



GENDER EQUALITY AND WOMEN'S EMPOWERMENT IN THE WORK OF WCS IN THE ANDEAN-AMAZON AND ORINOCO REGION

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GENERAL INTRODUCTION

GENERAL INTRODUCTION

Zulema Lehm Ardaya¹

In the Wildlife Conservation Society (WCS) Andes, Amazon, and Orinoco Program, we have an initiative, Minka, to share work experiences and knowledge. Its aim is to strengthen the capacities of WCS and its partners and is organized in communities of practice, one of which is the Working Group on Communities.

This compilation is the product of a Minka-sponsored webinar on June 6, 2018, which consisted of the following speakers: Galo Zapata Ríos of WCS in Ecuador with his research on the participation of women and children of the Shuar people in hunting activities, Kantuta Lara Delgado on the work of WCS in Bolivia with the Indigenous Council of Tacana Women (CIMTA), Paulina Dalgo on WCS's work in Ecuador with the Ecuatorian Amazon Waorani Woman Association (AMWAE) and María Antonia Espitia on WCS's work in Colombia with the Bocas del Carare Enterprenour Women Association (ASOMUCARE). Zulema Lehm, author of this introduction, made an analytical synthesis of the experiences presented.

At the webinar, the Communities Working Group decided to compile the presentations, so each author wrote an article and an additional article on economic income among households of the Tacana indigenous people in the Bolivian Amazon was added. This set of articles is organized in two parts: the first, which presents research with a gender focus, and the second, with the systematization and identification of lessons learned in processes of action and support for the empowerment of women in areas of WCS work.

Galo Zapata Ríos' presentation recalls Margaret Mead, a famous anthropologist from the United States. Between 1920 and 1930, she worked with indigenous populations in Papua New Guinea. In her book *Sex and Temperament in Three Primitive Societies* she demonstrated that the division of labor between men and women was not dependent on the nature of sex, as was widely believed then and still nowadays is, but was dependent on culture. Shifts in the division of labor and the roles assigned to men and women between societies of different cultures, which she studied, showed this variability. Similarly, Zapata's article demonstrates that, although hunting is generally assigned to men exclusively, this differs in the case of the Shuar people because both men and women, as well as boys and girls, participate in it.

Findings such as Margaret Mead's, ratified by this case study, lay important foundations for gender theory and feminist studies. From this it is established that:

- a. Gender relations (those between men and women) are different according to culture and are bound to change over time. This points to the fact that unequal relations between men and women do not have a biological or natural reason and are not immutable and eternal.
- b. Concurrently, a culturally determined division of labor and assignment of roles translate into knowledge systems and practices that differ between genders, and also between generations.

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- c. The expansion of value systems throughout the world has permeated the different indigenous cultures, and in many cases has coincided with or succeeded in overdetermining the positions that men, women and youth hold in society, confining women to domestic spaces and establishing men's monopoly of public spaces, where decisions are made.
- d. In our countries and in their Amazonian territories, despite the efforts made, marked inequalities prevail between men and women in terms of health, education, economic income, access to land and other factors of production, exposure to risk, violence, etc.

The research by Zulema Lehm and the WCS social team in Bolivia on household income shows how the contributions of biodiversity and women are rendered invisible by studies that highlight monetary income and economic costs while ignoring non-monetary activities. It puts on the table the discussion about the contributions of biodiversity and well-conserved ecosystems, as well as the unpaid and care economies, mostly in charge of women.

The experiences of WCS working with Tacana women in Bolivia, Waorani women in Ecuador and fishermen's wives in Colombia, presented in this document by Kantuta Lara, Paulina Dalgo and María Antonia Espitia, show the strategies developed by WCS in the region and the lessons learned.

WOMEN'S PARTICIPATION IN INDIGENOUS ORGANIZATIONS

The case of the Indigenous Council of Tacana Women (CIMTA) describes and analyzes the evolution of the organization of Tacana indigenous women in their relationship with the parent organization of the Tacana people: the Tacana Indigenous People's Council (CIPTA), mostly governed by men. This experience shows the process of empowerment of CIMTA and, as a consequence, the increased and improved participation of women in CIPTA. It provides answers to the frequently raised debate as to why the women of an indigenous group should have their own organization and whether this creates a division within the indigenous people. By the same right, then shouldn't there be an organization of the youth or elders? The article demonstrates how the organization of the Tacana women, far from becoming a parallel organization or generating an internal division, strengthens with its vigorous participation the parent organization of the indigenous people, without losing its autonomy.

WCS in Bolivia supports both the indigenous women's organization and the Tacana matrix organization in order to strengthen indigenous territorial management and sustainable natural resource management. Overall, protected areas and especially indigenous territories show lower deforestation rates than in the rest of the Amazon. Territorial management ensures biodiversity conservation and, in this task, the full participation of each and every member of the communities is essential. Only in this way can they confront the growing and increasingly intense threats.

EMPOWERING WOMEN THROUGH ECONOMICS

Support for by women-led economic initiatives generates a basis for their economic autonomy and, along with a dynamic of integral development as part of a gradual empowerment process. An example of this can be found in Bolivia, in the support to CIMTA for the recovery of technologies and cultural symbols in cotton weaving; in Ecuador, in the support to AMWAE in the production of chambira handicrafts and chocolates; and in Colombia, in the support to ASOMUCARE, initially to establish a small restaurant in the community and, henceforth, other economic ventures.

These economic initiatives are extensions of women's roles and the place they have been assigned in the division of labor, such as the production of certain types of handicrafts or food preparation. In these experiences, the knowledge and skills that they have accumulated from generation to generation in those areas supports women in their economic initiatives. These experiences demonstrate that the subordination of women is not necessarily found in these roles but rather in the economic devaluation of their contributions and in the unequal distribution of power.

EMPOWERMENT OF WOMEN THROUGH THE REVITALIZATION OF CULTURE

In varying degrees, the indigenous peoples of the Amazon face the loss of fundamental features of their culture. With this, their languages, knowledge, practices and values, which ensure a particular relationship between their societies and nature, are lost. The case of the Tacana people, forcibly relocated in Franciscan missions since the 18th century, is an example of resistance and adaptation to the changes imposed by the economic, social and cultural dynamics from colonial times to the present day. In many cases, these adaptation processes have a cost in terms of the loss of important cultural aspects. In fact, by 2012 only 8% of the population still spoke the Tacana language and much of their knowledge and artistic skills were being lost with the invasion of manufactured products.

In this context, WCS's work in Bolivia with Tacana women, described by Kantuta Lara, shows how they, to a greater extent than the men, have taken on the titanic task of restoring and revitalizing the language and other cultural expressions, such as basketry, ceramics and, fundamentally, cotton weaving. Lara's rich depiction highlights the relationship between women's activities and environmental biodiversity. On the one hand, there is the dyeing with natural dyes or the construction of various types of looms based on natural materials, and on the other hand, there is the conservation of agrobiodiversity with the recovery of cotton cultivation, which is at risk of disappearing due to the invasion of manufactured clothing. Another important element to highlight in this process is the recovery of the symbolic designs of the weavings that express the relationship of the Tacana society with wildlife, shamanic practices and their deities, mostly related to the species and the natural environment of their territory.

Along with economic initiatives, supporting women in this process of cultural revitalization has been the basis for advancement in other areas, such as in becoming aware of their rights as women in general and as indigenous women in particular, and to have a structured impact in order to face situations of violence.

WOMEN, THEIR RELATIONSHIP WITH BIODIVERSITY AND ITS CONSERVATION

The article by Galo Zapata Ríos and María Claudia Segovia Salcedo in this compendium demonstrates the particular and specific relationship that women and children of the Shuar people have with hunting, an activity often thought of as exclusively masculine. In this work, it becomes evident that in the Shuar culture, while men hunt certain species in specific spaces and times, women and children also contribute to their households by hunting other species in different places and times.

The articles presented by Kantuta Lara and María Antonia Espitia show this gender-specific relationship with other natural resources. Due to the “divisions” of labor according to gender and age, women, men, boys and girls have a differentiated relationship with biodiversity, expressed in different knowledge, skills, spaces and times that contribute to the cultural diversity of the Amazon. The variability of organizational systems, practices, and skills to which both women and men and children contribute allows us to characterize the Amazon as a highly diverse space in cultural and biological terms.

As Zapata Ríos and Segovia Salcedo point out, this has important but often overlooked implications for the design and implementation of territorial management and natural resource management systems. Obscured by schematic assumptions regarding divisions of labor and gender roles, management systems and natural resources management lose in diversity and, above all, in long-term sustainability.

BIODIVERSITY CONSERVATION, ATTENTION TO RIGHTS AND RESTITUTION OF SOCIAL FABRICS IN THE FACE OF VIOLENCE

The case presented by María Espitia on WCS Colombia’s work with women in the Middle Magdalena River region confronts the reader with the challenges of restitution of the social fabric after decades of general and gender-specific violence against women. She describes the situation of women, wives of fishermen and hunters, in communities deprived of all rights, where they have been victims and involved in the dynamics of armed violence. It also shows the process by which biodiversity conservation becomes a vehicle to attempt the reestablishment of the social fabric destroyed by violence, and how a group of women became the central actors in this endeavor, achieving recognition in their homes, their community and in the whole region.

In her article, Espitia describes how apparently unimportant actions, such as making cookies with the figures of the region’s emblematic wildlife species, come to have a much greater significance, becoming a reason for the women to leave the confinement of their homes. This confinement responds to fear, both for being victims of domestic violence and for being in the crossfire between the FARC, the ELN and paramilitary groups, a conflict active in the region as recent as 10 years ago. What the narrative of this case raises is that one of the greatest challenges for the restitution of social fabric is to overcome the chronic distrust deeply installed as a result of violence.

In this context, biodiversity conservation becomes a kind of driving force that allows women to set goal after goal. Likewise, achieving them, despite the magnitude of the challenges, allows women, first of all, to regain their self-confidence, to build a network based on trust and thus become a benchmark of solidarity and entrepreneurial vocation recognized at the local and regional level.



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PART ONE: **RESEARCH**

> GENDERED APPROACH

SPATIAL AND TEMPORAL DIFFERENCES IN WILDLIFE USE: EFFECTS OF AGE AND GENDER IN THREE SHUAR COMMUNITIES OF MORONA SANTIAGO, ECUADORIAN AMAZON.

Galo Zapata Ríos¹ & María Claudia Segovia Salcedo²

SUMMARY

Traditionally, the characterization of hunting patterns and the design of wildlife management strategies have focused on activities carried out by men. However, in some ethnic groups (e.g., the Shuar), women and children also carry out hunting activities. The relative importance of these activities has not been assessed previously. In general, men use places far from their homes as extraction areas and focus their efforts on medium and large mammals and large birds such as cracids. Women, on the other hand, hunt mainly in the fields, where they obtain nine-banded armadillos (*Dasypus novemcinctus*) and black agoutis (*Dasyprocta fuliginosa*). Finally, the children hunt small animals around their homes (e.g., amphibians, reptiles and small birds such as tanagers, *Thraupidae*).

In addition to differences in species composition and spatial differences, there are also significant temporal differences. Men have a bimodal pattern of activity, with early morning and late afternoon peaks; women conduct activities mainly in the mornings; and children in the afternoons, once they return from school. Despite these age and gender differences, the hunting activities of men, women and children present intersections and complementarities, and incorporate nutritional, therapeutic, symbolic, cultural and religious dimensions. These results suggest that in some communities (where hunting is not a male-only activity) a complete characterization of wildlife use, and the development of effective wildlife management strategies, is only possible if age and gender aspects are taken into account.

INTRODUCTION

Traditionally, the characterization of hunting patterns and the design of wildlife management strategies have focused on the activities carried out by men. However, in some ethnic groups such as the Shuar, women and children also carry out hunting activities. The relative importance of these activities has not been assessed previously. The nexus between gender, age, and resource use and territory management is complex and multidimensional (Lowassa et al., 2012). However, a better understanding of these interactions may reveal important aspects for achieving sustainable resource use and integrated management of community territories. The inclusion of variables such as gender and age can potentially increase the effectiveness of community-based conservation and management initiatives, because all groups that form a community, as a whole, shape the values, knowledge, use, and access and control to natural resources. This article describes the participation of men, women and children in subsistence hunting activities in three Shuar communities in the Ecuadorian Amazon.

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STUDY AREA

The study area included three indigenous Shuar communities: Tumpaim, Warints and Kaputna. The three communities are located on the western margin of the Amazon Basin, at an altitude ranging between 250 and 900 m asl, in the Ecuadorian province of Morona Santiago. The predominant vegetation types are lowland evergreen forest and piedmont evergreen forest (Sierra, 1999). Annual precipitation reaches 4500 mm and the average monthly temperature is 24 °C (Winckell et al., 1997) (Figure 1). The economy of the Shuar people in the three communities is based on subsistence activities. Agricultural activities are centered on plantain and cassava, and a high percentage of the animal protein in the diet still comes from bush meat. The Shuar are fervent hunters, and hunting is not limited to being a male activity; all family members are involved (Zapata Ríos et al., 2009). With a population of over 100,000 people, the Shuar are the second largest ethnic group in the Ecuadorian Amazon (Jokisch & McSweeney, 2011).

METHODS

We conducted the study between May 2003 and June 2004. We characterized hunting patterns (species hunted, total and species biomass, time and location, weapons used, as well as sex and age of hunters) for a full 12 months using interviews, direct observations, self-recording and community mapping (Townsend, 1999; Chapin & Threlkeld, 2001; Sheil et al., 2002; Zapata-Ríos & Jorgenson, 2003). The objective of all analyses was to assess whether there were differences in wildlife use patterns among hunters, divided into age groups and by gender (males > 16 years, females > 16 years, children = 7 - 15 years). We assessed differences in species composition using a Venn diagram of three definitions and seven categories (Baron, 1969). To assess differences in use of space, we used minimum convex polygons (MCP) and Kernel densities, KDE (Millspaugh & Marzluff, 2001; Hooten et al., 2017). Finally, we used the nonparametric circular Mardia-Watson-Wheeler test to assess temporal differences in hunting patterns (Mardia, 1969; Di Bitetti et al., 2009; Gerber et al., 2012). For the analysis, data were pooled for the three communities.

RESULTS

In total, the Shuar hunted 60 species of animals (birds = 25, mammals = 29, reptiles = 6). Men hunted a total of 42 species, women 13 species, and children 27 species. Only three species (5%) were hunted by men, women and children: the nine-banded armadillo (*Dasypus novemcinctus*), Salvin's peacock (*Mitu salvinii*) and the yellow-footed tortoise (*Chelonoidis denticulata*) (Table 1 and Figure 2). The total biomass hunted in the three communities was 26 802 kg, and more than 91% of this biomass corresponded to mammals. The remaining percentage was divided between birds, reptiles and amphibians (4.46% and 4.54% respectively). Most of the biomass of mammals, birds and reptiles and amphibians was hunted by humans (Figure 3). Regarding the use of weapons, men and women mostly used firearms (12-gauge shotguns), and boys mainly used "mini blowguns" (short blowguns of approximately 50 cm in length). However, for women, sticks and machetes were also important (Figure 4).

