of local indigenous communities within the Mexican national space (Brown 1999).

At the time when the transformation to a tourism economy was taking place, the global biodiversity conservation governance structure was being put in place. Scientists have placed Mexico among countries with the highest species diversity in the world (Toledo and Ordonez 1993). Prior to the establishment of a legalised biodiversity framework, during the mid-1970s a network of biosphere reserves was designated throughout the world in an effort to protect what were deemed fragile or important areas of biological diversity. Mexico's Institute of Ecology, led by Gonzalo Halffter, director and promoter of the creation of the first biosphere reserves in Mexico in 1978 and 1979, argued that the biosphere reserve model was the best way to preserve diversity and meet the economic needs of local populations (Simonian 1995: 161). By the late 1980s, the UNEP convened a group of experts to explore the possibility of creating an international convention on biological diversity. The Convention on Biological Diversity (CBD) was signed in 1992 by most of the world (though not the United States) and ratified by Mexico in 1993. The CBD's Article 8(j) addresses the role of traditional ecological knowledge and says conservation projects must "respect, preserve and maintain [indigenous] knowledge" and traditional lifestyles.<sup>3</sup> During that period, Mexico entered into a new phase of its conservation history by creating the *Secretaría de Medio Ambiente y Recursos Naturales* (SEMARNAT; Ministry of Environment and Natural Resources) in 2001<sup>4</sup>. SEMARNAT is the Mexican federal agency in charge of natural resource management and protection and updating

and issuing new wildlife conservation policies (Valdez, et al. 2006); it is in charge of all natural protected areas including biosphere reserves. Within SEMARNAT, the *Instituto Nacional de Ecología* (INE; National Ecology Institute) handles wildlife management research, and the *Dirección General de Vida Silvestre* (Office of Wildlife Management) is responsible for granting permits for legal commercialisation of flora and fauna.

The Sian Ka'an Biosphere Reserve, designated in 1986 and since 1995 a World Heritage Site of United Nations Educational, Scientific and Cultural Organization's Man and Biosphere program, is located in the eastern part of the Yucatan Peninsula in the state of Quintana Roo, Mexico. The World Heritage Site designation brings prestige and fosters financial assistance from the United Nations, development agencies such as the United States Agency for International Development, and international NGOs such as the WWF and The Nature Conservancy. The 1.3 million acre stretch of land makes Sian Ka'an the third largest protected area in Mexico (after El Vizcaino in Baja California Sur and Calakmul in Campeche). This reserve is one of the most important coastal ecosystems in Quintana Roo, which comprises relatively equally tropical forest, wetlands and mangroves, and coastal and marine habitats.

The Sian Ka'an Biosphere Reserve was the fifth reserve put in place in Mexico. Communities that now border the reserve relied historically for centuries on working the forest by shifting agriculture (*milpa*), hunting, and household gardening as a "collective enterprise of survival" (Farriss 1984). They continue to have a vast amount of knowledge about the environment (Anderson 2005, Martinez-Reyes 2004) but research has shown that the *milpa* agriculture by itself cannot provide all family needs (Sullivan 1983, 1987; Hostettler 1996). Recently, *ejidatarios* and their families have received government subsidies during the dry season, and also supplemented their income by selling game and/or undertaking temporary, paid work in the tourist zone. Since the establishment of Sian Ka'an, communities bordering the reserve have been subject to interventions and initiatives by local NGOs (funded by international conservation NGOs), by the state, and more recently by the United Nations Development Program (UNDP), all aimed to search for alternative sources of livelihoods and subsistence, to diversify the economy, and to provide environmental education for sustainable development. The UNDP's Community Management of Protected Areas Conservation program (COMPACT), initiated in 2000, was touted as a new approach to co-management because it promotes "relatively simple and adaptive conservation and development initiatives consistent with an overall protected area strategy, but based on site-specific conditions and local community dynamics" (GEF 2004: 6). Moreover, one of the program's objectives is to "test, adopt and, where appropriate, replicate small-scale, environmentally-friendly, income-generating activities for communities in and around protected areas" (GEF 2004: 6). While co-management is conceptually an equal sharing of power and responsibilities, on the ground, grassroots organisation may be immobilised

as power is produced and negotiated by NGOs and the state (Martinez-Reyes 2009).

The community in which I conducted fieldwork is the village of Tres Reyes. Several families from the town of Tuzik, Quintana Roo, the same village studied by Villa Rojas (1945) and Sullivan (1983), established it in the late 1970s. They were having a hard time becoming members of the Tuzik *ejido*, so they moved to a place off the main highway 30 km north of Carrillo Puerto and established a *ranchito* or small settlement on what was national land but had not been zoned as *ejido* land. The area had been exploited previously as a chicle camp, but there was no permanent population when the founders of Tres Reyes arrived. They petitioned the government to become an *ejido*. The *ejido*, granted in 1983, was the last established in the municipality of Felipe Carrillo Puerto and in the state of Quintana Roo. Once established, residents worked the land of their *ejido*. By the year 2000, additional in-migration had raised the number of *ejido* families to 25. They sustained themselves primarily by growing their cornfields and hunting. Some also worked seasonally in the tourist economy of Playa del Carmen, Tulum, and Cancun. The location of the community, 1 km away from the Carrillo-Tulum highway, made it easy for people to use public transportation to work in other places.

