

10

OUTCOMES

Few consequences of any of the three mapping projects, positive or negative, were readily apparent at the conclusion of work in the field. The maps, of course, were tangible products that could be seen and touched and passed around; and drafts, at least, were available shortly after the mapping was finished. Several months would pass, however, before final maps were printed, and in the Darién, production of the regional map stretched out over a full year.

In Honduras and Panama, especially, the potential uses of the maps were unclear while the mapping projects were under way. All of us, with the exception of the lead cartographer, were new at this business and had only a vague notion of what the payoff for our monumental labors might be. In Honduras there was a sense that the maps would be generally useful in negotiating land rights and for consciousness raising on land and natural resource issues; beyond this, there were no concrete plans for action. In neither Honduras nor Panama did project leaders develop a coherent strategy for using the maps as political, legal, organizational, or educational tools.

This situation arose to some extent because the conscious focus of both projects had been technical rather than political. As earlier chapters have indicated, the political aspects of mapping in Honduras were suppressed as a tactical measure. Project Co-coordinator Andrew Leake was acutely aware that maps might arouse government suspicions, so the enterprise was promoted as a technical innovation in cartography that should not be viewed with alarm. Given the climate in Honduras — then and today — this assessment was justified. Every effort was made to work within the system through persuasion and negotiation rather than confrontation. The Congress that concluded the project brought the government — including soon-to-be-President Carlos Roberto Reina — into the process and in contact with both the issue of indigenous land tenure and the people of the Mosquitia. The implicit goal therefore was political, belying the reticence to hold the kind of open discussions during project implementation that would be needed to develop a long-term strategy for using the maps to defend community interests. Unfortunately MOPAWI's capacity to guide development of such a strategy following the Congress was curtailed when Leake, who headed the Land Legalization Program, left several months later, creating a vacuum.

In Panama the same sensitivities existed, and project leaders tacitly agreed during the preparatory stage to concentrate on the technical rather than the political. In retrospect this restrictive definition of the project seems a bit odd, for none of us would have become involved had the mapping not been a political lever. Yet so much was going on at the time, and personal relationships within the project were so tangled, that no one questioned this stance. Tunnel vision took hold and everyone's energies were locked on staggering through to the end before the walls could collapse. Consequently there was no planning for what to do when daylight was finally reached.

During the next few years, however, one could begin to see that the maps — and especially the process that had produced them — had unleashed considerable forward movement in both the Mosquitia and the Darién. Virtually all of this energy welled up from the bottom, with little direct encouragement from either Native Lands or the support organizations that had assisted with the projects. The indigenous peoples who had participated and now had the maps to work with became focused, for the first time, on the issue of their territorial limits, and they began organizing around this theme.

By the time of the project with the Izoceños and WCS in Bolivia, we

knew about some of these results and had compared our experiences with those of others around the world.⁵⁵ As a consequence, we had in mind a broad range of potential uses of maps and how indigenous peoples were employing them to further agendas that could be and were extremely varied. It was also easier to incorporate this kind of thinking because Bolivia — or at least the Izozog of Bolivia — was not saddled with the extreme sensitivities over indigenous land tenure present in Honduras and Panama. The Izoceños were politically powerful and had relatively good control over their lands. The mapping also fit within a broader strategy of natural resource management of the region. In this context, it laid the groundwork for a number of actions, some of them foreseen and others discovered along the way. From the beginning, discussion of what the maps might be used for was wide open.

This chapter will examine what happened in each of the three countries once the maps were in hand. Not surprisingly, since the mapping took a somewhat different course in each case, the consequences were varied. The contexts differed, as did the institutional structures and capacities of the indigenous groups, and different problems were being addressed in each project. Some consequences of the maps and the mapping process were clearly discernible in the years

⁵⁵ See *Indigenous Peoples, Mapping & Biodiversity Conservation: An Analysis of Current Activities and Opportunities for Applying Geomatics Technologies*, ed. by Peter Poole, Washington, D.C.: Biodiversity Support Program, 1995, for a sample of some of this work.

that followed; others were harder to see but nonetheless important. There were a number of direct and very visible applications in the area of land protection, for example, while others were more subtle, such as the blossoming consciousness of local cultural identity and history. Finally, it became abundantly clear that the mapping was not an end in itself, but a beginning point. In each of the three countries — and later in Cameroon and Suriname — the mapping was a lever to open up a process of mobilizing people's energies and focusing their attention on issues that project leaders sought to address. This is not to say, of course, that everything that followed was brought about by the mapping. Nonetheless, virtually all those involved agreed that the mapping played a pivotal role in the subsequent flow of events.

