

**DESIGNING ALTERNATIVE FRAMEWORKS FOR CONSERVING
BIODIVERSITY WITH COMMUNITIES AND MUNICIPAL GOVERNMENTS:
A CASE FROM PANDO, BOLIVIA**

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Authors:

Janis B. Alcorn, Carol Carlo, Pedro Sarmiento, Julio Rojas, David Rothschild, Alaka Wali and Alejo Zarzycki. (The Field Museum, Center for Cultural Understanding and Change, Chicago, IL, USA, the Centro de Investigación y Preservación de la Amazonía, Universidad Amazónica del Pando, Cobija, Bolivia, and Fundación Yangareko, Santa Cruz, Bolivia)

ABSTRACT

The University of the Amazon of Pando and The Field Museum of Chicago have been seeking new ways to conserve the globally valuable biodiversity of Pando through promoting collaboration between local communities, individual landowners and municipal governments. The experience offers an alternative methodology and framework for designing and implementing biodiversity conservation, particularly in lightly populated biodiversity corridors, and one possible solution to the difficult dilemma of constructing functional cross-scale institutional linkages for conserving globally important resources without simply shifting the costs of "prohibition" to local residents who depend on the resources for their daily living and identities. The study area is on the western side of Pando, Bolivia -- the two municipios (counties) of Filadelfia and Bolpebra -- on the frontier where Brazil, Peru and Bolivia meet. The corridor created by these two municipios extends from the Brazilian border between an indigenous territory (Yaminahua-Machineri TCO) on the Acre River, southward to the Manuripi Wildlife Reserve between the Manuripi and Madre de Dios Rivers on the border with Peru. The

area is habitat to 14 species of primates as well as a wide diversity of other animals, fish, birds, insects, and plants of the Lowland Amazon forest. Pando Department (state) retains 90 percent of its forest cover and has a low population density. Bolivia has strong laws promoting public participation in conservation, and community-based titles are among the legal instruments for land tenure. Hence the area offers an ideal opportunity for designing an alternative framework to achieve development with conservation. Work began in 2003, with interviews with all individual landowners, a participatory information gathering and analytical process with communities (RIPUI - derived from asset mapping) and linked to participatory land use planning required under Bolivian law, creating POPs - which involve the establishment of community-based resource management rules and enforcement mechanisms, as well as community-owned conservation areas. Municipal governments were involved from the initiation of the work. In 2004, the two municipal governments will consider plans to create a joint mancomunidad (a management district) for conservation that will link the land use rules and plans created at community and individual landowner levels with municipal conservation areas under a mancomunidad-wide framework for enforcement and assistance (ANMI – natural area under integrated management). It is expected that the mancomunidad will seek department (state) level recognition. At this time in Bolivia, the national government has taken a stand that there will be no new national level protected areas due to conflicts with rural people. The authors will report on the overall process and the principles on which it was based, the analysis of data from RIPUI, the resulting management frameworks, the policy challenges, and the lessons learned.

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“Con el RIPUI, nos pusimos a pensar en algo que nunca
habíamos pensado: el futuro de nuestra comunidad”

‘The RIPUI made us think about something we had never thought about – the future of our community.’”

INTRODUCTION

Biodiversity is claimed as a local, regional, national, and international common property¹ For the past decade, the roles of international, national and local institutions in biodiversity conservation have been evaluated and hotly debated from different perspectives. Many conservationists promote rigid protection under centralized state agencies and institutions, citing the risks of relying on complicated communities with many different interests. Yet state agencies lack the resources, the cross-scale institutional links, and the transparency needed for implementing policies and enforcing regulations. And in most countries these same agencies lack the legitimacy to negotiate with powerful actors in broader society. As a result, despite the continuing global expansion of protected areas, paper parks are the rule (e.g., see Parks Watch reports). Acknowledging the importance of the on-the-ground-actors (generally termed “local people”) whose day to day decisions affect conservation outcomes, conservationists added community-based conservation projects to their portfolio (Alcorn 2004, others) but these were generally local project add-ons with short lives, and had minimal impact on reversing the continuing loss of biodiversity. Attention to national policies and programs promoting broader institutional reforms, with economic and tenurial benefits, enjoyed success in Africa (e.g, Zimbabwe, Zaire, Namibia, Tanzania) where large animals offer special opportunities for financial benefits. However, outside southern and eastern Africa, few conservation programs have taken advantage of institutional and governance reforms as means to support conservation. New approaches are needed if the goals under global commitment to biodiversity conservation (Convention on Biological Diversity) are to be met.

¹ See recent South American debate on the internationalization of the Amazon and Indonesian critiques of ecofascism.

In this paper, we report on an initiative that offers one possible methodology to address the difficult dilemma of constructing functional cross-scale institutional linkages for conserving globally important resources without simply shifting the costs of "prohibition" to local residents who depend on the resources for their daily living and identities. This approach builds local social capital and citizen participation in local government and regional planning. While this case responds to the specific policies of Bolivia, it offers principles that can be followed to take advantage of the policy situations in other countries.

BACKGROUND –

Bolivia is among the worlds megadiversity countries, and Bolivia is a world leader in terms of environmental policy (CITE). Bolivia also offers an intriguing legal framework for land tenure with common property. In Bolivia, common property is recognized as a category of land tenure and management. The remarkable land tenure framework lays an attractive foundation for ground-up conservation and development initiatives that respect local peoples' decision-making rights, and offers a basis for a vision of active citizen participation both in local government and management of natural resources.