Of the many NGOs that have worked in Tres Reyes, two took a prominent role—*Amigos de Sian Ka'an* and *U Yool Ché*. *Amigos*, established the same year as the Reserve, began working in Tres Reyes in the early 1990s after an initial grant from the Ford Foundation to promote projects for the *aprovechamiento* of natural resources, including the parrot project discussed below. The Nature Conservancy, an international NGO, promoted the creation of *Amigos* in order to ensure the presence of an independent group able to help support all the conservation activities of the reserve. *Amigos* was made up of conservationists, businessmen, and academics with a background in the biological sciences. *Amigos* became what I refer to as an institutionalised NGO because it created a large and successful apparatus receiving substantial funds from international foundations, institutions, and individuals, and because it is fully interpolated into a global discourse of conservation, in contrast to local discourses of place (Martinez-Reyes 2004).

The second NGO, *U Yool Ché*, was a local organisation composed of a handful of people who originally worked for *Amigos* and left because of “differences” in management styles, as one of the members told me. It was founded in 1999 with the purpose of promoting sustainable development but maintaining a close relationship with the communities until they are able to do conservation work themselves. *U Yool Ché* was what I refer to as a localised NGO because their approach focused and stayed near the community. *U Yool Ché* strove for increasing community participation, meeting and working with a variety of community members rather than with leaders only, and they operated locally from the town of Felipe Carrillo Puerto. They worked with a select group of communities in order not to stretch their capacity, recognising that larger NGOs often failed to provide the level of support communities felt

they needed. They worked primarily with four communities, including Tres Reyes, for seven years.

### The parrot project

Since pre-Hispanic times, Mesoamerican cultures have traded parrots. They kept them as pets, for their colourful feathers, and have also been known to consume them (Sahagun 1981). Some people in Tres Reyes captured parrots to keep as pets and, if approached, would sometimes sell them without permission from SEMARNAT. In 2000, SEMARNAT's research arm, the INE, began an initiative to monitor and perform feasibility studies for the conservation, management, and *aprovechamiento* of parrots (*Psittacidae*) (SEMARNAT 2000). The project was an attempt by the state to enact sustainable development based on the assumption that nature can be protected and commercialised at the same time. Once scientific studies were conducted certifying the status of each of Mexico's 22 parrot species, SEMARNAT would grant annual quotas for some species to select communities, to generate income through sales in the pet market. In 2000, SEMARNAT released the results of their efforts in a report entitled *Proyecto para la conservación, manejo y aprovechamiento sustentable de los psitácidos de México* (SEMARNAT 2000). In Quintana Roo, Tres Reyes was the only *Unidad de Manejo Ambiental* (UMA; Environmental Management Unit), a required SEMARNAT bureaucratic designation, to be involved in the project, for which it received a USD 30,000 grant from the UNDP's COMPACT program.

Despite the prior existence of similar environmental projects, the INE approach to managing wildlife was presented as novel in its participatory approach. The regional coordinator of UNDP said in an interview that “the program's objective is to support community participation with initiatives from their residents to carry out actions in favour of biodiversity conservation” in which there is “direct and democratic participation by the communities.”<sup>5</sup> Early sustainable development projects had been criticised by community members, academics, and independent evaluators for the absence of local participation, and a key goal of the INE was to improve local participation.

While Tres Reyes had already gone through the state bureaucratic process to become a UMA, in order to get funding from UNDP they were also required to create a legally-recognised grassroots *Asociación Civil* (AC; civic organisation), which they named Tuukul Otsil Máak. This literally means “thinking or imaginative poor people” in Maya. Tuukul Otsil Máak also registered as a *Sociedad de Producción Rural* (SPR; Rural Production Organization) that was created to work cooperatively on agricultural production and conservation projects. All in all, the community of Tres Reyes completed three certification processes—the UMA for conservation work with wildlife, the AC for legal recognition, and the SPR to work in rural production projects.

The community was accustomed to working with NGOs in alternative development projects and the bureaucratic

processes this entailed. Tres Reyes had been involved in other regulated forestry projects as part of wider sustainable strategies of forest product use. *Amigos de Sian Ka'an* had begun working with Tres Reyes on an exploratory study of parrots in the mid 1990s in their constant effort to find alternative economic livelihood projects. This exploratory research was done by an *Amigos* employee who was using the findings for a Master's degree thesis for a university in central Mexico. While the COMPACT program began in 2000, much of the funding helped continue work that had begun in the early 1990s, of training the community to plant orchids, raise parrots and butterflies to be sold in the market once they were able to procure all the required permits. The orchid project was abandoned early on in order to focus on the other two projects. Also in the early 1990s, Tres Reyes worked with the *Sociedad de Ejidos Forestales* (Society of Forestry Ejidos), a collective body that enables the *ejidos* to negotiate production and prices for trees harvested to make railroad ties. The Tres Reyes *ejido* eventually stopped producing for the *Sociedad de Ejidos Forestales* because residents felt there was too much competition amongst participants in the *Plan Piloto Forestal* (Pilot Forestry Plan). Despite recognition by local communities that the tree harvesting initiative wasn't sustainable, The *Sociedad de Ejidos Forestales* was showcased as a success story of sustainable forestry and received 'Smartwood' certification by the Rainforest Alliance (see Bray 2001). Participants also told me that, the return for their hard labour was not worth it, given the lack of proper equipment for harvesting and processing the wood, and it made sense to focus on other activities.