HONDURAS

The most noticeable effects in the years following the mapping project in Honduras revolve around land protection and titling, the sustainable management of natural resources, and the organizational development of local groups. Education about and public awareness of the first two issues has been widespread, and this has fed a growing appreciation of the unique cultural identity of the people of the Mosquitia. Sometime after the project was finished, several of the older Surveyors remarked that they had

learned a good deal about their history during their work in the field. “We name places after things that have happened there,” one of them explained. “And all those places have stories attached to them.”

After the Congress, the issue of land protection gathered steam. As we had hoped, the people of the Mosquitia began looking at the region as a whole, perceiving how threats were encroaching from several sides. The regional map gave residents a clear view of the entire Mosquitia, and it was widely distributed throughout the region and the rest of Honduras. Local leaders studied it carefully and began formulating strategies for protecting their lands and natural resources. MASTA, for the first time, had a theme on which to focus. Within the next two years, the communities of the region, under MASTA's leadership and following the lines on the map, divided up into seven federations, all of which had a majority Miskito membership. At this point, MASTA evolved into a confederation. These federations and their makeup, as of 1995, included the following:⁵⁶

- ❖ FINZMOS (Federación Indígena y Nativo de la Zona de Mocerón y Segovia) was formed in 1992, containing 15 communities of Miskitos and Ladinos Nativos.
- ❖ ALINASTA (Auka-Laka Indianka Asla Takanka, a.k.a. the Federación Indígena de la Zona de Laka-Auka)

⁵⁶ The *Federación Indígena Tawahka Hondureña (FITH)*, which represents the Tawahka living along the Upper Patuca River, is not included. However it works in a somewhat uneasy alliance with the federations belonging to MASTA without being subsumed under MASTA's leadership. CVT has since changed its name to *Ráyaka*.

was formed in 1993 and contained 33 Miskito communities.

- ❖ KATAINASTA (Karataska Ta Wal Indianka Takanka, a.k.a. the Federación Indígena de la Zona de Karataska) was formed in 1993 and contained 19 communities of Miskitos and Ladinos Nativos.

- ❖ ZORINASTA (Zona Recuperada Indianka Asla Takanka, a.k.a. Federación Indígena de la Zona Recuperada) was formed in 1993 and contained 14 Miskito communities.

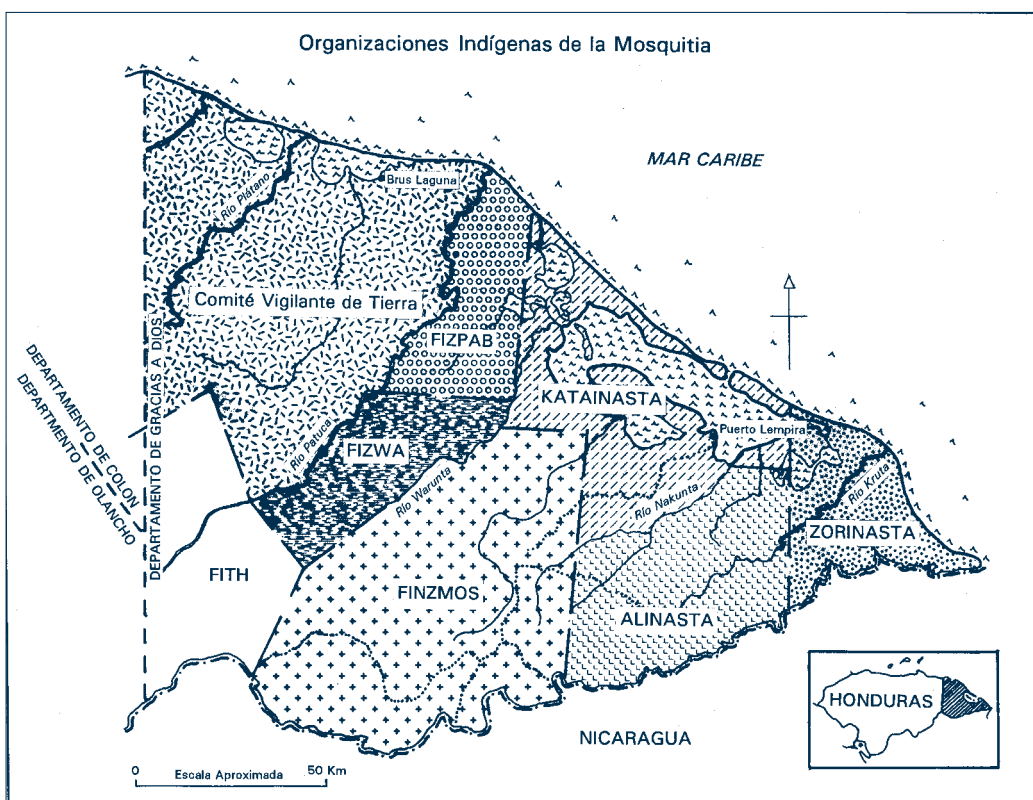
- ❖ FIZPAB (Federación Indígena de la Zona de Patuca Bajo) was formed in 1994 and contained five Miskito communities.

