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THE TASBA PRI KUAKUAIL II COMMUNITY'S RELATIONSHIP WITH THE FOREST

By
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INTRODUCTION

The Center for Indigenous Peoples' Autonomy and Development (CADPI) of Nicaragua and Tebtebba (Indigenous Peoples' International Center for Policy Research and Education) – in the framework of the Joint Global Program “Ensuring the Effective Participation of Indigenous Peoples in Global and National REDD+ processes,” – have undertaken a case study in the Miskitu community Kuakuail II, within the Tasba Pri indigenous territory, located in the North Atlantic Autonomous Region of Nicaragua. The study was conducted from October 2009 to May 2010.

This investigation was made with a rights-based approach, taking into account the UN Declaration on the Rights of Indigenous Peoples (UNDRIP). It also has an ecosystem and gender approach to facilitate the creation of a general framework that could serve as the REDD+ methodology in Kuakuail II.

This in depth case study aims to identify traditional knowledge and practices of the Miskitu people of Kuakuail¹ II about the forests, and to study, illustrate, and strengthen processes, mechanisms, and strategies for protecting and revitalizing the forests, especially to help mitigate climate change impacts.



Photo 1.
Kuakuail II
forest surrounding
the commu-
nity. D. Mairena.
May 2006.

The objectives of this Case Study are:

1. To thoroughly study some distinctive practices of the indigenous Miskitu people within the particular Kuakuail II ecosystem that help reduce emissions from deforestation and forest degradation, help sustainable forest management and conservation, and improve carbon retention (REDD+). This is a way to illustrate their holistic and multifunctional vision of forest use (cultural, spiritual, biodiversity, food, medicine, etc.) and their relation to people in Kuakuail II;
2. To analyze in detail the Kuakuail II Miskitu people's exercise of traditional systems for governing forests and to demonstrate their viability and vitality;
3. To identify threats and obstacles that limit or impede the practice of traditional forest management and the transfer of those practices and knowledge to younger generations.

To attain the goal of the case study, a systematic process for preparing and applying methodological tools was developed. This implied:

- Exploratory visit to the community and region as part of a participatory observation process;
- Interviews with both men and women community leaders;
- Consideration of information arising from the CADPI Diploma Course held in Sahsa that relates to Kuakuail II;
- Collection of information from distinct public and private entities involved in offering services that aid agricultural, forestry, and fishing production in the RAAN;
- Meetings with groups of producers (focal groups) in the region in order to identify and analyze the demand for services in the productive chain of products defined in this study;
- Consultation of documentary information about Tasba Pri particularly in regard to the process of land demar-

cation and titling in this region where the Kuakuail community resides.

One must keep in mind the particular terminology and concepts used by indigenous peoples. In the case of Kuakuail II, they are not the same as those used by academics, state entities, or the general population. For that reason, we have tried to remain loyal to the forms of expression of people who participated in the investigation. Also to be noted is the importance of constructing a chronological flow chart to highlight important events in the community that indicate those moments of great importance regarding forest possession or use rights.

GENERAL PROFILE OF THE TASBA PRI INDIGENOUS TERRITORY AND THE KUAKUAIL II COMMUNITY

Kuakuail II belongs to a territorial block comprising 29 communities that make up the Tasba Pri indigenous territory. Most of those communities are located along the Puerto Cabezas, Rosita Highway. Tasba Pri belongs to the Puerto Cabezas municipality in the North Atlantic Autonomous Region (RAAN).

Tasba Pri has a humid tropical climate. Its soils are clayish, sandy, and swampy. Basic grains, tubers, and citric fruits are cultivated there. Cattle grazing is an important and growing activity.

The Kuakuail II communal territory is located in the Tasba Pri territory. It is registered under Title of the Instituto Nicaragüense de Reforma Agraria (INRA-Nicaraguan Agrarian Reform Institute), according to Decree 782 of July 19, 1981, a reform of the Agrarian Reform Law No. 14 of January 11, by Decree 38-91 published in the *Diario Oficial La Gaceta* No. 181.

According to this registry, the territorial area of Kuakuail II is 1,956 hectares, taking up 1.3 per cent of Tasba Pri's area.

The Kuakuail II territory borders on its north with the Sumubila community, on its south with the Akawas River and the Yatama group, on its east with the Naranjal community, and on its east with the *Uriel Vanega y Altamira* Collective.

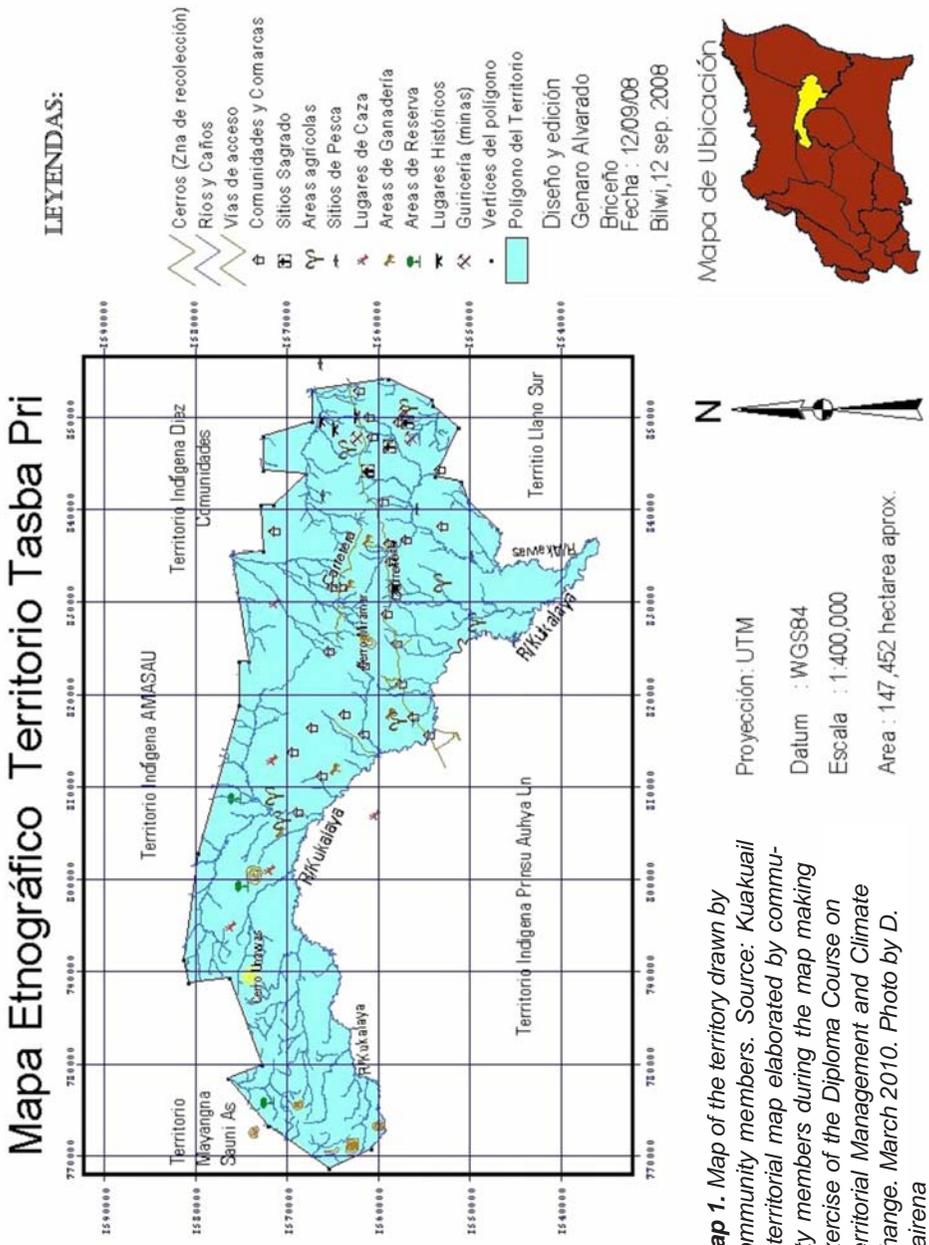




Photo 2. A typical dwelling in Kuakuail II. D. Mairena. May 2010.

Population: At this time, Kuakuail II has 26 families of Miskitu people who have dwellings raised on stilts, with palm (*papta watla*) or zinc roofs, wood or bamboo walls and floors.

Communication routes: Kuakuail II can be reached in the dry season by vehicle on a trail that is in bad condition. In the rainy season, vehicle access is impeded by mud, and access is only by horse or on foot.

Basic Services: The community does not have piped water or a health post, and the school functions in a dwelling with a dirt floor and wooden walls in bad condition. Nor does the community have electricity.

During their Diploma Course on the Impact of Climate Change on Territorial Management that took place in Sahsa, the Kuakuail II participants elaborated the following chart that reflects the key felt problems of the community.

Problems in the territory

Social area:

Road access is in very bad condition especially in the rainy season; this situation reduces management and problem solving capacity.

Economic area:

There is a scant financial resource for families; therefore, productive capacity is reduced.

Political area:

Municipal and regional political authorities lack the will to respond to problems.

Environmental area:

Agricultural frontier and the practice of slash-and-burn land clearing are in advance. The presence of 77 families of colonizers who have settled near the communal forest reserve pose various problems and the threat to forest and soil, water contamination, and increased incidence of disease is looming.

Kuakuail II has elaborated its Forestry Action Plan (PAF) to guide utilization of its forest. It was approved by the National Forestry Institute (INAFOR) under its administrative Resolution 75-2007. The plan was made to take advantage of wood from 300 hectares of trees felled by Hurricane Felix in September 2007. It should be noted that, prior to Hurricane Felix, Kuakuail II had the largest forest reserve in the Tasba Pri territory.

KUAKUAIL II: HISTORY OF THE COMMUNITY

Prior to Kuakuail II being populated, its inhabitants lived in the community of Kuakuail Kuakuail, Wawa River or Plain. Both territories are part of the Moskitia. It was mainly characterized by pristine virgin zones, covered by forests of broad-leaf tree species and an abundance of animals.

With the arrival of mining, lumber, and banana companies, some foreigners entered the zone. Among them was a family of

three brothers with the surname Webster thought to be of German origin.

This family managed to influence the local Wihta (indigenous Judge) of the Wawa Bar community—a Miskitu man with the surname Piners—and obtained the Wihta's permission for them to live there. They later registered the site in their own name.