Nonetheless, the residents were interested in collaborating on new projects. It was hoped that the newly created *Tuukul Otsil Maak* would enable better organisation for conservation-related work. The new organisation had a president and a treasurer, and one person headed each of five committee groups dedicated to activities Tres Reyes had been working on for several years as part of its involvement with conservation—orchid gardens, mammals, birds, parrots, and butterflies. Each committee met once a month to report on their activities.

When the SEMARNAT initiative on parrots emerged, community members embraced it because they welcomed the opportunity to earn permits and do everything legally without the threat of sanctions. To some of the elders in the community, however, the parrot project seemed a strange idea. One of them pointed out jokingly the irony of how the parrots at one time gave them food and now "we [will] protect them and give *them* food." Nevertheless, as the project was explained to them, they made the collective decision to continue with it. As a condition of the project, economic activities had to be conducted based on scientific data. Once *U Yool Ché* was established after breaking ties with *Amigos*, they began working in Tres Reyes. One of the first tasks was to train community members to become field biologists so that they could monitor birds, particularly the native parrots in the *ejido*. Of Mexico's 22 parrot species, four inhabit the Sian Ka'an region (Table 1). At this time, two of these (*Loro corona blanca* and *Loro yucateco*) were considered

threatened species by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), of which Mexico is a signatory. The two non-threatened species were the birds that Tres Reyes would sell.

The idea of the project was that once the community of Tres Reyes secured the permits and a quota from the state, participants would be able to capture, raise, and sell parrots in the pet market to generate income. Data gathering and monitoring were to be done both to demonstrate that there were enough parrots to make the market economically feasible and to become efficient in keeping track of the populations with the idea of managing wildlife without detrimental impact. Thus, participants began by constructing observation towers, in tall *Ya* (*chicozapote* trees), which produce *chicle* (chewing gum resin), inside their *ejido* for monitoring and by clearing several paths along the border of the reserve to make monitoring trails. They would earn their quota by monitoring and subsequently presenting the results to the NGO, which would help them complete the necessary paperwork for SEMARNAT.

Participating in several of the monitoring sessions, I noted the extent to which the community engaged in these activities, which were performed three days a week, in the morning and in the afternoon. In the morning, people gathered in the community centre starting at 6 am, just as the sun was rising. Some brought binoculars, guides to identify birds, or notebooks to be used as logbooks. Four groups monitored birds along four paths transecting the corners of the *ejido* and leading into the *k'aax* (forest). All morning we continued our monitoring walk through the forest, gazing around us, taking notes, listening to the sounds of birds, and trying to identify them. Binoculars in hand, we also climbed the rustic observation towers, looking over the canopy to count parrots and flocks. A few people from my group imitated the whistling of parrots to see if they could locate them and confirm the species. After three hours of walking the trails, the groups met back in the community to compare notes and return logs to the person in charge of monitoring. A shorter monitoring session, usually about an hour in duration, was conducted at 3 pm. In the evening, people gathered in the central plaza as usual to talk about working in the forest, to tell stories about hunting, or to complain about how the conservation projects were unfolding.

It wasn't long before it became clear that conservation projects were generating many tensions within the community. Obtaining permits was a source of contention between the members of the community and the *U Yool Che*. There was also tension among community members as to the purposes of all the different projects and the likelihood of any positive outcomes related to their everyday struggles to survive. This

**Table 1**  
**Parrots in the Maya Forest of Quintana Roo**

Spanish name	Maya name	Scientific name
<i>Perico pecho sucio</i>	<i>X-k'ili'i</i>	<i>Aratinga nana</i>
<i>Loro frente blanca</i>	<i>X-katzim</i>	<i>Amazona albifrons</i>
<i>Loro yucateco</i>	<i>E-xik'in</i>	<i>Amazona xantholora</i>
<i>Loro corona blanca</i>	<i>X-kulich</i>	<i>Pionus selenis</i>



frustrations were expressed by one Tres Reyes resident during a focus group meeting:

They [SEMARNAT] squeeze us. We request the permits [to sell parrots] and wait... and wait... In the meantime, we are running out of corn, then we have to go out on the street to try to buy some corn, or cooking oil, or whatever we need. They receive their salary every two weeks without delays. Why don't we switch places? They work in the forest and I will do their job, put on a tie, drive a car. Then let's see how we are doing within a month, them working on the milpa and me getting my check. Our grandparents of Mayan blood were not civilized but they would not permit any "guaches" [outsiders, enemy] to come in. They would take out the machete or the rifle. Today, there is more knowledge but we are sleeping. We pay for the permits and they don't arrive. Guaches still rule this land.

This particular sentiment echoed the feelings of many people in Tres Reyes about conservation activities. There was dissatisfaction over the fact that they had to rely on government institutions and on NGO timeframes and frameworks to implement projects that SEMARNAT presented as solutions to improve their living conditions. The community did its best to protect areas around the reserve but believed there were few tangible benefits for their efforts. The above comment also alluded to a time in the past when the Maya had control over the area and its resources, as well as who could access them. He expressed the coming of the *guaches* as the consequence of civilisation. *Guaches* are what the Maya called their enemies in the Caste War. The *guaches* may have brought schools and promises of development, but their arrival has also relegated the Maya to a subaltern group in society. This imbalance is ironic, to say the least, in a nation whose collective image has been based upon the glory of indigenous civilisations (Bonfil Batalla 1989) and within a region which exploits indigenous lore and symbolism to attract tourists. More telling is the fact that the Maya continue to call people from SEMARNAT *guaches*. People in the community do not perceive a difference between those that "pacified" the region, brought capitalist concessions to exploit their forest, and that now regulate natural resources through conservation. They recognise the coloniality of nature continues today by referring derogatorily to outsiders who have the power to regulate how they use their resources.