- ❖ FIZWA (Federación Indígena de la Zona de Wampusirpe) was formed in 1995 and included nine communities of Miskitos and Ladinos Nativos.

- ❖ CVT (Comité de Vigilancia de Tierras) was based in the Río Plátano region on the west end of the Mosquitia.

MASTA brought the federations together under its banner, and MOPAWI began providing technical assistance in the form of workshops to discuss specific cases of land invasion and attempts by foreign companies to mine the region's natural resources. By January 1995 this process was well under way, and the people of the

Figure 22.



region were ready when the Honduran government passed an Agrarian Reform Decree that paved the way for as many as 120,000 people to migrate into the valley between the Sico and Paulaya Rivers, which borders the Río Plátano Biosphere Reserve along the western flank of the Mosquitia (see Figure 3 — the Sico River, which is not shown, lies to the west of the Paulaya River). MOPAWI, the CVT, and several other groups immediately launched a campaign to stop this program. After numerous meetings with government officials, peasant organizations (who were in search of land and therefore supported the decree), cattle ranchers, and local people, the colonization plan was scrapped.

From May through July 1995, MASTA, MOPAWI, and the Consejo Asesor Hondureño para el Desarrollo de las Etnias Autóctonas (CAHDEA) worked with the federations to draft a proposal to the government of Honduras entitled “Model Land Legalization in the Mosquitia” (Modelo de Legalización de Tierra de la Mosquitia). The mapping project had helped generate the structure, the focus on land, and the energy needed to produce this proposal.

The 16-page document called for the government to “legalize the property rights of the peoples of the Mosquitia within the framework of traditional subsistence use and its functional habitat, with the object of assuring a process of sustainable development.” It discussed the reality of traditional land use and land categories in the

Mosquitia, the ethnic groups of the region, and legislation dealing with land use, ownership, and “ethnic communities.” Finally it recommended a mixture of collective and individual tenure arrangements, and a joint management scheme involving the local inhabitants (including Ladinos), state agencies, and NGOs. The Modelo was designed as a discussion paper, a first step in opening up negotiations with the government.

A serious handicap in this burgeoning effort was the absence of final versions of the 1:50,000 zone maps (17 in all), which would have specified in much finer detail both physical features and land use patterns. Such maps potentially could be pivotal in negotiating land claims at the local level. Yet it must be said that the manner in which these maps were drawn, with firm lines placed around each zone, has already caused difficulties. When federations emerged based on these delimited areas, several began to say that all the land within their zone, as its map “clearly” showed, was their property. Even though the regional map in fact showed overlap in resource exploitation among virtually all of the zones, some wanted to seal off their borders, which encroached on contiguous zones, and exclude neighboring communities altogether. Thus a number of dormant rivalries surfaced among communities, and it took much discussion before they gradually retreated, at least partially, into the background again. Had this discussion taken place while the project was under way, many of these

antagonisms might never have reawakened.⁵⁷

Since the Model for Land Legalization was first proposed, MASTA, the federations, and MOPAWI have made substantial advances in land protection, natural resource management, and community organization. MASTA, with assistance from MOPAWI, has continued to refine its proposal to have the Mosquitia declared a communal indigenous territory. Collaborative agreements have been signed between MASTA and the National Agrarian Institute or Instituto Nacional Agrario (INA), and the State Forestry Administration/ Honduran Corporation for Forestry Development, or Administración Forestal del Estado/Corporación Hondureña de Desarrollo Forestal (AFE/COHDEFOR). Both government agencies have put forward proposals for resolving the land question in the Mosquitia, and MASTA has responded with counterproposals.⁵⁸ INA has provided community titles to the Tawahka along the Patuca River, and

Tawahka territory has been declared an Indigenous Biosphere Reserve.