It is said that the permit was secured by exchanging the site for cows. In this way, the Webster brothers managed to be assigned 600 hectares. Meanwhile, the inhabitants of the Kuakuail Llano (Plain) began to encounter problems in being able to produce because the fertile lands had been conceded to the Webster brothers. Hence, they were obliged to plant on the banks of the Wawa River and constantly suffered crop losses due to massive flooding of the river. Confronted by this problem, six pioneer men—Henry Boork, leader of the group, and Norman Martínez, currently members of the Elders' Council; Emiliano Romero; Ezequiel Bent (deceased); Rafael Kristy (deceased); and Basilio Pérez—decided to set out to find better lands elsewhere. From Kuakuail Llano they went to the land which today is Kuakuail II.

To get there they had to go past Kilometer 43. That was the route used by Sumu/Mayagna indigenous people to transport tuno² to Puerto Cabezas. At that time the Sumubila³ River was very deep. Near there lived a family who showed the six men the land where they could cultivate. At that time the Sumubila community as such did not yet exist.

On January 6, 1974, the six aforementioned men decided to settle on the current location of the Kuakuail II community. They were accustomed to spend 15 days hunting in the bush and to return to Kuakuail Llano with their catch. After some time, another 20 men and two women joined the new Kuakuail. Both women took charge of preparing food for the men who cleared land and laid down their land border markers. They remained for one month.

Two groups of men were organized to make up two shifts; one group did agricultural work and worked for companies in the zone. That way they obtained money to buy food and tools

needed in the bush. The other group prepared the grounds in the new settlement. That's how they took turns in the work.

Men carted plantain and guinea plants and seeds from Kuakuail Llano; they brought them in vehicles to Kilometer 43 and then carried them on foot to the new Kuakuail. A year later, when there were crops to harvest, the men brought other family members to the community.

That's how this territory was populated and Kuakuail II was born. Time passed without anything of note happening until the triumph of the Sandinista Popular Revolution on July 19, 1979.

The first two years of the Sandinista Revolution left communal life in the zone largely untouched. However, with the beginning of the counterrevolution and armed conflict between the Sandinista Popular Army (EPS) and armed counterrevolutionary groups, the Kuakuail community began to suffer.

These were times of war. The EPS had a military post in Sumubila from which they carried out military operations in the territory that included a population census of communities, including Kuakuail II.

At one point, the EPS reported the absence of six youth from the community. Because of suspicions that they had been recruited by counterrevolutionaries, the army decided to move the population of the community to another location. On November 16, 1983 the government decided to transfer the 32 families who inhabited Kuakuail II to the zone of another indigenous community called Sangnilaya. That's how they came to abandon the area and become war-displaced people settled in Sangnilaya where other internally displaced people from Kuakuail Llano had also been moved.

During that time, no inhabitant of Kuakuail II dared to visit their original community because of an army prohibition and also because the presence of members of the counterrevolution constituted a grave risk of being captured or of being killed during combat between troops.

These internally-displaced people from Kuakuail II stayed for 18 months in Sangnilaya. But later, the army moved them to Kuakuail Llano where they stayed on for two years.

Still later, the community members decided to request the authorities of the Nicaraguan Agrarian Reform Institute (MIDINRA) to allow their return to their community of origin, and they got a positive response. On this occasion, Mr. Norman Martínez and Mr. Emiliano Romero received a land title document and authorization to return to Kuakuail II.

At that time, the government paid compensation for losses endured because of the two year long displacement. The Sumubila community, located north of the Kuakuail II territory, assumed that the compensation was really a payment for the purchase of the property and hence that the territory thereafter belonged to Sumubila. That explains how the limits of the territory passed through the center of the community. When they returned to Kuakuail II, the former residents of Kuakuail Kuakuail and of Sumubila talked and negotiated, and succeeded in having Sumubila recognize the collective property rights of Kuakuail II over the land they claimed.

When the inhabitants of Kuakuail II decided to return, they were 42 families, but finally, only 13 families did. Today, there are 26 families living in 23 houses. Upon their return to their place of origin, the inhabitants discovered that it had been destroyed by the inhabitants of Sumubila. From that point on, Kuakuail II returned to a rhythm of community life without any major events impacting on the community.

COMMUNAL ORGANIZATIONAL STRUCTURE

The Kuakuail community has the following organizational structure.⁴ Through them, the community manages its territory and resources.

The Communal Assembly constitutes the maximum authority of indigenous and ethnic communities. In Kuakuail, it is made up of 22 families. They elect the authorities who lead the community for a period of two years, in conformity with Law 455, Article 4. The communal authorities are responsible for legal representation of their communities. The functions of the Communal Assembly are: a) Designate the Executive Council (Junta

Directiva) that shall lead the community; b) Ratify and approve other members of the Junta Directiva; c) Approve special working commissions; d) Approve or reject social and economic programs and projects that they consider would go against the survival of the customs and ancestral traditions of the communities; e) Safeguard ancestral customs and traditions; f) Approve the admission of *Tringsar* (strangers) to the community; g) Approve or reject consultant recommendations regarding concessions that authorized entities make; h) Approve, reform, or reject regulations, forest management, community procedure, and training plans; and i) Designate the individuals who will participate in invitations to visit other communities.

The Territorial Junta Directiva is made up by: the Síndico and Vice Síndico; the Wihta/Judge and Vice Wihta, and the voluntary police. Other members are: a secretary, a treasurer, a prosecutor, and two spokespersons. It also counts on the participation of a Council of Elders, an education director, a health director, and a sports director. Women have their own organization that is active. Another important community actor is the Moravian Church pastor. The Junta also takes responsibility for organizing a fire brigade.

To assign posts in this organizational structure, the community holds general assemblies every two years. The nominees for Wihta and Síndico are elected in an open, free, and direct vote of raised hands in an assembly open to the participation of all families in the community. People who are not from the community do not have voting rights. But in the case of a woman or man who has married someone from the community, such person is accorded the right to vote after one year's residence in the community; and he or she can be elected as a communal authority after five years residence and with a record of acceptable behavior in the community.

The authorities can be ratified or re-elected once an evaluation is made in the Communal Assembly of their performance in their posts, and based on the results, the person can either be ratified or substituted for the post with another person,

In the past, the election was held in the presence of the Council of Elders of the community, but now it is held with the pres-

ence of a Regional Council member designated by the Executive (Junta Directiva) of the Regional Autonomous Council of the North Atlantic Region (RAAN), in conformity with Law 445. This Councilor must attest to the transparency of the electoral process before the Regional Council. The elected authorities have eight days plus travel time to appear before the Regional Council Secretary to register the results to the Junta Directiva, and must appear with: a) the Minutes of the election meeting; b) a list of the participants with their signatures, and their identity document number, if they have one; c) the results of the election listing by name those elected to each position, and the length of their mandate as designated by the local assembly. Once these conditions are fulfilled the election can be certified.

The following chart shows schematically how community members themselves conceived their community's organizational structure during the diploma course sessions mentioned above.

At the second level, one will note that the Judges and the Communal Police share the same box. That is because they are considered to carry out their duties in close relationship. The same concept is operative in the case of the Legal Officer and the Elders' Council because they are deemed to carry out more of an advisory and social control function.

The following is a description of the positions of the members of the Junta Directiva.

The Síndico: This is the community authority designated to administer communal property and natural resources. Their mandate is for two years, and they are elected based on slates proposed to the Communal Assembly. The Síndico appoints the vice Síndico and forestry guards. One of the criteria used to elect forestry guards is that they be good hunters and have an excellent knowledge of ancestral territory. The Síndico is assisted by the Wihta to enforce established norms and, when these have been transgressed, to apply the sanction corresponding to the damage incurred or the *Saura daukan*.

The Council of Elders: This council is designated by the Communal Assembly based on their experience. In the Kuakuail II case, all men and women who arrived first and founded the colony form part of the Council of Elders; by the same dynamic,

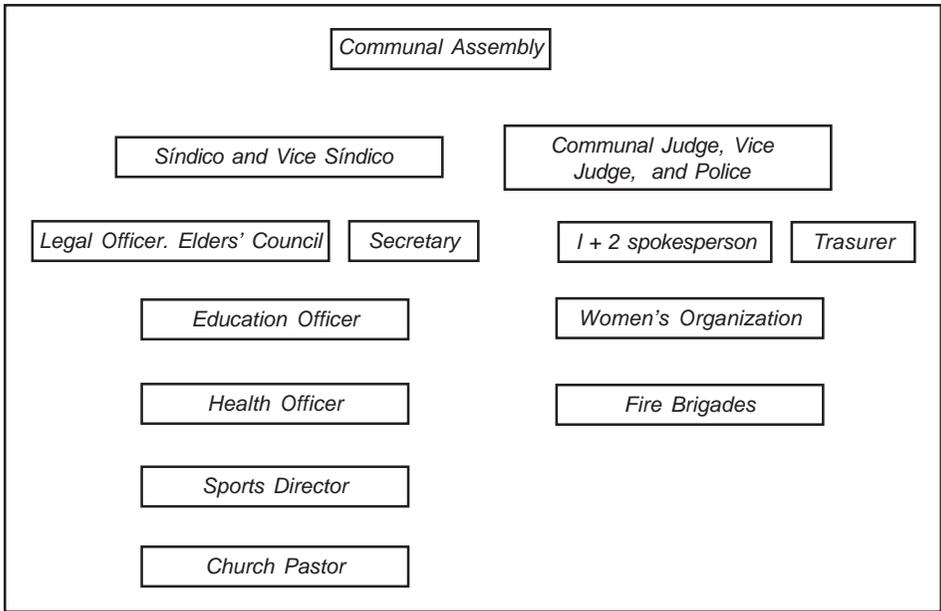


Chart 1. Administrative structure of the, Kuakuail II community of Tasba Pri.⁵

other men and women take on this role as they become grandfathers and grandmothers.

The Wihta/Communal Judge: This is the other post the Communal Assembly elects in Kuakuail II. This authority is mandated to administer justice and, in that capacity, to represent the community in community development negotiations and solicitudes. Within his/her jurisdiction, he/she is the highest authority over the administration of justice.

The Wihta, in conformity with Article 20 of the new Penal Code, is mandated to administer justice in cases of illegal actions, unless they are subject to special laws or if the corresponding penalty does not exceed five years imprisonment. Aside from that, the cases are heard and resolved within the communal jurisdiction.

