One Step Forward, Two Steps Back: The Sirionó and Yuquí Community ...

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One Step Forward, Two Steps Back: The Sirionó and Yuquí Community Forestry Projects in the Bolivian Amazon

Allyn MacLean Stearman

Since the early 1990's, "community forestry" has taken the spotlight in conservation and development initiatives in the Bolivian Amazon, particularly among indigenous peoples. This paper will examine the cases of two culturally related indigenous groups, the Sirionó and Yuquí, who are both stakeholders in community forestry management projects. The first project, carried out among the Sirionó by the NGO (non-governmental organization) CIDDEBENI (Centro de Investigación y Documentación para el Desarrollo del Beni), was funded by several international NGOs and governmental entities. It was small-scale and the staff had in-depth knowledge of the indigenous culture, practiced careful planning, engaged in participatory decision-making, and provided continuous monitoring and documentation for assessment. As a result, the project has contributed positively to the cultural continuity and integrity of the Sirionó people and their economic development. The second project, targeted at the Yuquí and carried out by the USAID-funded forestry project BOLFOR (Bolivia Sustainable Forest Management Project), was a minor part of this large-scale and complex project, and the staff was lacking in knowledge of the indigenous culture, carried out little planning, and provided virtually no monitoring or oversight. This paper compares and contrasts these two forestry projects and the management decisions that contributed to their relative success or failure. An analysis is provided that addresses planning and implementation issues that should be considered for similar projects in the future.

Key words: conservation and development, indigenous community forestry, Bolivian Amazon, Sirionó, Yuquí

Introduction

In 1989, the Coordinating Body of Indigenous Organizations of the Amazon Basin (COICA), responding to a number of development projects that threatened the wellbeing of indigenous peoples and their homelands, called for an alliance between conservationists and indigenous peoples. COICA argued that conservationists and native peoples were potentially natural allies, and that together, they could work to preserve large tropical landscapes for the future (COICA 1989). A series of international conferences followed that also confronted the exclusion of indigenous peoples from conservation projects, resulting in a mandate for "community-based" or

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"grass-roots" initiatives (Chapin 2004:20). This mandate led to new programs in "sustainable development" that promised to incorporate indigenous peoples into project designs as equal partners. Numerous governments, private donor agencies, non-governmental organizations (NGOs), and large conservation organizations such as World Wildlife Fund (WWF), The Nature Conservancy (TNC), and Conservation International (CI) were eager participants in this new conservation-based development initiative. Unfortunately, even with these new directives to insure the rights of indigenous peoples, recent reports indicate that many of these projects are not delivering the anticipated results (Bray and Anderson 2005; Chapin 2004; Chernela 2005; Dowie 2005; McShane and Wells 2004). In an article in WorldWatch, anthropologist Mac Chapin (2004) outlines some of the reasons behind these failures, citing among others, conflicting interests and agendas between large government assistance agencies and their conservation partners on the one hand, and indigenous peoples on the other. These conflicts and failures have centered on issues such as how protected lands should be used, the lack of training and expertise of the staff of the numerous organizations and agencies working with native peoples, and the continuing unequal power relationships in decision-making and in the disposition of funding. In spite of these criticisms, there have been efforts that have

demonstrated more positive outcomes, and several of those were noted in the responses to Chapin's *WorldWatch* article (cf. WorldWatch 2005).

This paper will compare and contrast two lowland Bolivian community-based sustainable forestry projects: one that is achieving notable success and is contributing to the cultural survival of the indigenous community it serves, and another that is escalating the forces of disintegration affecting an already struggling people. These case studies focus on the Sirionó and Yuquí indigenous peoples of lowland Bolivia, located in the southwestern region of the Amazon Basin. The author has conducted ongoing research among these two peoples since 1982, and carried out fieldwork to address the topic of this paper during August and September, 2004, and June, 2005. Both cases are instructive in assessing how successes and failures are constructed through the cumulative effects of policy and management decisions carried out by the development agencies and conservation organizations directing these projects, and as Chapin stresses, in revealing how critical the inclusion of professionals with relevant background and experience is to the outcome.

Community Forestry in Bolivia

In September, 1990, Bolivia's lowland indigenous peoples were suddenly thrust onto the world stage when they walked more than 800 km. from the lowland Department of the Beni, through the Andes, to the city of La Paz, gathering greater numbers along the way, in what was to be known as the "March for Territory and Dignity" ("La Marcha por el Territorio y la Dignidad"). The manifest purpose of the demonstration was to demand recognition of lowland indigenous peoples by the national government, although marchers also sought redress for numerous specific complaints, particularly involving territorial rights (cf. Lehm Ardaya 1999). The Bolivian march, which gathered extensive coverage by the international press and occurred only months after COICA hosted "The First Amazon Summit Meeting Between Indigenous Peoples and Environmentalists," was soon followed by the UN General Assembly's 1993 declaration of the International Decade (1995-2005) of the World's Indigenous People (Cultural Survival Voices 2004). As noted above, the resulting merging of the agendas of indigenous rights movements, and their focus on land issues, with those of international conservation organizations seeking to protect large landscapes and the biodiversity within them, led to a plethora of what became known as "conservation-based development projects" or "integrated conservation and development programs" (ICDPs) that purportedly incorporated traditional peoples as active participants (Chapin 2004). In Bolivia specifically, these events contributed to the initiation of numerous conservation and development projects in which sustainable resource use, principally in the form of community forestry, was linked to indigenous peoples of the lowlands and their traditional homelands, most of which had large tracts of marketable timber.

In 1993, the U.S. Agency for International Development (USAID) funded the Bolivia Sustainable Forest Management Project, or BOLFOR. This consortium consisting of USAID and a changing roster of development consulting firms, large conservation organizations, U.S. universities, and other NGOs, was launched with "the somewhat nebulous goals of protecting Bolivian biological diversity and keeping its forests, soils and water healthy by promoting sustainable forestry' (TNC 2004). The BOLFOR project is generally considered the precursor of most of the current forestry initiatives in Bolivia, and BOLFOR staff are credited with advising, and actually helping to frame, the new forestry law (Régimen Forestal de la Nación, or Ley 1700). In addition to establishing controls for the sustainable commercialization of timber, Ley 1700 recognized indigenous peoples' rights to their forest resources. The BOLFOR project also was influential in the passing of the new agrarian reform law (Ley 1715/96 del Instituto Nacional de la Reforma Agraria, or Ley INRA) that resulted in the establishment of legally constituted indigenous territories (or TCOs, Tierras Comunitarias de Origín). Both of these new laws affecting land tenure and forest resource use were passed in 1996, setting the stage for the numerous community forestry projects that would follow (TNC 2004; Tamburini and Betancur 2000; Stocks 1999).