In late 1999, INA and MASTA signed a Coordination Agreement on Land Titling. This is a significant step forward. It tries to lay the groundwork to “establish mechanisms of coordination for the legalization of lands of the ethnic communities of the Mosquitia within the framework of the National Convergence between the Government of the Republic and Ethnic Groups (1994).” As such, it represents a commitment by both the government and MASTA “to advance communal titling of the indigenous territory of the Mosquitia” and has provided a forum for discussion on the matter. The discussion continues.

At the same time, AFE/COHDEFOR has been involved in implementing the Proyecto Biósfera Río Plátano, a \$15 million activity with technical and financial assistance from the government of Germany, the German Agency for Technical Cooperation, or Deutsche Gesellschaft für Technische

⁵⁷ In part, this situation arose because of faulty data on the maps. The amount of overlap among communities in resource exploitation is under-recorded because there simply wasn't enough time to accurately record the ranges of different communities. In critiquing the mapping several years later, villagers noted that the finished products failed on many counts to show how people crisscrossed each others' territories in search of wood, game, fish, and other resources. Put simply, there was a tremendous degree of interdependence among communities and zones that had not been shown. If this interdependency had been made clear and openly discussed, it is probable that none of the federations would have taken such rigid territorial stances.

Before the mapping began in Bolivia, we discussed this issue with CABI leadership, and they decided not to show community boundaries. They explained that people from all 22 communities hunted and fished and gathered a variety of materials in the Bañados (swamps) to the north during the dry season, and even outside this generalized commons, there was so much overlap among villages that any real definition of community subsistence boundaries would be impossible. In retrospect, this would have been a wiser strategy in both Honduras and Panama.

⁵⁸ For example, AFE/COHDEFOR proposed that the Mosquitia be classified under the category called Fiscal Patrimony of the State, which is included in the Catálogo de Patrimonio Público Forestal Inalienable, or Catalog of Inalienable Public Forestry. While this would have made it possible for communities to get legal agreements of usufruct over territories, it would also open up the region to exploitation by foreign companies.

Zusammenarbeit (GTZ), and WWF. The core of this project consists of a management plan with norms regulating land tenure and management of natural resources in the Río Plátano region, which is located along the western flank of the Mosquitia. MOPAWI has been active in tempering the scientific and regulatory aspect of the project through workshops and community sessions among the Garifuna, Miskito, and Pech peoples living within the reserve.

In sum, the mapping stimulated considerable action in the Mosquitia in two interrelated areas. First, it focused the attention of the residents of the region as well as the government on the issue of land. It spotlighted the porous nature of the borders of the Mosquitia, which were being penetrated with increasing frequency by non-Indian colonists, and the tenuous state of the region's natural resources. Workshops, meetings with communities and local government authorities, lobbying at the local and national levels, consciousness raising and educational forums, exchanges with other Central American groups experiencing similar problems, and negotiation between local indigenous organizations and government agencies such as INA and AFE/COHDEFOR took place. The result has been a series of attempts by all sides to arrive at some sort of resolution to the issue. Thus far only the Tawahka of the Patuca River region have received titles to their land, and even this is partial and inadequate. The other, larger matter of how to settle titling of the Mosquitia as a whole has yet to be resolved, but

at least everyone's attention is now pointed in this direction.