The Maya of Tres Reyes were also attuned to the ways in which the *guaches* from the government promoted conservation by coercion, specifically the practices of the *Procuraduria Federal de Protección Ambiental* (PROFEPA; Federal Attorney for Environmental Protection) which is the agency in charge of enforcing environmental laws. Hunting was a singular concern. During my fieldwork, it became clear that locals consume most of what they hunt, but may sometimes set aside portions to sell to neighbours or on the main road for necessary cash. This practice was documented by the first observation-based ethnographic study of the region in the 1920s and early 1930s (Pacheco Cruz 1934: 34). For Maya men hunting, aside from feeding their families, is a form of

engagement with the environment and of community-building through both the act of hunting itself and subsequent storytelling (Martinez-Reyes 2004). In contrast, local environmental NGOs and some reserve managers barely tolerate hunting, referring to it in regular admonitions to the community to avoid over-exploiting resources. For PROFEPA, however, hunting was a practice perceived as a crime. While subsistence hunting is permitted in the buffer zone of the reserve, PROFEPA was always on the lookout for people illegally hunting designated species or illegally capturing parrot nests and would arrest those selling game on the road. The Maya had no intentions of selling parrots illegally, so when they had opportunities to hunt, they did not want problems. While hunting remained a subsistence activity, they were vilified for any sale of what they hunted as if they were involved in a clandestine industry of hunting for profit.

In addition to causing lengthy delays for permits, which prevented the community from earning income from the project, regulating bodies had little regard for, or understanding of, the needs of the community. At a meeting with the UNDP parrot project evaluators, the president of a local organisation from Tres Reyes was asked why the Maya kept selling game they hunted on the road, a matter unrelated to the parrot project but seen as improper environmental/conservationist behaviour from the perspective of environmentalists and reserve managers. The community leader explained that it was one of few ways residents could earn quick cash for emergencies. Because of the perceived hunting infraction (along with butterfly project problems, as noted below), the Maya community of Tres Reyes did not receive a funding extension for 2003 from the UNDP COMPACT program. In light of this development, the President of *Tuukul Otsil Maak* informed evaluators that he would hold a meeting to try to convince residents not to hunt and sell on the street in order to improve their chances of obtaining permits to capture, raise, and sell parrots. In essence, he argued for the abandonment of a Maya practice that had no direct bearing on parrots or the COMPACT project, to placate an agency that was oblivious to the local socio-economic logic of hunting.

Regardless of the difficulties with the UNDP, *Tuukul Otsil Maak* continued to try to obtain a permit and quota to sell parrots in the market. Years went by, until in 2006 they were allowed a brief opportunity. During a 2009 visit, I was told that the window of opportunity was directly related to gaining favour for candidates in the Mexican presidential elections. The difficulties of obtaining permits to sell parrots came to an abrupt end for the Maya of Tres Reyes in 2008 when Mexico signed a law banning the capture and export of wild parrots. The bill was introduced after lobbying by the international organisation Defenders of Wildlife, and the release of the report *The illegal parrot trade in Mexico: a comprehensive assessment* (Defenders of Wildlife 2007) by the Mexican environmental organisation Teyeliz. Ironically, the person who had led this study was a member of the expert group that recommended SEMARNAT's 2000 implementation of the parrot project. The Teyeliz assessment revealed that an

estimated 65,000–78,500 wild parrots and macaws were captured illegally every year and that more than 75% of them died of disease or poor sanitary conditions before they ever reached a purchaser. “It is true that there was a huge problem with parrot trafficking in Mexico,” a member of *U Yool Ché* that worked in Tres Reyes told me, “but I believe that the numbers do not correspond well with Yucatec parrots. They are not endangered.” He believed that in other regions the problem was more acute. The report certainly shows that other states had many problems with trafficking. During my field research there was one incident where a member of the UMA violated the rules and sold some parrots illegally. He was expelled from the organisation, ostracised, and finally moved out of the community to Carrillo Puerto. Once the national law was in place, however, there was nothing the NGO could do to intervene. The community was left with hours of unpaid labour and questions as to why those who were promoting and supposedly collaborating with Tres Reyes organisations knew nothing in advance of the legislative action. While Tres Reyes waited in vain for permits, politics dictated their demise—in Congress, it was said that once the Ministry issued permits, it had little control over the trade. The law, lauded by professionalised environmentalists, had the unintended consequence of making the Maya of Tres Reyes acutely aware of their disadvantaged position in dealing with the state.

According to the Maya President of *Tuukul Otsil Maak*, a major goal of the parrot project was to become independent from *U Yool Ché* while continuing conservation projects, so that *U Yool Ché* would leave to promote conservation work in other communities. Indeed, *U Yool Ché* intended to finish training people in Tres Reyes so that the NGO could move on to other projects and communities as people from Tres Reyes became local experts on sustainable projects, able to share knowledge with other villages. In this important sense, *U Yool Ché* acted to promote cooperation rather than competition among communities, as had often been the case with development and conservation organisations years before.