Pando is Bolivia's northernmost department (state), an Amazonian region bordering Peru and Brazil covering 63,827 square kilometers², an area larger than Costa Rica. Pando is home to only 52,525 people³; with a population density of less than one person per square kilometer outside of the small capital city of Cobija. Communities are scattered across the landscape, between individual ranches and brazilnut "barracas". It is 90 percent forested, with few roads that are poorly maintained. Hence, Pando offers opportunities to promote participatory development with an emphasis on conservation.

² Bolivia Location and Size. <http://pasture.ecn.purdue.edu/~agenhtml/agenmc/bolivia/bolivia/bosize.html>. Accessed March 13, 2004.

³ Informe de Desarrollo Humano en el Norte Amazónico Boliviano. United Nations Development Program. 2003. p 50.

We are focusing now on the western side of the Department (state) of Pando, the most remote department of Bolivia, located in the far north of the Bolivian Amazon, bordering Peru and Brazil, in the two municipalities (counties) of Filadelfia and Bolpebra – near the point where the borders of Brazil, Peru, and Bolivia meet. Filadelfia and Bolpebra are governed by an elected alcalde and municipal council. The Prefectura (department/state government) is governed by appointed Prefect and Council. Under decentralization, both municipal and prefectura governments receive national funds for programming.

The corridor created by these two municipalities extends from the Brazilian border between an indigenous territory (Yaminahua-Machineri TCO) on the Acre River, southward to the Manuripi Wildlife Reserve between the Manuripi and Madre de Dios Rivers – bordering the Madidi National Park in the Department of La Paz to the south, and Peru to the west. The area is habitat to 14 species of primates as well as a wide diversity of other animals, fish, birds, insects, and plants of the lowland Amazon forest. The RIPUI method discussed in this paper offers a replicable, flexible model for designing and initiating implementation of biodiversity conservation in corridors that, like Pando, are lightly populated.

Typical Pandinos, especially rural Pandinos, are notably proud to be Amazonians, and proud that so much of Pando remains forested. Looking at a satellite image of the region, Pando stands out as a solid green block among vast patchworks of deforestation in Madre de Dios to the west (Peru), Acre to the north (Brazil), and Rondônia to the east (Brazil). Unfortunately, many express a lack of understanding of how to improve their quality of life without destroying the forest.⁴ Pandinos see Brazil as their wealthy, modern neighbor, although many also appreciate the negative side of the vast deforestation in Acre (Brazilian state neighboring Pando). Some believe that in order to achieve the better life that Brazilians seem to enjoy – with access to health care, markets for their products and electricity, Pandinos too must cut down their forest and graze cattle.

⁴ Based on interviews and focus groups coordinated by the Center for Investigation and Preservation of the Amazon (CIPA) of the Amazonian University of Pando (UAP) during the Relevamiento de Información sobre Potencialidades y Usos Integrados carried out by CIPA and the Field Museum of Chicago September through December, 2003.

People know that development projects tend to make blind promises and are tired of NGOs and governments failed projects. The challenge is to build on local interest in planned development with conservation and demonstrate to doubters that Pandinos can improve their quality of life without having to cut down their forest as done in neighboring Acre, Rondônia, and Madre de Díos.

We are working on the assumption and belief that building strong social capital, promoting development with conservation, and assuring a sturdy sense of regional common property with people acting together for the common good are essential for realizing the desired development with sustainable conservation in Pando.

THE POLICY FRAMEWORK IN BOLIVIA

Bolivia's Law of Popular Participation – creating institutions for local democracy

In 1994 Bolivia passed an influential and groundbreaking new law called the Law of Popular Participation. This law changed the traditional power structures in the rural areas and together with the Law of Municipalities gave rural communities more say in municipal governments.

As is common in many Latin American countries, many Bolivian indigenous and campesino communities have their own community organizations that play important roles in the community decision-making processes and represent the communities in larger regional and national level organizations. In these community-based organizations, the community-members directly elect their leaders. In Bolivia, these rural community organizations are commonly referred to as grassroots territorial organizations, or OTBs (organización territorial de base). National level campesino and indigenous organizations base much of their strength and legitimacy on the fact that they represent communities, and are elected by OTBs. The campesino federations are the some of the strongest representative organizations in Bolivia. They have a national level

organization, a department level organizations elected by community-members, and what is called a sub-central, or a municipal level organization. Indigenous organizations likewise have their federations for representing their voice at a political level.

In many rural communities in Latin America, the municipal governments respond primarily to their wealthier constituents. This is common in many democratic structures as wealthier constituents normally pay more taxes and vote more regularly. The Bolivian Law of Popular Participation flipped this power structure on its head. It essentially declared the OTBs and other grassroots community organizations as legitimate representatives of the population, and obligated the municipalities to respond to them. The Law states specifically that the OTBs have the right to propose, request, control, and supervise public services according to the needs of the communities in areas of education, health, sports, riego, and other types of development.⁵ It furthermore created vigilance committees, elected by the communities, to oversee the municipal government, with the ability to eventually, if necessary, cut off its funding. The Law of Popular Participation forced rural municipalities to respond to the needs of all of their constituents, starting with the indigenous and campesino communities.