The passing of the laws outlined above provided long-awaited opportunities for large conservation organizations, government agencies such as USAID and its BOLFOR project, and small NGOs to develop sustainable forestry programs. The two cases presented here are among those many community forestry projects involving indigenous peoples that resulted from these initiatives.

In the first case, that of the Sirionó of the Beni region of Bolivia, the Danish-based NGO, IWGIA (International Work Group for Indigenous Affairs) partnered with CIDDEBENI (Centro de Investigación y Documentación para el Desarrollo del Beni), a realtively small, local NGO that had worked for almost two decades with indigenous populations in the Beni. The project was in turn neither large nor complex, and received little attention outside of the region. Nonetheless, the Sirionó and others who are familiar with the project concur that it established an ecologically sound and culturally appropriate management plan to conserve the Sirionó forests and provided the community with a needed source of income. Consequently, the effect of the project has been to strengthen the community's chances for cultural survival. The second case, which involved the Yuqui of the Chapare region, was part of the large USAID-backed BOLFOR forestry project. Unfortunately, as will be shown below, this project, certainly a cautionary tale, has provided no significant benefit to this remnant population of foragers, contributing instead to the threat of their dissolution as an indigenous community and culture.

The Sirionó and Yuquí

The Sirionó and Yuquí are closely related biologically and culturally, which brings an unusual dimension to this

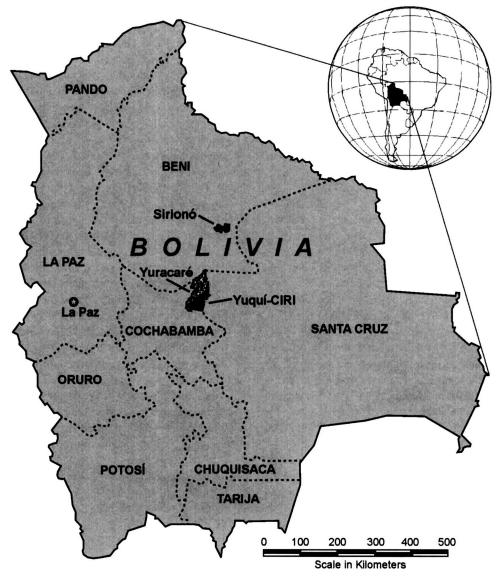


Figure 1. Map of the Sirionó, Yuquí-CIRI and Yuracaré TCOs (Tierras Comunitarias de Orígen)

Source: Resoluciones de Inmobilización y Títulos de TCOs (INRA)

discussion while also introducing an interesting and unique opportunity for comparative analysis (Stearman 1984). Because of their shared origins, the author has carried out fieldwork with both populations, and it was this involvement, rather than an interest in community forestry per se, that led to the study presented here. That both the Sirionó and the Yuquí are engaged simultaneously in community forestry projects is entirely fortuitous; but this in and of itself may be yet another indication of how widespread and prevalent these types of projects are in the Bolivian lowlands.

Both the Sirionó and Yuquí are of Tupí-Guaraní origin and most likely were part of migrations of Tupí-Guaraníspeaking peoples moving into Bolivia from the south that pre-dated the European conquest. With European expansion into lowland Bolivia in the mid-1500s, the Sirionó and Yuquí, at the time probably a single ethnic group, became separated, occupying territories that became increasingly disjunct and slowly developing different cultural attributes and languages (Stearman 1989).

By the early 20th century, when the first technical reports about these people began to appear (cf. Nordenskiöld 1910), both groups were already remnant populations of what we now understand had once been a larger, more complex society. Deculturation had occurred among both groups as the result of rapidly decreasing population size due to disease and deadly encounters with increasing numbers of European settlers (Califano 1994, 1999; Stearman 1984). Consequently, both peoples had reverted to small, band-level nomadic groups

with subsistence patterns based entirely (Yuquí), or almost entirely (Sirionó), on foraging.

In another interesting parallel, both the Sirionó and Yuquí were contacted and established on mission settlements by Protestant evangelical missionaries from the U. S., although almost 30 years separated the two initiatives and they were carried out by different organizations. The Sirionó were missionized by members of the Four Square Gospel Church, and the Yuquí by the New Tribes Mission (NTM). Most Sirionó were contacted and brought to live at a mission in the Beni that was established in 1930 at a site the Sirionó call *Ibiato* ("high place"). The Yuquí, who foraged over a larger and much more isolated area in the Ichilo River region of the Chapare, were not contacted until the late 1950s; but it was not until the early1970s that they fully gave up their nomadic existence and remained permanently at the site they currently occupy on the Chimoré River, *Biá Recuaté* ("place of the people").

Today, the community of Ibiato has a population of about 500 inhabitants (Navia 2003) and is recognized as the home community of the Sirionó people, although an undetermined number of Sirionó are scattered throughout the Beni region living and working on farms and ranches where they had formerly been in peonage. The Yuquí, a much smaller population than the Sirionó from the outset, has grown through natural increase and the addition of two bands contacted in the mid and late 1980s from 43 in 1965 to about 185 people in 2004 (NTM 2004: personal communication), all of whom live at the mission settlement of Biá Recuaté. The people residing in Biá Recuaté represent the entirety of the Yuquí people. The Sirionó maintain their ethnic identity but are highly acculturated, speak fluent Spanish, travel frequently to the Beni capital of Trinidad, and for several generations have been integrated into the indigenous peasantry of the lowlands. In contrast, the Yuquí only recently began to interact with Bolivian nationals after a highway was built through the region, although it is a long and difficult trip to local population centers, and many still are not proficient in Spanish.

One Step Forward: The Sirionó

Sirionó involvement with community forestry was an outgrowth of a long-standing relationship with the local NGO, CIDDEBENI. Established in 1984, CIDDEBENI was organized by a group of professionals and social scientists from the Beni interested in the development of the region and the formation of democratic institutions. In time, CIDDEBENI began to concentrate more specifically on the indigenous peoples of the Beni, including the Sirionó, with an emphasis on researching and documenting indigenous issues, particularly those involving land rights (CIDDEBENI 2003). In the mid-1980s, the Sirionó were visited by CIDDEBENI staff and several of the villagers were invited to participate in reunions and workshops for indigenous peoples hosted by CIDDEBENI in Trinidad. Gradually, the Sirionó connected with members of other lowland Bolivian indigenous grassroots organizations such as CIDOB (Confederación de Pueblos Indígenas de Bolivia) and CPIB (Central de Pueblos Indígenas del Beni). Through these organizations, the Sirionó steadily increased their participation in the growing lowland indigenous movement (Lehm Ardaya 1999).