In the case of murder, the accused are processed through the general justice system. Just as with problematic cases involving the *Tringsar* (strangers) and a member of the community, they are transferred to the Sahsa Police.

Persons who do not comply with community regulations for the first time are sanctioned with a fine and public work such as clearing school grounds, clearing roads, and participating in volunteer work brigades.

In the event of recidivism, the same norm is applied, but the penalty time is doubled, and this is done in a public manner. If bad conduct continues, the offender is expelled from the community

There was an expulsion case in Kuakuail. It involved a family which only lived in conflict with other families. Three warnings were given and the established sanctions were imposed. As they continued with such behavior, the community met in plenary and expelled them. They were given 15 days to take down their house and leave the community. The Wihta took charge of making sure this sanction was met with compliance.
E. Boork. Síndico, Kuakuail II.

When a community member cuts wood for sale without permission from the Síndico, the product is confiscated. To that end, the Communal Assembly meets and decides what to do with the confiscated wood.

In the case of tree cutting to build a dwelling, the beneficiaries request approval from the Síndico in detail, including the type of wood. This official will then authorize the activity in accord with the needs of the family. He can also authorize the cutting of a small amount of additional wood to be sold to obtain money for buying nails, hinges, door knockers, locks, and zinc for roofing.

The Secretary, the Treasurer, the Legal Officer, and the Spokesperson function as support for the Síndico, the Wihta, and the Council of Elders when so requested. They participate actively in the Junta Directiva's decision-making.

Other commissions carry out specific functions related to their area of responsibility, and in representing the community.

A listing of the community's norms and regulations is shown in Annex A. In addition, there are others that need to be added once they are validated by the Communal Assembly.

KUAKUAIL II COMMUNITY MEMBERS' OUTLOOK ON THE FORESTS AND RELATED PRACTICES

In the Miskitu language there are three words related to the concept of forest. They are used in function of the particular characteristics of the forests and their use. This shows a broad capacity to differentiate the dynamics that take place in nature. The terms are: *unta*, *unta tara* and *dus ailal*.

In Kuakuail II community and among the rest of the communities of Miskitu language territories, people, when they express themselves in Spanish, use the word *monte* (bush) to refer to the forest (*unta*, in Miskitu) or *montaña* (mountain, *unta tara*⁶). The difference between *unta* and *unta tara* is mainly that the latter refers to the presence of large, tall trees that are many years old. Another difference is related to the presence of wild life. In both cases, wild animals are present, but in the *unta* it is more difficult to hunt because the presence of humans drives the animals away; in the second case, more animals are present, but they are more removed from hamlets. In the *unta*, there are medicinal shrubs that are not found in the *unta tara* because shade from the tall trees does not allow small plants that need a lot of sun to grow.

This kind of classification affects forest administration. From the perspective of productive work, the *unta tara* is used only as a reserve—it is conserved. No slash-and-burning is done there. Lumber is not extracted. However, sporadic hunting takes place. There is no farming. In the *unta sirpi* (small tree forest) there are cultivated areas. There they plant and cut wood, but they do not make charcoal from wood.

There is an area called *Dus ailal* in the *unta tara* that refers to a very closed forest, rich in precious wood species. It has the same characteristics as the *unta tara*, but is a reserve area that is hardly accessible. This could be labeled a nucleus zone if we want to use the terminology of protected areas.

Utilization Characteristics of the Three Classificatory Forest Zones

Unta: This is the area used to cultivate basic grains and for the fields of the families living in the community. An area is designated for planting, and there are others for pasturing animals. Everybody knows where to work. There is also an area that no one is cultivating that is assigned to the youth so they can work as the new generation of the community. The community has designated only 350 hectares for cultivation. Everyone works in that area, and they all respect neighbors' plots.

Some plots have not been utilized for 20 years. Because these plots have not been improved, young people can use them for their own activities. The cultivable areas where no one can take over to work are those where there are improvements—this means areas planted with crops like palm, coco, orange, lemon, and other fruit trees that are the property of one family or another.

Unta tara: This is another area designated to be worked. From there, wood is extracted and later it is reforested. Community members hunt in this area, and it is not used for planting, only for hunting, fishing, and extracting timber for self-constructed houses. Wood is extracted for the market only when there is an urgent necessity in the community or for some family. It is also used to make *unuh* (pylons), *klasit* (latrines), *smalkaia watla* (schools), *prias watla* (churches), and *Kapin* (coffins).

Extraction of wood for sale must not surpass 10 per cent of the total amount of wood the community uses to survive.

All wood extraction for sale is undertaken under the control of the community Síndico with technical help from INAFOR.

Dus Ailal is the community's biodiversity reserve and has not been impacted by human beings. All the natural riches are found there—animals, medicinal plants, and precious woods. The whole community protects this zone. It is an area of restricted access because it has been taken cared of for a long time, and no one is permitted to damage it.

The Lagoon as a Reserve Capital Resource

Laguna Busukra is a small lagoon inhabited by many *Kuahipal/Tuhra*, it is full of *turah* (*cuajipal*, a very small lizard). The lagoon is about 50 meters wide and 500 meters long. Many aquatic species live there, including the *ih* (turtle lizard), fish species like *Mas Mas*, *Klanki*, *bachi*, and turtle. People do not fish there because the community has designated it as a reserve.

Land and Forest Property Forms

The forms of land and forest appropriation in Kuakuail II can be those traditional to the area, but in a broader perspective it can also be said that they comply with the precepts of Law 28 of the Autonomy Statute of the Nicaraguan Caribbean Coast, and also Law 455 on the communal property regime.

From the general precepts of the National Constitution to the particularities of Law 445, the legal framework makes clear that the communal territories of the Nicaraguan Caribbean have an untouchable (*inembargable*), inalienable, and permanent (*imprescriptible*) character.⁷

Hence, property forms and their assignation correspond to the family which takes on a portion of land necessary within the area designated for agriculture and livestock. Joint responsibility, honor, and commitments are the complementary factors present in the affirmation that the “*unta is the area designated for agriculture and livestock, and everyone must work there.*” That is an unwritten norm, but one assumed by each member of the community. “*Each member chooses a site that suits them, and locates there in the unta forever*” (Boork 2010).

That’s why N. Martínez and E. Boork (2010) say:

here no one assigns plots for the families. Each takes a plot of land necessary for their work each year, at the most two hectares, or at least one and a half hectares. Everyone must always respect the crop rotation norms practiced ancestrally. The crops are destined for family consumption and also a percentage for sale to cover the basic

necessities and sumptuary consumption of family members. This is an individual activity and produce appropriation is individual.

Both interviewees went on to say:

if the family is new and both spouses are from the community, the new family decides how to arrange where they want to work. The young man together with his father or uncles decides where his plot is to be located and its boundaries. The couple decides whether to work on their parents' plots or to take over a new area. Normally they locate on a new plot (insla) near their fathers' or uncles.'

In this system, land plots are not inherited. The sons and daughters simply keep on working them. No one else in the community attempts to take over this space as long as the sons and daughters keep on working them in an ongoing manner. Even if they have gone outside the community but the plot has improvements, no one will utilize this land. They can return at any time and again work their plot. The Síndico or any elder of the community can help them find their father's or mother's plot if they do not know its location. Relatives of the deceased are always welcomed in order to facilitate generation-to-generation transfer which is perceived as the continuity of work on the plot by sons, daughters and grandchildren. And so plots go with generational renewal. If any son or daughter wants to have his/her own plot apart from that of their parents, they only have to inform the Síndico about what space they want to work.

Property inheritance occurs in a tacit manner. It is regulated by convivial norms and norms for common use. Whoever needs a plot cultivates it. The rule is that no one can sell or donate any space on the communal land area. There are no fixed time limits.

Single mothers who have a mother and father in the community have rights over their plots but almost never make use of this right because they normally work on the plot of their parents. Women who marry a man from outside the community are assigned a plot. In that way their husbands have a place to work without disrupting the tranquility of their elders. In case of separation/divorce of the couple, the woman retains the patrimony and any improvements carried out on the plot. The man, in this case, cannot take anything away from the community

because he leaves as he entered the community with nothing.

A real problem exists not only in Kuakuail II but throughout the RAAN—the threat of illegitimate and illegal land sales.

The problem of land sales is serious because Tasba Pri is located along the so-called agricultural frontier which demarks the strong and constant eastward advance of emigrational populations from the Pacific, Central, and Northern Departments of Nicaragua. This emigration has had a negative impact through the illegitimate and illegal sale of lands by indigenous community members to Mestizo settlers. This misfortune happens because indigenous Miskitus try to make easy money from the settlers. Meanwhile, unaware of the legal circumstances regarding communal lands and territories, the swindled settlers say *comprar tierras* (buy land).

In many cases, there is a mutual understanding that what is bought and acquired is the right to usufruct and not ownership of the land. The problem gets worse when Mestizo settlers resell the acquired rights because the new contract is made between Mestizos in the belief that such land sales take place as they do in the rest of the country.



Photo 3. Kuakuail II Community. D. Mairena. May 2010.

During the Diploma Course that CAPDI offered for eight Tasba Pri communities, we were able to establish that Mestizo settlers believe in the land purchase-sale negotiation, and believe themselves to be the legal owners of these lands. It also became clear that the indigenous territorial communities do not follow, to the letter, territorial norms and regulations, nor do they make use of the power conferred on them by Law 445 to regulate such matters as deforestation is underway on their lands.

The Church and Cultural and Spiritual Values and Practices

The strong influence of churches among indigenous peoples is very well known, to the point where, in many cases, the cultural values, beliefs, myths, legends, and even the history of indigenous peoples have been undermined. The Miskitu population of the Nicaraguan Caribbean Coast is no exception to such influences.

When conversing with some Miskitu community members of Kislaya and of Waspam, we could appreciate that belief in the *liwa mairin* (mermaid), the *unta dukia* and elves (protectors of the forests⁸) is still current.

According to Professor Avelino Cox,⁹ ancestrally, supernatural beings were recognized by Miskitus as protectors of the waters (*Liwa mairin* – mermaids) and of the forests (*unta dukia* and elves), but the churches have been transforming these values. Now most Miskitus on the Wangki River (Río Coco) think of them as malignant spirits or do not believe in them.

It was striking that, at one point, Kuakuail II community members said in interviews that because of contact with other churches and cultures, versions of the *Liwa mairin* and the *Unta dukia* no longer have much value. They recognized that it is the influence of the Moravian Church that had led to the loss of those values. They also said that they do not have any spiritual or sacred relationship with ancestors or supernatural beings in the *monte* (bush, forest).