The Environmental Protection Law likewise requires full public participation in decision-making. There is no Biodiversity Protection Law; to date all drafts have come into conflict with the Popular Participation and Environmental Protection laws, and as such have failed to move forward (CIDOB 2000).

Tenure and Common Property in Pando

Under Bolivian law, Pando enjoys a strong legal basis for private community-based land titles and a good basis for building a regional sense of common property.

Land titling in Bolivia is the responsibility of the National Institute of Agrarian Reform (INRA), which functions according to the Law of National Service of Agrarian Reform,

⁵ Article 7. Law of Popular Participation. Law 1551, passed April 20, 1994.

commonly referred to as the INRA Law (Ley INRA), passed October 1996, and its Regulations, decreed May 5th, 2000. According to the INRA Law, INRA has a period of ten years to complete the land titling (starting in October 1996).

The INRA Law categorizes rural properties into the following categories⁶:

- Solar campesino refers to the place of residence of small-scale farmers or campesinos and their families. Their lands are undividable and cannot be seized (indivisible y inembargable).
- Small property refers to lands of subsistence farmers and their families. Their lands are undividable and cannot be seized (indivisible y inembargable).
- Medium sized property refers to properties where the owner has salaried workers and where their product is destined for the market. The lands are transferable.
- Farming and/or cattle (agropecuaria) company's lands refers to the lands of farming or cattle companies with salaried workers. The lands are transferable.
- Tierras Comunitarias de Origen refers to the lands of indigenous peoples and communities. They are inalienable, undividable, cannot be seized, and are collectively owned.
- Community property refers to the campesino communities. Their land is inalienable, undividable, cannot be seized, and is collectively owned.

Regarding community property – it is governed by an assembly of heads of household. This Assembly creates and enforces statutes and regulations. It can vote to expel a member and redistribute his/her land. Community members do not have to live on the land, and may be members of more than one community.

The INRA Law specifically states that titles will be first awarded to those that live on the land, with preference given first to indigenous peoples and communities and campesino communities.

⁶ Ley INRA, Título III, Capítulo I. Law 1715, October 18, 1996.

Following a campesino march from Pando to the capital of La Paz in the year 2000, an amendment to the INRA Regulations was passed by supreme decree stating that in the Department of Pando the minimum titled area per family in indigenous or campesino communities will be five-hundred hectares.⁷ For individual landowners in Pando, and for all landowners in most of the rest of the country, the standard used is fifty hectares per family.

Each department (state) in Bolivia has an INRA office responsible for carrying out the field work, maintaining the geo-referenced rural land-use and property information, and issuing the titles. Since the regulations of the INRA Law were passed, INRA has been working with communities and individual landowners in Pando to collect the data necessary to carry out the land titling process. INRA sent teams to each community and individual landowner to collect the GPS coordinates of the borders of each area to be titled, and all “improvements” on the land (for example crops, pastures, and other cleared lands, structures, etc). The field teams also posted ‘mojones,’ or markers, around each of the properties. The markers were color coded to demonstrate whether or not there was a conflicting land claim or not (yellow for no conflict, and red for conflict). The local INRA office then was responsible for working out size and location of the land titles, and publishing the results.

The INRA Law stipulates that landowners (community or individual) must show the economic and social function of their land, commonly referred to as ‘improvements,’ or FES, according to its name in Spanish. Landowners must show how the land is being used in order to gain, and maintain, rights to their land. The INRA Law stipulates that, “the economic and social function is the sustainable use of the land in cattle grazing, forestry, and other activities of productive character, such as conservation and protection of biodiversity, research, and ecotourism.”⁸ Use is understood as residency, traditional use or exploitation of the land and natural resources, destined for familiar well-being or

⁷ Supreme Decree No. 25848 of July 18, 2000. Besides Pando, the decree also affected lands in the province of Vaca Diez in the Department of Beni, and the Municipality of Ixiamas in the Department of La Paz.

⁸ INRA Law. Article 2.II. (informal translation by the author).

development.⁹ For example, for cattle ranchers the number of cattle is used as the determining factor. For most individual landowners, the FES is used by INRA to justify any lands over fifty hectares to be titled.

Although it is quite clear in the INRA Law that the FES refers to many more uses than just those that require clearing of the land, a common perception among the rural populace of Pando is that in order to comply with the FES, landowners must clear their trees, and either plant crops or graze cattle. Until recently, zoning for conservation and/or, protection of biodiversity was disregarded by both landowners and INRA as fulfilling FES requirements.

OPTING FOR CONSERVATION FROM THE GRASSROOTS UP

During the 1990s, several rapid biodiversity inventories (RBI) were carried out, including the 1999 RBI in the areas around the Tahuamanu river. The RBIs showed extensive and scientifically significant biodiversity in the region. When CIPA and The Field Museum looked into the possibility of working with various government actors to create protected areas in the region, strong local opposition surfaced. The rural populace in the region had had previous negative experiences with top-down imposed protected areas, and would not accept a protected area declared by the central government in La Paz. It was clear that in order to declare a municipal protected area that local communities could participate in and benefit from, it was necessary to work with the communities on sustainable land-use and land tenure, and build a strong, ground-up grassroots conservation plan that included local actors' interests and respected their autonomy and decision-making rights.