The events surrounding the conduct and demise of the parrot project exposes the fissures and hierarchical nature of the conservation enterprise. The state, NGOs, and international governance organisations don’t operate as a unified body, often undermining each other as they vie for power in national and global conservation structures. In this case, more localised NGOs promoted sustainable trade to enable local populations to deal with the loss of access to some resources because of the biosphere reserves, while national and international NGOs lobbied to implement contrary practices. Such was the case of banning the trade of a natural resource that had become a key potential for many communities across southern Mexico, once promoted by the national governmental organisation, SEMARNAT. Despite the fact that environmental agencies and organisations claim to be inclusive of local communities and aware of the difficulties they face, the evidence in Tres Reyes suggests top-down decision-making and prioritisation with little regard to impacts on communities. Until the moment the legislation was passed, Tres Reyes community members

did not know they likely laboured in vain on the parrot project. This event sealed the fate of all conservation efforts with *U Yool Ché*. In response, Tres Reyes temporarily dissolved *Tuukul Otsil Maak* and ceased collaborating with any entity on conservation issues.

### The butterfly project

Contemporary conservation strategies, like earlier development strategies, are typically aimed at women and men separately, thus opening questions of gender with regard to the use and appropriation of natural resources in local indigenous communities (Sundberg 2004; Radcliffe 2006; Elmhirst 2011). Prior to the establishment of development strategies, traditional gendered job roles were quite rigid; most women had no choices of roles and opportunities unless they migrated to tourist towns to work in the service economy. Even in that circumstance, a married woman would still be expected to perform most of the household labour. This is true of Mayan communities, where women have performed mostly household duties. These responsibilities have included home gardening, cooking, and childcare. At times, women have undertaken activities related to the *milpa* as well, including cutting vegetation, planting, and harvesting.

The Tres Reyes conservation projects aimed at women shared the goal of sustainably using natural resources—supported by scientific data—in order to generate income. However, as Sundberg (2004) shows in her work in Guatemala, conservation projects impact not only land-use practices but also identity. She examines how the participation in conservation projects also constitutes ‘identities in the making.’ In Tres Reyes, the division of labour between women and men, and gendered identities were reconfigured within the Mayan communities along Sian Ka’an during the course of the conservation projects I observed. Women became increasingly visible as they became more involved in public community activities producing a conservationist identity for Maya women who could equally “aprovechar” the environment. Thus, they actively participated in the reshaping of their status in the communities as they expanded their domain of action out of the home.

Before the initiation of the kinds of environmental projects discussed here, women in communities of Quintana Roo were involved with a number of development initiatives and their sponsoring institutions. For example, in the neighbouring community of Chumpón, two female groups of *bordadoras* (embroiderers) had been simultaneously organised when men began to produce furniture with the help of *Amigos de Sian Ka’an*. The idea was that they would sew the cushions for the furniture. The women made designs of animals from the forest such as toucans, jaguars, and deer, and then experimented with images of flora such as the sacred *ceiba* tree (*ya’ax ché*) and traditional practices such as making tortillas and gathering well water. Problems arose when the women could not agree on the pricing for the cushions, leaving the males to produce the furniture by themselves without cushions. One group of women who continued, however, presented their work in



various expositions around the peninsula and were able to sell some of their pieces. When I finished fieldwork, these women were in the process of making contacts in the tourist markets north of Tulum. The outcome was unclear, since some husbands would not allow wives to go outside the community and they did not have a distribution agent to present their wares. Despite these constraints, some women had managed to become micro-entrepreneurs.

In Tres Reyes, by contrast, women were organised with the encouragement of *U Yool Ché* as an entity within their SPR as part of the COMPACT initiative. This meant they were able to manage their own projects, organisationally and economically. During the period of my fieldwork, the main project they worked on was the *aprovechamiento* of butterflies with the help of *U Yool Che*. The concept was to learn and develop ways in which they could utilise butterfly wings for handicrafts to be sold to tourists. In addition to UNDP's COMPACT program, the Mexican *Culturas Populares Program* (PACMYC) contributed funds to women's projects, including this one. PACMYC's mission was to aid Mexican indigenous communities in preserving their cultural traditions. This organisation had a biennial competition, to which Tres Reyes applied with the help of *U Yool Ché*, to advance the butterfly initiative. The initial proposal was rejected because butterfly crafts were not considered to be part of the "tradition of the Maya." A Maya member of *U Yool Ché*, however, appealed the decision and made the case that Maya culture is not static, such that helping the Maya with current activities enforces Maya culture. PACMYC approved the project in 2001.

Having been told by *U Yool Ché* of a similar project run by a women's group in Chiapas, the women of the Tres Reyes SPR decided that butterfly crafts were a good possibility considering the large number of butterflies killed along the Tulum-Carrillo Puerto road, about 1 km away. As in the case of the parrot project, in order to *aprovechar* butterflies, the women first had to carry out monitoring studies for species identification and gauging the prevalence of each species in the area. Thereafter, they were required to request permits from proper authorities to use the species, regardless of the fact that many specimens they proposed to use were killed by passing cars.