The Sirionó's relationship with CIDDEBENI was strengthened in the late 1980s and early 1990s when CID-DEBENI became involved in the indigenous struggle for territorial rights, providing critical documentation and technical assistance funded by external organizations to further this process. In 1990, 81 Sirionó participated in the March for Territory and Dignity, following unsuccessful petitions to the government for recognition of their ancestral lands that surrounded the community of Ibiato. On September 24, 1990, following the march, and in response to the demands of its participants, the Bolivian government recognized several indigenous territories by means of Supreme Decrees. The Sirionó were among those groups, receiving legal recognition of their homeland. This event prompted CIDDEBENI to initiate discussions and workshops with the Sirionó that culminated in 1996 with the presentation of the "Diagnóstico Socio-económico y Plan Preliminar del Territorio Indígena Sirionó" (The Socio-economic Diagnostic and Preliminary Plan for the Sirionó Indigenous Territory), that included components for community development, sustainable use of forest resources including timber and firewood, and the exploitation of honey collected from native species of bees. The latter activity had been a significant source of income for the Sirionó for many years. In 1998, CIDDEBENI secured funding from IWGIA to initiate projects in those areas identified by the Diagnóstico. In the meantime, agreements with other funding entities such as DANIDA (Danish International Development Agency) were also arranged by CIDDEBENI to assist the Sirionó with the lengthy and complex process of consolidating their territory and delineating boundaries. In 1997, after months of further discussions, adjustments, surveys, and negotiations, the Sirionó territory was granted the status of Tierra Comunitaria de Orígin (TCO), as indigenous territories were now designated by the new agrarian reform law (Ley INRA), receiving an executive title that encompassed almost 63,000 ha. (Navia 2003). Following the consolidation and establishment of the Sirionó TCO, CID-DEBENI provided the technical assistance to formulate the Sirionó Forestry Management Plan (Plan de Manejo Forestal Sirionó), which was approved in 1999, enabling the Sirionó to begin the legal exploitation their forest resources (Nayonne 2003). This management plan was developed as the result of ongoing and frequent collaboration with the Sirionó and their participation in its development.

In the Sirionó management plan, approximately 17,000 ha. of the territory, composed of both forest and savannas (pampa), were identified as forest. Of this area, 9,600 ha. were identified as appropriate for sustainable use with 3,400 ha. designated for permanent conservation. The cutting cycle suggested was approximately 200 ha. per year on a 20 year rotation and involved the harvesting of 11 species destined both for saw logs (commercial timber) and firewood (Stocks

1999; CIDDEBENI 2001; Kudrenecky 2004: personal communication). The Sirionó were trained as technicians to carry out the forest census, tree selection and marking, and to maintain management records.

Saw wood, which requires straighter trees, is harvested first, and then those trees not suitable for lumber are cut into short logs for firewood. Sirionó trained to use chainsaws did the felling. Individual Sironó then signed contracts with their community forestry organization to split the logs into firewood, a labor-intensive process that requires the use of axes. In any given year, 40-60 Sirionó men are employed in these activities (Consejo Sirionó, CIDDEBENI, APCOB 2004). The profits from the saw logs are the greatest, since they can be milled locally or sold on site with virtually no production costs. Lumber is also sold at a higher price than firewood. However, the Sirionó must compete with illegal loggers and the timber has value only as construction wood used primarily in the city of Trinidad. Thus, the sale of saw logs lacks market stability. However, the sale of firewood to the brick and tile factory in Trinidad, although not very profitable, is dependable.

The 1998 IWGIA funding provided the Sirionó with a large truck to transport both saw logs and firewood. Currently, the truck is being used primarily for the transport of firewood, making the 60 km. trip almost daily to Trinidad. The brick and tile factory has a contract with the Sirionó to provide primarily Guayabochi (*Calicophyllum spruceanum*) wood to the factory for their kilns. The truck is chauffeured by a Sirionó who is licensed and who received training in vehicle maintenance. Part of the wood profits go toward fuel and maintenance for the truck, rendering the operating costs independent of external funding. Although production costs of firewood are high, many of these costs are in labor, and therefore provide needed and dependable income to Sirionó families.

Beekeeping and honey collection make up the other important component of the sustainable resource use plan facilitated by CIDDEBENI and funded by IWGIA and USAID through DAI (Development Alternatives, Inc.) (Nayonne 2003). The consumption of wild honey collected from three native species of stingless bees of the subfamily Meliponinae (Scaptotrigona porstica Latreille, Trigona capitata, and Scaptotrigona polysticta Moure) is a longstanding tradition among both indigenous and mestizo peoples throughout Bolivia. In addition to being a source of sweetening, honey is considered to have medicinal value and to contribute to overall health and wellbeing. Thus, the Sirionó have long been able to market their wild honey (miel silvestre) when they made trips to the city of Trinidad and other communities. As roads improved, people would come to Ibiato to purchase honey. In addition, in the 1970s, several Sirionó men were trained in commercial beekeeping by missionaries, including being invited to attend a short course at California State University at Chico. Although this training did not bear much fruit at the time, largely because of the accidental introduction into the New World of the highly aggressive African honey bee that halted commercial beekeeping in lowland Bolivia for many

years (Stearman 1981), interest in beekeeping as a natural outgrowth of traditional honey collection had been kindled.

The primary drawback to large-scale commercialization of wild honey is that both the tree and the colony are destroyed during the collection process. In the Sirionó case, this is even more undesirable given that the tree species most preferred by these bees for hive establishment is the Guayabochi, the Sirionó's principal source of commercial firewood. In order to conserve wild colonies and their tree hosts, CIDDEBENI staff worked with the Sirionó to develop a management system that employed wood boxes. The wood is harvested from the community's forest and is locally cut into boards. These are then made into hives in the Sirionó carpentry shop financed by the project. A Sirionó was trained to use the carpentry shop equipment provided, which was kept at an appropriate level of technology. This carpentry shop also serves the community in furniture building and providing other woodcrafts such as doors, window frames, outhouse seats, and firearm stocks. In 2003, the community had 700 hives in production, apportioned among 50 families (Nayonne 2003).