Men, women and children used different hunting areas. Men used forest areas relatively far from the community (between 5 and 11 km), in a better state of conservation, and where they could find large animals such as peccaries (*Tayassu pecari* and *Pecari tajacu*), tapirs (*Tapirus terrestris*) and primates (*Lagothrix lagothrichia*, *Ateles belzebuth*). Women focused their hunting efforts on rodents (*Dasyprocta fuliginosa*, *Myoprocta pratti*) and armadillos in and around the chacras (aja in the Shuar Chicham language), and these were more opportunistic events. The children, on the other hand, hunted mainly around their homes, where they found

a variety of bird species and small reptiles. Kaputna was the only community where there was overlap in the hunting areas of women and children (Table 2, Figure 5). The peaks of hunting activity also varied. Men hunted mainly in the early morning and late afternoon. Women, on the other hand, hunted during the morning, while doing their agricultural work. Finally, children hunted in the afternoon, after returning from school (Figure 6).

DISCUSSION

Despite age and gender differences among Shuar hunters, the hunting activities of men, women and children present intersections and complementarities, and incorporate nutritional, therapeutic, symbolic, cultural and religious dimensions. These results suggest that in some communities (where hunting is not a male-only activity) a complete characterization of wildlife use and the development of effective wildlife management strategies are only possible if all members of the community are taken into account. The results suggest that the Shuar hunt in a cooperative specialization system (Burton et al., 1977; Morris & Schniter, 2018), where men, women and children collect different sets of game species and then share them among all. Although this pattern has been infrequently recorded, there are reports from native groups in several tropical areas. For example, the Matsés in Peru and Brazil (Romanoff, 1983), the Aché of Paraguay (Hurtado et al., 1985), the Mossapoula Aka of the Central African Republic (Noss & Hewlett, 2001), the Penan and Punan of Malaysia (Sellato, 1994), and the Gunwinggu of Australia (Altman, 1984). This cooperative model is opposed to the simplistic view of “male hunters” and “female gatherers”, where, in addition, children have no defined role in the survival of their families (Bird & Bird, 2008). In a context of climate change and increasing environmental degradation, the roles of women and children become critical for the survival of families and the maintenance of their traditional livelihoods.

An implicit assumption in the literature on community-based natural resource management is that management and conservation actions improve the quality of life of all members of a community. This assumes that communities are homogeneous groups. However, assuming homogeneity among these within a community may limit the ability of the groups involved to work together. Similarly, the rural development literature assumes that households are static units of production and consumption, and that there are no differences among their members (e.g., Bromley & Cernea, 1989; Peluso, 1991; Kiptot & Franzel, 2012). These assumptions, in cases such as those of the Shuar communities, distort the reality of community-based natural resource management, invisibilize intra-family dynamics and reduce the effectiveness of conservation and management strategies. For these strategies to be viable, they must be designed in a participatory manner and be accepted by the community and its representative groups.

Conservation and management actions, in general, do not take into account the different levels of access to resources of groups such as women and children. Similarly, using the family as the unit of analysis, and assuming that interventions are optimal for all individuals in a family may be illusory. Gender and age are important variables that must be considered during the design and implementation of conservation actions if all members of a community are to benefit. Ideally, community resource management initiatives should include all members, male and female, regardless of age (Agrawal & Gibson, 2001). In a study in India and Nepal (Agarwal, 2009), communities where women were part of decision-making related to natural resource management had better conserved forests, including greater wildlife abundance. Unfortunately, many conservation and development initiatives still suffer from “gender blindness,” which is a constraint to successful natural resource management at the community scale (Vernooy & Zhang, 2006).

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CHARTS AND FIGURES

Table 1. The Shuar hunted 60 species of mammals, birds and reptiles. Men, women and children hunted different species. Only three species were hunted by all three groups. The total number of species has been grouped into six categories according to the different sex and age groups that used them.

CATEGORIES	N° OF SPECIES	SPECIES
Men, women and children	3	<i>Chelonoidis denticulata</i> , <i>Mitu salvini</i> , <i>Dasypus novemcinctus</i> .
Men, women	7	<i>Tinamus major</i> , <i>Agouti paca</i> , <i>Pecari tajacu</i> , <i>Hydrochaeris hydrochaeris</i> , <i>Dasyprocta fuliginosa</i> , <i>Mazama americana</i> , <i>Mazama nemorivaga</i> .
Men, boys and girls	6	<i>Phyllomedusa sp.</i> , <i>Morunasaurus annularis</i> , <i>Chamaepetes goudotii</i> , <i>Psarocolius angustifrons</i> , <i>Steatornis caripensis</i> , <i>Psarocolius decumanus</i> .
Women, children	3	<i>Tupinambis teguixin</i> , <i>Didelphis marsupialis</i> , <i>Myoprocta pratti</i> .
Men	26	<i>Paloesusuchus trigonatus</i> , <i>Boa constrictor</i> , <i>Crypturellus barletti</i> , <i>Aratinga leucophthalmus</i> , <i>Forpus xanthopterygius</i> , <i>Ramphastos tucanus</i> , <i>Pipile pipile</i> , <i>Penelope jacquacu</i> , <i>Psophia crepitans</i> , <i>Saimiri sciureus</i> , <i>Choloepus didactylus</i> , <i>Nasua nasua</i> , <i>Cebus albifrons</i> , <i>Tayassu pecari</i> , <i>Pithecia monachus</i> , <i>Aotus vociferans</i> , <i>Lagothrix lagothricha</i> , <i>Puma concolor</i> , <i>Alouatta seniculus</i> , <i>Tapirus terrestris</i> , <i>Leopardus pardalis</i> , <i>Bradypus variegatus</i> , <i>Tamandua tetradactyla</i> , <i>Puma yaguarondi</i> , <i>Potos flavus</i> , <i>Eira barbara</i> .
Children	15	<i>Microcerculus marginatus</i> , <i>Thraupis episcopus</i> , <i>Euphonia xanthogaster</i> , <i>Cyanocorax violaceus</i> , <i>Cissopis leveriana</i> , <i>Catharus minimus</i> , <i>Coereba flaveola</i> , <i>Geotrygon montana</i> , <i>Cacicus cela</i> , <i>Columba fasciata</i> , <i>Dacnis lineata</i> , <i>Columba plumbea</i> , <i>Cyclopes didactylus</i> , <i>Microsciurus flaviventer</i> , <i>Sciurus spp.</i>

Table 2. Estimated areas of game extraction (km²) for men, women and children in the three Shuar communities. Estimates were obtained through Minimum Convex Polygons (MCP) and Kernel Densities (KDE) at 95%. The extraction areas varied in surface area in the three communities. The largest extraction area for men was in Tumpaim, while the largest extraction areas for women and children were in Warints. The smallest mining area for men and women was in Kaputna, and for children in Tumpaim.

COMMUNITY	MCP (KM2)	KDE (KM ²)
Kaputna		
Men	29.44	5.72
Women	11.67	6.09
Children	11.51	5.68
Tumpaim		
Men	50.95	7.95
Women	12.03	9.42
Children	9.87	6.44
Warints		
Men	41.38	15.54
Women	33.58	17.23
Children	28.03	12.35

Figure 1. Location of the three Shuar communities (Tumpaim, Warints and Kaputna) in the province of Morona Santiago, Ecuadorian Amazon. The three communities are located in the Santiago River basin, Upper Marañón.

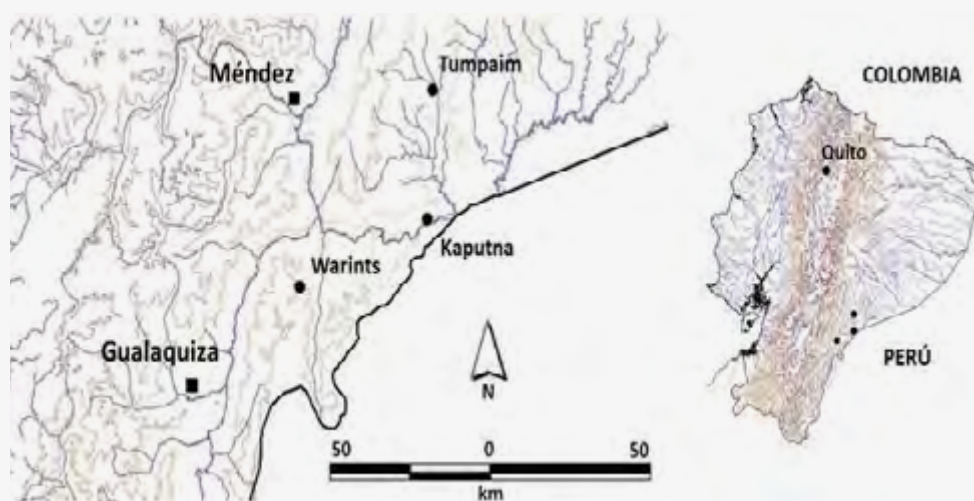


Figure 2. Of the 60 species hunted by the Shuar, only three species (5%) were hunted by men, women and children (nine-banded armadillo, *Dasypus novemcinctus*; Salvin's peacock, *Mitu salvini*; and yellow-footed tortoise, *Chelonoidis denticulata*). A total of 26 species (43%) were hunted only by men, 15 species (25%) only by boys, and no species was hunted exclusively by women.

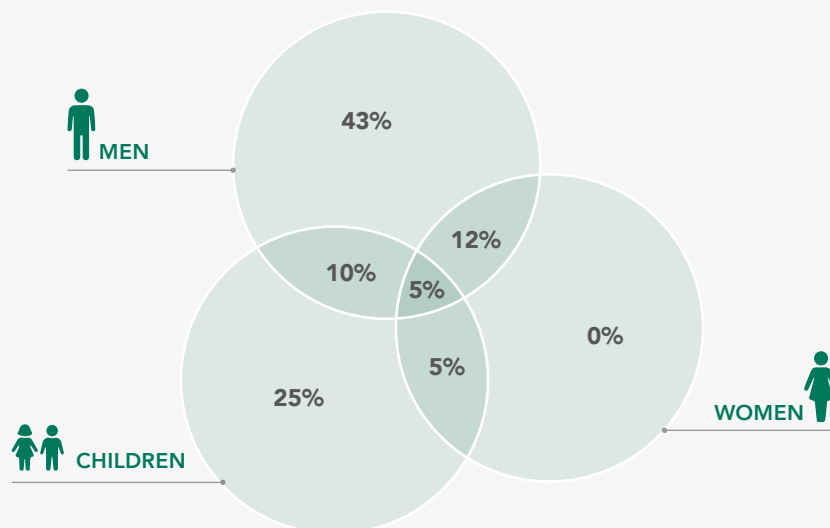


Figure 3. A total biomass of 26 802 kg was hunted in the three communities. Of this biomass, 91% corresponded to mammals (birds 4.46%, reptiles 4.54%). Most of the biomass of mammals, birds and reptiles was hunted by men.

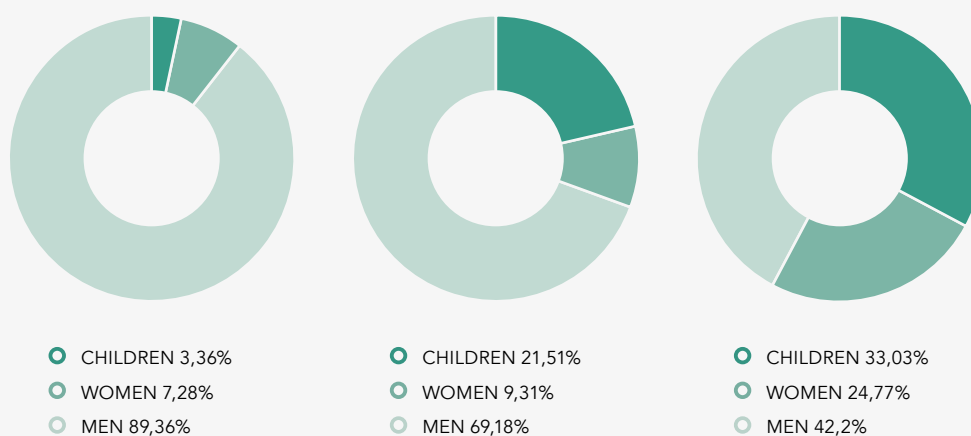


Figure 4. Men, women and children used the same weapons in different proportions. Men and women mostly used firearms, and children mainly used "mini blowguns" (short blowguns of approximately 50 cm in length). The proportions of use changed significantly between groups.

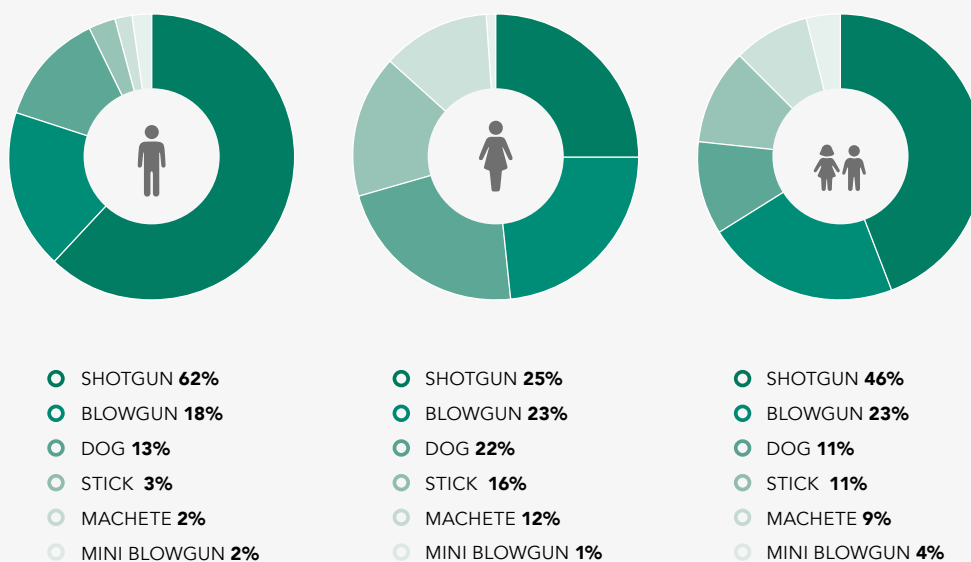
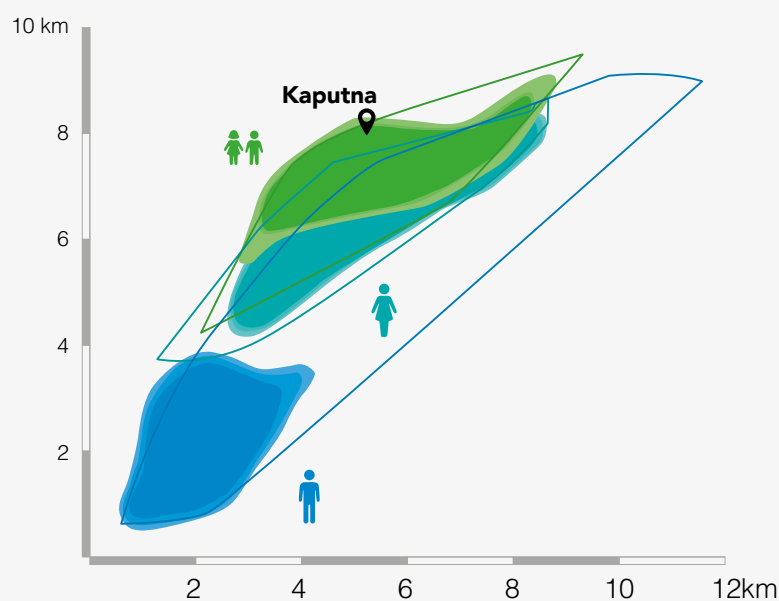


Figure 5. Men, women and children used their territory differently. Men hunted in areas relatively far from their community, while women and children used areas closer to the village center, near their farms and houses. Only in Kaputna was there an overlap in the hunting areas of women and children.