One of the first required activities was a three-day workshop conducted by three graduate students from ECOSUR (a higher education institution that focuses on studies about ecology and the environment in the states of Chiapas, Quintana Roo, Campeche, and Tabasco). The instructors were paid by grant money. Likewise, grant money paid for the materials to make and assemble nets and butterfly traps. The workshop, involving 20 women and some children from Tres Reyes, focused on explaining how butterflies reproduce, on identification of species, and on examples of crafts made by Maya in the Montes Azules Biosphere Reserve of Chiapas. The samples included ashtrays with a butterfly in the middle covered with glass and framed silhouettes of ancient Maya warriors. After the workshop, women formed teams of three and decided to make the framed silhouettes to continue the project; they tailored the project to their environmental purposes by electing

to make silhouettes of species either endangered or of national significance.

Some men, although not directly involved in the project, attended the workshop. All had their notebooks ready and appeared eager to learn. As the instructors began to teach about butterflies, a man from the community leaned over to me and commented on how much they already knew about butterflies. One of them told me about a butterfly called *Cha Chaak* because its appearance signals the coming of the rainy season. His wife sitting next to him nodded and told me that her husband was correct and that they already knew most of the information provided. While the Maya were enthusiastic to learn and participate, they were as keen to convey their own wealth of knowledge about the local environment. In trainings by outside experts, they would be sure to convey to me how much they knew about their environment and how important this knowledge was to their daily lives and survival. Paradoxically, what they told me was not told to the instructors; perhaps because they wanted to go along with the projects, and felt that their knowledge was unequal as opposed to the formal scientific knowledge of the instructors in determining the project.

After the workshops, on several occasions, I accompanied the women as they caught, identified, and released butterflies inside the *ejido* and picked up dead butterflies from the road. The women could not collect any living *ejido* butterflies, however common, in the absence of a permit from SEMARNAT. The goal was to be able to collect some of the most plentiful live butterflies, especially those needed for the particular colour of their wings. On some days, the women gathered together at the group president's house before going to the highway with their plastic bottles to collect butterflies killed by vehicles. They formed two groups, one on each side of the road, often walking 3–4 km. Once back in the community, they met at the village school to pool all the butterflies for identification and grouping by species. Thereafter, they met at the village church to assemble frames and cut silhouettes of the chosen animal or bird of the forest, which they picked from a book they had on Mexican fauna. They meticulously filled the silhouettes in with butterfly wings to make a final product reproducing the actual colours of the birds or animals depicted. These sessions generally lasted several hours. Although some males participated, the majority gathered outside to talk. At times, men would pointedly joke that they were starving and could not eat because the women were working with butterflies instead of cooking. The women were very invested in this project; to some degree, it allowed them to prioritise other activities over their traditional roles. The women's group had a good reputation in the community. The president of the women's group wanted all the women who would benefit from the project to participate, and actively worked to remove barriers to involvement. For example, one woman who could not participate because she had had a baby recently, joined after her mother-in-law was enlisted to take care of the baby. The women in this group actively worked for inclusivity.

The women planned to sell their artwork but were unsure

about pricing and distribution. On an occasion when my wife was visiting, she reported that the women had asked her how to price their work. Unsure how to answer, she had responded by trying to calculate profit based on a simplistic model. She asked them how many women were working on the project, how much time they had spent creating the work, how much they had spent on materials for the mats, tools, and framing. She quickly realised that, given the number of women involved and the amount of time they had invested, it seemed impossible to sell the artwork to make a profit. Not knowing what to say, she reported, she had trailed off into an awkward silence. It became increasingly clear that there were no clear guidelines on how to make this project feasible. So in addition to power imbalances and knowledge gaps, there was lack of a participatory mechanism to gather input on what was needed.

In the spring of 2002, the regional coordinator of COMPACT convened a meeting of project evaluators to consider renewing all regional programs funded by the United Nations, including the butterfly *aprovechamiento* project. The evaluators included biologists from a Mexican university, ECOSUR, and the Director of the Sian Ka'an Biosphere Reserve. These scientists adjudged success and failure, and identified those projects that had potential for future funding. The President of the Tres Reyes SPR presented a report of all their projects' activities and expenditures. When he reported on the butterfly project, a biologist evaluator was outraged about the use of butterflies. The president responded to this outrage by explaining that the Maya were making crafts with butterflies picked up on the road after they were already killed by cars riding along. He later told me that he did not understand why the biologist was so opposed to the use of butterflies that were already dead. In less than an hour, the biologist trivialised the project and erased the labour, the art, and the empowerment produced in the course of this project and convinced the evaluation group to stop further funding. Even though he was permitted to make his argument before the panel, he was not part of it and not really able to engage in a participatory debate. The power differential and coloniality of nature was on display as the board of 'experts' decided and had the final say. In essence, they became the judge and jury of what constitutes conservation and appropriate use of resources.

At the conclusion of my fieldwork, the women of the community gave me two of their framed works as a gift. At that time, they had not begun to sell them. Although *U Yool Che* had been committed to continue working with the butterfly project, when I returned in 2009 it was no longer active and no women's projects were running in Tres Reyes. Although possibilities for new gendered spaces and identities had been created by the implementation of conservation projects such as the butterfly initiative, these were never fully realised through the institutional projects.