Commercial beekeeping was taken to an even higher level of productivity by the inventiveness of CIDDEBENI staff that experimented with various suction techniques to extract honey, discovering that the technology commonly used by dentists to counter the flow of saliva could be transferred to native beekeeping. Native bees store honey in irregular wax capsules, not in the standardized comb panels produced by domestic bees. Thus, the capsules are destroyed during the process of extraction, which sets the hive back several months while the wax capsules are rebuilt. By using a small dental suction system powered by a portable generator, the Sirionó are now able to successfully extract honey without major damage to the colony.

Recently, CIDDEBENI has assisted the Sirionó with the management of cattle on their grasslands. Since the establishment of the mission in 1930, cattle have been a part of the economic history of Ibiato as they have been for all of the Beni region; but community ownership of commercially viable herds has been sporadic and largely unsuccessful due to a lack of management skills. Only time will tell if this latest effort will prove more successful.

Finally, CIDDEBENI technical personnel continue to work with the Sirionó to promote new directions in community development and sustainable resource use. For example, discussions are now underway to consider the commercial extraction of Copaibo oil (the oleoresin of *Copaifera spp.* [Schultes and Raffauf 1990]), a medicinal product consumed throughout Bolivia that has excellent market potential.

Two Steps Back: The Yuquí

Like the Sirionó, the Yuquí received legal recognition of their territory with a Supreme Decree, promulgated on April 9, 1992. This decree was facilitated by staff working with the Yuquí on an ethnodevelopment project sponsored by the InterAmerican Development Bank, and made use of

data regarding Yuquí patterns of resource use collected by the author over a period of about eight years. As part of the IDB project, the Yuqui territory was also ground-truthed and mapped using GPS/GIS technology, with satellite imagery of landforms superimposed on this map, one of the first such efforts carried out in Bolivia (Jarvis and Stearman 1995). The IDB project was short term (14 months) and made small but respectable gains in mitigating the threat of rapid acculturation occasioned by the influx of people into the area as a result of highway construction and the new settlement it encouraged. The establishment off a legal territory for the Yuqui was perhaps the single most significant accomplishment of the IDB project, but creating a Yuquí council, and working to give the Yuqui greater autonomy over their own lives were also important achievements. A member of CIDOB's executive board fully participated in the day-to-day operations of the project, working specifically in the realm of leadership training and assisting with efforts to promote a sense of ethnic identity among the Yuquí. However, by the conclusion of the project, the Yuquí, were only beginning to achieve cohesiveness as a group and the organizational skills to effectively engage with the outside world.

Yuquí involvement with the USAID-financed BOLFOR project began as the result of a policy shift that originated from the criticism that BOLFOR had focused primarily on large, private timber companies and needed to consider including indigenous peoples with their newly-granted territories in their forestry programs (Stocks 1999). In response, BOLFOR and one of its subcontractors, Chemonics, targeted seven indigenous groups (BOLFOR/Chemonics 2004). This initially included the Chiquitanos, Guarayos, Tacanas, Araonas, and the Yuqui. Two small, preliminary projects were later undertaken with the Machineris and Yanaiguas (Lehm Ardaya 2005: personal communication). Of the five major indigenous projects, the Araona and Yuquí had the disadvantage of being small groups of recently-contacted foragers. They did not yet have an organizational structure in place, or the leadership training, that would support a sustainable forestry management plan, let alone forest certification (a "green" label on timber products that opens up world markets to large and small producers), both goals of BOLFOR (Stocks 1999). At the conclusion of BOLFOR, or what was later to be designated BOLFOR I (in 2004, BOLFOR was restructured and refinanced by USAID for another five years and became BOLFOR II [see below]), the indigenous community forestry projects were deemed to have achieved only modest success at best, and those were the projects carried out among the larger, agriculturally-based, and highly-acculturated groups of Guarayos, Tacanas, and Chiquitanos (Lehm Ardaya 2005: personal communication). The Araona and Yuquí projects saw no positive lasting results. Nonetheless, of the two, the Yuquí, as will be shown, suffered the most serious consequences from their involvement in BOLFOR in that they lost sole control of their territory.

The reasons for the decisions made by BOLFOR in selecting each of the seven indigenous groups varied. In the case

of the Chiquitanos, they, like the Sirionó, had a relatively long history of acculturation and a lengthy partnership with a wellknown local NGO, APCOB (Apoyo para el Campesino Indígena del Oriente Boliviano), which, beginning in the 1980s, had carried out a major land consolidation and sustainable forestry project with them (Birk 2000). Thus, the on-going APCOB involvement with the Chiquitanos of Lomerío made them an obvious choice for inclusion. In the Yuquí case, as improbable as it may seem in the context of a large, complex, internationally funded project such as BOLFOR, the Yuquí were first identified and then included in BOLFOR because a captive Yuquí child had been raised by the family of one of the Chemonics staff and this event spurred his curiosity and interest in pursuing contact with them. (BOLFOR II 2004: personal communication; Moreno 2004: personal communication). In-depth research, inclusive, broad-based discussions about the Yuqui's prospects in taking on such a project, or substantive discussions with the Yuqui were not part of the decision-making process that brought the Yuquí into BOLFOR (Lobo 2004: personal communication). Many observers believe that this situation evolved as an outgrowth of the general lack of training in, and understanding of, the sociocultural aspects of the project that consistently plagued BOLFOR foresters and conservation biologists who headed up the program (BOLFOR II 2004: personal communication; Painter 2004: personal communication; Stocks 2005: personal communication).

Once the Yuqui project was underway, BOLFOR and its partner in the certification process, the World Wildlife Fund (WWF), became intrigued by the uniqueness of working with a people like the Yuqui, a remnant group of recently-contacted hunter-gatherers who still harvested game and fish with 2-meter long bows and arrows and remained close to their forest environment (cf. Collin 2001; Enever 2002). BOLFOR and WWF presumed that if the Yuqui could be helped to develop first a management plan, and then achieve certification of their forests, they would reap significant social and economic benefits from the process. At the same time, achieving forest certification for a small band of foragers such as the Yuqui had enormous public relations potential for both BOLFOR and WWF (cf. Enever 2002).