By 2002, there had been no progress in applying traditional conservation strategies for declaring new protected areas in Pando. To the contrary, Manuiripi Reserve in Southwestern Pando (created in 1973 as one of Bolivia's first protected areas) had been formally reduced in size and status to recognize its transformation into ranches and agricultural lands in the thirty years since its creation. Seeking another way to protect the

⁹ INRA Regulations. Chapter III, Section I, Article 237 and 238. Supreme Decree No. 25763, May 5, 2000.

regions biodiversity, the Center for Investigation and Preservation of the Amazon (CIPA) of the Amazonian University of Pando (UAP) and The Field Museum of Chicago decided to promote conservation collaboration between local communities, individual landowners, and municipal governments. They sought advice from Fundacion Yangareko and concerned Pandinos. And the RIPUI-ANMI initiative was the result.

RIPUI: AN "ASSET MAPPING" BASED METHOD FOR PROMOTING RURAL CITIZEN PARTICIPATION IN DEVELOPMENT AND CONSERVATION

RIPUI (Recollection of Information about Potentials and Integrated Uses) is a new method derived from “asset mapping.”¹⁰ The RIPUI-ANMI project was designed and adaptively managed according to certain Key Principles that we recommend for designing frameworks for conserving biodiversity in collaboration between local civil society and local government anywhere in the world.

1. Cross-scale links. Nurture bridges to communities through activities that promote discussion and self-reflection. Create trust and communication mechanisms in the process of assessing community characteristics and trends. In this case, bridges were built thru RIPUI, a participatory self-diagnostic facilitated by trained community members (“facilitators”).
2. Transparency. Be open with conservation agenda and be clear about what cannot do for communities and local government.
3. Values Celebration. Nurture and celebrate existing values and care for forests, plants and animals in the local landscape. Create events that allow community members who share these values to step forth.

¹⁰ See www.fieldmuseum.org website under CCUC Calument project for description of “asset mapping”.

4. Promote integrated planning. Provide immediate benefits through assistance with community land use planning which also contributes data that when aggregated provides the basis for corridor assessment and planning.
5. Inclusion. Engage private landowners and assist their sectors to support a matrix of landuses that together support biodiversity maintenance. Engage communities through their local governing bodies and through their federations.
6. Clear Roles and Responsibilities for Regulation. Assist local governments to build instruments and capacity to manage biodiversity by working with all sectors to regulate develop through their responsibilities for land use planning.
7. Resilience. Keep system open and maintain information flow so decisionmakers committed to conservation can be flexible for responding to changes in politicians, policies and actors.

The Recollection of Information about Potentials and Integrated Uses (RIPUI), includes four principal phases:

- (1) Interviews and focus groups by members of communities during which the communities worked through a self-diagnostic of identity, land use, organizational strengths, and plans for their future;
- (2) Participatory land-use planning and mapping required under Bolivian law (Planes de Ordenamiento Predial) and the establishment of community-based resource management rules and enforcement mechanisms, as well as community-owned conservation areas;
- (3) Interviews with individual landowners in the two municipalities about their land use and vision of the future; and
- (4) Preparation and analysis of data, followed by presentation to communities and municipal governments.

Interviews and Focus Groups in the Communities

The communities carried out a process of self-diagnosis through interviews and focus groups realized by members of each community. Following a brief presentation of the activities, communities elected a facilitator from among their fellow community-members to lead the three month process. The communal facilitator attended a three day training session to learn the participatory methodology and how to use the illustrated explanatory guide-book.

Following an initial meeting with all of the community-members to explain the process, the facilitators interviewed the elected leadership, other communal leaders, founders of the community (or elders), the head of the local school, and the head of the health post if there was one. The interviews were prepared ahead of time by the CIPA and Field Museums staff and distributed to the facilitators.

After the interviews, the facilitators organized focus groups to discuss aspects of life in their communities such as: population, cultural features (including history of the community, language, festivals, food, and communal identity), migrational patterns, land-use, economically productive and basic sustenance activities (including agriculture, cattle, logging, brazil nut gathering, hunting, fishing, and others), family income and expenditures, organizational strengths, links with other communities and municipal governments, and plans for the future of the community (including the preparation of strategic requests for the municipal governments and other actors).

Supporting their work, the facilitators and the communities counted on a team of technicians from the local campesino federation who were hired to support the process. This team of eight local campesinos had previously worked on the process of land demarcation with the National Institute of Agrarian Reform. They were provided motorcycles and other supplies in order to move throughout the region and support the facilitators and the communities in their work. Both the facilitators and the support technicians from the campesino federation were paid for their work.

After the majority of the facilitators had finished their activities, the CIPA and Field Museum team organized a series of regional meetings so the communities could share their work with each other in order to help the facilitators fill gaps in the information and correct any mistakes. After the communities held their final meetings to validate and/or correct the information, the entire package of satellite images, sketch maps, graphs, notes, tables, lists, and organizational charts were sent to the university in Cobija for analysis and preparation of recommendations by the CIPA and Field Museum staff.