Second, the mapping stimulated organizational development in the communities of the region. A collection of Miskito and mixed federations formed under the leadership of MASTA; the Tawahka federation, FITH, worked in parallel to lobby for their reserve; and MOPAWI supported the efforts in the Río Plátano area as well as other parts of the Mosquitia. Thus far the main issues confronting the region remain unresolved, at least in part because organizational cohesion is incomplete. MASTA led the charge in developing a comprehensive proposal, but its follow-up has been weak, hampered by internal organizational confusions. As of mid-2000, the organization had split into two opposing factions. Meanwhile the government's approach to MASTA and the Mosquitia has been crippled by a lack of coordination among the various agencies involved with land titling, the intrusion of special interests, tepid political will, and plain bureaucratic ineptitude. While this makes for slow and often difficult going, there is a general sense on all sides that negotiations are moving in a positive direction.

PANAMA

In Panama, as the mapping concluded, the tenuous relations among the different groups came unglued. The money we had in hand for the project effectively came to an end. The Emberá moved away from CEASPA and began negotiating with the Inter-American Foundation for financing

what were termed “post-Forum activities.” Roughly a year later funds were received for work in three areas: (1) production of the final maps (in the Cartographic Division of Panama’s IGN); (2) elaboration of a set of Forum Proceedings; and (3) a series of workshops in the Darién to explain the significance of the maps and discuss land issues in general.

In the early 1990s, the indigenous peoples of the Darién found themselves in an increasingly precarious position. Following the overthrow of the military regime in late 1989 and the subsequent arrival of a “democratic” government, capitalist penetration into the indigenous areas of eastern Panama had accelerated. In the vanguard were mining companies, loggers, tourism entrepreneurs, and land speculators banking on construction of the last stretch of the Pan-American Highway through the heart of the Darién. In anticipation of the road, more than \$200 million was being pumped into the region by the European Union, the United Nations’ Global Environmental Facility (GEF), the Inter-American Development Bank (IDB), and the World Bank. While most of this cash was earmarked for environmental projects, it whetted appetites as everyone jockeyed into position to grab a piece of the action. There was intense competition among groups as rumors ran rampant and verifiable facts were few and far between. Accusations of corruption and under-the-table payments fed the

pervasive climate of tension, distrust, and suspicion. To hold onto their lands and natural resources, the indigenous peoples needed a stronger informational base, which the mapping helped provide.

Gradually, and on their own, the Emberá, Wounaan, and Kuna began using the maps in various ways, all aimed at strengthening their organizations and defending their territories. The process of producing the maps had not gone smoothly but it had helped participants envision the region as a whole, and as this took hold, it was followed by a growing realization that the fight for indigenous lands could best be carried out in collective fashion. If the Kuna and the Emberá in the Darién are still not intimate friends, more than ever they see themselves as necessary allies. They are both loosely housed in the Coordinadora Nacional de Pueblos Indígenas de Panama (COONAPIP), a confederation of Panamanian indigenous peoples; and they work together on a variety of projects.⁵⁹

All of the groups involved have used the maps to petition the government for title to their lands. The two Kuna groups, Wargandi to the north and Takargun Yala to the south, presented the government with proposals to legalize their territories, basing their claims on the 1:50,000 maps. In 2000, after lengthy legal and political maneuvering with the assistance of Dobbo Yala, a Kuna NGO, a law creating the

⁵⁹ *The Kuna are divided among themselves. The two groups living in the Darién (Wargandi and Takargun Yala) are members of COONAPIP, while the Kuna of Kuna Yala on the Caribbean coast are not.*

Comarca of Wargandi was enacted by the National Assembly. This occurred even though the Panamanian executive branch had long expressed its lack of interest in creating new comarcas. The Takargun Yala Kuna are still negotiating with the government for disposition of their claims.

For their part, the Emberá living outside the Comarca Emberá Drua have also been using the maps to seek legal title to their lands. Because of the government's entrenched unwillingness to grant new comarcas (at least before the success of the Wargandi Kuna) these Emberá have been pursuing a somewhat lesser category of tenancy termed *Tierra Colectiva*, or *Collective Land*.⁶⁰ They are attempting to claim territories adjacent to existing Comarcas, a move which essentially expands them. However even without legal title to these lands, the maps showing indigenous occupancy of the region have political weight. Several years after the maps were produced, an outsider approached the Agrarian Reform Institute about securing a plot of land in the Darién. He was told that he could submit a petition but was also advised to look at the "Indian map" before taking any action. After seeing that the land he wanted was in the center of an area defined as indigenous territory on the map, he withdrew his request.