In achieving these goals, BOLFOR and WWF had to overcome two major obstacles that threatened to derail the process: a boundary dispute initiated by a neighboring people, the Yuracaré, and the incipient nature of Yuquí acculturation. With regard to the former, the Agrarian Reform Office (INRA) had begun the process of granting TCO status to those groups, including the Yuquí, who held Supreme Decrees that recognized their traditional territories (see also the Sirionó case above). There were several Yuracaré indigenous communities located along the southeastern shore of the Chapare River that were within the Yuquí Territory. In 1992, when the boundaries were being determined for the Yuquí Indigenous Territory, these communities did not object to where the boundary lines were being drawn. At that time, land, not timber was at issue and the Yuracaré would not lose their right

to remain in their villages. The Yuracaré were also soliciting a territory north of the Chapare River, where the majority of their communities were located, that was twice as large as what the Yuquí had requested and that was eventually granted and given TCO status.

However, with the passing of the new Forestry Law in 1996, for the first time in the history of Bolivia, indigenous peoples were to be given legal rights to the forest resources on their lands. The Yuracaré living within the Yuquí Territory now saw the impending titling process as both a threat and an opportunity.

The Yuracaré, members of a large, highly-acculturated, well-organized, and politically able people, had begun to exploit the timber resources within Yuquí lands after having significantly overharvested their own (Isateguá 2004: personal communication). The Yuquí resented these intrusions, but could do little to control them. The Yuracaré were concerned that once the Yuquí received legal title to their territory, which would bring it under the protection and control of the Forest Superintendency (Superintendencia Forestal), the Yuracaré might be effectively excluded from harvesting these areas (Melgar 2004: personal communication). With the support of CERES (Centro de Estadística de la Realidad Económica y Social), an established Bolivian NGO that with FAO funding had been working with the Yuracaré since 1994 on the consolidation of their territory and the development of a management plan (Becker and León 1998), the Yuracaré residents of the Yuquí Territory contested the boundaries of the new TCO Yuquí (Melgar 2004: personal communication). In their protest, they asked that the strip of land on the southeastern side of the Chapare River that contained the Yuracaré settlements mentioned above be ceded to the Yuracaré. This would have required that the area be re-surveyed and mapped, with a new boundary line established. Other groups, like the Sirionó, had been required to go through a similar process in order to achieve title to their land; but resurveying land to clear the Yuquí title would be time-consuming and require additional expenditures.

Until the Yuracaré protest and the status of the Yuquí TCO could be resolved, BOLFOR's and WWF's hope of moving forward with approvals of a forestry management plan was threatened; and most certainly any chances for certification, which would not be considered if land rights were being contested, were in jeopardy (Peña 2004: personal communication).

The second major obstacle involved the Yuqui's ability to take on the development and management of a forestry plan that would pave the way to achieve the real goal, certification. Once BOLFOR personnel actually began working with the Yuqui, it became apparent that the recently acculturating Yuqui would have significant difficulty in managing the organizational complexities that were demanded to meet the preconditions for certification (Lobo 2004: personal communication; Smartwood/FSC 2004), particularly given the project timetable facing BOLFOR and its partner WWF. As noted above, the Yuracaré, with the assistance of CERES,

already had a management plan under development and presumably the necessary leadership and management skills to make it operational.

Thus, in order for BOLFOR and WWF to make all of this work, resolution of the boundary dispute would need to be expedited and the Yuracaré and their CERES advisors would need to be incorporated into the Yuquí forestry project to help develop and manage it. Both of these problems could be addressed by dissolving the Yuquí Indigenous Territory and creating a multiethnic territory that would incorporate both groups. Thus, BOLFOR and CERES staff met with officials of INRA, the government land titling agency, who agreed to the plan to create a multiethnic territory, comprised of the Yuquí and Yuracaré and a few other families claiming indigenous origins that had settled along the margins of the Ichilo River (Lobo 2004: personal communication). Once this had been accomplished, BOLFOR and WWF would be able to move toward their goal of forest certification for the Yuquí. For its part, CERES, with the assistance of BOLFOR, would now be able to bring to completion several outstanding projects, including the resolution of the boundary dispute and the approval of the management plan, and to the benefit of its partners, the Yuracaré.

In subsequent meetings held with the Yuquí by a team from INRA to secure the re-designation of the Yuquí territory as a multiethnic TCO, the Yuquí objected to sharing their territory with the Yuracaré, whom they feared would marginalize them, and with whom they did not have cordial relations. As a consequence of these objections, the Yuquí were advised by INRA officials that if they did not agree to share their territory with the Yuracaré, they would run the risk of being designated as peasants (campesinos), receiving an allotment of 50 ha. per family and losing all rights to their former indigenous territory of 127,000 ha. Under this pressure, the Yuquí accepted INRA's offer and gave up their claim of sole ownership of their territory (Isateguá 2004: personal communication). On April 11, 1997, what had formerly been the Territorio Indígena Yuquí became the TCO Yuquí-CIRI, CIRI (Consejo Indígena del Río Ichilo) being the new umbrella organization for those Yuracaré and other settlers who resided on former Yuqui lands.

Once the land dispute had been settled by creating a multiethnic territory, BOLFOR moved ahead with the implementation of the forest management plan, and with the support of WWF, ultimately secured certification by Smartwood, an agency accredited by the Forest Stewardship Council (FSC) that oversees the certification program in Bolivia. The TCO Yuquí-CIRI management plan was approved in August, 1999, and certification was received in March, 2004 (Smartwood/FSC 2004). The forest certification plan provided for 55,986 ha. of forest to be managed for timber extraction (Smartwood/FSC 2004). With forest certification, the crown jewel of sustainable forestry was at last in place, and the Yuquí became BOLFOR's and WWF's poster children for their success in indigenous community forestry. The story of the Yuquí's achievement was broadcast around the world

(Enever 2002; WWF 2004). The TCO Yuquí-CIRI was one of only two TCOs in Bolivia that had successfully negotiated the complexities of forest certification—the other being Lomerío, which due to ongoing leadership and management difficulties, ultimately lost its certification (Riester 2004: personal communication).

To handle the affairs of the TCO Yuquí-CIRI, including the implementation of the forest management plan, in 1997 CERES advised and supported the establishment of a new NGO, CPITCO (Coordinadora de Pueblos y Comunidades Indígenas del Trópico de Cochabamba) (Cardoso Subieta 2002). The Yuracaré currently hold all of the financial, technical, and managerial posts of the organization while the largely ceremonial office of president is reserved for a Yuquí. Since the inception of the management plan, CPITCO has delivered only three payments of 200 bolivianos (~US \$26) each to 60 Yuguí heads of family. Equipment provided from the Yuquí share of the reported \$US 40,000 first year profits (WWF 2004), such as chain saws and outboard motors, was appropriated and disposed of by a group of young Yuquí who had been involved with the project from the outset. The amount and disposition of subsequent profits derived from the management plan, apart from the three, 200 boliviano payments are unknown.