Photo 4. Moravian Church in Kuakuail II. D. Mairena. May 2010.

However, in informal conversations, the same persons made reference to the *ulak*, to the *unta dukia* and to the *swinti/swinta* (elves). They even mentioned that the latter would make you lose *prahaku* (knowledge) if you entered the bush alone. They also said that the elves were *banditos* (mischievous jokers) who would bother and shock people. Regarding supernatural beings of the waters, in addition to the *Liwa mairin*, they also referred to the *Liwa assure* which mostly appeared in swamp zones. They said that their illness could only be cured with traditional medicine.

This contradiction makes it evident that although the influence of religious orientation from churches is enormous, some beliefs and fears still have roots in the people.

Cultural and Spiritual Values of the Community

Below, two narratives are related about experience with forest beings that reveal current cultural and spiritual values of the Miskitu people.

A *Yala* (Barbados Cedar tree) has grown in Walpole to about nine *brazada* (some 7 meters) tall. Its roots straddled a rock and reached into the soil. The space beneath the tree looks as if someone had cleaned it. When it rains, one can find shelter there. Lower down there are some small streams and many orchids; this flower is known as a lucky flower and there are other flowers that we don't have in our yard at home. I've gone there to hunt several times because many animals gather there; but I only hunt for necessity and maybe that's why no spirits have chased me.

When the hurricane passed over, this *Yalam* tree was not damaged. It's still there. Its immediate surroundings were also untouched. And so Kuakuail II still has its forest. Near Walpole, there is another round rock whose top seems to be sawed off in a circular way. And on top of it sits another round rock. If you climb on to it and look down you see a great abyss. The space around the rock is cleared; it seems that moss has never grown there like someone is always clearing it.

When the last tremor took place, people thought that the rock had fallen down, but the rock did not move at all. We climbed up to see from above. It is surrounded by precious wood trees, but no one logs them. The elders believe that if they are cut down, the community could be harmed. When the hurricane passed through, not even the flowers were affected. Their colors are yellow, white, rose, and purple. This place is about an hour's journey from the community.

One time when we set out to mark off our land limits, we took along a compass to know where we had reached. But it didn't work. Another time the gringos who wanted to find gold arrived but they too could not use their compass. Magnets would not work in that place. They said that it seems like some material was affecting it.

Forest-Related Rituals

The community has not developed any kind of ritual to protect the forest. However, they do tell stories to boys and girls about events they have experienced as a way to teach them the norms to be followed in their daily lives.

When *tuktan kuarika* (adolescents) are receiving a lesson, they place a woody vine on them known as a *kakamuc wakia/usnun*. This vine has extensions that look like iguana hands. This vine is placed around the neck and waist of children so that they will not see evil spirits. That is also done with visiting children and adults.

When one is going to navigate an unknown river for the first time, he/she has to wash his/her face and drink some water. This person can also bathe there. This is a sign of friendship with spirits who live in the water.

When someone cuts flowers or finds a clay vase on the way to *dus ailal*, they are obliged to leave an offering, something of value including even a shirt button. It is believed that not leaving an offering in return for what one takes home will make it disappear.

Among their prohibitions meant for protecting the forest, the most common is: Don't damage or touch anything forest spirits are protecting because this is their habitat. The forest is clean there are many animals; there are flowers of different colors and many green herbs. Often one hears whistles, cries, and clamors; these sound like children crying. When we are in a place like that, the healer runs through the community admonishing that no one should go there.

One time I was going to hunt at night. We were three men and we were lying down. One of the youths picked up the shot gun and was handling it. As we were looking for wari (pigs, wild pigs) we only had one dog that knows how to deal with them. The dog took off and then fled back to us crying. He lay down near us.

I got up to try to see the spot he had fled from. I returned and said to the youngster that there was nothing there so he shouted towards the spot and someone answered with an enormous scream that made everything move. Then the boy shot into the void and again someone shouted from a closer location. I decided to scold the boy to stop bothering because we could get into problems. We woke up the next day and caught six wild pigs and returned to Kuakuail II (Boork 2010).

Ritual for Entering the Dus Ailal

The respondents related that when they enter a sacred place or the area they call *dus ailal*, it is customary for them to wear a vine called *Usnun* (*dasin wahya baku, kiwa kum ba iwisa*). It is a liana that looks like the leaf of a *malanga* vine that hangs from trees. This vine is also used to make *kwua* (food baskets). When worn, the vine is used to protect oneself from evil forest spirits. Once cut, it is wrapped twice around the *nana* (neck) and then fixed around to the waist like a belt as a form of protection from bush spirits.

In case a person is going to move from *the unta tara* to the *dus ailal*, he/she must take caution to protect himself/herself from/*piuta* (snakes). Tobacco and garlic are used for that. The tobacco leaf is moistened and brushed up and down the pant legs. The garlic is carried in a bag.

Normally, no one enters the *unta ailal*. Only the forest guards and the Síndico go there when they have to make their rounds to verify that no one else has entered the area.

The forest guard is a trustworthy person chosen by the Síndico. He supervises and monitors the forest area. In practice, he is chosen from among the hunters because they live walking in the forests and are informed of everything that happens in the *dus ailal*.

The Reserve is to be Protected, Is it Not?

Various myths exist regarding conservation of the *dus ailal*. It is said that a person called *Prahaku* renders unconscious someone who enters the forest making it impossible for one to get back home because of confusion. This makes the person hide in rock tunnels or among the roots of huge trees. Only after the healer has come and cured the individual can he/she return home.

They say that *Prahaku* is someone who, when walking, leaves behind footprints that appear backwards in relation to his direction of motion.

Other inhabitants believed to be in the *Dus Ailal* are the elves. They are supposed to be interceding for hunters, but sometimes they kill hunting dogs or make them disappear. To avoid this, the dog owner puts a red rag around the neck and one of the paws of the dog, or must put something distinctive on his ear lobe. Then the elf will not molest the dog. The belief is that the elf tries to hurt the dog to prevent it from hunting animals under its protection. It is believed that the animals protected by the elf (*Swimti* or *swinta/duhindu*) are: *duhindu ibihna/willa*, the *Tahira/cusuco* (toothless rabbit-like mammal), the *Sula* (deer), the *Buksa/sahino, wari* (wild pig), the *Kusu* (turkey), the *unta Klukumka* (wild ducks), the *wasakla/chachalacas* and others.

RECOGNIZED BIOLOGICAL DIVERSITY IN KUAKUAIL II TERRITORY

In Kuakuail II, an inventory of species and resources has never been done. The community members have only marked out the boundary limits of the territory. However, all adults know what exists in the forest where they go about daily. In the case of the *dus ailal*, the Síndico and forest guard are those who enter this zone each month to assure that everything is under control.

One mechanism used to establish if the forest is in better condition than before is to make comparisons. A simple description to ascertain the state of changes is in relation to the number of inhabitants. The community assumes that having more people creates more demand for wood and resources; therefore, the depreciation of resources is greater. Actually all the families of Kuakuail II together have managed to accumulate 150 head of cows which means that 130 hectares are dedicated to this activity to the detriment of the forest.

They have put down paths around the whole area where work is done and about 200 hectares is actually in use for agricultural production and livestock. Hurricane Felix affected more or less 700 hectares in the *dus ailal*. Meanwhile, in the *unta tara* everything was razed. Three years since, the forests are in the

process of recuperation. These forests are regenerating on their own because care has been taken so that no one sets fires in the bush.

Observation is another method used by community members to measure changes that occur in their community surroundings. The observation of *walpa* (rocks), *dus nani* (trees), and *daiwan nani* (animals) enables the Síndico, the forest guards, and the elders to take stock of the state of the environment. As Mr. Martinez put it:

The level of river water indicates whether summer or the rainy season (winter) has arrived. Normally when the water level is highest, it covers all the rocks, but when it turns into the dry summer season, those rocks are visible and women use them for washing clothes. In this season, the water turns clear and transparent; but in winter, the water turns muddy and swampy.

Biological diversity in the Kuakuail territory is the big thematic preoccupation for community members because of existing threats in the current context.

The following list of broadleaf forest species is taken from the Forest Management Plan devised by the community following Hurricane Felix for taking advantage of timber it swept down.

Wood Type	Common Name	Scientific Name
Hard Wood	Come negro	<i>Dailum guianensis</i>
	Quebracho	<i>Guarea grandifolia</i>
	Nancitón	<i>Hyeronima alchormeiodes</i>
	Frijolillo	<i>Leucaena shannoni</i>
	Quita calzón	<i>Astronium graveolens</i>
	Mora	<i>Vataire lundellii</i>
	Níspero	<i>Manilkara achras</i>
	Coyote	
	Granadillo	<i>Dalbergia tucurensis</i>
	Cortez	<i>Tabebuia chrisanta</i>
Guapinol	<i>Hymenaea courbaril</i>	
Semi-hard Wood	Santa María	<i>Callophilum brasiliense</i>
	Cedro macho	<i>Carapa guianensis</i>
	Guayabo negro	<i>Terminalia spp.</i>
	Leche maría	<i>Simphonia globulifera</i>

What Edgard Boork, Kuakuail II *Síndico*, says should be highlighted:

We do not have a forest inventory, but we know and know about what we have like the palm of our hand ... if you come and ask me for a tree species, just walk around, and I will take you ... I was born there and I know where the type of tree or plant you want to see is.

There are other species in the area that either do not have scientific names or whose scientific names are unknown but these have been important for the community members. These are: *Tuno*, *Hule* (tása, rubber), *Nispero* (chichle, gum), *Puhlak* (guano) and *kakamuk wakia-tendon de iguana* (iguana tendon, a wicker vine for making baskets); there are others whose bark are used to make beds, houses, ceilings; there is a *bejuco* (wicker) used to tie constructions; it becomes very firm when it dries. In all cases, it is important for the community members to take into account the phase or state of the moon before they cut in order to assure that the material will preserve well afterwards.

Animal Species

The following list indicates the most well known forest animals in the territory but this list is not complete. In reality, there are many more species present in the bush. To each Spanish or English name, we have added the name in Miskitu.