## DISCUSSION

What role has institutionally-sponsored conservation played in perpetuating unequal and undemocratic relations between the Maya and outsiders? Since the Sian Ka'an Biosphere reserve

was established in 1986, the communities surrounding it have brought about initiatives to change their livelihood practices in the direction of what are perceived to be correct ways to preserve natural resources. In Tres Reyes, this relationship lasted for many years of negotiations but ultimately ended in expulsion of the NGOs from the community; a particular biodiversity conservation and development model imposed by the NGOs and the state ended in favour of one of their own that focuses on their relation to the forest and their political autonomy. In interviewing a group of key leaders in Tres Reyes, I asked if they would ever consider working on any other conservation project sponsored by the government or any other institution. One of them quickly and emphatically replied "Never!" People nodded. I followed up with "Really?" After a brief silence, the former president of *Tuukul Otsil Maak* told me "This is the thing, José, we really have had it with sacrificing so much for all these projects and the government screwing us. If someone comes with a project, we will have to discuss it [among ourselves] and decide if it benefits the community and protects the forest. The other thing is that *we* will have to run it" (personal interview). There was a lot of confidence in his answer. It seems as if the outcome of events gave them a new level of empowerment. The experience of Tres Reyes highlighted the troubled trajectory and pointed out several difficulties of institutionally-sponsored conservation, which raises a number of further issues.

*Who needs whom?* In a case study about the experience of conservation in the Lacandon rainforest in Chiapas, Mexico, Trench (2008) argues that the relationship between conservationists and local communities is 'clientelistic'—the conservation community and indigenous community need each other because "the former has the financial resources and the 'need' to intervene and the latter the territory and the bio-capital, although the balance of power constantly alters" (2008: 622). In the case of Tres Reyes, it becomes clear that because of their location within the buffer zone of Sian Ka'an the conservation community felt compelled to intervene. The perceived wisdom in Tres Reyes was that the majority of development projects had produced no positive outcomes. Communities had become increasingly sceptical about foreigners' intentions. They would begin to implement proposals for improving agriculture, bee keeping, logging, and so forth, but the local Maya noted that when the funds ran out, the agencies abandoned the communities before any claimed benefits could be realised. This was their experience with *Amigos de Sian Ka'an* and their rationale for cutting ties with them. *Amigos*, in their view, simply wanted money for projects, without commitment to communities, as they often moved on without following up on previous commitments. *U Yool Ché* came into being because of an awareness of this problem. Its four founding members, once part of *Amigos*, broke ties with them because they wanted to follow through on development projects even if funding for a project ran out, in the hope that eventually they could find future funding.

In the end, however, it seemed that all NGOs, whether large or small, felt their role was to intervene and extensively guide

the communities in the implementation of projects, and the people of the community who live in the forest felt that they needed more autonomy. Even the trust *U Yool Ché* achieved, noted above, was compromised by the delay in benefits from the projects. There was a marked difference in NGO and community expectations. Conservation promotes benefits that are not immediate, but waiting an indeterminate time for some of these promised paybacks was arduous for locals. Not only did work prospectively invested in the conservation activities take considerable time away from their livelihood strategies, but they were also asked to refrain from other sustenance activities such as hunting and farming. While conservationists often remind everyone that the benefits of conservation will be there in the future, this does not solve the local challenge of how to feed families in the present. This challenge, itself, is a daily reminder about of the importance of managing the forest and by whose rules local communities are to abide. When the people of Tres Reyes became aware of this reality and broke ties with institutional-sponsored conservation, it opened what Sidaway (2007) calls a space of post-development—a region or a network that operates independently, grounded in a particular local reality that is not completely dominated by national and international neoliberal discourses of development and conservation.

### Imagining a post-development conservation

Post-development theory emerged in the 1990s as a critique of modernity and development practice in the Third World (Escobar 1995; Rahnama 1997). Although not a homogenous body of theory, most of it is interested in “what new forms of social organisation arise from the breakdown or disillusionment with the institutions of the development era” (Escobar ed. 2007: 12). Defining the possibility of a ‘post-development era’ meant for some post-structuralist theorists that “development would no longer be the central organizing principle of social life” (Escobar 2008: 171). Addressing his critics, Escobar concedes that given the state of our world that continues to be under the hegemony of global capital, “it is not unreasonable to think that post-development is wishful thinking” (Escobar 2007: 29). However, he goes on to argue that “this notion can be restated today in terms of construction of forms of globality that, while engaging with modernity, are not necessarily modernizing or developmentalist, precisely because they are built from the colonial difference” (Escobar 2008: 171). In many ways, biodiversity conservation has been the crystallisation of the blending of conservation and development and has followed the same prescriptions, the same top-down approaches that advocate the creation of the environmental subjects by ‘being there’ but marginalises their knowledge and meaningful collaborations through the coloniality of nature.