When the author visited Bia Recuaté, in 2004, there were very few Yuquí present in the community. Most of the people had left to look for work or simply to wander the streets of nearby towns. Although most Yuquí were familiar with the management plan, at least by name, those Yuquí whom the author interviewed, with the exception of one of the six or so young Yuquí noted above who was in Biá Recuaté at the time, seemed to know nothing about certification and were unfamiliar with the term.

Among the remaining Yuquí, mostly the lesser-acculturated elders, there was considerable anxiety expressed concerning the management plan, which they did not really understand other than that it involved the sale of timber, and its perceived negative effects on the community. Many of the Yuquí elders were angry that the same handful of young Yuqui who in the past had worked with outside individuals in extracting timber from Yuquí lands were once again reaping financial rewards that were not shared with the community. This same situation is not unknown among other similar projects, and one that contributed to Lomerio's losing its certification (Riester 2004: personal communication). The ever-widening disparities in wealth are a growing source of divisiveness and discouragement that is draining the Yuquí community of its will to survive. As the Director of BOLFOR II observed, "The Yuquí are dispirited and seem to have given up on themselves" (Kenny 2004: personal communication).

With the granting of certification by Smartwood, WWF considered its work with the Yuquí completed. BOLFOR also came to a close, but USAID decided to continue the initiative as BOLFOR II, albeit much scaled back. USAID awarded the cooperative agreement for BOLFOR II to The Nature Conservancy (TNC), which immediately determined that given the

available funding, fewer indigenous communities could be included in the scope of work, and that these groups would be selected according to more rigorous criteria in terms of their ability to carry out the goals of the new project. Although the Yuquí were still in need of training and oversight to become full partners in the forestry program established by BOLFOR I, because of reduced funding and their poor outlook for success, they were not included in BOLFOR II (Price 2004: personal communication). Nonetheless, even TNC, which had not been involved in the first BOLFOR project nor with the Yuquí, continued, perhaps unwittingly, to use the Yuquí case in its BOLFOR II promotional material as an example of success in working with indigenous groups:

Is there a BOLFOR success story that the Conservancy can build on as it coordinates the second stage of BOLFOR? The Yuqui indigenous people deep in the Bolivian Amazon have adopted a timber management plan. For centuries, the Yuquis [sic] lived traditionally as nomadic hunters and gatherers... (TNC 2004:6-7 but still online as of 6/26/05).

As is often the way of development agencies and conservation organizations, BOLFOR has been reinvented as BOLFOR II with a new agenda and WWF has moved on to other projects, while the Yuquí continue to face an uncertain future.

Summary and Conclusions

The Sirionó and Yuquí cases are instructive on many levels. Because these two indigenous groups have similar cultural histories, they offer a unique opportunity to analyze the probable causes for contrasting outcomes in the recent sustainable forestry initiatives carried out in each community.

The Sirionó and Yuquí share common ancestral origins in Tupí-Guaraní peoples who migrated into eastern Bolivia prior to the European invasion. Both experienced persecution by local settlers and were known for their aggressiveness toward outsiders. They escaped extinction from genocide or assimilation by fleeing into the most remote regions of the Bolivian Amazon, and in doing so, appear to have lost much of their original, more complex culture. Their populations declined as the result of the stresses of being continually pursued and suffering infrequent, but deadly encounters with settlers. When contacted, both peoples had become nomadic hunter-gatherers, practicing little or no agriculture and moving constantly both to feed themselves and to evade hostile encounters with Bolivian nationals. Contact and initial acculturation of both of these groups was carried out by Evangelical Christians from the U.S. who settled them on mission stations that remained isolated from the larger society for an extended period of time.

From that point onward, the similarities of these two peoples began to diverge in significant ways. As noted above, the Sirionó were contacted and settled at a mission much earlier than the Yuqui and consequently experienced a longer

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period of acculturation. They also were closer to emerging population centers, leading to different degrees and kinds of acculturation. The agents of change working with each group were also notably different. CIDDEBENI was a small, local NGO and had on ongoing presence in the region; BOLFOR was a fluid consortium of large, international organizations and contractors with a finite institutional life.

In the Sirionó case, sustainable forestry projects were built on a solid understanding of the importance of land rights in building a base for further community action. CIDDEBENI from the outset worked with local indigenous communities to assist them in making well-documented claims for indigenous territories. Its staying power in this process assured that indigenous claims for land would move forward while at the same time CIDDEBENI established itself as a credible institution among local peoples. This long-term involvement with indigenous peoples of the Beni and ability to competently negotiate the enormous complexities involved in working with often competing groups of indigenous peoples also tended to prevent naive or careless management decisions that would lead to one group exploiting the weaknesses of another.

CIDDEBENI staff, the core of which was a group of social scientists long associated with the NGO, interacted regularly with the Sirionó, conducted research among them, and was knowledgeable about their history and culture. This regular contact also contributed to CIDDEBENI's in-depth awareness of the dynamics of Sirionó society, traditional leadership patterns, and how decision-making occurred. CI-DDEBENI also began working with the Sirionó on smaller projects that over time gradually brought forth a group of new, legitimate leaders with promising management skills. The proximity of the Sirionó community of Ibiato to the city of Trinidad undoubtedly facilitated this ongoing training and increasing experience.

Overall, the Sirionó are improving their economy and thus their prospects for cultural survival. CIDDEBENI has worked hand in hand with the Sirionó over a long period of time to develop the technical expertise and leadership that has given the Sirionó autonomy and control over their resources and therefore, their future. Moreover, the diversity of activities currently underway has spread the benefits over a large segment of the population and contributes to the high morale and sense of community identity that the Sirionó now enjoy.

The Yuquí case presents a much different situation. The Yuquí community forestry program appears to have been added to the BOLFOR project with little foresight and was not accorded adequate planning, coordination, or supervision. The BOLFOR leadership, while certainly well-meaning, had little or no background in working with indigenous peoples and permitted the inclusion of the Yuquí in the project without adequate understanding of their history, culture, level of acculturation, and the intra- and inter-group tensions they were experiencing. Moreover, BOLFOR staff also did not seem to fully comprehend the critical link between autonomous land rights and the cultural survival of indigenous peoples,

especially small, struggling groups like the Yuquí. This lack of background and experience in working with indigenous peoples such as the Yuquí has had far-reaching consequences, many of which may not be reversible. Perhaps the most serious of these was the disposition of Yuquí lands that, in order to meet the project timetable and goals, were expediently reallocated to include a more numerous and powerful people who, without effective safeguards in place, are challenging Yuquí control of their homeland and its resources.

