DEMYSTIFICATION AND EMPOWERMENT THROUGH A COLLABORATIVE WORKSHOP ON INDIGENOUS LAND TITLING AND DEMARCATION ISSUES IN THE PERUVIAN AMAZON

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After applying for and receiving a fellowship grant from the Center for Collaborative Conservation at CSU, I revisited my short proposal and decided it would be beneficial for me to utilize the knowledge I gained from my Ethnographic Field Methods class. By reorganizing the proposal and adding additional methods and research questions in the format of a National Science Foundation proposal, I was able to better conceptualize the project I would be undertaking before heading into the field. The following proposal is an enhanced version of my CCC project, which guided my fieldwork during the summer of 2010.

1. Problem Statement:

The environmental and cultural vulnerabilities in the Peruvian Amazon have become serious problems in the extreme competition for land and resources. The rainforest offers great biodiversity and is important in regulating world climate, but it is threatened by illegal deforestation, encroachment, water pollution, and the destruction of natural resources (Garcia Hierro 2004). The Ucayali region, home to over 40,000 Shipibo indigenous peoples, has the highest rates of deforestation and disturbance in the country; from 1999 to 2005, 64% of the total damage to the Peruvian Amazon was inflicted in this region (Oliveira et. al. 2007).

Due to the difficulties encountered in land titling and demarcation processes, the Shipibo indigenous people formed an alliance with international NGOs, Village Earth (VE) and Engineers without Borders – Fort Collins Professional Chapter (EWB – FCPC). This partnership has resulted in preliminary mapping and exploration of the titled boundaries of the Shipibo community Santa Rosa de Dinamarca by plane and foot. Thus far in the initial meetings, this alliance has sought to address three problem areas:

- A. The mystified procedures for legal communal land titling and demarcation
- B. The dependency on expensive and often biased government GPS technicians required to carry out aforementioned procedures
- C. The ecological impact of current and future land-use changes

The alliance then established three goals in response to these problems:

- A. Bring together members of the Shipibo community, Santa Rosa de Dinamarca, as well as members of bordering communities to discuss the myths and facts of land titling and demarcation issues
- B. Technical training of community members in compass and GPS navigation so they no longer have to rely on expensive and biased government technicians
- C. Reclaim and restore management and protection of titled community lands

In order to reach these goals, the alliance has decided to hold a collaborative three-day workshop that will bring together Santa Rosa de Dinamarca and three surrounding communities in the Masisea district. During the workshop, there will be open forums to discuss indigenous territorial issues within the district, introduce the different stakeholders to one another, and training in GPS and compass technology to community leaders and representatives so they have the technical capacity to carry out their own demarcation work. The role of the community, Santa Rosa de Dinamarca, is to contact and invite the stakeholders and surrounding communities, while preparing their community to host the attendees. Invited communities will elect ten representatives to attend the workshop. EWB-FCPC will provide the technical training during the workshop, and VE will facilitate and translate during the workshop.

2. Previous Research Experience

I have spent time in Latin America conducting and evaluating small-scale development projects in indigenous communities. While in the communities, I also

learned about obstacles to indigenous empowerment. The locations of investigation were the Nahuatl community of Cuéntepec, Morelos, México and the Sébaco community of Chagüitillo, Matagalpa, Nicaragua.

3. Review of Literature

3.1 Geographic Information for Sustainable Development

Chapter 40 in Agenda 21, "Information for Decision-Making," emphasizes the need for an increase in the accumulation and variety of data to be collected at all scales (NRC 2002). This data would help track the trends of Earth's ecosystems, natural resources, pollution, and socioeconomic variables (NRC 2002). Chapter 40 then concludes that there is a gap "in the availability, quality, coherence, standardization and accessibility of data between the developed and developing world" (NRC 2002:14) This gap has been increasing and seriously impairing the capacities of countries to make informed decisions concerning ownership and development of land (NRC 2002).

In order to address this concern there is need for the development of "a standard classification system, baseline data and change detection capabilities; hot spot detection and high risk zone prediction capabilities, analysis and modeling of proximate (mainly human) causes of change, linkages between direct observations, case studies and models, and established environmental indicators" (NRC 2002:133). These types of geographical information can be used to understand and integrate social, economic and environmental perspectives. They can also address relationships among places at local, regional, national, and global scales (NRC 2002). Community alliances and collaboration also tend to foster feelings of ownership by rural people, promote sharing of data and tools, and generate trust and a common vision. Access to geographic information can also promote good governance by allowing civil society to hold the government accountable for actions (NRC 2002).