Communal Land-Use Planning, or POPs (Planes de Ordenamiento Predial)

As part of the RIPUI, the communities had the option of realizing a technical land-use planning activity, called POPs (Planes de Ordenamiento Predial). A POP is a type of participatory mapping ordained by the Bolivian government for all rural landowners (communal and individual), overseen by the government Agrarian Superintendent (Superintendencia Agraria). The POPs serve as tools for the communities to plan the use of their natural resources and lands, whether titled as yet or not. As a legal instrument, they also strengthen the land tenancy by showing use and planning, both where the communities currently are using and plan to use the land, and how they have zoned land-use and conservation throughout the rest of their land.

POPs allow communities to strengthen land tenancy through zoning, without having to cut down the forest to show how they are complying with the economic and social function (FES) requirements.¹¹ They also open the door for the communities to realize other land-use activities that legally require government approval, such as communal forestry plans.

¹¹ The Economic and Social Function (FES), referred to in the Law of the National Institute of Agrarian Reform (Ley INRA), states that rural landowners must show the economic and social function of their land, and refers to land-use as cutting down the forest. The POPs allow rural landowners (communal and individual) to show land use as zoning for various uses, including brazil nut collection, hunting and fishing, ecological services, etc. See the legal framework section for a more detailed discussion.

The process of carrying out a community POP consists of various steps. Usually, the process includes:

- A community-wide meeting to review the process, draw out sketch maps of the current land-use, and prepare a draft proposal for land-use for the next ten years;
- Field work with GPS to record types of terrain and soils, current land use, landscapes, altitudes, and fluvial features;
- Preparation of maps and written reports of the current land-use, and planned land-use for the coming ten years;
- Validation of the maps and reports with the community; and
- Approval of the POPs by the central government Agrarian Superintendent.

CIPA and the Field Museum of Chicago are currently completing POPs in twenty-nine communities of the municipalities of Filadelfia and Bolpebra with the support of an agrarian engineer (ingeniero agrario) approved by the Agrarian Superintendent to realize POPs. The activity is supported by a GIS mapping center located in the university in Cobija (Pando's capital city), two GIS specialists, and fifteen agroforestry and biology students of the Amazonian University of Pando (UAP) who are realizing the field work with the communities and supporting the preparation of the reports of the POPs as part of their thesis requirements.

Interviews with Rural Individual Landowners

Within the municipalities of Bolpebra and Filadelfia are also some 150 individual landowners. With almost all the individual landowners, CIPA and the Field Museum carried out interviews regarding their land use, vision of the future for their property, conceptions of conservation, and concepts of and participation in the municipal governments. Each individual landowner prepared a sketch map of their property showing the land use. The information was later entered into data bases and the GIS at the university. This information was used to prepare recommendations for the municipal governments and to complement information gained in the POPs of the communities regarding land use in the two municipalities.

Analysis of Data and Preparation of Reports and Recommendations

Once the communities had sent their interviews, tables, sketch maps, diagrams, and notes back to the university, and the rural surveyors had returned from the far reaches of Filadelfia and Bolpebra, the preparation of the reports began. As of March, 2004, for each community, CIPA and the Field Museum are preparing a summary of the community, and a series of recommendations. They are also preparing a summary of each municipality for the municipal governments, and will soon return the information and reports to the communities. Based on the information detailed by the communities and individual landowners, CIPA and the Field Museum are currently working with municipal government to prepare a regional conservation plan that includes a mosaic of use zones.

Throughout the process, the municipal governments have been kept informed and participated in various regional meetings as part of the process. As of early 2004, the two municipal governments are considering plans to create a joint management district for conservation that will link the land use rules and plans created at community and individual landowner level with municipal conservation areas under a district-wide framework for enforcement and assistance.

RESULTS

The municipalities of Filadelfia and Bolpebra are home to thirty-seven communities (twelve in Bolpebra and twenty-five in Filadelfia), plus several comunidades cautivas, indentured resident workers that chose not to leave their patrons by seeing their own community land. CIPA and Field Museum offered the opportunity for participation to all 37 communities, and twenty-nine communities chose to participate during the diagnostic phase of asset and land-use mapping.

Eight of the thirty-seven communities chose not to participate in the diagnostic phase for varying reasons. Although it was difficult to interpret why communities did not choose to participate, it is possible to extrapolate reasons for the majority of the communities that did not participate. The main reason for reduced participation is an imminent mistrust of external actors, including government, non-governmental organizations, and institutions interested in development and/or conservation. Besides the ever prominent, but in many ways well earned mistrust, other factors led to some communities deciding not to work in the diagnostic phase (RIPUI).

One reason that seems to have been a primary factor in at least two communities is that many communities are practicing illegal logging. There was a (well-founded) fear that a self-diagnostic of the communities would expose the practice and the community would be forced to stop, and might even face punitive legal action. In two communities, local leaders were actively involved in the illegal logging. One local leader, a member of the board of one of the campesino federations, reportedly took a US \$3000 advance payment from a logging company and was selling trees to pay it off. Ironically, he used part of the money to purchase a motorcycle in order to carry out his duties as a board-member of a local campesino federation which is now working to stop a logging company from entering the area.

One of the communities that seemed to have the intention of participating at the beginning of the project, even sending a community member to the three-day training workshop, in the end did not participate. This community is located on the Peruvian border and reportedly is intimately involved in cocaine trafficking from Peru to Bolivia and on to Brazil. The community is known locally for harboring murderers, responsible for killing many people, including Peruvians, Brazilians, and Bolivians. The community maintains a stick at the entrance of the community with the shirt of its most recent victim grotesquely hung as a warning to outsiders to stay away. For obvious safety reasons, CIPA and the Field Museum did not ask the regional community assistants to follow-up with the community when the community fell behind in its self-diagnostic and then abandoned the project.