The isolation of, and distance to, the Yuquí community were other factors not taken into account as the project was conceived and implemented. It is evident that obligations to other tasks, distance, and difficulty of travel conspired against BOLFOR and WWF personnel in making anything but short and infrequent visits to the Yuquí. Furthermore, there was no provision or even expectation that anyone would remain on-site with the Yuqui for extended periods of time. Thus, there was never any substantive engagement with the Yuquí or real understanding of the Yuquí people and their culture, and efforts at project implementation among them were sporadic and superficial. Key programs, such as those intended to develop leadership and technical skills, were largely missing, or incomplete and lacking assessment. Then too, the short and infrequent visits into the community forced BOLFOR and WWF personnel to rely on a few young, acculturated Yuquí who, seeing the prospect of personal gain in the offing, eagerly sought the role of cultural brokers to the exclusion of the remainder of the community. Thus, the lack of long-term, or even sustained contact with the Yuqui affected the integrity of the project and certainly contributed to making expedient, unilateral decisions that now threaten their future.

When WWF achieved its goal of forest certification for the Yuquí, it had completed its mission and withdrew. Similarly, as BOLFOR came to a close, and USAID funded the follow-up program, BOLFOR II, a new team of people replaced the old, and the Yuquí were passed over as decisions were made to include indigenous peoples who were considered more promising candidates.

These two cases clearly show that conservation and development projects, such as community forestry, are successful only if carefully and thoughtfully planned and implemented, and then by teams of professionals trained and experienced in working directly and consistently with indigenous peoples. Ideally, these initiatives should also be programmed to cover an extended period of time, allowing for adequate assessment and re-direction if necessary, to assure the wellbeing of the peoples they are intended to serve. When this does not occur, as seen above, the institutional failures of a conservation and development project may engender long-term consequences that threaten the cultural survival of the people it set out to assist. In this regard, the smaller, local NGOs like CIDDEBENI have better track records than the large, complex projects like BOLFOR with its many, and often changing, partners and contractors. The local NGOs tend to have longstanding face-to-face relationships with the peoples whom they serve, have permanent staff with

extensive local experience, and have long-range programs to insure continuity and accountability.

Finally, projects like BOLFOR frequently include the participation of social scientists, but they often do not equally prioritize social scientists with conservation biologists, foresters, and other natural scientists who typically are selected to manage and oversee these projects. Much too often, the role of the social scientist is viewed as secondary or collateral to that of the conservation biologist or forester (Lehm Ardaya 2005: personal communication; Riester 2004: personal communication). Consequently, inadequate attention may be paid to the specific qualifications of people contracted to carry out the social components of a program. Because they may not be equally credentialed or valued, they are frequently excluded from the inner circle of decision-makers who determine day-to-day policy.

These observations certainly are not novel; but it is noteworthy that the large international NGOs and governmental agencies involved in conservation and development projects, despite their efforts at "getting biodiversity projects to work" (cf. McShane and Wells 2004), continue to repeat the mistakes of the past, stumbling over these and other basic principles of development anthropology that have been on the landscape for decades. Perhaps the most grievous of these recurring oversights is that also underscored by observers such as Chapin (2005), Bray and Anderson (2004), Chernela (2005), and Dowie (2005)—failing to assure that conservation and development projects are built on participatory leadership and the inclusion of indigenous peoples in the decision-making process. If the large governmental assistance agencies and their international conservation NGO partners wish to succeed in their quest for strategies that equally advance their agenda for the conservation of biodiversity with that of the survival of indigenous peoples, they will need to reconsider their ways of doing business.

References

Becker, C. Dustin, and Rosario León

1998 Indigenous Forest Management in the Bolivian Amazon: Lessons from the Yuracaré People. Indiana University/CERES. Typescript.

Birk, Gudrun

2000 Dueños del Bosque: Manejo de los Recursos Naturales por Indígenas Chiquitanos de Bolivia. APCOB-CICOL. Pueblos Indígenas de las Tierras Bajas de Bolivia. Jürgen Riester, ed. APCOB. Santa Cruz, Bolivia.

Block, David

1994 Mission Culture on the Upper Amazon: Native Tradition, Jesuit Enterprise, and Secular Policy in Moxos, 1660-1880. University of Nebraska Press. Lincoln.

BOLFOR/Chemonics

2004 Areas de Trabajo. URL:http://bolfor.chemonics.net/el%20%20proyecto/concesio.htm. December.

BOLFOR II

2004 Personal communication. Meeting with members of BOLFOR II technical staff including members of BOLFOR I. September 23. Santa Cruz, Bolivia.

Bray, David B., and Anthony B. Anderson

2005 Global Conservation, Non-Governmental Organizations, and Local Communities: Perspectives on Programs and Project Implementation in Latin America. Conservation and Development Series, Working Paper No. 1. Florida International Institute for Sustainability Science in Latin America and the Caribbean. Florida International University. Miami.

Califano, Mario

1999 Los Indios Sirionó de Bolivia Oriental. Ciudad Argentina. Buenos Aires.

Califano, Mario

1994 Sirionó. In Encyclopedia of World Cultures: South America. Vol. 7. Human Relations Area Files. G.K. Hall and Co. New York. Pp. 309-311.

Cardoso Subieta, Gustavo

2002 El Pueblo Indígena Yuracaré: La Ecuanimidad y la Exclusión en el Trópico de Cochabamba. URL:<http://www.naya.org. ar/congreso2002/ponencias/gustavo_cardosa_subieta.htm>.

Chapin, Mac

2004 A Challenge to Conservationists. WorldWatch. World Watch Institute. November-December. Pp. 17-31.

Chernela, Janet

2005 The Politics of Mediation: Local-global Interactions in the Central Amazon of Brazil. American Anthropologist. Vol. 107, No. 4. Pp. 62-631.

CIDDEBENI

2001 Informe Narrativo del Proyecto: Manejo de Recursos Forestales Comunitarios en el Territorio Indígena Sirionó. CIDDEBENI. Trinidad, Bolivia. Typescript.