Geographic data can be obtained from ground-based measurements and from remote-sensing systems. These data are useful for determining location of titled boundaries in the dense rainforest, and when analyzed in conjunction economic or health data that are geographically referenced, sustainable development decision-making will be more informed (Jensen 2000). Geographic Information Systems (GISs) have been developed specifically to link data that describe development and environment variables to a geographic location (NRC 2002). Geographic information systems are powerful tools for "ingesting, storing, retrieving, transforming, processing, and displaying geographic data" (Burrough 1986). If a GIS involves the integration of geographically referenced data in a problem-solving situation, it can become important for decision making, or a decision-support system (Cowen 1988). Geospatial capacity is essential for all these steps so that full use can be made of the capabilities of geographic data for supporting sustainable-development decision making.

Among the Agenda 21 issues, many nations, international organizations, and non-governmental organizations have identified poverty and the unequal distribution of

benefits of development as the most important today (NRC 2002). Poverty eradication will require equitable economic and social development within sustainable environmental parameters. It is essential to value the environment in this equation because it is the fundamental matrix providing natural resources, waste assimilation, and links between people and the natural world.

3.2 Shipibo Land-Titling Issues

In the remote Ucayali region of the central Peruvian Amazon live around 40,000 Shipibo people concentrated into approximately 120 communities (VEP Project 2006). The region was recently opened up to oil and hydrocarbon exploitation by powers granted to Peruvian president, Alan Garcia, to carry out the freshly implemented US-Peru Trade Promotion Agreement (US-PTPA). Whereas in 2004 only 13% was slated for oil and gas development, in 2006 approximately 73% of the Peruvian Amazon was under contract for either exploration or production purposes, and today it is near 80% (Way 2009). Significantly, 58 of 64 blocks of land that have been leased to oil companies in the Ucayali region are located on lands that are legally titled to Shipibo and other Amazonian indigenous peoples; 14 blocks overlap nature reserves (Way 2009). The Ucayali region, and especially the capitol port city of Pucallpa, is considered the industrial center of the Peruvian Amazon. The economy of this region is highly dependent upon the extraction of resources for international consumption. This region is also ecologically important as it plays an essential role in climate and biogeochemistry systems such as water cycling and carbon sequestering, is a biodiversity hot spot, and is home to millions of endemic species (VEP Project 2006).

For the last 50 years, Shipibo communities have been contacted by various missionary groups and non-governmental organizations, many of which have left behind unfinished or unsustainable projects, mistrust, and divisions within communities (VEP Project 2006). In 2005, Village Earth (a consortium for sustainable village-based development) was invited to visit eight Shipibo communities where community members and leaders favored Village Earth's empowering participatory methodology and chose to form an international alliance (VEP Project 2006). In June 2007, Village Earth cofacilitated an indigenous tribunal where Shipibo leaders decided to form their own organization in order to work towards their collective vision of the region (VEP Project 2006). This organization is known as the Organization for the Defense and Development of the Indigenous Peoples of the Peruvian Amazon (ODDPIAP) (VEP Project 2006). ODDPIAP then decided that their highest priority for regional sustainable development is protecting Shipibo territories. Although most communities have the native titles to their lands, many are in need of physical demarcation on the ground, amplification of territory in order to maintain self-sufficiency, and protection of their land from outside colonizers, large-scale industrial agriculture, logging, and oil/hydrocarbon extraction and exploitation (VEP Project 2006).

The Ministry of Agriculture and the Commission to Formalize Informal Property (COFOPRI) are the governmental entities in charge of titling lands to indigenous peoples and small farm holders, but are actually the source of many problems (Aiello 2009). Not

wanting to entangle themselves in the related social problems, COFOPRI is refusing involvement in the titling and demarcation process, further enabling the Shipibo people in determining their future (Aiello 2009). Even if COFOPRI were involved, the GPS technicians sent to field sites are expensive and often biased. Corruption has also emerged within the Ministry of Agriculture where low-level government bureaucrats have been caught selling 30-100 hectare parcels of the territory belonging to Santa Rosa de Dinamarca to non-indigenous colonists (Aiello 2009).

4. Research Question

My research question is:

Can a collaborative workshop on land titling and demarcation in the Peruvian Amazon demystify the complex procedures and empower local indigenous communities to manage and protect their cultural and environmental assets?

To answer my research question, I will focus on five variables to guide my methods of data collection. These variables are:

- The understanding of the process to title and demarcate land before and after the workshop.
- The level of participation in the workshop and supplementary activities before and after the workshop.
- Access to available resources and knowledge before and after the workshop.
- The understanding of their [the Shipibo's] role within the process before and after the workshop.
- The perceived and identified obstacles before and after the workshop.