Most of the communities in the region have, or are in the process of being granted, collective titles to their lands through Agrarian Reform. Most of the Pando's indigenous peoples' hold collective title to their territories, referred to in Bolivia as Tierras Comunitarias de Origen (TCO). In western Pando, there is one TCO.

As of March 2004, about half of Pando's lands have been titled through a titling initiative begun in 2000. As of this writing, all of INRA's titling field work has been completed and public exposition of the results continues to allow time for adjustments on the basis of complaints and public pressure. Titles have been awarded in many municipios. The titles in the municipality of Bolpebra were handed over to the communities and individual landowners in late 2003. The titles of the municipality of Filadelfia have yet to be turned over as there are still many overlapping title requests and much controversy. As of early May, INRA has done the public exposition of titles in Filadelfia and there are roadblocks protesting the reduction in lands awarded to communities vs the lands claimed.

Some Pandino communities with communal titles have expressed concern that they weren't 'using' enough of their land, and expressed fear that their lands could be taken away. As land titles are only recently being issued and the land tenure boundaries are currently being drawn throughout the department, rural landowners commonly do not feel that their tenure is secure, even though the land tenure laws are quite strong.

Pressures to Settle More Families in Pando

After the President was removed from power in October, 2003, the power of the campesino federations increased. Politicians in La Paz struggled to appease their demands, competing to show how responsive they are to campesino interests. One of the interests of the national campesino organizations is finding new lands to settle displaced campesino families or to resettle families from overpopulated areas. In February 2004, one Pandino member of congress reportedly opened an office to take names of families

interested in relocating to Pando. Another member of congress in La Paz has proposed settling ten thousand families in Pando. This would double the population of Pando.

The right to decide whether or not settle families in Pando onto the fiscal lands, left after the titling process, primarily resides with a commission that includes four members of the Prefecture of Pando, and four representatives of civil society, including one member of the local campesino federation, and one member of the local indigenous organization.

The current prefecture leadership opposes the settling of large numbers of new families in the region, so for the near future these types of proposals should not move forward, although they do regularly crop up in various fora.

Community and private landowners-- characteristics and linkages upward

Communities in Filadelfia and Bolpebra are very heterogeneous and most are quite small. Spanish and Portuguese are spoken by most community members. Some also speak Tacana, Aymara or Quichua. The communities are isolated by bad roads and distance. The government provides basic schools and some health posts as the only basic services. There is no major town in either of the two municipios, and Cobija (capital of Pando) in the neighboring municipio, is the main destination visited by community members for purchases and selling products. In the older communities, people share a sense of community and carry out communal work regularly, and have strong community government and have written and enforce their statutes. Others were recently established in order to take advantage of getting 500 hectares per household instead of 50 hectares. The resulting community title includes an area equal to the number of families times five hundred hectares. For example, if twenty families grouped together to form a community, the group received a communal title of ten thousand hectares. At one extreme, there is one community all of whose members lives in Cobija and visit the land on weekends; in others a quarter of members live in Cobija, and in others longterm residents who migrated from Brazil more than ten years ago live together with a mixture of Brazilian citizens who received no land at all. And there are two communities that are indigenous but have never petitioned for their TCO (instead opting to be campesino

communities). In addition, there are two separate communities within the Machineri-Yaminagua indigenous territory (TCO).

Many individual landowners received only fifty hectares of land, even though they had lived in the area for many years and claimed hundreds or thousands of hectares. While many individual landowners received relatively large pieces of land, the majority received significantly less than they had requested. In some cases, the economic and social function (FES) regulations resulted in the larger masses of land being awarded to cattle ranchers, as they commonly cut down larger swaths of forest. That some of the large scale cattle ranchers are wealthy, politically powerful people probably influenced their receiving larger chunks of land. The government is responsive to lobbying by rural poor and the rich.

The Law of Popular Participation set up a structure for citizen participation that allows communities to be involved in the management of the municipalities. Sometimes that can lead to mismanagement as inexperienced and previously excluded populations gain access to municipal government leadership positions. While the municipal governments of Filadelfia and Bolpebra lack economic strength and stability, they do reflect a relatively high level of citizen participation and political abilities, and show great promise to develop into stronger and more effective municipal government in the coming years. The municipal governments all belong to AMDEPANDO which provides assistance and training; AMDEPANDO in turn belongs to a national federation of municipal governments.

Community links to national organizations -- Campesino Federations in Rural Pando

Bolivia is a lively, pluricultural democracy under construction. In September and October, 2003, Bolivia went through another turbulent time of protest and uprising that ended with President Sánchez de Lozada resigning and taking a plane to Miami. Then

Vice-President Mesa assumed the presidency amid promises of restructuring the laws regulating the oil and gas industry in Bolivia, and promising changes to the Constitution.