Danto (*tilba*, American tapir); there are three classes of deer: *sula pihni* (white), *cacho peludo* (*sang sang*) and *venado pucu* (mountain goat – *snapuka*); *guardiola*, *guardatinaja* (*ibinah*); *cusuku* (*tahira*); *guatuza* (*kiaki*); *tiban* (rabbit); *wisti tin* (*pizote*); (*winku*) ant eater; *y winku tara*; *mapachín* (*suk suk*); *siwuaiku* (sloth); *waklin* (white face monkey); *gungun* (Congo monkey); *Urus or ruskika* (Spider monkey).

Tiger species that have been spotted are: *limi bulni* (leopard); striped tiger; *limi siksa* (panther); *limi pauni* (puma); *limi kruhbu* (cougar); *lim wayata* (gato de monte).

Other species are: *chancho de monte* (wari, wild pig); *sahino* (buksa); *suki* (flamingo); *pavo* (kusu, turkey); *pava loca* (kuamu); *chachalaca* (wasakla); *gallina de monte* (wankar); *gallina de monte pequeño* (suhar), *oropendula* (tulu), *tucán* (three kinds), *rak*, *yamukla* (urraca); *plis*, *lapas* (apawa, macaw); *lora*, (parrot, there are six types); *chocollo* (risku, three bird species); and many others.

Among the serpent and snake species are: *barba amarilla* (*piuta*...this word is used to denominate all types that slither; at least six poisonous species have been identified and other *maksiksa* (boas); *sulhkat*, *silviaru* (coral), *waula* (boa), *bull aikra* (*mata buey*, ox killer).

TERRITORIAL MANAGEMENT NORMS AND REGULATIONS

In order to understand certain ancestral norms that course through all indigenous peoples, one must know the underlying sentiment that moves community members to obey them in distinct economic, social, and cultural fields; how they give order and meaning to communal convivial relations which have enabled them to persist despite the adversities of cultural shock. What's important in any interaction process is to find the causes of strong collectively rooted sentiment that prevails in each community, and is transferred to the authorities to be followed in the exercise of their functions in a way that enables control and leadership for the system of community government.

Territorial management in Kuakuail II is ordered mostly through norms and regulations dictated by the Communal Assembly. Most of these norms are unwritten, but have force in a traditional way based on mutual understanding in the framework of a philosophy of life. Some of the norms that are cited below are not directly related to the forest but we have included them here to offer a more integral vision of the form of territorial government and the way of life.

Despite these existing regulations, the Mestizos of the neigh-

boring community of Sumubila ignore the norms. These norms are subject to validation in the community. Those discussed here are based on the input from the eight Tasba Pri communities represented in the Diploma Course on Territorial Management and Climatic Change referred to above (See Annex A).

Forest Resource use as a Traditional Practice

Kuakuail II inhabitants, like the majority of Miskitu indigenous communities, depend on the forest for the extraction of certain resources such as: wood for construction, remodeling, and repair of houses; logs for foundation of houses; firewood taken mainly from tree trunks or wood left over from other uses; and *nulmista* (mango) to use with the pylon or to build the *wabul ka paika* to prop up banana branches, to make *kuala tus kaika* (washboards), *duri* (canoes) and *kuahi* (oars).

Traditional procedures also exist for cutting wood and lumber. This is done in tandem with the lunar cycle. Generational teachings show that cutting should not happen at the time of the new moon because, according to the teachings, all the insects

Most common and most utilized forest species in the Kuakuail II community, in order of priority

No	Most common forest species	Most valuable species	Most used species	Commonly used mostly for:
1	Yulu/caoba/ mahogany	X		For sale or for making coffins and furniture/ nuh/unuh/pilón
2	Yale/ Barbados Cedar	X		For sale, or for coffins and furniture
3	Granadillo/ Rusut	X		For sale, furniture. Not used for coffins because it is too heavy

4	Coyote	X		For sale to coffin makers
5	Cedro macho/sabá/swa	X	X	House construction, boards, floors, and internal wall dividers
6	Guapinol/lawah/lakah	X	X	House construction, but just for frames and beams
7	Krasa/santamaría	X	X	Construction of protective covering, floors, and scaffolding
8	Laurel/sumh	X	X	Coffins, furniture, interior walls, and false ceilings
9	Nispero/iban	X	X	Posts for houses and for fencing pastures, axe handles, and also firewood
10	Comenegro/slimh/tamarindo	X	X	Only used for posts, any structure requiring posts
11	Guayabonegro/igincia	X	X	House construction and firewood
12	Ojoche Blanco		X	For making el nuh/unuh/rice basins, and firewood
13	Mora/tilba arkbaika	X	X	Houses and buildings
14	Kerosen/sahkal	X	X	Firewood
15	Nancitón/Kiaki dusa	X,	X	Wood boards, when dry are good for firewood.
16	Puslak/guano, Puslang/capulin/Sihnak/manga larga blanco		X	For making the travois to carry products out of the forest; also for making rope (<i>rup</i>) to tie up calves and pigs.

Source: Focal group in the Kuakuail II community in 2010. Many more species are found, but these are the most commonly used trees.

Traditional medicinal species. Some of the traditional medicines mostly used by community members to protect their health

Medicinal species	Utilization
Hombre grande/ Kina /Kunah/tahplira	For fevers (malaria), blood purification, pimples and skin blemishes, for chills and flu, they are moistened and made into flakes and mixed in a liter of water for 24 hours. The water is mixed with moonshine and you take three gulps a day.
Biltha/surhwa/zorrillo	Used to drive off evil forest spirits when they have possessed a person. This is mixed with a chili de gallina leaf; it is burned and smoked. Also used as a <i>kangbaia</i> (against) any kind of spell; it is burned and smoked (<i>baho</i> /but also <i>klami tahbisa</i>).
Planta de Chile de gallina/Kalila kuamia	Mixed with skunk urine, it is used to break spells (<i>kangbaia</i>).
Culantro/chicoria	A broad leaf, creeping plant used for food. It is mixed with skunk piss, chile leaves, and <i>asdura pata</i> to make a cure for group hysteria (<i>grisi siknis</i>), <i>tusky auhbaia</i> ; it is ground and mixed with Florida water. Also used for asthma, seven boiled leaves.
Piuta dusa/palo de culebra	Used to cure snake bites. Bark is taken from all sides of the tree (facing, opposite, north and south); the bark is boiled in a small amount of water for five minutes. The tea is then imbibed.
Ahwath playa/yahal playa: Chaparro	The vine of the <i>chaparro</i> is used to cure snake bites, but after scraping off the roots. The shavings are placed in the bite wound and held there to take out the venom (snake teeth). This is repeated for three days during which time the person cannot be seen by pregnant or menstruating women. Also they cannot eat food prepared by women in those conditions.

Kuku Kura ma (coco tierno)	Used to treat diarrhea. Six small coconuts are cut crosswise, cooked, and the juice is imbibed. After one drink, the person is cured.
Kaisni pata	A soft vine. The bark of the guayaba and the culantro playa is a medicine used for gastritis and stomach aches. It is boiled and taken for eight days,
Sukul Wahya/hoja de varilla negra	This leaf is cut and ground, then applied to the wound for a day. Bleeding stops in less than an hour.
Kauput wakia	A broadleaf plant. It grows in razed or burnt out areas. The roots are scraped and shavings are placed in aching tooth cavities. The pain goes away within minutes.
Palo de Cebo, Bahnak maka laya	The sap is extracted from a hole drilled in the trunk. A rag is wetted with the sap and placed on a rotten molar cavity. It will then break off and fall out.
Sahkal talla/cáscara de Kerosin)	The bark of the Kerosén tree is scraped and the shavings are moistened with a bit of water. This is placed on skin bruises caused by falling and scraping.
Miskitu batana /Uhum dusa/ variety of African Palm	Used to straighten hair and make it grow, and to clean pimples for children and adults. It is a variety of African Palm.
Saba ma/semilla de Cedro macho	The cedar seed is peeled and fried in butter. The product is good for treating pimples.
Jobo/pahra dusa (Anacardiáceas family)	To treat chicken pox, the <i>jocote lobo</i> leaf is good to use when bathing. The bark is also boiled and used to get rid of mouth infection of recently born children.
Leche de banano blanco (Milk of the white banana)	Used for snake bites, to cure wounds, and for birth control. In the latter case, cut a piece of stem at ground level. It is boiled and imbibed. It must be taken after giving birth at the time of the first menstruation, or when one is still bleeding after giving birth. Each treatment lasts for a year.

Limi Mihta/mano de León	Used for diarrhea. It is liquefied (<i>klamisa</i>) in a container with one liter of water. It is ready after it becomes viscous. Drinking a liter is adequate for a cure.
Cáscara de Cortez/Auka dusa taya	Is effective to counter sexual impotence. it is boiled and taken for 15 days.
Aceite de Mono Congo y aceite de Cusuco	The pulp is fried and the grease is extracted. This is imbibed, and the breast of a child or adult with a cold or asthma is massaged. This treatment is taken for three days in succession.
Aceite de gallina	Used for colds and asthma. The same extraction procedure as the above is used.
El titil de la gallina/prukaika, el plástico que cubre el titil	It is dried with orange tree bark and boiled together, and then imbibed. It's effective for stomach aches and to strengthen weak stomachs when everything consumed does damage to it.
Saini Ruth/escalera de mono/Urus ulaika/mokey ladar, y cáscara de Guapino/laka taya, lawah taya, cáscara de indio Desnudo/limpsi	Effective for anemia. It is all cooked together, Sugar and wine are added and it is taken as syrup.
Lih mahbra, el huevo de la tortuga de mar (turtle eggs)	They are dried and sliced, and placed into half a bottle of wine. Leave for three days and drink it four times a day to cure extreme sexual impotence. Until the treatment is concluded, the man should not have sexual relations with his wife.
Yauhruz wakia/trisba daukaika ba	The Yauhruz root is cut into slices, boiled, and imbibed for two weeks.
Mukula/Cuculmeca vine fruit	Good for purges and for snake bites. You take three or four pieces of the fruit for purges, but for snake bites you boil leaves and drink the tea.

Kuah Maka/Leche de higuieron o chilamate hembra	The chilamate leaves are broad and long. It is low-stemmed. The sap is extracted and strained, and is imbibed with coco or cow milk along with sugar to get rid of intestinal parasites.
Buksa Mahbra/huevos de Sahino	Good for treating warts, You put a drop on the wart and it burns and falls off by itself.
Pabula tangni/Flor de Muerto/San Diego	Used to treat high blood pressure and convulsions, and fevers. Used a body rub, or taken internally in the case of high blood pressure.