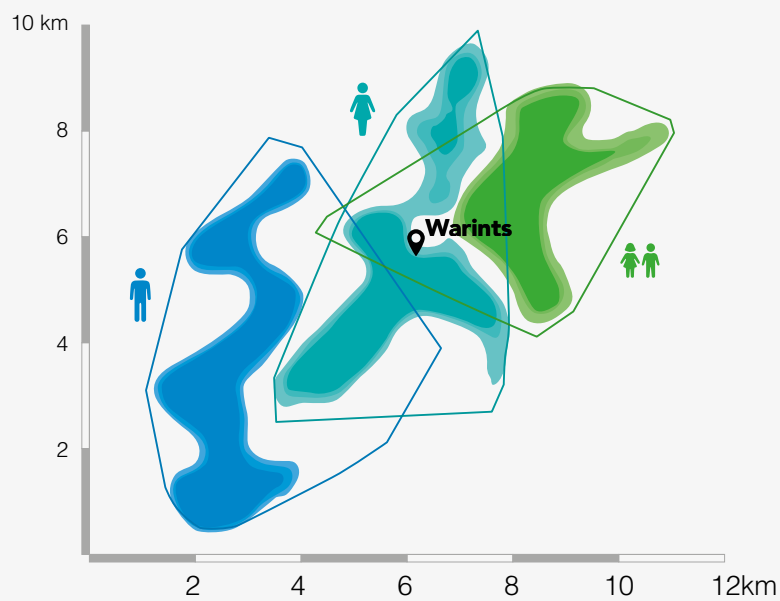
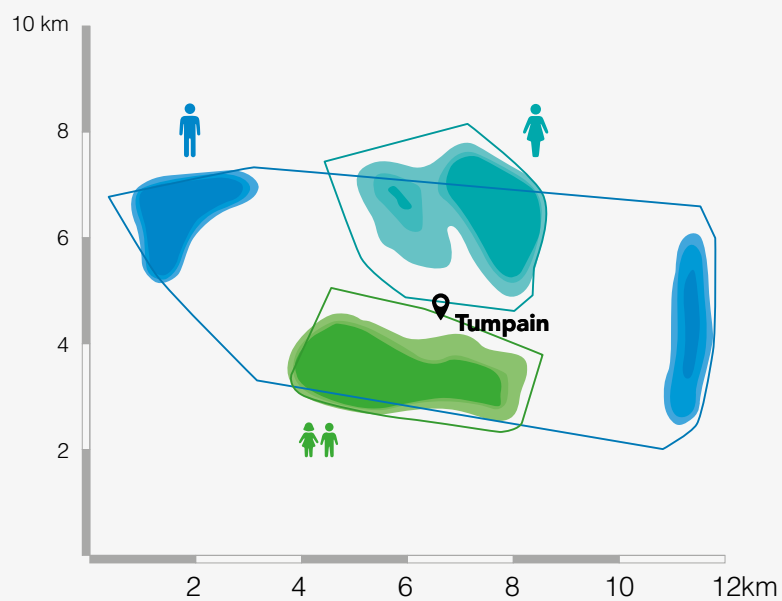
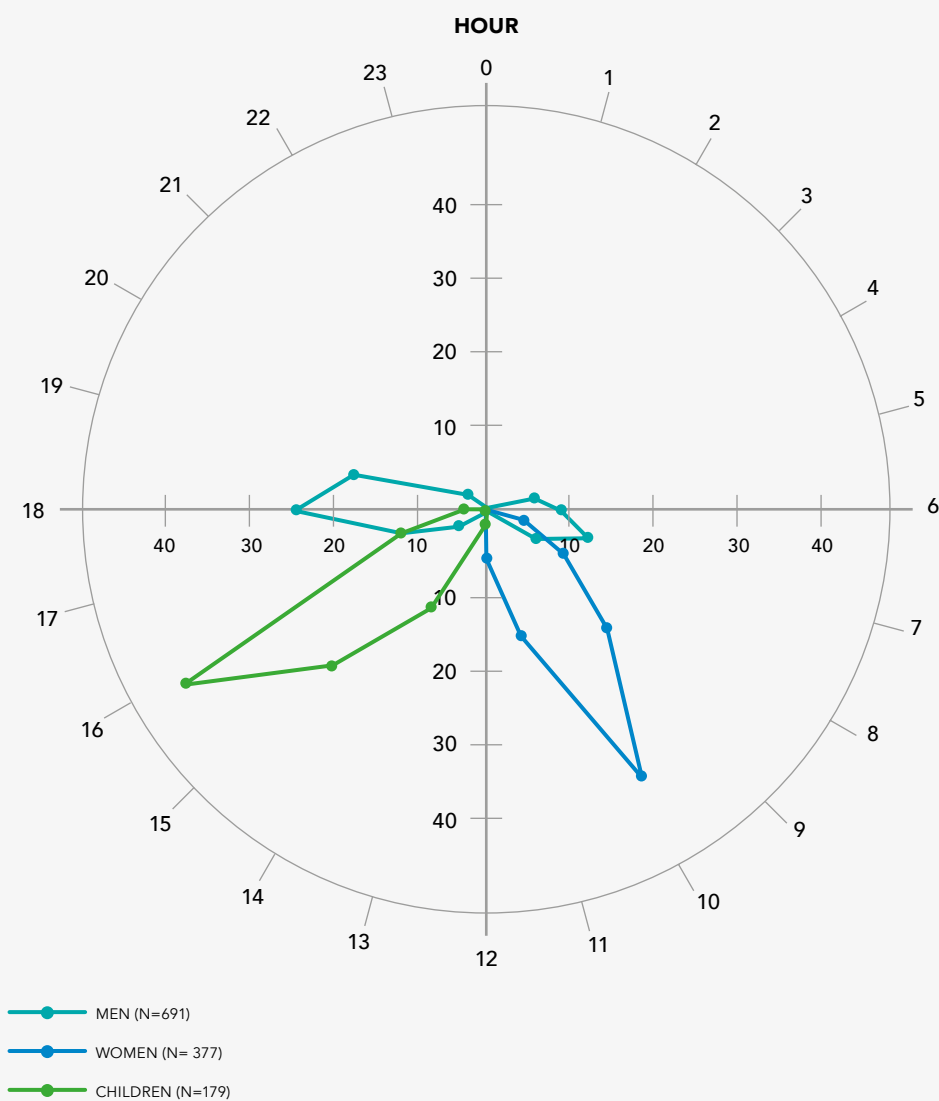


Figure 6. The activity periods of hunting events varied among men, women and children. Men hunted early in the morning and at dusk. Women, on the other hand, hunted during the morning, and children hunted in the afternoon. Differences in peak activity were statistically significant (males vs. females: $X^2 = 15.34$; l.g. = 2; $p < 0.001$; males vs. children: $X^2 = 14.94$; l.g. = 2; $p < 0.001$; females vs. children: $X^2 = 19.64$; l.g. = 2; $p < 0.001$).



BIODIVERSITY, CONSERVATION AND GENDER: HOUSEHOLD INCOME AND INVISIBLE ECONOMIES

Zulema Lehm Ardaya¹

SUMMARY

Studies of household economic income mostly base their estimates on monetary market transactions, leaving aside self-consumption and non-monetary transactions. Highly diversified economies, such as the indigenous and traditional farming economies in regions of high biological diversity like the Amazon, allocate important biodiversity resources to self-consumption, barter and gifts. Likewise, to convert them into goods, they invest in unpaid family and communal labor.

This article demonstrates that the consideration of the diversity of income sources and the economic spheres of reciprocity and the market allows for a more comprehensive view of economies whose livelihoods are largely related to biodiversity and an organization of labor in which labor is largely unpaid. Consistently, the study brings into discussion the positive relationship between poverty and healthy ecosystems that results from the exclusive consideration of monetary income, when a significant proportion of both income and costs are non-monetary. Likewise, it demonstrates the resulting bias in measurements of population distribution with respect to poverty lines and income concentration.

The analysis of monetary and non-monetary income and costs also demonstrates that dominant views based only on market transactions end up obscuring both the contributions of biodiversity and women's work to household economies, as women's work is largely unpaid.

INTRODUCTION

Undoubtedly, poverty is one of the most studied and monitored aspects in the world. This interest arose in the context of optimism about development in the 1950s, when it was confirmed that, despite growth indicators, pockets of poverty persisted in developed countries. In Latin America, poverty studies began to develop in the 1970s. From the beginning, the preferred method for estimating poverty was based on income. Subsequently, a more comprehensive understanding was sought that allowed other indicators to be considered and global indices such as the Human Development Index, multidimensional poverty measurements or approaches related to well-being, satisfaction of basic needs, etc., emerged. However, for the most part, household income continues to be considered as a fundamental measure for comparing poverty levels between human groups within countries or between countries.

In this set of measurements, the disaggregation of data by sex has been gaining relevance, while measurements of the care economy have yet to be generalized. That is, the determination of the value of the domestic work mostly assumed by women in households.

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Consideration of the economic contribution of biodiversity has been more developed in recent years, concentrating on estimating the value of environmental services. However, in terms of household economic income, consideration of the positive relationship between intact or well-conserved ecosystems and poverty is persistent. Indeed, FAO's 2018 State of Forests report stated that:

"In countries for which reliable poverty and population data are available, a direct relationship between extensive forest cover and high poverty rates has been confirmed" (FAO, 2018).

The indicator of 1.25 USD per day, established to be applied globally, was used for this statement, and the cause of this supposed positive relationship was attributed to the high transaction costs, due to the distance of the areas of high biodiversity concentration from the markets.

Based on a study of economic income among households of an indigenous people, the Tacana people of the Bolivian Amazon, we propose to challenge these assumptions and contribute to a more comprehensive understanding of the indigenous economies and local populations that inhabit areas of high biodiversity concentration and depend on it for their livelihoods.

STUDY AREA

The Tacana Communal Lands of Origin I (TCO, with 389,000 hectares titled in favor of the Tacana people) is located in the Bolivian Amazon, north of the department of La Paz. It borders Madidi National Park and Integrated Management Natural Area, with a surface area of 1,896,000 hectares and an altitudinal range that goes from 6,000 to 150 m asl. It is considered one of the most biodiverse protected areas in the world (SERNAP, 2005; Identidad Madidi & SERNAP, 2017) (Map 1).

The Tacana territory is crossed by a road built in the 1980s, connecting the towns of San Buenaventura and Ixiamas, around which a large population of colonists has settled.

The Tacana indigenous people, with Tacana sociolinguistic roots, are part of a group of other peoples of the same linguistic family, such as the Maropa or Reyesano, Ese Ejja, Cavineño and Araona. All of them occupy the northwestern region of Bolivia and some communities in southeastern Peru (Guillaume, 2013).

The total Tacana population in Bolivia is estimated at 11,173 inhabitants, of which 46% are women (INE, 2012). In the Tacana I TCO area, the population was estimated at 2607 inhabitants of which 47% are women and is distributed in 20 communities with 486 households or dwellings (CIPTA - CIMTA, 2014).

Early documentary evidence shows that the Tacana-speaking population was involved in goods exchange networks from the pre-Columbian period, playing an important role in the exchange of material and symbolic goods between the Andes and the Amazon (Saignes, 1985). However, the most explicit evidence of its relationship with money dates from 1830, during the Cinchona bark boom (D'Orbigny, [1845], 1992).

As will be seen throughout this study, as a whole, Tacana households have up to 12 sources of income, the most important according to the distribution of the number of households by type of activity being: livestock (particularly raising small animals), agriculture, timber and non-timber forest harvesting, hunting, fishing, and paid labor. In recent years, income sources

have also been added, such as state bonds targeted to different categories of the population (Lehm, Lara, & Solares, 2017).

METHODS

The theoretical and methodological approaches that guided our study are indigenous territorial management, economic anthropology and social and gender equality. The first approach focuses on identifying all sources of income available to households in tropical regions such as the Amazon.

The approach of economic anthropology is based on the critique of economics, a discipline in which mercantile relations are prioritized as a universal measure to analyze economies at different scales. From this point of view, concepts such as efficiency, competitiveness, etc. are adhered to this vision of the economy. Thus, indigenous and traditional farming economies end up being qualified as inefficient, surviving on the margins of the economy and, finally, they do not become the object of economic science. For this reason, economic anthropology proposes a more comprehensive theory, revealing that indigenous or traditional economies are made up of two economic spheres: that of reciprocity and that of the market (Firth, 1974). In this way, it is possible to include in the analysis those activities and incomes that are not generated in market transactions, but have to do with direct consumption, gifts, barter or exchange of non-monetary goods and unpaid work.

The social and gender equity approach makes it necessary to include in income analysis the concentration or inequality in the distribution of income among households and between men and women. A common way of measuring inequality in income distribution is the Gini Index, which consists of relating the cumulative percentage of households to the cumulative percentage of income, in order to identify the level of inequality where 0 expresses the greatest equality, i.e., all households have the same income, and 1 the greatest inequality, i.e., all income is concentrated in a single household. This approach, combined with the territorial management approach, leads to the application of the Gini Index for each type of income source, making it possible to demonstrate which activities generate less or more equal income.

For the study of Tacana household income, a survey form was designed including questions about 12 sources of income and costs for each type of activity, as well as annual expenditures on goods and services. With the participation of community members in each community, a stratified random sample was established, considering the richest, moderately rich and poorest households. The households to be surveyed were selected by lot considering 30% of each type of household, reaching a total of 153 households surveyed. The study was conducted between 2009 and 2012.

For the analysis, resources and products destined for self-consumption, gifts and barter were quantified and valued considering market prices in the same locality or using the Consumer Price Indexes of the National Institute of Statistics of Bolivia for urban centers close to the Tacana communities for the year 2012 (INE, 2012). This same year was used as a reference for the poverty analysis.

RESULTS

Income

Considering the different sources, the average annual net income per household amounts to USD 3349. The sources that contribute most significantly to income are: paid labor, timber and firewood harvesting, fishing and hunting. Due to their high costs, agriculture and livestock contribute less to net income, although they are activities practiced by 82% and 90% of households respectively. Through hunting and fishing, wildlife contributes almost 30% of net income. Fifty-three percent of net income comes from activities that do not produce changes in land use (Graph 1).