Campesino and indigenous leaders from throughout the country united to demand that then President Sanchez de Lozada step down. The two most powerful campesino organizations and their linked political parties are led by two powerful men. One campesino federation is led by Evo Morales, the head of the socialist political party MAS (Movimiento al Socialismo). Morales advocates a shift to socialism by working through the democratic system. He nearly won the presidential elections in 2001, winning second place in the first round of elections, winning 20.94% of the vote to Sanchez de Lozadas' 22.46% (in the final round he lost 43% to 84%).¹²

The second most powerful campesino federation in Bolivia is led by Felipe Quispe, also referred to as Mallku, a traditional Aymara name given to the leader of the Ayamara people. Felipe Quispe advocates armed revolution.

Although Pando is almost completely cut off from the rest of the country, national level politics have an important impact on local rural power dynamics. The two national level campesino federations are present in Pando, and the rivalry reflects relations at the national level. In Pando, the campesino federation that links to MAS and Evo Morales is strong. While some community members express distress at manipulation of the federations by political powers outside of Pando, the federations do wield considerable power, in part due to the changes in rural power structures resulting from the Law of Popular Participation.

Individual Landowners

¹² Bolivia: Electoral Results/Resultados Electorales.
<http://www.georgetown.edu/pdba/Elecdata/Bolivia/pres02B.html>. Accessed March 11, 2004.

Besides the communities, the two municipalities are also home to about one hundred and fifty individual landowners, some of whom also claim campesino status and belong to the above mentioned federations. Most of the individual landowners have cleared areas for cattle grazing but many are also involved in brazilnuts and/or logging. Private individual lands range in size from a modest 50 hectares to the larger lands owned by some of the more politically and economically powerful people in Pando, some of whose lands surpass 10,000 hectares, much of it cleared for cattle grazing.

As is typical in various Amazonian countries, among many of the local populace there is a cultural conception that wealthy people have cattle; a concept of class stratification that places rural communities at the bottom, and large-scale cattle ranchers at the top. The relatively new law of popular participation is slowly changing some of the rural power structures, but the cultural perception of the link between cattle and class remains strong.¹³ That said, in surveys taken in October and November 2003¹⁴, the majority of the individual landowners did express interest in learning more about possible conservation strategies on their lands and commented that conservation is important to them.

Among the individual landowners are barraqueros, landowners who depend on the brazil nut trade as their primary source of income. The barracas (the land of the barraqueros) are large extensions of land that are used primarily for brazil nut collection by the barraqueros and the families that either permanently or seasonally live there. Brazil nuts are found in large coconut sized pods that fall from brazil nut trees in many parts of the Amazon. They provide an environmentally sustainable source of income for those who have the means to get them to the market. In Pando, the extent of the brazil nut trade is considerable, affecting rural life throughout Pando during the four-month long zafra, as the brazil nut gathering season is called.

¹³ The Law of Popular Participation was passed by the Bolivian Congress in April 1994. See legal framework section of this paper for a more detailed explanation.

The barraqueros historically relied on a form of debt peonage for their labor – using company stores, advances, housing and benefits of patronage. Most of the barracas are relatively large extensions of land; often from 5,000 to 15,000 hectares. On the land live the family of the owner and often other families who work the brazil nut season, called the ‘zafra,’ from December to March. The families often depend almost entirely on owner of the barraca for their basic needs, sometimes going into debt to get their necessary goods. Throughout the zafra, the families gather brazil nuts, and pay off any debt they might have. During the brazil nut season, thousands of migrant laborers, zaferos (brazil nut workers) arrive from outlying areas, including the neighboring state of Beni and Brazil. Although it is difficult to accurately determine a precise number, many claim that Pando as much as doubles its population during the zafra. During this time most barracas receive migrant families on their land. The migrant families commonly do not receive food from the barraqueros, relying almost entirely on hunting for their sustenance. Most zaferos arrive with their families, some clothes, and a shotgun to hunt for food. Almost all of the rural population in Bolpebra and Filadelfia participate in the zafra, but it is only the small barraqueros that depend almost exclusively on brazil nuts for their income and sustenance, effectively structuring their economic and social communal relationships around the brazil nut trade.

As the titling process moved forward, the national campesino federations entered into a serious debate with the barraqueros and INRA over the land of the barracas. The campesino federations regularly look for more lands to expand current campesino communities and relocate communities or families with little or no land to new areas. Their position in Pando was to oppose the barraqueros, whom they saw as individual landowners occupying huge areas of land. The campesino federations wanted to see the barraqueros lands reduced to free up more land for communities and tierras fiscales (state lands that might then be used for campesino communities).

¹⁴ Surveys taken by the Centro de Investigación y Preservación de la Amazonía (CIPA) of the Amazonian University of Pando, October and November, 2003, as part of the Relevamiento de Información sobre

The barraqueros see themselves as an integral part of Pando's history, from the time of the rubber boom, through the years to the current expansion of the brazil nut industry. They use their entire lands for brazil nut collection. In their eyes, they are fulfilling the FES requirement by collecting brazil nuts throughout their lands. The campesino federations claimed, and INRA agreed, that collecting brazil nuts did not qualify as an economic and social function (FES). As of March, 2004, this political battle between the campesino federations and the barraqueros is still raging. It seems that in the current land titling process, INRA will grant the barraqueros only the fifty hectares per family that the law allows for individual landowners. Most of the barracas, many of them previously tens of thousands of hectares in size prior to the land titling process, are being reduced to fifty hectares per family, in accordance to the INRA Law. As of March 2004, INRA is expressing that it will not recognize the traditional brazil nut collecting as fulfilling the economic and social function.