COICA

1989 Two Agendas for Amazonian Development. Cultural Survival Quarterly. Vol. 13, No. 4. Pp. 75-78.

Collin, Darron Asher

2001 World Wildlife Fund. Latin American and Caribbean Newsroom. Sustainable forests management for all. October 18, 2001. URL:http://64.233.187.104/u/WWFint?q=cache: ERAgoJmjr34J:www.panda.org/about_wwf/where_we_work/ latin_america_and_caribbean/where/bolivia/news.cfm%3FuNe wsID%3D2387+Nils+Hager&hl=en&ie=UTF-8>.

Consejo Sirionó, CIDDEBENI, APCOB

2004. Los Sirionó y Su Territorio. Video Production. APCOB Productions. Santa Cruz, Bolivia.

Cultural Survival Voices

2004 Action Update. Cultural Survival. P. 3.

Dowie, Mark

2005 Conservation Refugees: When Protecting Nature Means Kicking People Out. Orion. November/December. Pp. 16-27.

Enever, Andrew

2002 BBC News. Community Forestry Takes Root in Bolivia. Science/nature. September 21. URL:http://news.bbc.co.uk/1/hi/sci/tech/2271076.stm.

FSC (Forest Stewardship Council)/Smartwood Program

2004 Resumen Público de Certificación de Territorio Comunitario de Origen Yuquí-CIRI. Certificado: SW-FM/COC-1178. March. Typescript.

Isateguá, Jonatán

2004 Personal Communication. Biá Recuaté. September 20.

Jarvis, Keith A., and Allyn MacLean Stearman

1995 Geomatics and Political Empowerment: The Yuqui. Cultural Survival Quarterly. Vol. 18, No. 4. Pp. 58-61.

Kudrenecky, John

2004 Personal communication. Trinidad, Bolivia. September 1.

Kenny, Robert

2004 Personal communication. Director, BOLFOR II Project. Santa Cruz, Bolivia. August 25.

Lehm Ardaya, Zulema

1999 Milenarismo y Movimientos Sociales en la Amazonía Boliviana: La Búsqueda de la Loma Santa y la Marcha Indígena por el Territorio y la Dignidad. APCOB-CIDDEBENI-OXFAM America. Santa Cruz, Bolivia.

2005 Personal Communication. Santa Cruz, Bolivia. June 24.

Lobo, Raúl

2004 Personal Communication. Santa Cruz, Bolivia. September 14.

McShane, Thomas O., and Michael P. Wells

2004 Getting Biodiversity to Work: Towards More Effective Conservation and Development. Columbia University Press. New York.

Melgar, Erwin

2004 Personal communication. Anthropologist, InterAmerican Development Bank (IDB) Ethnodevelopment Project, 1992-1994. Santa Cruz, Bolivia. September 12.

Moreno, Henry

2004 Personal communication. Executive Director. Consejo Boliviano para la Certificación Forestal Voluntaria. Santa Cruz, Bolivia. August 25.

Navia, Carlos

2003 La Cuestión Indígena en el Beni: Reflexiones en la Década de los '90s. CIDDEBENI. Trinidad, Bolivia.

Nayonne. Boletín de Información y Análisis Regional 2003 Octubre. CIDDEBENI. N.P.

Nordenskiöld, Erland

1910 Meine Reise in Bolivia, 1908-1909. Globus. Vol. 14. Pp. 213-219.

NTM (New Tribes Mission)

2004 Personal communication. Santa Cruz, Bolivia. August 26.

Painter, Michael

2004 Personal communication. Coordinator, Bolivia, Peru, Paraguay. Wildlife Conservation Society. Santa Cruz, Bolivia. August 24.

Peña, Freddy

2004 Personal communication. Coordinator Smartwood Bolivia. Santa Cruz, Bolivia. August 30.

Price, Steven

2004 Personal communication. BOLFOR II Monitoring and Evaluation Specialist. Santa Cruz, Bolivia. August 25.

Riester, Jürgen

2004 Personal communication. Director, Apoyo para el Campesino Indígena el Oriente Boliviano (APCOB). Santa Cruz, Bolivia. August 27.

Schultes, Richard Evans, and Robert F. Raffauf

1990 The Healing Forest: Medicinal and Toxic Plants of the Northwest Amazonia. Dioscorides Press. Portland, Oregon.

Stearman, Allyn MacLean

1981 Working the 'Africans' in Lowland Bolivia. American Bee Journal. Vol.121, No. 1. January. Pp. 28-35.

1984 The Yuquí Connection: Another Look at Sirionó Deculturation. American Anthropologist. Vol 86, No. 3. September. Pp. 630-650.

1987 No Longer Nomads: The Sirionó Revisted. Hamilton Press. Lanham, Maryland.

1989 Yuquí: Forest Nomads in a Changing World. Holt, Rinehart, and Winston. New York.

1994 Yuquí. In Encyclopedia of World Cultures: South America. Vol. 7. Human Relations Area Files. G.K. Hall and Co. New York. Pp. 390-395.

Stocks, Anthony

2005 Email. January 7.

Stocks, Anthony

1999 Initiativas Forestales Indígenas en el Trópico Boliviano: Realidades y Opciones. Documento Técnico 78/1999. Contrato USAID: 511-0621-C-00-3027. Chemonics International. USAID/ Bolivia. Junio. Typescript.

Tamburini, Leonardo, and Ana Cecilia Betancur

2000 Nuevo Régimen Forestal y Territorios Indígenas en Bolivia. In Atlas Territorios Indígenas en Bolivia. Situación de la Tierras Comunitarias de Orígen (TCO's) y Proceso de Titulación. José A. Martínez, ed. CIDOB/CPTI. Santa Cruz, Bolivia. Pp. 213-227.

TNC (The Nature Conservancy)

2004 Andes Division: Bolivia, Chile, Ecuador, Peru. Bolivia: Sustainable Forestry. \$15 Million Project Will Protect Native Forests and Provide Income fore Bolivian Communities. Online fact sheet. URL: http://nature.org/wherewework/southamerica/bolivia/work/art12260.html. March.

WorldWatch

2005 From Readers. Electronic copy. WorldWatch Institute. Jan-Feb. http://www:ogiek.org/indepthEP181C.pdf.

WWF (World Wildlife Fund)

2004 Can't see the wood...for the paper mills! Lifelong Learning for a Sustainable Future. URL:http://www.wwflearning.co.uk/news/features_0000000649.asp. July 28.