5. Research Methods and Design

5.1 Research Setting

The research will take place in the Shipibo community of Santa Rosa de Dinamarca, in the Masisea district of the Ucayali region, in the central Amazon of Peru. The community consists of approximately 860 people grouped in 95 families (VEP Project 2006). Research will be conducted prior to, during, and after the workshop to provide a longitudinal analysis of the land titling and demarcation issues for these indigenous peoples. I will spend a total of two and a half months living with the community of Santa Rosa de Dinamarca to collect data. By spending an extended and continuous amount of time in the community, I hope to build trust, lower reactivity, and obtain higher quality data (Bernard 2006).

5.2 Participant Observation

Before, during, and after the collaborative workshop, I will attempt to experience the lives of the Shipibo people by participating in daily activities while keeping notes of my observations. These notes will be categorized and recorded in jottings, a dairy, a daily log, and as methodological, descriptive, and analytical notes. By immersing myself in their culture, and then removing myself from the immersion, I will be able to

intellectualize that which I observe (Bernard 2006). The levels of my participation and observation before, during and after the workshop will vary with the culturally acceptable contexts. For example, during the workshop I may be a complete participant, if asked to translate between the technicians and participants. Other times during the workshop, I may act as a complete observer while I take minutes on the discussions and planning processes. However, the primary method utilized will be a mixture of participation and observation of not only the workshop, but daily activities and activities related to the management and protection of Shipibo lands and resources.

Notes from my participant-observations will be recorded on a daily basis and then coded and grouped into analytical categories that emerge from the data using grounded theory to revise and advance my research question (Glaser and Strauss 1967; Strauss and Corbin 1990). By reading through the notes, I will be able to pull out important themes through inductive coding. I will then recode the notes with themes taken from the literature using deductive coding. This analytical process will help me understand the relations between themes and build models to complement the other methods of data collection.

To my advantage, I am fluent in Spanish which is the second language of the Shipibo. However, I will also keep a running dictionary of Shipibo words to improve my communication skills while in the community. At the same time, I will keep in mind how my gender, age, ethnicity, and other potential differences may affect the data and collection methods.

5.3 Semistructured Interviews

From the themes that emerge in my participant observation and from the literature, I will develop an interview guide with questions and topics I would like to cover, and then arrange several semistructured interviews with past and present *jefes* (chiefs), elders, shamans, and participants in the workshop. By allowing flexibility in the interview, I hope to encourage the emergence of missed themes or topics while deepening my understanding of already known ones.

These interviews will begin with informed oral consent of the individual and the proper procedures for the protection of their identities. Once consent has been granted, the interviews will be recorded using a handheld electronic recorder, and then later transcribed. The interviews will be conducted in Spanish, and if necessary a translator will be present to facilitate communication and understanding of questions. The recordings will then be transcribed in Spanish and coded using both inductive and deductive analysis to further understand themes and their relations to one another. Important quotes will be translated into English and then cross-checked for validity and meaning by two different native Spanish speakers who are also fluent in English. The number of these interviews depends on the time and willingness of community members and workshop participants.

5.4 Survey

Based on the data that emerges through the participant observations and interviews, I will use grounded theory to develop a meaningful and appropriate survey to deepen the qualitative analysis and complement it with quantitative data (Glaser and Strauss 1967; Strauss and Corbin 1990). This survey will consist of demographic, openended, multiple choice, and free-list questions, as well as a scaled model of the processes of land titling and demarcation. This survey will be tested on a sample of 5 people and then altered according to feedback before being distributed at the beginning of the workshop. Participants in the workshop will be asked to fill it out based on voluntary incentive. After the workshop is complete, the participants will then be asked to fill out the survey again, taking into account the changes (if any) in their perceptions and beliefs concerning the land titling and demarcation processes. These surveys will be identical to allow for the cross-analysis of data.

Each survey item will be coded into an Excel spreadsheet, grouped according to individual and whether the answers were from the first or second survey. This will allow me to analyze the changes (if any) among and between respondents. This data will then be imported into statistical analysis programs such as UCInet and SPSS. I will also use the scaled model on the survey to conduct multiple different analyses of cultural consensus. I would like to see if there is consensus among the data from the first survey and then see if there is consensus among the second survey. By looking at the answer key of the cultural consensus analysis, I may be able to track the changes in culturally held perceptions about land titling and demarcation procedures and related issues.

6. Significance

6.1 Significance to Science

The implementation of Agenda 21 has been slow, but the collection, analysis, and use of geographic information offer a starting point on the path to sustainable development (Brooner 2002). Society can benefit from the capabilities of geographic and other information sources and systems as the tools are helpful for a wide range of applications, such as remote sensing and infrastructural planning.