In their negotiations with both government and international institutions, it is clear that the indigenous peoples have learned at least the rudiments of cartography. During the process of constructing the maps, they absorbed, largely informally, the basics of reading, interpreting, and using maps. In dealings with some government agencies, for example, they have shown a better understanding of maps and more skill in using them than the officials with whom they are dealing across the table.

Because the maps were printed by Panama's IGN, they are viewed as technically valid and credible legal documents. As previously mentioned, the IGN did an internal evaluation of the quality of the maps when the project was over. After concluding that they were the most accurate and detailed maps of the Darién in existence in Panama, it went on to use them to update the official map of the nation.

The maps have served as an important database that indigenous peoples can use to negotiate better terms among the gigantic projects currently being imposed on the region.⁶¹ The local groups now have a good sense of the region as a whole and know how to interpret and use maps to their advantage. While this does not ensure equal

⁶⁰ *Comarcas have a legislative mandate that ensures semiautonomous local government through internal legislation, while Tierras Colectivas fall under administrative law and do not confer local rule.*

⁶¹ *The largest of these include BioDarién, backed by UNDP, the Project for the Sustainable Rural Development of the Darién - ProDarién, under the charge of the International Fund for Agricultural Development (IFAD), the Program for the Sustainable Development of the Darién of the IDB, and the Mesoamerican Biological Corridor Project being implemented by the World Bank.*

participation, it does give Indians a seat at the table. And it makes it more difficult for outsiders to hoodwink the locals by manipulating maps, since the best maps belong to the Indians.

BOLIVIA⁶²

The Izocoños were relatively well organized prior to the mapping work, and they had a framework in which to place the final product.

While the Izocoños initial interest in mapping was based primarily on a desire to secure control over their traditional homeland, this soon became linked to an increased sense of their own responsibility for the management of the natural resources within it. Before this, their notions of “land management” for the region as a whole had been vague; the mapping helped them systematize their knowledge of the ecosystems they inhabit and exploit, and gave them a much broader view of the region.

People in the Izozog tend to perceive their situation from the perspective of a single family or cooperating group of families. Mapping helped Izocoños place their subsistence activities — hunting, fishing, gathering, herding, farming — in a much larger geographical context. It gave them an eagle’s eye view of their region, enabling them to understand that processes occurring outside their immediate area of interest can have profound, and often detrimental,

implications for their livelihood and well-being. The mapping made it possible to pool knowledge that was scattered since productive activities are rarely organized beyond the level of an extended family or a group of cooperating households. The shared experience of working on the project awakened an interest in systematizing traditional knowledge of the ecosystem that might otherwise have vanished, as it has among groups in so many other areas. Topics that have been particularly important include the harmful consequences of deforestation along riverbanks (which people linked to a major flood in 1998) and the nutritional value of traditional subsistence foods (such as *cupesi* flour) that have been replaced by inferior products such as store-bought noodles and other processed commercial staples.

The mapping work also enabled people to begin to think about organizing on a larger scale, specifically with regard to activities to preserve and manage the entire region’s natural resources. This was a crucial first step in establishing the Kaa-Iya Protected Area. It helped the Izocoños see beyond the matter of controlling their territory and preventing outside encroachment, to managing its resources so that secure livelihoods might be gained from sustainably exploiting communal lands.

This has not distracted the Izocoños from their original interest in gaining

⁶² This section is based largely on comments by Michael Painter, who is currently working with CABI on the Kaa-Iya Protected Area Project.

legal title to their territory, but reinforced it. They are currently seeking control over a 1.9 million hectare territory that borders the Kaa-Iya Protected Area on the west. This territory would be classified as a Tierra Comunitaria de Origen (TCO), or Communal Territory of Origin.⁶³ Once this area has been titled, the Izocéños will be required to develop a management plan that specifies zones for different kinds of land use and lays out an accompanying investment strategy. As the Izocéños ponder the implications of this, they have also begun to see the possible advantages of managing the protected area and their TCO as an “integrated unit,” based on a regional land use strategy. If they manage to achieve this goal, it will bring some 5.3 million hectares (1.9 million hectares in the TCO and 3.4 million hectares in the Kaa-Iya Protected Area) under their control.

Of course, it would be an exaggeration to claim that this regional strategic vision was simply a byproduct of the mapping exercise. Some of the Izocéño leadership had already been moving in this direction, which was why they were interested in the mapping, the creation of the protected area, and the entire experience of the Kaa-Iya Project in the first place.