The gross annual income per household amounts to USD 5053. Considering the proportions in the type of income according to the economic spheres, it can be established that, in terms of income, 60% is monetary income and 40% is non-monetary income. Differently, the total costs that include labor, infrastructure, equipment and inputs for the production of income according to the various sources, amount to USD 1530 per year per household. The composition between the spheres shows that 67% of the costs come from the non-monetary sphere (i.e. mainly unpaid family and communal labor) and 33% from the market or monetary sphere (i.e. hired labor and the purchase of goods and services for production) (Figure 2).

Very roughly, but useful for the purposes of this analysis, income generating activities and sources of income have been classified into three types²: 1) Activities that depend on well-conserved ecosystems such as hunting, fishing, by-products and handicrafts, production and collection of native honey, timber and firewood harvesting, non-timber forest harvesting, and tourism. These activities contribute 44% of the average gross annual income per household; 2) Activities that do not depend on ecosystems, such as: paid labor, businesses, and other income (rent, bonds, remittances, donations, etc.) contribute 33% to the average gross income; 3) Activities that transform the vegetation cover, such as agriculture and livestock, contribute 23% to the gross income (Graph 3). From this analysis, 44% of the income depends on the good conservation status of the ecosystems and the biological connectivity between conservation units such as National Park and Integrated Management Natural Area Madidi and Tacana I TCO.

Of the 44% of income that depends on well-conserved ecosystems, 56% is non-monetary income and 44% is monetary income. Here, hunting stands out, where 94% of income is non-monetary and only 6% is monetary, and fishing, with a proportional distribution of 69% versus 31%. Among the sources of income that generate changes in land use, 66% are non-monetary income and 34% are monetary, with agriculture standing out for its composition in favor of non-monetary income. In activities that do not depend on ecosystems, 100% of income is monetary (Figure 4).

² The classification of activities is based on the assumption that agriculture and livestock in tropical forests involve land-use change and that timber harvesting, hunting and fishing do not. It does not consider the fact that, for example, a small-scale agricultural or livestock activity may affect biodiversity to a lesser extent than very intensive timber harvesting or large-scale hunting.

The standards established by the National Institute of Statistics of Bolivia to determine the poverty lines in the country for 2012, established that the population with monthly per capita income of less than 241.60 Bs was in the extreme poverty line; between 241.61 Bs. and 423.80 Bs. in moderate poverty and those with more than 423.81 Bs were above the poverty line. Considering these standards, income distribution in the Tacana case showed that, when considering gross monetary and non-monetary income, 17.6% of the population is in extreme poverty, 19% in moderate poverty and 63.4% above the poverty line. In a very different way, if only monetary income is considered, 60.1% of the population is in extreme poverty, 14.4% in moderate poverty and 25.5% above the poverty line (Table 1). World Bank estimates, based on considering only monetary income, for 2009 indicated that 61.3% of Bolivia's rural population was poor (World Bank, 2015) and for the Bolivian Ministry of Economy and Finance, for 2011, 41.3% of the rural population was in extreme poverty (Bolivia: Ministry of Economy and Finance, 2012). If we take the average gross income per household of Bs 34,876, at the average exchange rate for the survey years 2009 - 2012 of Bs 6.9 per US dollar and the average size of 5.18 members per household, we will have that the average gross daily per capita income in the Tacana TCO is USD 2.7, above the USD 1.25 that defines extreme poverty according to the World Bank in 2012.

As noted in the introduction, one of the determinant factors in terms of income and poverty are transaction costs, under the assumption that the greater the isolation from markets, the higher the transaction costs, the lower the income and, therefore, the more acute the poverty. Since the 1980s, the Tacana I TCO area has been crossed by a highway. Eleven Tacana communities are located near the road and eight on the banks of the Beni River. Although the number of households varies between the two settlement areas, the sample size is the same, in both cases 30% of the households. The distribution of net income shows that the income received by the riverside communities is 6% higher than that received by the roadside communities. Among the highest sources of income in the riverine zone are: fishing, tourism and agriculture. In contrast, the roadside communities have higher incomes from paid labor, commercial businesses and timber (Table 2).

In relation to total income, the concentration coefficient of only 0.44 points shows that the distribution of income among Tacana households is fairly equal, even more so when considering an annual household expenditure³ of 0.35 points. For Bolivia, in 2012, the Gini coefficient was estimated at 0.46 (World Bank, 2016); in comparison, among Tacana households the Concentration Index is lower than the national one. Activities more related to the market sphere present higher income concentration as opposed to activities more linked to the reciprocity sphere or those that generate non-monetary income (Table 3).

3 These expenses include food and payment for services such as education, health, water, electricity, etc.

Costs

The composition of the costs for the production of income in the different economic activities in Tacana households shows that 77% are labor costs, i.e., they correspond to labor, and 23% are non-labor costs and refer to equipment and inputs (Table 4). Among the labor costs, 14% are monetary costs, i.e., they refer to paid labor, and a significant 86% are non-monetary costs, i.e., they correspond to unpaid family and communal labor (Table 5).

In the above context, the contribution of women's labor to the production of income from all income sources amounts to 40% and men's contribution to 60%. The activities that require the greatest contribution from women are: livestock (raising small animals) and their by-products, and handicrafts. Ninety-four percent of women's labor is unpaid, compared to 80% of men's (Table 5). In terms of daily wages, women receive 6% less than men, bringing their contribution to 46%, without considering the household care work that contributes to the reproduction of the labor force.

DISCUSSION

In the Amazonian rural area, there are different types of "rural" family economies. Unlike the family economies of small, non-traditional producers, the indigenous and traditional farming economies are distinguished by an important diversity of income sources, in accordance with the biological diversity of their environment. In turn, two spheres can be distinguished in these economies: one oriented to self-consumption, gifts and barter (sphere of reciprocity), and the other oriented to the market. Both coexist to a greater or lesser extent, so that it is not possible to understand them in their complexity considering only the market sphere.

In this type of economy, a significant percentage of income (53% of net income in Tacana households) comes from sources related to biodiversity and demand for well-conserved ecosystems. The consideration of both non-monetary income (reciprocity sphere) and monetary income (market sphere) is indispensable for the estimation of total income. Consideration of monetary income alone obscures the contribution of biodiversity and well-conserved ecosystems and is the reason why a positive relationship between conservation and poverty "appears".

In the same vein, an exclusively market-centered view attributes transaction costs as the cause of poverty for households living more isolated, in or near areas of greater biodiversity. In the case of our study, the comparison of household incomes between communities close to a relatively old road, versus communities still living along the river and far from the road, shows that the loss of natural resources due to the influx of the road is a determining factor in their lower level of total income, that is, considering both non-monetary and monetary income. On the contrary, if only monetary income is considered, the roadside communities appear to have higher incomes, but the contribution of biodiversity and non-monetary income is obscured, and therefore, the assessment of the economy based only on tradable goods in the market is incomplete.

This is reflected in poverty estimates; the sole consideration of monetary income underestimates the contribution of biodiversity to the household economy. In this sense, it is no coincidence that regions with intact ecosystems or with greater biodiversity appear to have a majority of the population living in extreme poverty.

In family economies highly dependent on biodiversity and with an important sphere related to reciprocity (income and non-monetary costs), income distribution tends to be more egalitarian (the Gini coefficient is lower), and it is in the activities most closely linked to the market where the income concentration coefficient is higher.

The analysis of costs shows that the non-monetary sphere is even more important than the monetary sphere. Labor costs are considerably higher than non-labor costs. And among the former, non-monetary costs are even higher. The contribution of the labor of Tacana women reaches 40%, even though women receive 6% less than men's wages and without taking into account the care work in the household. In terms of costs, the consideration of monetary costs alone obscures the contribution of unpaid family and communal labor, in which women's labor is mostly involved.

From the point of view of economics that considers only market transactions as the universal measure of economies, the contributions of biodiversity and women share the same fate: they end up invisible.

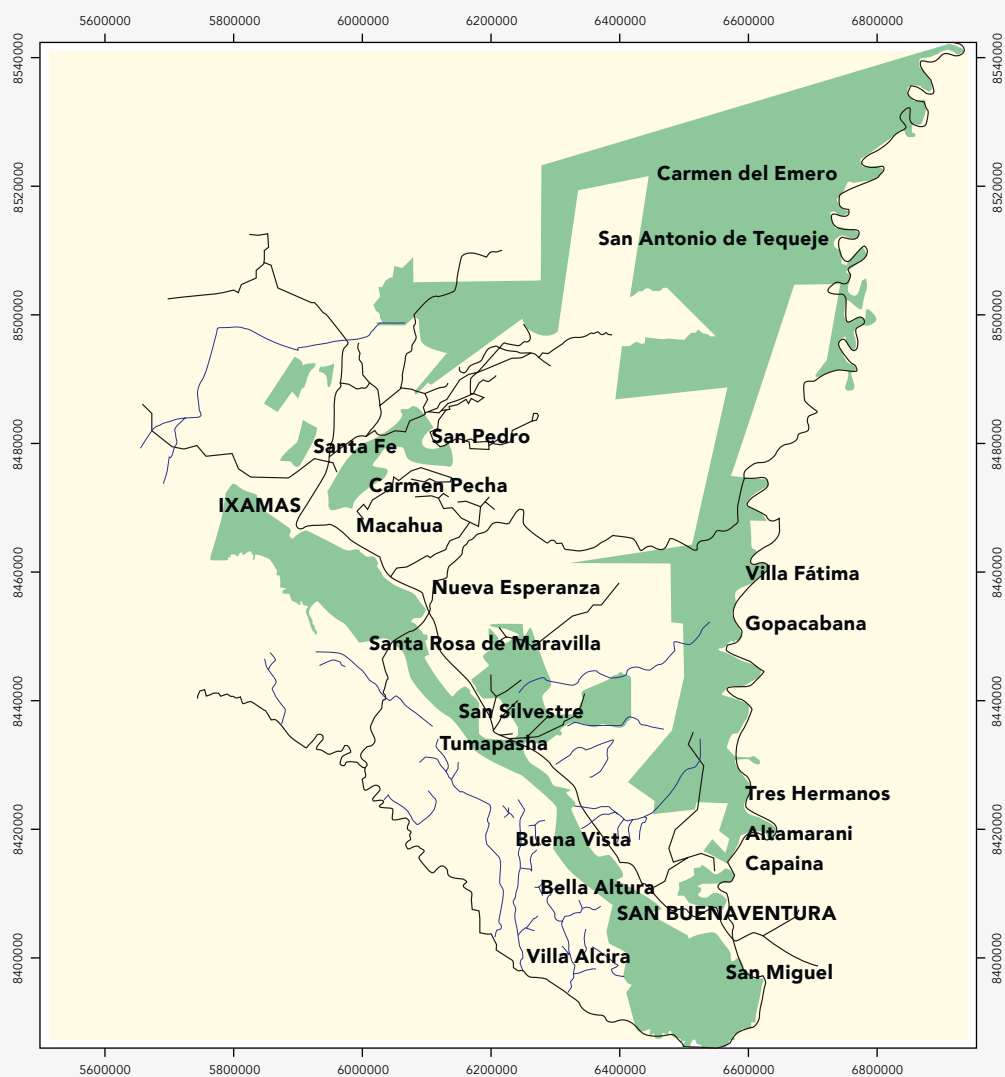
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CHARTS AND FIGURES

Map 1: Location of the 20 communities of the Tacana I TCO

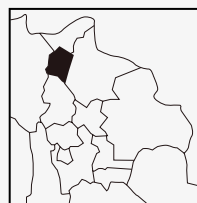


LEGEND

Urban centers
Communal centers
Municipal boundary
ITCP Tacana
Main road
Secondary road
Main rivers
Secondary rivers
Beni River

CARTOGRAPHIC INFORMATION

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0 7 14 21 km
1:750.000
Universal Transversal
Coordinate System Mercator
Zone 19 Sur
Datum: WHS 84

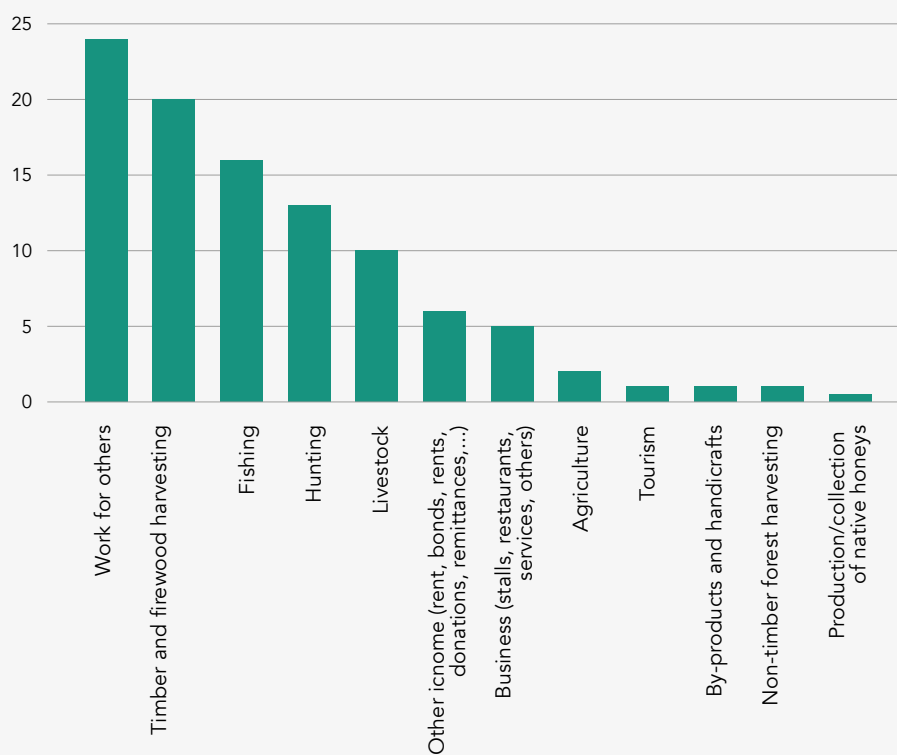


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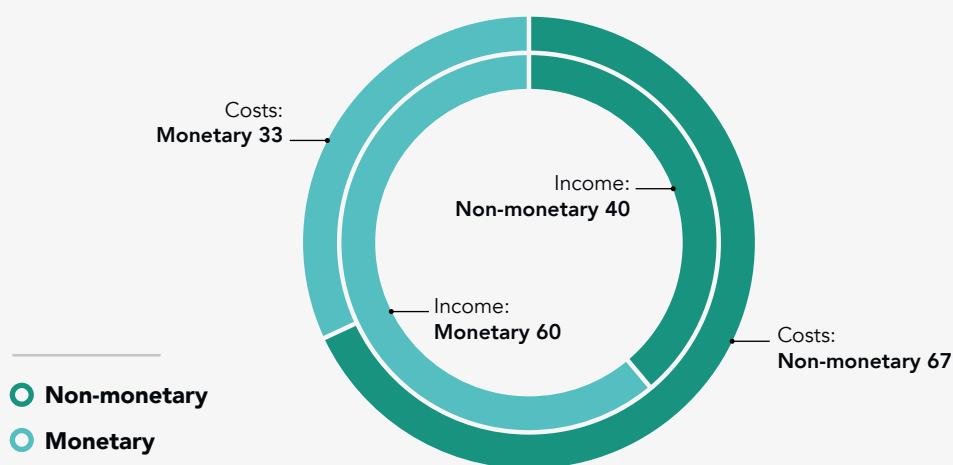
Base mapping: Indigenous
Territorial Management Plan
of the Tacana People, 2014