Geographic data and information have the potential to play a role in the planning, implementation, and monitoring of many of Agenda 21's action items. In the committee's opinion, these data and information are directly applicable to at least 20 of these research items. Agenda 21 also specifies needs with respect to geographic data and information, and related to technologies including global sustainability indicators, data collection and use, data assessment and analysis, and geographic information systems (UNCED 1992). Additionally, Agenda 21 expressed the need for modern information frameworks and improved standards and methods for handling information, documentation about information, electronic networking capabilities, and partnerships among governments, international organizations, and the private sector. Many of these issues are fundamental to spatial data and infrastructures that permit international and trans-boundary data sharing for the empowerment of individuals and the enhancement of understanding legal processes. This research may present opportunities for clarifying the land titling and

demarcation processes and be used as a model for future research on the effectiveness of collaborative conservation workshops.

6.2 Broader Impacts for Society

Possibly the most important aspect of this research is its broader impacts on society at large. The action of accumulating data is a first step for managing the complex process of land titling, demarcation and sustainable development. Linking back to the section 6.1, many of the significant impacts in the academic and sustainable development arena carry over to our daily lives and pursuit of a healthy, just, and sustainable future. By collaborating with the Shipibo people and understanding their perceptions of land titling and demarcation, they will be able to better overcome obstacles, manage their resources, plan for the future, record and utilize local knowledge, raise awareness about areas of concern in their environmental and social landscape, and communicate their priorities and concerns to external agencies or government officials.

If the Shipibo people are able to promote responsible governance in a region that lacks infrastructure, then this research may be able to shed light on ways of promoting sustainable governance and locale specific regulations. Continued development of geographical information could facilitate land management and administration. Over time, geographic information could play an indirect role in poverty reduction, especially through enhancing access to data. Inducing a strong proprietary interest in the land can also help to deepen environmentally sensitive attitudes to development (NRC 2002).

Finally, because the region in this study is part of the larger Amazon Rainforest, a biodiversity hotspot and carbon-sink, it is essential that we value the region's importance on a larger scale in maintaining the integrity of the planet. The Amazon Rainforest spans eight countries and provides one-fifth of the planets fresh flowing water (UNCED1992). The immensity of the challenge to conserve the Amazon is much like the scale of its landscape – huge – and requires a long-term conservation vision back by strong scientific expertise.

References Cited

Aiello, Kristina

2009. Peru's 'Cold War' Against Indigenous Peoples. North American Congress on Latin America. July 15.

Brooner, W.G.

2002. Promoting Sustainable Development with Advanced Geospatial Technologies. Photogrammetric Engineering and Remote Sensing 68 (3):198-205.

Burrough, P.A.

1986. Principles of Geographic Information Systems for Land Resource Assessment. Monographs on Soil and Resources Survey No. 12, New York: Oxford University Press

Cowen, D.J.

1988. GIS versus CAD versus DBMS: What are the differences? Photogrammetric Engineering and Remote Sensing 54:1551-1554.

Garcia Hierro, Pedro

2004. "Governance, the Territorial Approach and Indigenous Peoples" *Indigenous Affairs*.

Glaser, B.G., and A. Strauss. 1967. *The discovery of grounded theory: Strategies for qualitative research.* New York: Aldine.

Jensen, J.R.

2000. Remote Sensing of the Environment: An Earth Resource Perspective. Saddle River, NJ: Prentice-Hall.

National Research Council

2002. Down to Earth: Geographic Information for Sustainable Development in Africa. Washington, D.C.: The National Academies Press.

Oliveira, Paulo J, with Gregory P. Asner, David E. Knapp, Angelica Almeyda, Ricardo Galvan-Gildemeister, Sam Keene, Rebecca F. Raybin, and Richard C. Smith 2007. "Land-Use Allocation Protects the Peruvian Amazon" *Science* 317: 1233-1236.

Strauss, A., and J. Corbin.

1990. *Basics of qualitative research. Grounded theory procedures and techniques.* Thousand Oaks, California: Sage.

UNCED (United Nations Conferences on Environmental and Development).

1992. Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992. Rio de Janeiro: UN (Annex I: Rio Declaration; Annex II: Agenda 21)

"Village Earth Peru Project - Shipibo Nation, Peruvian Amazon."

2006. http://www.villageearth.org/pages/Projects/Peru/index.php (accessed 13 Dec 2009)

"Village Earth's Peru Project Blog"

2007.http://www.villageearth.org/pages/Projects/Peru/perublog/2007_04_01_archive.html (accessed 13 Dec 2009)

Way, Jamie

2009. The Neoliberal Crusade for Resources on Indigenous Lands in the Peruvian Amazon. Upside Down World, October 19.