Source: Brooks, Martinez and V. Downs, and the focal group (2010).

are laying their eggs or are being born. Just like humans, trees have parasites and worms. If you cut trees during a new moon and construct a house, a boat, some stilts, a table, or bed, whatever you make, will be eaten away by worms therefore, these will have a short life span. You will have to replace it within five to ten years depending on the wood species used.

Forest Use and the Food Security

In Kuakuail, the forest still yields food produce; the forest gives everything needed by humans to live like meat, fish, honey, and fruit.

Honey: These include *Nasma tara* (jicote honey) and *Mariola* (bee honey). Jicote honey is found in trees suitable for wood, while bee honey is taken from hives found in bamboo and some softer trees such as *guano* and *guarumo* (*planh*).

Fruits: Fruits found in the forest include: *zapote* (*kuri*); *granadilla de monte* (*drap*); *matra* (*calala*); *naranjuela*, *kisu* (*coyolito*); *sila* (*coroso*); *brit brit* (*guaba*); *Pahra* (*jobo*); *guanacaste de oreja*; *tuburus/Slimwama*, (this is used for laundry soap); *kara* (used for sewing thread); *guapinol*; *uhum* (to make drinks – Miskitu batana), *batata*, (*tawa*), *piñuelo* (*ahsi*) is eaten with salt and used to make beverages and chicha; *Sakipa/bakankan* (*jocote de mico*); *Wauh Slauhka* (*palmito*), it is cut and cooked with a little salt; it can also be eaten raw with honey; *Sut Sut / Sutsutia/* (chestnut); *Kahka Ma* is a palm with many thorns, also known as the watusa shoe, and is

eaten raw like the coconut; *ahtak ma* (*Swita*/palmito seed) is eaten like corn kernels.

Plant crops: In Kuakuail, they cultivate root and tuber plants (sweet potato, malanga, banana, plantain, *yuca* (mostly sold or used for food); basic grains (rice, beans, corn); and sugar cane. Vegetables, tomatoes, and peppers are also grown.

Meat: Animals that are hunted for daily food also live in the forests, helping to sustain food diversity. These animals include: *sula* (deer), *cola blanco*, *wipusiana* or *snapuka* also known as colored deer; *ibihna*/*Guardatinaja*/*Guilla*; *tahira*/*Cusuco*; *buksa*/*Sahino*; *wari*/*Jabalí* (wild pig); *Mono*/*Urus*; *wisting*/*Pisote*; *susuk* (raccoon); *tilba*/*danto*; *kakamuk*/*iguana*; *kiaki*/*watusa*. Also birds are hunted for daily food; they include: *kuamu* (turkey); *klukum* (duck); *wasakla*/*Chachalaca*; *rahwa* (parrot); *wankar* (wild chicken); *suhar* (dove); and *Pusal* (quail).

From the water are caught: *Inska* (fish), *kuswa* (turtles), *Siakwa* (broken breast turtles), *Kwiwi* (little black turtles), *wasi* (shrimp), *libang* (crab), *klistu* (clams) and *cuahipal* (turah), among others.

Women and Forests

Women's relationship with the forest is shaped by the fact that Kuakuail II community members believe that they have equal rights to access the forest as men do. During the study, it was noted that in this regard, women face no normative or regulatory restrictions imposed from within the community. They go to the forests and take fire wood and medicinal plants at any time they need these. They also face no gender restrictions in the norms established to obtain permits to extract lumber for their own use.

Kuakuail II women have a direct relationship with the forest in all aspects of life. They relate to it regarding the practice and conservation of traditional medicine, gathering fruit for consumption, gathering firewood; and making food. They are involved in all interactions with the forest. Women identify with the forest through their relationship with the land which is typified by the planting of basic grains, understood as an economic activity. However, Cox: (2010) says that this is also spiritual at

the same time...“because in our cosmovision, the world is populated by spiritual beings, and hence, the plots must be planted in a spiritual way.”

V. Downs (2010) said this in an interview: “We are citizens of all that exists in the land, and as we move, we maintain equilibrium in community relations and especially equilibrium with Mother Nature.”

Because of the multiple activities women carry out in the home on behalf of their families, they do not have enough time to make the same use of the forest as men do. Gender equity is lacking in that regard.

The above description shows that women have a very relevant role in the transmission of knowledge about the forest—its use and species of animals and vegetation present.

The Stranger in the Community — the Tringsar

All strangers or *tringsar* can come to the community to hunt for necessary food, but once they have succeeded in the hunt, they must leave. During their stay, the community helps them when needed, following the principles of reciprocity that govern indigenous communities. Among indigenous peoples, *latwan laka* (generosity) is a quality that stands out for visiting strangers. This attention is the beginning of a sustained friendly relation. Any stranger arriving in the community must be reported to the communal Wihta.

Mestizos living on the other side of the river are not members of the community. When they cross over into Kuakuail II territory, they are questioned as to the purpose of their visit. When their business is finished, they must go back to the other side of the river.

The communal authority does not have any control or regulatory capacity over Mestizos from the other side of the river, but they dialogue with them in meetings, warn them about areas that they must not enter, and tell them about what they can or cannot do. For example, they must not cut trees or hunt deer. They must not enter sacred grounds and forests; they must not

touch the crops of the *Insla* (farm); they must not set fires in these farms and in the *unta tara*. They must not throw explosives into the rivers nor shoot deer. Violators are taken to the Sahsa jail. The community does not penalize them because they are not members. Hence, help is sought from territorial authorities.

THREATS AND OBSTACLES THAT LIMIT OR IMPEDE THE TRADITIONAL FOREST MANAGEMENT PRACTICE & THE TRANSFER OF THESE PRACTICES & KNOWLEDGE TO NEW GENERATIONS

The State as the Regulator of Natural Resources

Use of forest resources is also impacted by government natural resource norms and regulations. Although it is true that the resources and territories belong to indigenous peoples, the state maintains control over their use. Let us look at the following case:

Permit Logic

As Costeños (people of the Caribbean Coast), we see that we have resources like red and white trees, but we cannot log them because of the complexity and cost involved in obtaining a logging license.

We have elaborated a forest use plan (known as a PAF) where we referred to making use of trees knocked down by Hurricane Felix, but the authorities take too much time to approve it; meanwhile, the wood deteriorates and become useless.

Take a look at the process:

The Natural Resources Secretariat (SERENA) of the Autonomous Regional Government makes a technical inspection and issues a technical report which costs 3,000

córdobas (US\$150); then the municipality sends in a technician to do a technical review which costs another three thousand córdobas (\$150); then an 'Opinion Forestal' is required next and this costs 10,000 córdobas (\$500); what follows is the formulation of a forest use plan (PAF) carried out by a forestry technician, a regent who must be paid \$2,000; INAFOR approves the plan and an exploitation tax equivalent to \$1 per cubic meter of extracted wood must be paid; the Mayor's office issues confirmation of this, and then INAFOR grants a permit to sell the lumber.

My plan is to extract 4,000 cubic meters. I have had this plan for two years, and by now the wood has deteriorated because it is strewn on the ground. Moreover, the process is expensive; I don't have the cash to obtain new permits. Hence, one has to find illegal ways to get the wood out.

The big lumber operators take advantage of this situation and offer to get the wood out and to obtain the permits. They pay for everything.

The authorities should be more flexible and they must facilitate the grant of permits. Then we could sell the little (fallen) wood that is left to us (in the forest).

After this entire process, the Ministry of Finance and Public Credit returns to indigenous territories 25 per cent of taxes collected from the sale of wood taken from the territory. A similar percentage goes to the municipality, the regional government, and the central government. That arrangement is set forth in Law 455.

Conversation in Sahsa between D. Mairena, Edgard Boork, Síndico of Kuakuail II in the Tasba Pri territory, and Rose Cunningham, owner of the Bawisa Farm in Waspam Municipality, May 6, 2010.

Traditional Knowledge Transfer from One Generation to the Next

One ancestral form of knowledge transfer is accompaniment. For example, a boy at ten years of age accompanies his father to hunt, plant, fish, visit sacred sites, and he participates in the *arbis* (making an offering). Fatherless sons accompany an uncle or grandfather in the same way. The boys are taught about what

trees are good for firewood or for lumber. They also learn how to use fishing and agricultural implements and how to find good hunting and planting sites. Furthermore, they are taught to distinguish the sound of a barking dog from that of the *tahira* (armadillo) which always puts its head in a hole and shakes when barking. When squealing *wari/buksa* (wild pigs) are moving about, the dogs bark and chase them into an impasse until their owner comes to kill the animals.

Moreover, boys are taught how to make *trisha* (bow and arrows) that are used to fish, and the harpoon to catch large fish like the *snuk* (bass) and *sahsin* (guapote grande). In the forest, they are taught how to hunt at night with flashlights and how to aim accurately in daytime so as not to waste shots.

The mothers, aunts and grandmothers, on the other hand, teach girls to take on women's work such as cooking, washing, ironing, making clothes, hemming pants and dresses, and cleaning the patio and yard. They also learn to use traditional medicines to cure illness, to weed planted areas, to plant *yucca*, sugarcane, banana and rice, to extract bark and carry a pack made from the bark of the *Bumdil* (guana tree), among others. These girls are also told with all the oral history of the community.

Knowledge of traditional medicine is taught in the family of the healer who transfers his knowledge at no cost. For people outside the family who want to learn about traditional medicine, however, a fee from \$10 to \$25 is charged for each medicinal plant depending on its form of application. The cost also covers teaching diagnostic and treatment criteria.

At this time, knowledge transfer and traditional forest management practices are being affected by the high mobility of community youth. In order to carry out knowledge transfer, the youth must be present because all teaching in the community is carried out through on site practice and this will not be possible if they are not around.

The following account is an example of the loss of knowledge of the use of natural resources:

The Kuakuail II forest contains, in its inventory, tree species like caucho (rubber) and el chicle (gum), but people are no longer accustomed to the practice of extracting latex sap from them. In the period from the 1950s to the 1970s, the sap was taken to make rain coats and bags for their own use and for sale. This ancestral practice came from the Wangki (Coco) River but was later lost. Such loss is attributed to the war during the 1980s which prevented a generational knowledge transfer between parents and children. During the population displacement caused by the war, minors and the youngest members did not have the opportunity to learn sap extraction techniques from their parents nor how to process it because in their new location during the war, these species of trees were not found. A second reason for the loss of this knowledge is the abundance of synthetic materials and plastics which discouraged extraction of the natural resource.