Lima TCO Tacana I:
Community Lands of Origin
(TCO) Fined by the National
Institute of Agrarian Reform
(INRA), 2012

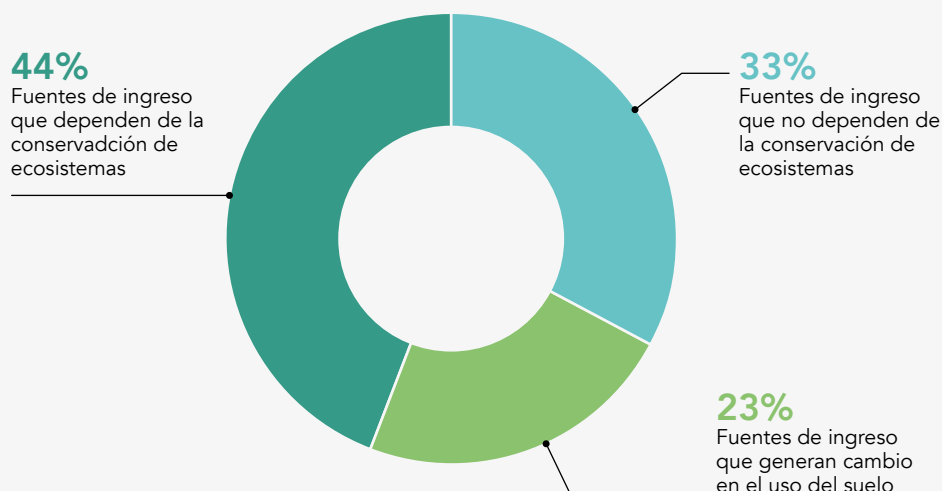
Graph 1: Annual net income by source of income in percentages (n=153)



Graph 2: Gross income and non-cash and cash costs



Graph 3: Distribution of annual gross income according to main types of activity (n=153)



Graph 4: Distribution of annual gross monetary and non-monetary income by type of activity and in percentages (n=153)

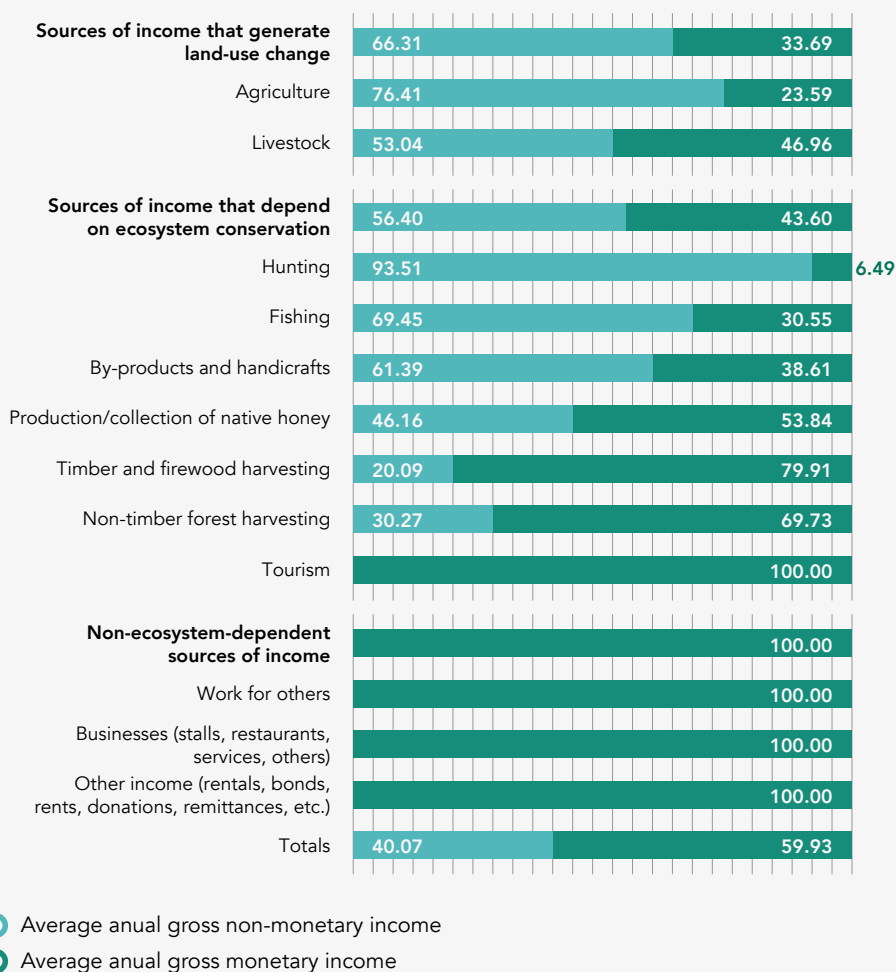


Table 1: Distribution of the Tacana population by poverty lines established by the Bolivian National Institute of Statistics , considering the Total Gross Income (monetary and non monetary) and the Monetary Gross Income only

POVERTY LINE*	TOTAL GROSS INCOME (MONETARY + NONMONETARY)			MONETARY GROSS INCOME			BOLIVIA (2009) (RURAL AREA)**	BOLIVIA (2011) (RURAL AREA) ***
	N	%	% CUM.	N	%	% CUM.		
Extreme poverty (up to 241.60)	27	17,6	17,6	92	60,1	60,1	61,3	41,3
Moderate poverty (241.61 - 423.80)	29	19,0	36,6	22	14,4	74,5		
Above the poverty line (423.81 or more)	97	63,4	100,0	39	25,5	100,0		
Total	153	100,0		153	100,0			

* Source: <http://www.ine.gob.bo/indice/EstadisticaSocial.aspx?codigo=30601>

** Source: World Bank, 2015. <http://wdi.worldbank.org/table/2.7>. Does not consider non-cash income.

*** <https://www.economiayfinanzas.gob.bo/memoria-de-la-economia-boliviana-2012.html>. Does not consider non-cash income.

Table 2: Distribution of net annual income according to location of the communities and source of income (Bolivianos)

SOURCE OF INCOME	ROAD COMMUNITIES	RIPARIAN COMMUNITIES	DIFFERENCE
	(N = 117)*	(N=36)**	
Agriculture	276	1289	-1013
Livestock	2398	1932	466
Hunting	3114	2972	142
Fishing	1459	11 119	-9660
By-products	232	84	148
Timber and firewood	5174	3223	1951
Non-timber forest	94	467	-373
Honey from native bees	2	29	-27
Tourism	-9	1420	-1429
Paid labor	6726	1432	5294
Commercial business	1716	-590	2306
Other annual income	1579	881	698
Total net income	22 761	24 258	-1497

Table 3: Distribution of the Gini coefficient by source of income, total income and household expenditure

INCOME SOURCES	GINI COEFFICIENT *
Tourism	0,96
Businesses (stalls, restaurants, services, others)	0,93
Non-timber forest harvesting	0,93
Production / harvesting of native honeys	0,91
Fishing	0,87
By-products and handicrafts	0,84
Paid labor	0,80
Other income (rents, bonds, rentals, donations, remittances, etc.)	0,74
Timber and firewood harvesting	0,73
Hunting	0,69
Livestock	0,66
Agriculture	0,58
Total income	0,44
Household spending	0,35

* Where 0 equals absolute equality and 1 equals absolute inequality.

Table 4: Average annual labor and non-labor costs by source of income (n=153)

INCOME SOURCES	DISTRIBUTION OF LABOR AND NON-LABOR COSTS (N = 153)				
	LABOR COSTS (BS)	%	NON-LABOR COSTS (BS)	%	TOTAL COSTS
Agriculture	3915,48	97,05	118,90	2,95	4034,38
Livestock	848,87	72,31	325,14	27,69	1174,01
Hunting	609,58	59,31	418,19	40,69	1027,77
Fishing	896,94	88,55	115,96	11,45	1012,90
By-products and handicrafts	424,36	100,00	0,00	0,00	424,36
Production/collection of native honeys	23,30	97,33	0,64	2,67	23,94
Timber and firewood harvesting	140,08	23,30	461,24	76,70	601,32
Non-timber forest harvesting	15,92	43,26	20,88	56,74	36,80
Tourism	0,46	5,16	8,46	94,84	8,92
Paid labor	0,00	0,00	0,00	0,00	0,00
Businesses (stalls, restaurants, services, others)	1959,74	62,58	1171,86	37,42	3131,60
Other income (rents, bonds, rentals, donations, remittances, etc.)	0,00	0,00	0,00	0,00	0,00
Totals	8834,73	76,98	2641,27	23,02	11 476,00

Table 5: Composition of monetary and non-monetary labor costs according to gender

INCOME SOURCES	MONETARY AND NON-MONETARY LABOR COSTS OF WOMEN AND MEN BY TYPE OF ACTIVITY																
	LABOR COST MEN						LABOR COST WOMEN						TOTAL LABOR COSTS				
	NON-MONETARY	%	MONE-TARY	%	TOTAL	%	NON-MONETARY	%	MONE-TARY	%	TOTAL	%	NON-MONETARY	%	MONE-TARY	%	TOTAL
Agriculture	1908	74	668	26	2577	66	1204	90	135	10	1339	34	3112	79	804	21	3915
Livestock	271	90	31	10	303	36	538	99	8	1	546	64	810	95	39	5	849
Hunting	561	100	0	0	561	92	48	100	0	0	48	8	610	100	0	0	610
Fishing	781	100	0	0	781	87	116	100	0	0	116	13	897	100	0	0	897
By-products and handicrafts	70	100	0	0	70	17	354	100	0	0	354	83	424	100	0	0	424
Production/collection of native honeys	13	100	0	0	13	55	10	100	0	0	10	45	23	100	0	0	23
Timber and firewood harvesting	0	0	140	100	140	100	0	0	0	0	0	0	0	0	140	100	140
Non-timber forest harvesting	0	0	16	100	16	100	0	0	0	0	0	0	0	0	16	100	16
Tourism	0	0	0	100	0	100	0	0	0	0	0	0	0	0	0	100	0
Paid labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Businesses (stalls, restaurants, services, others)	804	78	225	22	1029	45	1173	94	78	6	1252	55	1977	87	304	13	2281
Other income (rents, bonds, rentals, donations, remittances, etc.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	4409	80	1081	20	5490	60	3444	94	222	6	3666	40	7853	86	1303	14	9156

Table 6: Average price per day for men and women according to type of activity

INCOME SOURCES	PRICE PER DAY FOR MEN AND WOMEN BY TYPE OF ACTIVITY (N = 153)			
	AVERAGE DAILY WAGE MEN	AVERAGE DAILY WAGE WOMEN	DIF.	DIF .%
Agriculture	65	62	3	5
Livestock	68	61	7	10
Hunting	65	62	3	5
Fishing	65	62	3	5
By-products and handicrafts	65	62	3	5
Production/collection of native honeys	65	62	3	5
Timber and firewood harvesting	68		68	100
Non-timber forest harvesting	65		65	100
Tourism			0	
Paid labor			0	
Businesses (stalls, restaurants, services, others)	69	62	7	10
Other income (rents, bonds, rentals, donations, remittances, etc.)			0	
Totals	66	62	4	6



2

PART TWO: **ACTION**

> WOMEN'S EMPOWERMENT

TRAILS TRAVELED WITH THE TACANA INDIGENOUS WOMEN'S COUNCIL

Kantuta Lara Delgado¹

INTRODUCTION

The institutional policy of WCS in Bolivia on gender issues, created in 2015, involves “developing activities to promote and strengthen the organization of women in the geographical areas where it works, promoting their inclusion in mixed productive ventures and also supports specific initiatives of women” (WCS Bolivia. Gender strategy).

WCS in Bolivia has been working with the Indigenous Council of the Tacana People (CIPTA) since 2000, beginning with concrete activities such as support for meetings and tours of the board of directors in their communities. Therefore, there is a long history of support, initially based on agreements, to ensure the active participation of women in assemblies, meetings and field work in the process of territorial consolidation of the Tacana I TCO.

With the support of other institutions such as GTZ, AOS-Bolivia, Fondo Indígena de América Latina y el Caribe, Fundación Wilde Ganzen, and WCS Bolivia, the Indigenous Council of Tacana Women (CIMTA) was strengthened to consolidate its communal and supra-communal organizational system, as well as with the development of specific projects related to the recovery of cultural practices such as ceramics, textiles and basketry. In recent years, institutions such as Soluciones Prácticas and the Universidad Mayor de San Andrés have joined in on issues related to food security, supporting the production of products in family backyards and agricultural crops. CIMTA, with the support of CIPTA, led the first inter-institutional meetings to avoid duplicating efforts and focus support on strengthening women's participation in the indigenous territorial management process.

This document develops the experience of supporting organic strengthening as part of the institutional objective of working on conservation issues “for”, “with” and “by” the people², where the participation of women is essential. It also presents a summary of one of the experiences of concrete activities carried out by CIMTA: the recovery, revaluation and production of cotton textiles, responding precisely to the relationship that involves merging training activities with practical activities.

PROBLEM

The process of organic construction of CIMTA involved a series of meetings and encounters between women of the communities of the Tacana I TCO, to define its role as the parent organization representing the women from the 20 communities and its direct relationship with its supracommunal organization representing the Tacana people, in this case CIPTA. The issues analyzed focused on, first, not being an organization parallel to the organization of the Tacana people, and second, not annulling the participation of women in CIPTA. On the

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² Lehm, Z. 2018. Wildlife Conservation Society: 20 years of working with indigenous peoples and local communities for wildlife conservation in the Andean Amazon. Wildlife Conservation Society.

contrary, CIMTA focused on making the participation of women in both organizations viable. Another area to be analyzed by CIMTA was the construction of guidelines to lead its activities as an organization. Examples of this include training in rights through raising awareness of laws that protect women, as well as training in leadership and in specific activities that support their livelihoods and thus strengthen their participation in the process of indigenous territorial management.

On the other hand, WCS Bolivia's activities were focused on supporting indigenous organizations by generating synergies for the conservation, management and sustainable use of natural resources. In this sense, the participation of women in decision-making for indigenous territorial management was and is essential.