There were also other formative experiences along the way, such as their dealings with the challenges posed by the Bolivia–Brazil Gas Pipeline, hydrocarbon exploration and exploitation concessions in the protected area, and the negotiations for a TCO. However, the mapping came along at a crucial time in the process. The Izocéños have traditionally viewed the presence or absence of wildlife and other natural resources as being under the control of the Iya (spiritual stewards of the land), and not subject to human actions. The mapping gave them a wider perspective and allowed them to begin to see that human behavior can and does have an impact on resources, although usually at a scale that is beyond the control of single individuals or households. This showed them not only how ecosystems could be degraded, but also how their collective actions can improve the resource base.

This incipient understanding of what management entails is being nurtured in the third phase of the Kaa-Iya Project. One of the more interesting and successful efforts has been with the project’s applied biological research component. Izocéño parabiologists and hunting monitors are collecting data on wildlife location,

⁶³ The TCO provision is part of the Agrarian Reform Law of 1996, which is generally known as the Ley INRA (INRA is the Instituto Nacional de Reforma Agraria, the government entity responsible for granting land titles). A TCO can be granted to an indigenous people with a shared cultural tradition who can also demonstrate continuity of residence in an area. A TCO can be considerably larger than the area currently occupied by a people if they demonstrate that the land was theirs historically and/or if they demonstrate that the larger area is critical for carrying out essential productive activities. The first TCO was granted to Ayoreode organizations in the region between the Kaa-Iya Protected Area and Puerto Suarez on the Brazilian border. CABI expects to receive its TCO sometime in 2001. TCOs are territorial units in accordance with the definition of Convention 169 of the International Labor Organization (ILO); however, Bolivian law permits use of the word territory only in the context of the National Territory.

numbers, and condition. They then report the results to the communities, where the implications are discussed. Because of this hands-on approach, abstract information becomes concrete and new ideas spring from traditional settings. Thus discussions of how certain diseases are shared by livestock and game have helped people understand how management principles they use in their own homesteads may also be usefully applied to wildlife.

Mapping has had a direct impact on land titling, which is based to a large extent on written documents. The maps make these documents more accessible and easier to talk about. Those who have trouble working their way through a title document can express themselves forcefully and articulately when supported by a map that provides a picture of what the document says. This is important because it enables people to understand what their situation is at any given moment, and to develop proposals. The improved capacity to absorb information and to make proposals has also been crucial in bringing more people into the design of a management plan for the protected area. It has also created a broader base for addressing the potential environmental and socioeconomic consequences of hydrocarbon development from construction of the Bolivia–Brazil Gas Pipeline through the northern part of the Kaa-Iya Protected Area and from concessions located in the park and the Izoceño TCO.

The mapping has played an important role in environmental education. First,

it has helped people visualize and talk about diverse resource management issues. The team working in the biological research component, for instance, uses the maps in community meetings to talk about wildlife population ranges, and possible management actions. It must be said, in this respect, that the maps have not been as useful as they could have been since some details are inaccurate and not all the information gathered made its way into the final drafts. Rather than being deterred, however, the team works with the communities to continue adding and correcting information, skills that were learned in the project and are still being used. The environmental education component of the project has also used the maps as a framework for their presentations, where they have proven to be useful tools, particularly in the more formal context of the schools. This led to the production of a new map of the region utilizing the drawings of some of the children.

Finally, the mapping project has stimulated efforts to recover and preserve the history of the region and its people. Place names have layers of stories behind them, many of which were brought to light as the elders proofread drafts for the maps. As word of the stories spread, so did interest among the Izoceños about their origins and legacy. Exploration of the past has fleshed out significant occurrences in the evolution of the Capitanía de Alto y Bajo Izozog, and led people to reflect on how their ancestors dealt with the land and its natural resources in ways now largely

forgotten. One product of this interest has been the completion of a book on the history of the Izozog communities, compiled by a team of Izoceños in

1999.⁶⁴ The initial data for the book were gathered as part of the community mapping project.

⁶⁴ Arakae: Historia de las Comunidades Izoceñas. Santa Cruz: *Capitanía de Alto y Bajo Izozog (CABI)*, 1999.