Ending ties with institutional-sponsored conservation while reasserting their autonomy and their relation to the forest and Sian Ka’an, Tres Reyes opened a space of post-development conservation. Just like NGOs need room for manoeuvre

(Hilburst 2003), so too, local indigenous communities need their space to manoeuvre. Such a space permits the practice of their own life projects (Blaser 2010) that are grounded in a particular local reality that is not necessarily incompatible with the aims of Western conservation. While the Tres Reyes Maya views of *aprovechamiento* differed from that of conservationists, the differences were not radical. *Aprovechamiento* for them is equated, in most cases, with the preservation of resources to sustain a livelihood for present families and future generations. People in the community are well aware that environmental damage is a threat, that out of control fires, for instance, hurt the forest. When I asked how residents feel when conservationists admonished them for not doing enough to protect the forest (as I was able to witness on several occasions), one community member told me: “We are taking care of the reserve, the forest and the animals because we want to keep it looking this way, not like Yucatan (state) which is *puro uaymil* [less vegetation].” The most common description of what *aprovechamiento* entails was: “to preserve for future generations, for my grandchildren.” Moreover, the most common responses to what, specifically, was to be preserved were “the forest (*monte*);” “to continue working in the forest;” “The *monte* and nature, so that there is no more pollution;” and “The *monte*, birds, and animals.” Their concern for preserving the forest was summarised thus by an elder: “We need to take care of the *monte* and teach our children to work with it, because when everything else fails, the *monte* will be there to fill our bellies.” They would continue to support conservation efforts when they perceived a fit for them. Most people agreed that the reserve is beneficial because animals take refuge and reproduce in the forest. They also knew, however, that there was inequality in the relation between themselves and those in charge of the reserve. When people understand their dependence on the forest not only for their livelihood but also for their cultural reproduction, and conservationists don’t integrate this understanding into conservation strategies, the resulting efforts are likely to either fail or leave lasting negative impacts on local communities. Building on such local knowledge is where I see the groundwork for a post-development conservation for communities aware of their particular reality and not subordinated to a continuation of colonial relations.

### CONCLUSION

The political ecology of conservation not only shows the complexity of conservation projects in-situ but also exposes the importance of examining sociocultural relations and power linkages through which international NGOs are gaining more influence over environmental governance. Many NGOs ‘outsource’ implementation with the idea that projects are thus sufficiently localised, but when such projects repeat the dynamic of not involving people in project design and critical reflection along the way, they tend to end with similar results.

In the case described in this paper, NGOs were not capable of implementing programs that might have been sustainable



for local communities, as they allowed conservation priorities to dominate local, democratic participation, leaving no space for the incorporation of local knowledge. Before they could begin any work, the Maya were compelled to train from outside experts about species of which they already had a store of experience and knowledge. The women of Tres Reyes did begin to benefit from the conservation projects insofar as they became more empowered to act beyond their traditional roles. However, evaluators deemed the scientific aspects of the project more important than the economic and social nuances. Further, *U Yool Ché* had not fully thought through the project it was implementing and failed to provide training or support beyond the scientific monitoring stage. Had there been more equal collaboration on the projects, the outcomes might have been different, but the dominance of biological science within a particular conservation logic proved too difficult to overcome.

People from Tres Reyes were active in the conservation projects that they hoped would be successful. In the end, it was not a success story in terms of participation, as many NGOs and donors have claimed. The participatory framework that was advocated was never in place. Alternative environmental projects must alter their handling of local participation, as a greater degree of local community autonomy is needed to make conservation more democratic and participatory. I am not promoting a naïve belief that the local can be *the* only basis for decision-making, but to claim participatory enactment that is not occurring is disingenuous at best and a form of colonialism at worst. Additionally, institutional accountability and better integration of traditional environmental knowledge into conservation schemes is needed *if* renewed collaboration with communities along the reserve will take place. The Maya were still in a subaltern position and their knowledge was undermined. The Maya did not have any part in decision-making about reserve management, which directly affected their livelihoods. In the end, it remains to be seen whether a post-development conservation era can, and will, enable positive developments without active conservation NGOs working with the community or whether the present moment is simply a temporary break until another NGO approaches Tres Reyes for another *aprovechamiento* project.

### ACKNOWLEDGEMENTS

My deepest gratitude to the people of Tres Reyes, Quintana Roo for the generosity of their time, hospitality, and for sharing their stories and knowledge. I would also like to thank Julio Moure and Carlos Gracida in Felipe Carrillo Puerto, Quintana Roo. Camille Curtis helped with timely comments and editorial advice. I am also grateful for the comments and advice of the outside reviewers. The author is solely responsible for the content of this paper.

### NOTES

1. The *ejido* is one of the land tenure systems in Mexico. *Ejido* members, known as *ejidatarios*, have title and access to land

which is predominantly used for farming, forestry and, most recently, conservation. The question of how much land each individual is assigned or how they distribute the benefits of the products is determined by each *ejido* body. Recent legislation, known as PROCEDE, has also opened up the possibility of dividing and privatising land into parcels.

2. Specific details about conflicts over indigenous knowledge of the environment vis-à-vis Western scientific rationality is outside the scope of this paper; it is being worked in a current book manuscript.
3. The CBD's article 8 of 192 "(j) Subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilisation of such knowledge, innovations and practices" (CBD 1992).
4. In the case of wildlife legislation, Mexico began enacting regulation in the 1950s, particularly gaming laws (Simonian 1995; Valdez et al. 2006). In 1994, wildlife management was assigned to the umbrella agency called *Secretaría del Medio Ambiente, Recursos Naturales y Pesca* (SEMARNAP; Ministry of Environment, Natural Resources, and Fisheries) that brought together all government agencies engaged with natural resources and environmental matters. In 2001, a reorganisation of SEMARNAP transferred fisheries to another ministry and changed the agency's name to SEMARNAT.
5. *Por Esto de Quintana Roo*. P. 15. December 30, 2000.

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