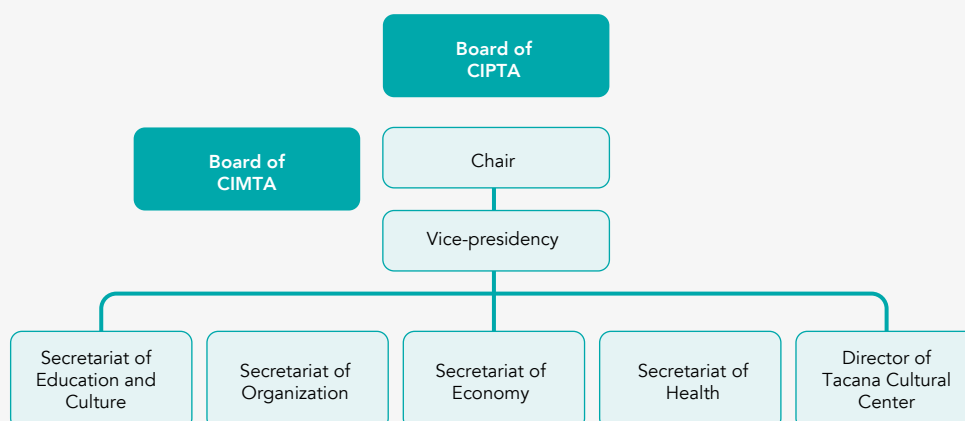
THE ORGANIC CONSTRUCTION OF CIMTA

CIMTA was created as an organization that represents the women of the 20 member communities of the TCO, recognizing CIPTA as its parent organization. Its objectives are to promote the active participation of women in decision-making at the community and TCO levels, to defend women's rights, and to improve women's living conditions.

The decision-making bodies correspond to the Tacana Women's Assembly as the highest decision-making body, as well as community meetings, board meetings and participation in CIPTA's organic meetings.

The initial organizational structure was based on six positions and one coordinator per community, that is, 20 coordinators. They had no direct relationship with CIPTA, but recognized the coordination with their parent organization, maintaining their autonomy in decision-making. However, this structure was not entirely satisfactory for all the communities because it generated debates about the duplicity of the organizations.

Graph 1: Initial organic phase



Source: Own elaboration

Likewise, as a result of the first Women's Assembly, six guidelines were defined to guide the activities of the organization: (1) Strengthening of its organization and the form of relationship with CIPTA, giving this mandate as a priority to the first board of CIMTA; (2) Analyzing the incorporation of language and traditional medicine in the educational process, and negotiating the return of Tacana teachers to Tacana territory; (3) Recovering and revaluating cultural practices, specifically the elaboration of handicrafts in the areas of textiles, basketry, jewelry, wood carving, among others; (4) Strengthening work in agriculture for the sale of certain products, either in agricultural areas or in home gardens; (5) Addressing the issue of violence against women and strengthening rights; and finally, (6) Addressing the issue of health under the vision of combining traditional medicine and formal medicine.

WCS Bolivia focuses its support on the organizational strengthening of CIMTA with the formation of community organizations through three actions: development of activity planning, preparation of regulations, and implementation of concrete activities with the support of production in the chacos (agricultural areas) with cassava and plantain, as well as the recovery and revaluation of textiles.

As a result of this process of the board's relationship with the communities through the communal tours, CIMTA decided to reduce its board to four organic positions, eliminated the figure of the coordinators, and formalized women's organizations with a board elected in each community, who assume the representation of CIMTA. Likewise, CIMTA becomes organically dependent on CIPTA's gender secretariat and, therefore, the entire board of directors takes part in the activities of the territorial management process and is incorporated into the activities of CIPTA's board of directors. In this way, there is organic and formal participation in the monthly meetings with voice and vote. This allows the women's organization of the Tacana territory to be part of the territorial consolidation and territorial management activities, as shown in the following image:

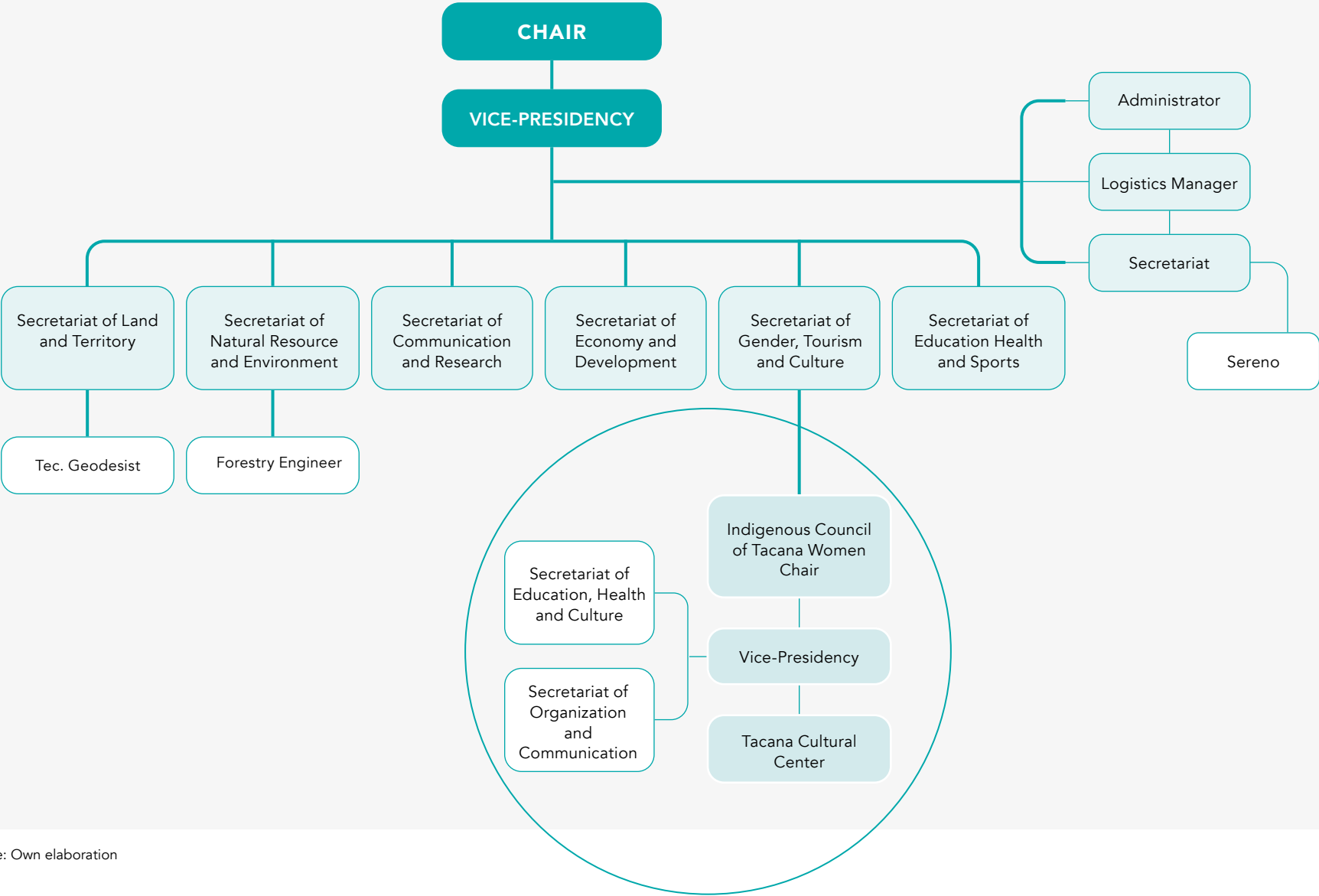
This organic incorporation allows CIMTA not to lose its autonomy, maintains the direct relationship with the communal women's organizations and their decision-making spaces, and can continue to access projects and/or direct funding, but under the centralized administration of CIPTA. At the same time, it imposes the obligation to present reports and accountabilities to the organic instances of the people, which are the Councils of Corregidores, Consultative Assemblies and the Great Assembly.

Previously, CIMTA's Board of Directors was only obliged to submit reports and accountabilities to the Women's Assembly. However, in the practical planning and execution of activities, this organic figure generated a certain duplication of roles between CIPTA's gender secretariat and CIMTA's board of directors. In both cases, they are in charge of similar issues, but CIMTA, representing the women of the Tacana territory, was below a secretariat of CIPTA's board of directors.

This analysis was carried out both at CIPTA board meetings and at a Consultative Assembly. As a result, it was suggested that CIMTA cannot be hierarchically placed under a secretariat and that, therefore, it should be placed under the chairmanship of the CIPTA Board of Directors. Consequently, the Women's Assembly decided to change CIMTA's statutes, establishing direct dependence on CIPTA's presidency. They maintain their organic participation in CIPTA's board of directors with voice and vote, and at the same time, their autonomy in decision making.

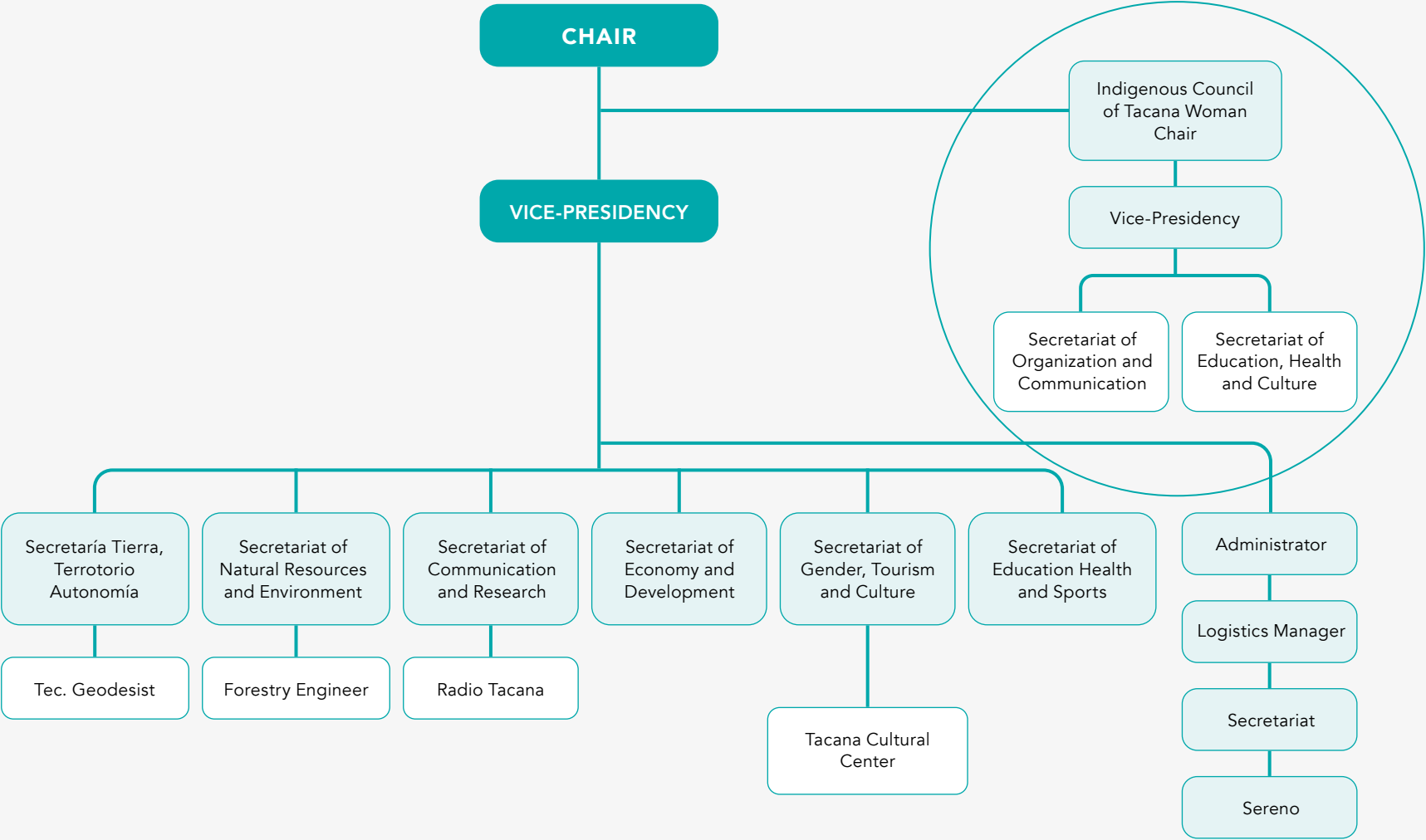
Another issue that affected the functionality of the Boards was the duration of each term. The process faced the problem of abandonment of positions: women left the board approximately halfway through their term. For this reason, the number of years on the board was reduced from four to three years, a prudent time in which a board can carry out its activities and in which the elected women can fulfill the duties entrusted to their position.

Figure 2: Second organic phase



Source: Own elaboration

Graph 3: Current organic phase



This organic process through which CIMTA's board of directors went through lasted approximately 15 years, during which time eight Women's Assemblies were held and seven boards were elected. The adjustment of its organizational structure and its relationship with CIPTA responded to a growing process of strengthening women's organization in territorial management.

In the process of CIMTA's formation, CIPTA, as an entity with a leadership made up mostly of male leaders, tended to 'delegate' to CIMTA the responsibility for some issues, such as those falling under categories of "women," "children," and "culture" issues, separating them from other issues considered more important and in which CIMTA did not participate organically, such as the consolidation of the territory. This division of tasks between both organizational instances implied a valuation of the issues considered "really important for the territory" and the secondary issues or of "lesser importance for the territory". This aspect was precisely the one that gave rise to a turning point in the analysis of women's participation in decision-making bodies.

The way to ensure the full and effective participation of women in decision-making in the territory required the incorporation of CIMTA's board of directors into CIPTA's board, without losing the autonomy of its decision-making bodies and representation in the communities. This step was decisive for the women's organization to assume the same duties and rights as all the leaders of the parent organization.

Organizational consolidation is somewhat invisible in territorial management processes. The role of WCS Bolivia consisted of supporting both the economic and technical aspects of this process, responding to the process of organic strengthening with interventions from several projects in different institutions.

RECOVERY OF THE CULTURAL PRACTICE OF TEXTILES

CIMTA initially concentrated its efforts on three specific areas: the recovery and revaluation of ceramics, basketry, jewelry, and wood carving, among others. These activities were supported by different projects from various institutions over a 19-year period.

Both basketry and ceramics generated products for the market, but these were not as well received as textiles. Therefore, the women's decision was to strengthen the latter activity for both family use and commercialization.

The objectives with which CIMTA began strengthening the textile sector were:

- Recover cotton cultivation in their backyards and in their chacos.
- Recover cotton processing practices.
- Recover cotton yarn dyeing practices.
- Recover cotton weaving techniques.

For the first objective, women who still had cotton plant crops in their agricultural areas or backyards and who had knowledge about their management were identified. They were the ones who collaborated with the other women in learning how to recognize the type of seed, identify the soils suitable for cultivation and take proper care of the plants. It was decided that all of them would plant cotton within their agricultural areas and in their backyards. Although this was an important achievement, the plant's growth time - between six and ten months - and the lack of knowledge of the amount of cotton required for production became difficulties.

This situation required that, in order to continue with the process of cultural recovery and learning the Tacana textile art, industrialized cotton thread was used while cultivation was established.