Recognizing the injustice to the barraquero families who have been working rubber and now brazil nuts for the past decades, local actors, including the Prefectura (departmental, or state government), some municipal governments, the barraqueros' organization, and other actors banded together to propose a solution to the difficult predicament of the barraqueros. Their current proposal is to create non-timber forest concessions to be granted to the barraqueros, covering what used to be their lands. This would in essence give the barraqueros title to fifty hectares around their residences, and concessions to continue collecting brazil nuts on the extension of what was before considered their land (up to 15,000 ha). The barraqueros would enjoy exclusive rights to the concessioned land, but would not hold permanent title to it. As of May 2004, a draft decree creating nontimber forest concessions for brazilnut extraction is circulating.

Under the forestry law and regulations, one cannot commercialize products from a non-timber forest concession. The idea behind this regulation is that a forest which is producing for the market will not be able to sustain itself indefinitely. The original wording of the law did not take into consideration the possibility of allowing the

Potencialidades y Usos Integrales (RIPUI), of CIPA and the Field Museum of Chicago.

commercialization of products as bountiful and non-destructive as brazil nuts. The current proposal promoted by many of the barraqueros and their allies in Pando is to change to the forestry law and regulations in order to allow commercialization of products from non-timber forest concessions. This would, in effect, allow the barraqueros to maintain title to the fifty hectares of their residences, and rights to continue to collect brazil nuts in their concessions.

Conservation Views

Based on informal conversations in many communities, the majority of the community-members in Filadelfia and Bolpebra feel that they are already practicing conservation. Almost all of the communities CIPA and the Field Museum worked with did not have access to food markets and produced only enough food for their own consumption. Most families do not plant more than two or three hectares a year, and rotate their crops regularly. Community members commonly use an area of land for only three to five years before leaving it swidden for at least ten years. Considering that almost all of the communities in Filadelfia and Bolpebra enjoy lands with five hundred hectares per household, the actual impact on the forest cover from food production in rural communities is minimal.

However, in some communities there is a notable impact on the local flora and fauna. For example, some communities describe reduced hunting options, reporting that “the animals have moved away,” due in part to extensive hunting. Members of many communities often cut down and sell trees to logging companies during the months of September through December when commonly there is a lack of income and food reserves in the communities. Many community members expressed distress at the apparent need cut down trees on their lands, and hoped that another way could be found to satisfy their basic needs.

The Way Forward: Building Citizen Participation through a Regional Conservation and Development Plan – the ANMI after RIPUI

Based on the results of the RIPUI, CIPA and the Field Museum are working with the municipalities of Bolpebra and Filadelfia to develop a regional development plan. The information gathered during the RIPUI process, including the work the communities carried out, the POPs, and the rural surveys, will feed into a regional development and conservation plan called a Natural Area of Intergrated Management, or ANMI according to its name in Spanish.

Currently, the municipal governments and most of the communities and individual landowners sense that they are building towards something. After months of work by the communities, interviews and discussions with individual landowners, and numerous struggles over differing opinions about the RIPUI, it seems that the population of the two municipalities are waiting to see their proposals put to paper. At the moment CIPA and the Field Museum are working with the municipalities to develop a proposal for the ANMI. The work is extensive, including collecting data on the flora and fauna, reviewing previous documents and proposals for regional development and conservation, working with the entire rural populace to ensure the plan represents their proposals, and looking for options for development and conservation projects for the future. Although there is a lot of information and background documents that need to come together for the ANMI, the essence of the proposal is clear and simple. It is to be a collection of the land-use plans included in the communities' participatory land-use mapping (POPs) and the results of the rural surveys. After many months of work, the CIPA offices in the Amazonian University of Pando have the data necessary to create maps that show land use throughout the two municipalities, including land use in the communities and in the individual landowners. The resulting mosaic is to be the basis for the zoning within the ANMI. The fiscal lands, community ecological service areas, and forest use zones will be linked to form broad areas of conservation, within the ANMI. The communities and private landowners will retain all rights to the land and their uses as under the law, and as

guaranteed in their titles. Within the municipal governments, CIPA and the Field Museum will support the hiring and training of new staff to manage the ANMI.

One of the many benefits of the ANMI is that by zoning the entire municipalities, the populace will be able to have greater control over the fiscal lands. By zoning the areas outside of their communities, and linking them to areas within their communities, people will have a well-founded reason to participate more actively in any discussions regarding what is to happen to the fiscal lands. No longer will the fiscal lands be seen as unused land, free for the taking for any use. They will be zoned areas of an ANMI.

Once the ANMI is in place, there will be a local institutional structure to take advantage of any conservation benefits that come up in the future. Should the idea of conservation concessions (currently promoted actively by Conservation International) take hold in Pando, the municipalities of Bolpebra and Filadelfia will have conservation plan in place, complete with zoning, and support staff in the municipality. The region could become a model for participatory development with sustainable conservation.¹⁵

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Further results will be added and analyzed in the final paper.

Literature References (beyond current footnotes) to be completed in final draft.

¹⁵ The Prefectura of Pando has already expressed to CIPA that it would like CIPA to carry out similar processes in other municipalities of Pando. CIPA and the Field Museum are partnering with other local NGOs to begin similar work in the two most eastern provinces of Pando. Fundacion Yangareko has adapted a similar approach in their work in Chuquisaca.