The Agricultural Border Threatens Forests

We have the same custom of planting and harvesting as the Mestizos. The big difference is that they strip the mountains bare of forests in one blow (ellos botan toda la montaña de una sola vez¹⁰); we Miskitus rotate crops; we use lands for agriculture but also leave them untended for many years so they can recuperate. As we see things, the mountain allows us to have more than just money. I don't give up the mountain for just two cows. The Mestizos go two or three hours walk into the mountains, put in land markers, settle, and invest money and work. For them, the land is a form of business. We have lived in Kuakuail II for 35 years. We were there before Sahsa and Sumubila existed; we lived without clearing the trees. But now, with the colonization, men come to explore and to stay. They begin to clear the bush and within a few months, their families come, and they bring in more people. They do not allow the bush lands to recuperate. That's how some settlements have been created here. A parcel of land that practically belonged to no community, a vacant land, is where places like Altamira, Sahsa, and San Pablo got started. We feel bad when talking about these things; some people know

how to conduct themselves. But people (colonizers) enter illegally and settle, and if you try to get them out, they pull out the pistol. If you let them stay a while, there will be five more families within a month. This should not happen.

But we also have Síndicos who have been selling lands. That is abnormal. The Síndico has legal papers at hand ... but the one who intends to buy doesn't know that it is an illegal sale so they pay. They insist on paying, but they don't know the sale is illegal. That's ambition, but they should know the law and that such sale is illegal.

Interview with Kuakuail II community members. March, 2010 in Sahsa.

This study confirmed that buying and selling relations are not necessarily formalized with legal documents. These are rather upheld by verbal commitments supported by informal papers or manuscripts. Maybe this kind of relationship occurs precisely because some lawyers don't dare to formalize the transaction because they know that these lands are collective property, inalienable, and never subject to embargo.

The Hurricane Felix Experience and the Presence of Settlers

On September 4, 2007, Hurricane Felix reached the RAAN.



Photo 5. An example of razed land. Source: Sumubila Zone, Tasba Pri. D. Mairena. April 14, 2010.

It was a Category 5 hurricane (the maximum) with 260 kilometers an hour (kph) winds that slowed to 195 kph once it hit land. In Kuakuail, the families suffered damage to their houses and most of the trees were razed. Prior to the hurricane, this zone was recognized as the most densely forested and the best in the Tasba Pri territory.

An even greater threat that presented following Hurricane Felix was the arrival of 70 Mestizo colonizers who settled on a place very near the Kuakuail territorial limits. This represented a serious threat to their resources, to biological diversity, and to their way of life.

The Mestizo settler families are destroying the forests in nearby lands through practicing their particular model for agricultural production—the slash-and-burn method used to clear areas for cattle pastures

In the zone next to Kuakuail II territory, the banks of the river are already deforested. This instance violates the law that prohibits deforestation in a stretch of 50 meters on both banks. As a result, the Kuakuail II territory stands as an oasis of forest surrounded by attackers. These people are not settled in one population center but rather are spread out through the bush in the Zone called Nueva Esperanza, Akawas. This factor causes the deforestation to take place over a broad geographic area.

These Mestizo settlers are accustomed to toss dynamite or poison into the rivers as a method of fishing. The river carries the poison downstream killing even more fish than the people need and risking the lives of other people. They kill wild animals not to feed their families but for sport or for sale. They toss away the skins and innards of the animals they kill.

Most recently, these settlers have introduced pigs that are not kept in pens (chiqueros¹¹) so these are left free to roam. These animals find their way to the beaches that form along the river banks in the dry season where iguanas lay their eggs and these pigs eat the eggs.

Another violation of environmental regulations is the use of a chemical product called Cypermethrin (piretroid insecticide¹²) that is thrown into the waters to poison and catch fish. There are also cases in which another product called Gastoxín (Alumi-

num Phosphate) is used. It is placed in the mouths of small sardines that were used as bate before. These treated sardines are then thrown into the river and when larger fish eat them, they are themselves poisoned. The product known commercially as Furadan (Carbofuran N-Methylcarbamate)¹³ is placed in termite nests and then thrown into water bodies to kill fish that eat the termite larvae. Many of these poachers are Mestizos who come from Sumubila.

The Kuakuail II community has made a complaint to the Environment Ministry but nothing has been done. Community members fear a reduction in the iguana population, a species on which they depend to sustain their families.

No one can stop this...everything is disappearing. One side of the river is pure weed; there is no longer any bamboo, they cut it all ... our side is made up of tall trees, but has been impacted by the hurricane...in 5-years time the river will dry up and there will be nothing.

Edgard Boork—Kuakuail II *Síndico* (Coordinator).

When speaking with community members, one notes a strong concern and feeling of impotence over how to stop destructive processes. The authorities in this sector pay no attention to the issue.

CONCLUSIONS

1. It is a fact that Kuakuail has been invisible to the institutions of the state;
2. This fact has isolated community members to this sphere whose limits are its 1,960 hectare territory, leaving them with few relations in the exterior;
3. Internally, the Kuakuail II community lives a communal dynamic marked by a subsistence agricultural system that does not produce a surplus for the market;
4. Until September 2007, the Kuakuail II forest was the

best conserved and managed in the entire Tasba Pri indigenous territory. At that time, the forest was greatly damaged by Hurricane Felix. Most of the 29 communities making up the Tasba Pri territory have a notable presence of Mestizo settlers who have a strong tendency to cause deforestation as a result of an external productive model based on extensive logging, slash-and-burn land clearing, agriculture, pasturing and cattle ranching. This model represents a threat to the Kuakuail II communal territory, its wood and water resources, its biological diversity, its soils, etc.;

5. The community has its own organizational structure in which the Síndico is the person mandated to protect and oversee the territory's natural resources. The Síndico has been monitoring the presence of groups of settlers who have squatted on land just outside the limits of the territory. This Síndico has the power, as does the community itself, to act on this problem, but does not use it. His weakness stems from not being aware of the force and opportunities he has, those given to him by the legal framework of Nicaragua regarding indigenous lands confronted by the threatening advance of the agricultural frontier;
6. To some extent, the fact of giving the Síndico the whole responsibility for administering forest resources could be interpreted as weak or high risk governance;
7. The community possesses a great deal of knowledge about available resources in the forest. Community members have divided the forest into three use categories based on their traditions and way of life. They know the medicinal plants and species good for wood. They know and protect biological diversity. They have their own forms for transferring knowledge from one generation to the next, although youth migration undermines this practice;
8. Community women have equal access with men to natural resources. They are the carriers and transmitters of much of the knowledge about forest use, boundaries,

and the characteristics of resources. The Moravian Church has tried to exert pressure against traditional practices related to the ancestors, spirits, and beliefs, and the population clearly manifests the practice of the religious norms of the Moravian Church. Despite that, certain rules related to forest spirits prevail. In the end, there is a certain undeclared coexistence between religion and traditional practices and beliefs;

9. Although the members do not deny the value of knowledge about Western medicine, traditional medicine is a much used alternative in this community. Both men and women make use of knowledge about the uses and care of medicinal plants;
10. The national system for regulating natural resources has impeded the community members in taking advantage of the trees knocked down by Hurricane Felix despite the fact that the community plan for this has been approved. The tax rates are relatively high and are collected prior to the extraction of wood from the field. Community members are often faced with having to act illegally in order to obtain some economic benefit from this activity;
11. It seems that the state has never considered relaxing controls and regulations in order to facilitate taking advantage of wood from trees knocked down by Hurricane Felix. The state has always stuck with its regulations and controls without any change in this regard. The Nicaraguan legal framework governing indigenous communal territories constitutes a strength that the community has not utilized because of lack of clarity. These laws could be the basis for an analysis to shape their approach to the REDD+. Territorial demarcation and titling is a strong instrument for the protection of the rights of indigenous people regarding the models of the REDD+;
12. Tensions stemming from resource utilization, youth migration, the advance of the agricultural frontier, and socio-cultural influence of settler colonizers constitute

the main challenges at this time. All those factors could make the community vulnerable in the face of REDD+ initiatives because they place the exercise of free determination at risk.

Endnotes

¹ According to Edgar Boork, the Community Síndico [Coordinator], the correct name of the community is Kuakuail II, and that is what we use in this document. However, most use the name Kuakuil II. This stems from the influence of the Spanish language which over time changed Kuakuail to Kuakhuil. (This thought results from research that Kuakhuail II community participants in the Diploma Course on Climate Change and Territorial Management, held in Sahsa, carried out in their community in January 2010).

² Tuno is a natural fabric made from the bark of a tree of the same name. In former times it was used for bedding and also clothing.

³ Sumu bilka= Sumu route or way. It came to be called Sumubila following settlement (Edgard Boork, Kuakuail II, April 2010).

⁴ Law 445, regarding the Communal Property Regime of indigenous peoples and ethnic communities of the Autonomous Regions of the Atlantic Coast of Nicaragua, established in its Chapter II – dealing with communal and territorial authorities with legal mandate, the following: Article 4 – The Communal Assembly constitutes the maximum authority of indigenous and ethnic communities. Legal representation of the communities corresponds to communal authorities. Each community shall designate which authority will represent it legally. The Territorial Assembly is the maximum authority of the territory and is called to meet according to procedures established by the communities that make up a territorial unit. Article 5 – The communal authorities are the administrative organs of traditional governance who represent the communities who elect them according to their customs and traditions. The territorial authorities are organs of administration of the territorial unit and represent them legally. Article 6 – Elections, re-elections, impeachments, and mandate terms of communal and territorial authorities shall take place following the customs and traditional procedures of indigenous and ethnic communities. Article 7 – The election of communal authorities shall take place in the presence of a member of the territorial authority, if it exists, and a representative of the respective Regional Council who shall certify the election of the corresponding authority. Article 8 – Elections of territorial authorities shall take place in the presence of at least one representative of the corresponding Autonomous Regional Council, as a witness delegated for such purpose

by the Junta Directiva of that body. The Secretary of the Regional Assembly shall certify the election in a period of no more than eight days following the election. In case of the absence of said witness, the territorial assembly shall remit the Minutes of the election to the Regional Council for its registry and certification. In the event that the Secretary [of the Regional Council] does not grant the Certification in the required time period, the President of the corresponding Regional Council must extend it de facto. Article 9 – Each Autonomous Regional Council shall maintain an up-to-date Registry of elected communal and territory authorities. To that end, it shall train an officer to be responsible for the Registry. That official must be fluent in at least two languages of the Region. In the event that all the regional authorities are outside the autonomous regions, a representative of the Regional Council shall attest to the election. The corresponding Municipality shall maintain a Registry of Regional Authorities and shall be responsible for Certification and shall do so in a period of no more than eight days following the election. The Regional authorities can also inscribe the Minutes of the election in the Registry of the corresponding Regional Autonomous Council. Article 10 – The traditional communal authorities can authorize the utilization of communal lands by third parties only if they have been mandated to do so by the Communal Assembly. Subsistence activities do not require such approval. When this involved natural resources in common use by the communities making up the territory, permission shall be granted expressly by the Territorial Assembly. The corresponding Autonomous Regional Council shall offer technical support to communities in the process of approving and exercising the rational use of their regional resources.