Workshops were held to learn about the dyeing of industrialized raw cotton yarn (natural colored cotton thread). The teachers were older women from two Tacana communities, San Silvestre and Tumupasa. These workshops lasted three to five days, with the participation of interested women from 12 communities. To dye the cotton, they tried different products from the forest and their agricultural areas, for example, uduri leaves, banana peel, idiria leaves (*Picramnia* sp.), isigo bark (*Protium* sp.), urucu fruit (*Bixa orellana*). They discovered that the colors that have similar tones are red, black, brown, purple, orange and blue. However, to date, the challenge of fixing the color to the fabric so that the threads do not fade every time the garments are washed remains, as this procedure is not always successful.

Subsequently, workshops on weaving techniques were held. Following the above logic, the teachers taught two techniques: the loom technique and the jipuri technique. The loom technique is a handcrafted manual technique. To assemble the loom, a branch of the balsa tree (*Ochroma pyramidale*) is required, which is arranged in the shape of an inverted "V" and is more than half a meter high and is called a "palca." This branch is crossed with three rods of the same material horizontally, according to the length and width of the size of the loom to be woven. Subsequently, the warp is assembled by means of a set of threads placed longitudinally and stretched along the loom, combining the colors for weaving. For weaving, the weaving is done by crossing the outer threads of a ball of cotton yarn horizontally, from one side to the other, according to the design planned by the weaver.

The jipuri technique is based on rods, either of the motacú (*Attalea princeps*) or the mitimora (*Thoracocarpus bissectus*) palms, using the loom in the same way as in the previous technique. The difference lies in the weaving of the warp, since the location of the colors determines the design of the loom. For weaving, the warp threads are interwoven and a jipuri is placed in each row both below and above the warp. Once the design is assembled, the jipuris are removed and the weaving is finished.



In the past, a notable characteristic of Tacana weavings was their geometric designs with symbolic content related to wildlife. Between 1950 and 2000, due to the decrease in the number of women weaving and designing textile products, spinning and dyeing techniques were lost, as well as the design and meanings of the weavings. For this reason, since 2000, CIMTA has promoted their recovery.



The recovery of the designs in the weavings was carried out following two strategies: teaching and recovery. For the first, the teachers - usually elderly women - taught what they knew and/or what they remembered through practice and discussions. For the second strategy, the teachers - women who knew how to weave - studied an ethnography carried out between 1952 and 1954 by German ethnologists Karin Hissink and Albert Hahn, published and translated in 2000 by APCOB, which contains drawings and descriptions of textile designs made by Tacana women in the past.

With this input, the teachers were able to reconstruct the assembly of the warp for the historical designs, such as the cricket chest, the jaguar's footprint, the scorpion, the quina tree, and others. After several attempts, they taught the women the handling of the warp and the importance of the order of the threads in its assembly, and with this, they also relearned the meanings of each design according to the legacy of their ancestors. After this process, the weavers now incorporate new designs in their textiles related to their current environment.

Over the years, CIMTA was able to form a group of 25 women weavers from different communities. They started their production with sashes and maricos (shoulder bags) of various sizes and also produced other products such as backpacks, cases, wallets and belts.

This group of women is the basis for production and marketing. Although, over time, it has become a productive enterprise under the umbrella of CIMTA, the women consider that they are not yet sufficiently consolidated as producers to separate from the parent organization and form an independent enterprise.

FINAL REFLECTIONS AND LESSONS LEARNED

Achieving the consolidation and operation of CIMTA for more than 19 years has involved incorporating a cross-cutting vision on gender issues for the development of projects in both CIPTA and CIMTA. Within this framework, at least five projects have been executed directly by CIMTA women. Through these projects, 60% of the women's organizations in the communities of the Tacana territory have been strengthened.

In this process of organizational strengthening, the issues of rights, violence, trafficking and human trafficking required the development of specific methodologies, as these processes involved work between the private and public spheres. To this end, we turned to institutions and organizations that have joined the work with women on these issues. WCS Bolivia's role in this area focused on generating synergies between CIMTA and these institutions.

Likewise, in this mutual learning process, it was pointed out that the work with women has a better scope if it is related to concrete activities that contribute to their livelihoods. For this reason, parallel to the organizational strengthening and training, the textile production described in this document was developed, but also several other activities such as the production of vegetables or products that are not found in their agricultural areas, and the production of shirts, blouses, tipoy (typical dress of some indigenous peoples of the Bolivian Amazon) made of raw cotton fabric, embroidered or stamped with Tacana designs.

Organizational strengthening and capacity building, among others, are long-term processes. For this reason, with CIMTA, management instruments have been generated to support constant changes in the people who lead the parent organization. In this case, the change of board of directors occurs every three years.

Methodologically, combining analysis of CIMTA's organic situation with practical workshops for learning about textiles has allowed the participants to discuss both topics during the workshop days and to have more in-depth analysis results. It also allowed them to arrive at the women's meetings with greater input for building CIMTA's institutional framework.

Finally, it is a decision of the women that CIMTA, as the matrix entity, is in charge of the commercialization of the textile and typical sewing products, because it allows the board of directors to assume responsibility for the constant operation of this economic activity. Although it responds specifically to women from five communities, it generates a dynamic of concrete actions that involve the other 15 communities, for example, the distribution of cotton thread so that the textiles produced are destined for family consumption. This implies, on the other hand, that the 25 women who formed the core group have the role of trainers and at the same time generate new designs that respond to the dynamics of cultural identity of the Tacana people.

ECUADORIAN AMAZON WAORANI WOMAN ASSOCIATION (AMWAE): ACTION STRATEGIES AND LESSONS LEARNED

Paulina Dalgo A.¹

WCS Ecuador works in the Yasuní - Llanganates landscape, within which the Yasuní Biosphere Reserve is located. The reserve covers 2,740,409 hectares and is home to 13 parishes in five cantons in the provinces of Napo, Orellana, and Pastaza. The reserve also includes the Waorani Ethnic Reserve, where the Waorani people live. The Waorani's problems are anchored in five points:

- **Conservation:** increased tourism operations, pollution, road construction, as well as illegal hunting and logging.
- **Territoriality:** boundary conflicts, overlapping competences and jurisdictions.
- **Social:** lack of access to basic services and intercultural education.
- **Scientific:** lack of dissemination of research results.
- **Oil activity:** lack of knowledge of regulations and lack of zoning.

The Waorani Nation of Ecuador (NAWE) has a population of 2,500 people, grouped into 42 communities, and their language is Wao Terero. They occupy the provinces of Pastaza, Napo and Francisco de Orellana. Their collective territory is located between the Napo River to the north and the Curaray River to the south, along the Yasuní, Shiripuno, Cononaco, Villano, and smaller tributaries, covering an area of approximately 678,220 hectares.

ECUADORIAN AMAZON WAORANI WOMAN ASSOCIATION (AMWAE)

The Waorani Nation includes the Ecuadorian Amazon Waorani Woman Association (AMWAE), which represents women from 38 communities and is headquartered in the city of Puyo. It was created on January 7, 2005 by decree 825 of the National Women's Council (CONAMU). The women members live and work in their territory.

The main objectives of the association are:

- The improvement of handicrafts, ecotourism, cultural rescue, livestock production and conservation of natural resources for the benefit of Waorani families.
- The recovery and valuation of ancestral customs and knowledge, as well as the improvement of women's quality of life within the territory.

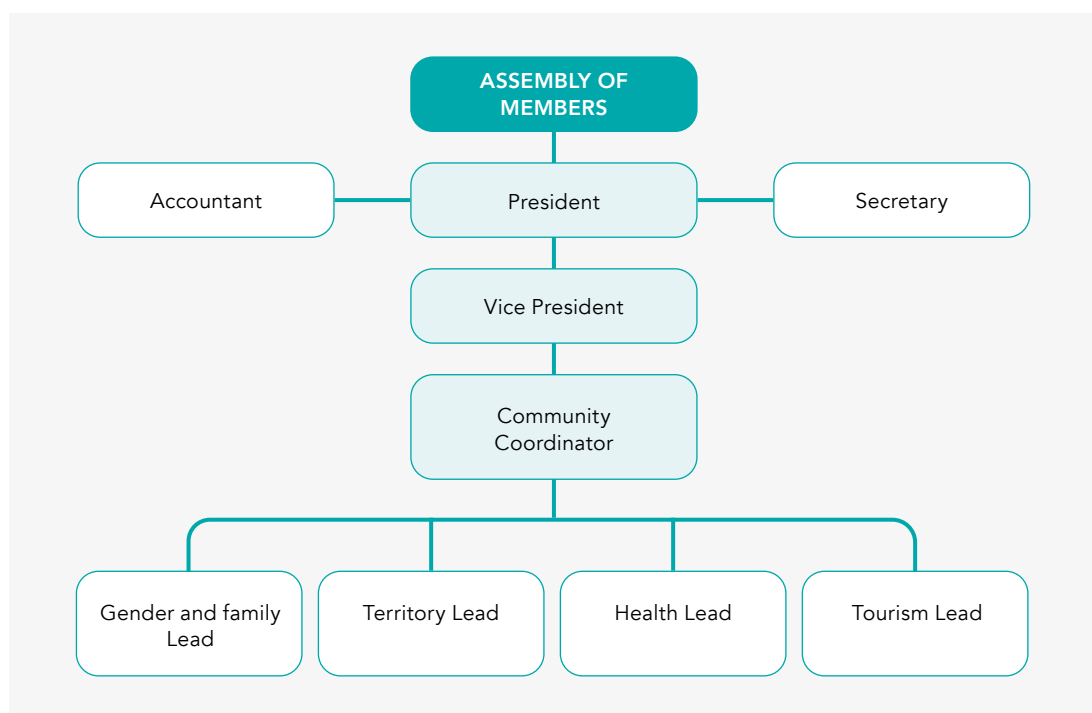
¹ Social Technician, Ecuador Program, Wildlife Conservation Society.

WCS Ecuador has accompanied the territorial management process since 2009, almost since its inception, with various strategies.

AMWAE has seven management instruments for the use, exploitation and commercialization of its products:

- Chambira management plan
- Hunting management plan
- Cocoa management plan
- Permits for commercialization of seven forest species.
- Sanitary registration and trademarks for chocolate bars.
- Organic certification for cocoa granted by Ecocert.

It is made up of 168 members who are organized as follows:



The assembly of members is the highest decision-making body and the seven positions depend on it: president, vice-president, community coordinator and four leaders. They also have an accountant and secretary who report to the president and help the association to function.

Traditionally, the Waorani were a people of skilled hunters and warriors who occupied an interfluvial habitat. Their economy, social organization and worldview are related to their environment.

Although it is known that the Waorani have an “absence of hierarchies” and maintain equality in the distribution of tasks, which could be understood as equality between men and women, this does not accurately reflect reality.

The basic family unit is the nanikabo, which can group between 6 and 10 extended families living under the same roof or maloka. The nanikabos enjoy a certain degree of autonomy, i.e., they can make decisions about their territory, and are organized around the elders or pikenanes.

GENDER, POVERTY AND MIGRATION

Gender roles are established as follows: men are in charge of hunting, opening forest clearings for vegetable gardens, protecting the family and preparing weapons for war; while women cultivate, cook, take care of the children and make objects for daily life. This is not to say that women or children do not participate in activities such as hunting.

Currently, Waorani households are engaged in self-subsistence activities, such as cultivating farms (agricultural areas), hunting and fishing. They also engage in activities that provide them with monetary income, such as community tourism and salaried work in oil companies, given that there are several blocks in their territory.

"The difficulties faced by an indigenous woman are greater, being a woman, being indigenous and being poor, since the living conditions of indigenous peoples are still below the national average in Latin America" (Amellier:16).

In Ecuador, the highest indicators of illiteracy, unemployment, and poverty are linked to areas where the percentage of indigenous population is higher. Contradictorily, these same regions tend to be the richest in biodiversity, but suffer the greatest pressures on natural resources and have the highest levels of marginalization. In addition, there is a fundamental problem associated with migratory processes.

BEHAVIORAL CHANGES

The Waorani people are looking for viable economic alternatives to those interventions that damage nature. To this end, they have been developing awareness campaigns in the communities, local markets, restaurants and among consumers.

"We cannot stick to exhaustive controls or stringent laws if our people are starving, the commitment must start now, we cannot think that the only recourse is to put pressure on our fragile ecosystem." Thus, innovative ideas will always prevail to bring about this kind of behavioral change.

One of the issues that AMWAE works on is the process of recovering their culture and ancestral knowledge through traditional handicrafts. Due to recent changes in this area, some achievements and recognitions have been made that allow Waorani families to obtain a small income from the production of handicrafts.

STRATEGIES IMPLEMENTED

The strategies implemented in the territory include training processes at various levels:

- **Administrative:** Financial audits, preparation of business plans for three AMWAE stores, and implementation of financial administrative manuals.
- **Strengthening of identity and culture:** Development of traditional medicine systems, based on aspects such as production of medicinal plants, treatment, processing and their use for the treatment of infections and diseases. Cultural importance of the chambira for the Waorani world.
- **Workshops to strengthen the design and quality of handicrafts.** Support for the opening of a store in Tena for community tourism and the sale of handicrafts, consolidation of two handicraft stores in Puyo and Coca, and consolidation of three community chambira nurseries for handicrafts.
- **Chambira as a welfare-generating resource:** A culturally important species that helps to revalue the forest's contribution, given the few economic options that exist in the territory. When the commercialization of handicrafts made by Waorani women began, the extraction of leaves from the forest also increased, which decreased the availability of this palm and caused women to move further and further away from the community in search of it. There was a negative effect due to the lack of training, mainly in organizational issues, and a lack of long-term vision. A study was conducted on the production and management of chambira as a raw material, as well as a study on its production, management and marketing, and finally, a management plan.
- **Promotion and marketing strategies:** Building of the Waorani brand to place it on all handicrafts and promote it both in the national and international markets.
- **Governance strengthening process:** AMWAE's participation in all dialogue forums of the Yasuní Biosphere Reserve's management committee. An analysis of the chambira production chain, an evaluation of the association's governance strengths and weaknesses, and an AMWAE improvement plan were carried out. A diagnosis was also made of the obstacles, opportunities (conflicts, policies, regulations, practices) and training needs of indigenous women to increase their participation in decision-making processes at different levels of local government (parish, municipal, provincial).

RESULTS

Waorani women strongly value technical and administrative training processes, such as the accompaniment provided by WCS over time, because this helps generate medium and long term processes within their own organization.

The training processes resulted in organizational strengthening, transforming it into the most solid economic and organizational axis of the Waorani Nation.

Technical training for the recovery of chambira seed through community family nurseries and subsequent planting to repopulate the land has been a process highly recognized by the communities and deeply valued by the women. They are aware that this is their greatest ancestral legacy, as well as a link between generations.

The impact of training on the entire handicraft production chain is high. It has a positive impact on the families' survival economies and on the proper management of their natural resources.

Strengthening the management of the artisan project (they do not offer quantity but identity) from the purchase and sale, customer service, fair payment percentages to the artisans, generation of reports, projects, has been one of the greatest contributions to AMWAE.

There is a revaluation of the grandmothers' contribution to their families, since their handicrafts are very popular in the market due to the skill with which they make them, their willingness to innovate and their exceptional handling of color.

There are effects that are not tangible but are real, such as the autonomy that Waorani women acquire through the commercialization of their products. They feel motivated to generate them because they see that there is an official organizational structure that works and values their work.

There has been a notable increase in income from productive activities such as the management of chambira, the improvement of handicrafts and the marketing of products. Currently, the main source of income for families in most Waorani communities in the provinces of Pastaza, Orellana and Napo comes from the sale of handicrafts produced by AMWAE, thus also guaranteeing their food security.

Waorani women have been empowered in their own processes, not only in production, but also in decision making at the community level. AMWAE is considered one of the most important organizations in terms of the Waorani Nation's organizational strengthening process, economic aspects, and the implementation of productive projects.

There is a high level of awareness among Waorani women about the need to conserve the chambira and other natural resources used in the production of their handicrafts.

In relation to their participation in other spaces, the main obstacles encountered are: poverty, discrimination, poor access to resources (economic, land), remoteness of their territory from population centers, language, exclusion from decision-making spaces at all levels, undervaluation of their capacities, distrust of political processes, political and gender violence, and lack of professionalization.

LESSONS LEARNED

Chambira management and sustainable production project has had a great impact on the families' quality of life and equity, based on their participation in micro-enterprises.

Organizational strengthening through training in various areas: administrative, technical, tourism, handicrafts and production has meant an important qualitative leap. The women were able to capitalize and have become generators of well-being for their families and communities.

The actions implemented have contributed to the improvement of family economies, so we must continue to strengthen productive entrepreneurship lines such as cocoa.

Worani women are constantly concerned about the sustainability of family resources, so strengthening the proper management of their natural resources with emphasis on food security is the most appropriate.

There is a need to expand lines of work with AMWAE in relation to the strengthening of interrelationships, the promotion of learning, the development of knowledge and the re-signification of cultural practices, among others.

Based on these lessons learned, the spaces for intercultural dialogue and the capacities of local people should continue to be strengthened.

THREADS OF HOPE BETWEEN THE MARSHES AND THE RIVER

María Antonia Espitia¹

Colombia's Magdalena Medio region is made up of several municipalities in the departments of Cesar, Magdalena, Bolívar, Caldas, Antioquia, Cundinamarca, Boyacá, Santander and Norte de Santander. For decades, the region was immersed in a wave of violence unleashed by the wars between armed groups that controlled the territory. Only in the last ten years, as the intensity of the armed conflict in the country diminished, have the region's inhabitants been able to live in peace once again. This moment, when the people see a light of hope and a dream of life, allows them to live their daily lives imagining a world of opportunities that wanders between the grandeur of the waters of the Magdalena River, the splendor of the marshes and the imposing mountains of the Eastern and Central Cordilleras.

At the end of 2014, the Wildlife Project arrived in the Magdalena Medio region, with the support of six non-governmental organizations and with resources from the joint efforts of Ecopetrol and Santo Domingo Foundation. A conservation project is being carried out for five species that are in a high degree of threat and are considered important for the region and the country due to their ecological, social, and cultural value.

The communities settled there, which are part of one of the most complex, rich and important ecosystems, saw in the Wildlife Program (PVS abbreviation of its name in Spanish) an opportunity to interact and exchange knowledge. However, the objective of conserving species was not so appealing and did not fully convince them. Over decades they had been victims of the armed conflict and, under the fear and terror, a rupture was generated in the social fabric. They were immersed in a world where disbelief reigned and the absence of the state was conspicuous, exposed to the poorly planned interventions of countless institutions and organizations that arrived on the ground not to stay. In the words of Obed Bulla, then president of the Junta de Acción Comunal de la Vereda Riberas del San Juan in Cimitarra, Santander, those "come with one more promise, one more project, a list of assistance, a lunch and they never come back."

The inhabitants of the area are lifelong farmers, cattle ranchers, fishermen and loggers who struggle to survive in an area rich in biodiversity and poorly served by the state. They are families who live from day to day with the resources provided by the environment: fish such as the Magdalena striped catfish, blanquillo and bocachico; cattle, cassava, corn, plantain and some game, such as the yulo or ponches and river turtles - with the occasional opportunity to earn a day's wage in one of the cattle ranches or in the extensive African palm plantations. Beyond that, they did not have access to other income sources. In the different places where we publicized the project, we encountered similar situations.

The project did not provide any type of economic assistance, nor did it offer infrastructure projects, housing improvements or food security. In short, it was not very attractive to a population without access to governmental aid. The distrustful gaze of men and women made us understand that no matter how much we wanted to enter their lives, such an arduous

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task would not be easy to accomplish. However, we were given the opportunity to tell them about our intentions, without knowing that we would meet people of great human quality, with differences, fears and distrust, but with a desire for building a long-lasting transformative horizon, that could grow on itself, and rebuild the broken ties within communities, and between them and the world.

The women, somewhat shy but strongly driven, became a point of support for the project, since they are the forgers of life, who, hand in hand with their husbands, partners, parents and children, weave the paths that make up society. A relationship of empathy and trust was quickly established with them, and little by little we began a dialogue of knowledge where popular knowledge was intertwined with scientific knowledge, from which we approached different realities experienced by communities and their dynamics and relationship with the environment they inhabit.

Through this dialogue of knowledges, we learned about their vision of the territory with important landmarks such as the Grande de la Magdalena "Magolo" river (as the fishermen who navigate its waters call it), the swamp complexes of the Ciénaga de Chucurí, Carare - San Juana in Santander, as well as the immense and majestic Barbacoas swamp in the territory of Antioquia.

It is the women protagonists of this story who today invite us to intertwine the nets in a territory unknown to some and to others, a space where water intertwines with the mountains.

WOMEN AND THE CONSERVATION OF BIODIVERSITY IN MAGDALENA MEDIO

PVS in the Middle Magdalena region focuses its work in five population centers on the banks of the Magdalena River, four located in the department of Santander and one in the department of Antioquia. Women actively participate in all five nuclei, however, their levels of participation vary from one to another.

A total of 60 women from the five nuclei have actively participated in conservation projects. It was identified that working with women generates awareness and sensitization processes for the benefit of species conservation within their families and communities, because the caretaker role socially assigned to them extends not only to those around them, but also to their environment.

These women devote their lives to the home, caring for their children and family, but with little recognition under a sexist worldview. On many occasions they are seen as an object that fulfills a function only within the family nucleus and they are aware of the great weight of the inequality that affects them. It is not in vain that history highlights the courage of women, especially rural women who live under anonymity, oppression and mistreatment. This narrative has become for some of them a challenge to demonstrate their courage, drive, enthusiasm and leadership in their communities and in society, beyond their homes.

Participation of women has been key for developing our activities, since it is with them that we began an awareness-raising process about the value and function of each species in the ecosystem. This implied, from the beginning, generating spaces for dialogue that allowed us to learn a little about the different roles they assumed within their households and communities.

CÓMO LO HICIMOS

Based on a participatory research and action exercise, we identified perceptions and meanings about each of PVS's conservation target species. We exchanged knowledge while embroidering animal figures on fabrics. Needle and thread gave life to the magical colors of the brown spider monkey, the Caribbean manatee and the blue-billed curassow. Thus began a process of community organization in the different nuclei, without neglecting the participation of men who were also encouraged to intertwine threads to capture their knowledge of the fauna of their territory.

This is how we understood what some species mean to the communities. The manatee means life and protection of the water, if the manatee disappears the marshes and rivers dry up. The spider monkey or choibo is associated with motherhood, tenderness and cure of some diseases, such as to treat anemia in women. All these are created by God and belong to humanity”.

This exercise brought to the table two systems of knowledge, scientific knowledge and popular knowledge, and from it emerged a group of entrepreneurial women in the village of Bocas del Carare on the banks of the Magdalena River (municipality of Puerto Parra, department of Santander). They are the wives of artisanal fishermen and daily divide their time between household chores, raising children, caring for their husbands and community work. In addition, nowadays they spend part of their time making handicrafts, making clothes and bakery and food products.

While it is true that the situation of women in the region has been marked by submission to the patriarchal order, it is also true that many of them have tried to break from it and gain recognition from society. Some of the women who managed to fight within their homes to be able to participate in meetings became a beacon of hope that encouraged others to leave anonymity and express their thoughts, to show that beyond being wives, mothers and daughters, they are also capable of contributing significant resources to the family economy. In addition to overcoming the barriers of machismo, they would also face the challenge of working along with other women from the same community, with whom they only shared greetings and very occasional moments such as a celebration in the village. The idea was to test if they could work as a team and they were asked to make cookies in the shape of the project's species, and then distribute them at an event. This would bring together many communities and institutions to publicize the project at the regional level and would start the process of believing in the ability to undertake joint actions for conservation.

During the elaboration of the cookies, situations that seemed to overshadow the opportunity and the dream of working collectively arose. The lack of knowledge to mix a dough in the shape of the species and the frictions between different characters of the companions made it seem impossible to achieve the objective. However, overcoming the different obstacles, a project matured that would position the Cararean woman within a territory where different cultures converge.

The continuous struggle to attend meetings daily, which were considered a waste of time and neglect of the home, was a barrier thirteen women overcame. They successfully formed the Bocas del Carare Entrepreneur Women Association “ASOMUCARE”, the first organization of its kind in the municipality.

Initially, we wanted to see how a group of women from a community affected by the armed conflict and machismo could work together in a successful productive initiative that would generate income. This would allow them to contribute to their families, since until now the

household income was only generated by the men, as a result of long fishing and hunting days. In this way, the women would help their husbands to respect the closed fishing seasons², especially that of the striped catfish.

This group of women managed with their own effort, in addition to the support of the work team and the activities generated by PVS, to overcome the barriers of machismo, obtain the recognition of their husbands and family members and part of their community.

For nine months, they worked long days, as they had to do household chores, receive training and alternate their other daily tasks. They planted trees to rebuild the habitat of the spider monkey and many other species present in the region.

At the beginning, they established economic goals with a view to legally establish the organization according to the Colombian Commercial Code. Different strategies were planned to obtain the resources necessary to undertake an economic activity according to their knowledge and aspirations. Step by step and with perseverance, they were able to achieve these goals. This motivated them to move forward with the legal requirements and gain recognition for their management skills, entrepreneurship and drive. Day by day they have been able to influence different territorial entities and institutions and with it also the recognition in their homes, in their community and in their region.

ACHIEVEMENTS

As a result of this process, some of the following achievements can be mentioned:

The work with women generated trust and allowed them to own knowledge within their communities, as well as to raise awareness, from their families and communities, about the importance of sustainable management and use of natural resources.

Through PVS, the women of ASOMUCARE influenced decision-making and contributed to land use planning, as well as improved the living conditions of their families and communities. The women's different economic ventures ensured their husbands observed the closed seasons for striped catfish, protecting a species that is the daily sustenance of many families in the region.

The women promoted and participated in community plantings that preserve the habitat of different species, thus gaining space and recognition in the region for their contribution to conservation.

The community organization of entrepreneurial women is today an example of local and regional organization, management and participation of women in conservation actions.

These women of Bocas del Carare motivated other women in the region to organize and work for the conservation of different species, which has contributed to a more sustainable use of natural resources in the region.

ASOMUCARE promotes, through environmental education, of wildlife conservation in the region, which has led to a decrease in hunting and logging in the area.

² Closed season: The time when catfish fishermen cannot fish because it is the reproductive season of the species in Colombia, which occurs for one month twice a year. The striped catfish closed season, which takes place twice a year: in May and from mid-September to mid-October.

MAIN ONGOING CHALLENGES

- Maintain enthusiasm despite the various adversities arising within their community.
- Motivate the women's group to continue growing as an organization.
- Preserve the recognition obtained at the local and regional level, and use it for spaces that allow positioning riverine women in scenarios of organization and conservation.
- Exercise governance from the local to the regional scale in decision-making on issues that affect them as women, as well as in land-use planning for conservation.
- To sustain the spaces for participation achieved in local governments.



3

PART THREE:
LESSONS LEARNED

1. Conservation requires a social base and this is built by involving women as well as men and youth. Hence, it is necessary to pay attention to specificities in terms of needs and interests.
2. Due to cultural differences in the division of labor, each stakeholder group has specific knowledge systems, rules and practices in relation to different elements of biodiversity. This implies that effective biodiversity management strategies are only possible if gender and age are taken into account. For these strategies to be viable, they must be designed in a participatory manner and be accepted by the community and its representative groups.
3. In a context of climate change and increasing environmental degradation, the roles of women and children become critical for the survival of families and the maintenance of their traditional livelihoods. Likewise, each group shows particularities in terms of their exposure to risks in general and to those of climate change in particular.
4. Communities and households are not homogeneous entities. Proposals for territorial management and resource management that start from generalizations, without considering a prior diagnosis of social relations based on gender and age, run the risk of deepening social inequalities in general and gender inequalities in particular and, in the end, of not being effectively sustainable.
5. Similarly, the universalization of the market economy as a measure of household income and poverty leads to the invisibility of the biodiversity contributions and unpaid household labor, particularly that of women. In contrast, consideration of non-monetary and monetary income and costs makes visible the contribution of well-conserved ecosystems and women's unpaid work to the total income generation of households that depend largely on biodiversity for their livelihoods. A broader and more holistic view of economic income and its sources can reverse the frequent perception of a strong positive relationship between poverty and healthy ecosystems.
6. WCS experiences show that from a conservation perspective it is necessary to strengthen the organizational processes of indigenous and non-indigenous women living in or near protected areas, considering their multiple interrelationships with their families, communities and parent organizations. Processes to strengthen specific women's organizations need to be carefully designed and implemented, so that they are not seen as vehicles for internal division of peoples, but rather as generators of more solid and sustainable governance systems while strengthening the autonomy of women and their organizations. A strong women's organization does not mean the weakening of the matrix organizations, but rather a greater strength.
7. In the Amazon and Orinoco, as in other regions, women face countless material and symbolic obstacles. One of the strategies that has worked in WCS's work has been the empowerment of women through the economy and culture. Support for their economic and cultural initiatives has progressively led to greater self-confidence and autonomy, progressively advancing towards more comprehensive development processes and, at the same time, to solid and organic processes of political participation and defense of collective rights as indigenous peoples, and individual rights as indigenous women.
8. The problem of social and gender violence is not foreign to conservation. The experience of WCS, especially in Colombia, shows that conservation work by women makes it possible to reestablish social fabrics where these have been fractured by war. At the same time that women themselves regain self-confidence, they are able to weave networks based on trust in others, thus strengthening solidarity networks first among

women and then with others. The key to generating this self-confidence and trust in others is to rely on women's entrepreneurial capacity. In this endeavor, the fact that women choose to rely on the chores that societies have assigned to them can become an opportunity that allows them to take advantage of their specific knowledge and skills accumulated from generation to generation. In this way, conservation becomes a means, but also an end that women appropriate and empower themselves.

9. All of the above implies that it is necessary to pay attention to women's participation in decision-making processes. An important premise to contribute to is the development of women's participation processes is to bring public spaces closer to domestic spaces. Work from the bottom-up, from the communities themselves, is indispensable, to facilitate women's participation and, at the same time, to ensure sustainable conservation processes.