⁵ This representational format of Kuakuail II organization is that presented by the inhabitants and does not necessarily correspond to a western form of organigram or hierarchical chart. The authors of this study have decided to go with the description as related by the interviewees without trying to match it to a western organizational scheme.

⁶ *Tara* in Miskitu means tall. Thus, *unta tara*, means tall bush or bush where trees are tall.

⁷ For the lands and territories of the Atlantic Coast of Nicaragua, the term *inembargable* means that the land involved is an assured capital for the communities, and is not subject to embargo from creditors who might move against the holdings of an individual or community. Inalienable holdings are those that cannot be mortgaged, or more broadly, cannot be transferred legally to third parties. “Inprescriptible” means that these territories will be communal lands forever and ever.

⁸ Climate change.

⁹ Notes by D. Mairena based on a presentation by Avelino Cox to a

workshop on Methodology for Creating a Framework for Cultural Values Bilwi. October 2009.

¹⁰ The expression *botar la montaña de una sola vez* can be interpreted as: cut down everything all at once; another similar term used is *tierra arrasada*, scorched, razed or devastated land.

¹¹ Corrals or pens.

¹² Cypermethrin – a wide spectrum pesticide. See <http://chemicaland21.com/lifescience/agro/CYPERMETHRIN.htm> for an explanation of its chemical makeup.

¹³ Furadan is the commercial name of Carbofuran. See <http://en.wikipedia.org/wiki/Carbofuran> for a description of its chemical makeup. It is extremely toxic for insects (bees and beneficial species), zooplankton, shell fish, fish, and birds. The latter can be poisoned when they feed on small animals that have been exposed to Carbofuran or have directly eaten grains of the pesticide that have a similar size and form to seeds. One grain is enough to kill a small bird which explains the eventual use of this compound as an avicide. It is moderately toxic to amphibious species and slightly so for invertebrates (worms) and mollusks.

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Persons interviewed:

Síndico Edgard Boork

Señor Norman Martinez, founding member of the community

Señora Juliana Martinez Retilio - community member

Señora Verónica Cirilo Downs - community member

Señora Judith Martínez - community member

Deeply probed interviews:

Síndico Edgard Boork

Señora Verónica Cirilo Downs Community member

ANNEX

**Annex A. Norms for Social Conviviality and Social Administration
of the Community**

I.1. Communal work

- a) Tasks that require unpaid communal work (churches, schools, health centers, infant eating areas, public drainage, commentaries, parks, and sports fields) will be programmed for the last Friday of each month and each family of the community has an obligation to provide at least one member to participate in the work. This applies both to communal works and to cleanup tasks;
- b) Families that cannot participate in cleanup work shall provide materials (tools, sugar, snacks, bread, etc.) or make a contribution equivalent to C\$20;
- c) Each Saturday, every family has the obligation to carry out domicile cleanup (yards, patios, collection and burying of garbage);
- d) For disposal of garbage (plastic, cans, animal wastes, etc.), there will be a community dump; it is prohibited to toss garbage in public places or in patios and yards;
- e) Once a year on a set date, the community will do a cleanup of community gardens and land markers. Families that cannot participate in this work shall provide materials (tools, sugar, snacks, bread, etc.), or make a contribution

equivalent to two days of one person's work;

- f) It is absolutely prohibited to dump garbage and dead animals into creeks, water sources, and rivers. In the case where a family or community member fails to adequately dispose of garbage, the judge will proceed to sanction them with a fine of up to C\$XXX. Collected fines shall go to an administrative fund for the use of the governing board of the community. It will be used to cover community management costs in accordance with projects given priority by the communal assembly;
- g) The community shall designate an area to be used exclusively for a community garbage dump.

I.2. Human health services (vaccination, epidemics, and pandemics).

- a) The judge, together with health leaders, midwives, and personnel from government institutions shall coordinate work to carry out vaccination campaigns and follow up of cases of possible epidemic infections (H1N1, swine flu, avian flu, smallpox, anthrax, etc);
- b) All community families shall go to the health post or place indicated to be vaccinated or to receive advice about vaccination as determined by communal authorities;
- c) Health commissions, in coordination with the health representative and communal assemblies, shall vouch for compliance with health plans and programs, and shall report to the communal assembly;
- d) Community members who are able and are prepared to participate in work parties shall do so voluntarily. Any person who refuses to participate shall be sanctioned by the community judge to do 15 hours of community cleanup in public areas. The community judge will oversee compliance with the sanction with the help of the community police. He or she will later report on this to the assembly and to the communal executive board.

I.3. Animal health work

- a) The authorities of the communal executive board, together with authorities from the ministries of health and agriculture (MINSA and MAGFOR), shall coordinate the execu-

tion, planning, and follow up of vaccination campaigns (equine, cattle, swine, and canine) and epidemiological follow up;

- b) Community members are obligated to reveal the existence of infections in family or community animals in order to prevent epidemics;
- c) When a community member butchers a cow or pig, he or she shall pay C\$50 in the case of cows, and C\$20 for pigs, the amount to be paid to the community judge to create a fund for management work of the executive board.

I.4 The Community Executive Board (*Junta Directiva*)

- a) All community members 16 years of age and above are members of the communal assembly. Their condition as community member shall be accredited through a list of assembly participants which shall register the name, surname, identity card number (in the case where one possesses a card), and signature;
- b) The authorities who convene the communal assembly will maintain a minutes book that will contain: a list of participants, the beginning hour of the meeting, the agenda points, names of candidates, votes obtained in an election, and the posts to which persons are nominated and elected. The minutes should indicate if an election was by slate, or by individual;
- c) To become a member of the executive board, one must have been a stable inhabitant of said community for at least six years, be at least 18 years old, and hold full political and civil rights. One must have knowledge of the community and its problems, and above all, demonstrate the will to be a leader;
- d) The executive board must be made up of proportional representation of men and women, and must have a community youth member (18 to 30 years of age);
- e) The executive board shall be elected for a period of two years and will have six members: the *Síndico* or coordinator, *vice Síndico* or vice coordinator, judge, secretaries, treasurer, legal officer, and spokesperson;
- f) Not eligible to run for the executive board are those who have been found guilty of common offenses (robbery,

rustling, violent fights, and intrafamily violence);

- g) An election shall be certified by a representative of the territorial government in the case where no representative of the Autonomous Regional Council is present. In the event that no representative of the territorial government is present, the results of the election must be presented to the territorial authorities within 48 hours. The territorial government, together with the delegate of the Regional Council and the community coordinator elected in that assembly, shall arrange for accreditation of said executive board by the Regional Council, in conformity with Article No. 7 of Law 445.

I.5.1. Traditions and customs

- a) Upon the death of a community member, all community members shall help the grieving family, and no work will be done that day;
- b) If an outsider wants to settle in the community, that person must obtain authorization from the communal assembly, at which time he or she shall be presented with the norms of convivial living and administration of the natural resources of the community;
- c) To select representatives to workshops, training courses, seminars, etc. – the community executive board shall select persons to represent the community. They should choose those who have the capacity to carry out the goal of the given activity. When the activity is completed, the representative shall make a report to the executive board;
- d) The rights to private and collective land holding shall be respected. In the case of outsiders settling on communal lands, they too shall be held to these norms;
- e) When conflicts occur over property limits, the judge together with a judicial mediator, shall be the persons designated to resolve them. If the conflict is on community areas, the Síndico shall intervene to resolve the said conflict. The verdict dictated by the mediator must conform to the requirements of national laws.

I.6. Relations between communities

- a) Communal authorities shall coordinate with authorities of

bordering communities regarding cleanup of shared paths, land makers, and roads;

- b) With support from the executive board, the judge shall establish cooperative relations with authorities from surrounding communities and neighbors to fight delinquency, rustling, forest fires, and acts against public security. This collaboration shall be undertaken jointly with police authorities in the territory;
- c) In the case of conflicts over land borders with other communities, those involved shall turn to the territorial government to resolve them.

I.7. Relations between the community and the territorial government.

The community recognizes the territorial government as the maximum representative and management body for the territory and, in that framework, establishes that:

- a) The community will present to the representative of the territorial government, in the communal assembly, a profile of the community's priority projects, so that they can be presented to government entities and national and international cooperation agencies;
- b) Community representatives to the territorial assembly will present to the communal assembly the results of the management of the territorial government, along with its demands and concerns;
- c) The community will be able to make alliances with other communities to present joint projects for the consideration of the territorial government.

I.8. Community relations with the municipal government, the regional government, (GRAAN), the Regional Council (CRAAN), and with state entities.

- a) In projects executed by those institutions in the community that require laborers, workers from the community shall be contracted according to their capacities;
- b) Projects should be carried out in accord with the needs and priorities of the community, and in an equitable manner among communities;
- c) The GRAAN jointly with the territorial government will

provide specialized advice regarding community interests, in accord with our demands and priorities. This is mainly in the case of issues related to the management and administration of natural resources;

- d) The CRAAN should approve by formal resolution our internal norms and regulations through an initiative from our territorial government.

II. NATURAL RESOURCE ADMINISTRATION MANAGEMENT

II.1. Conservation areas

- a) All men and women community members within areas declared to be conservation zones must protect standing forests, mainly in areas affected by Hurricane Felix – areas that are of vital importance to the community (water sources, trees, seedlings, habitat for endangered species, sanctuaries for migrating birds, fishing grounds, medicinal plants);
- b) The community will do communal work to: maintain fire walls and set up fire brigades to prevent forest fires in the area;
- c) In conservation areas the use of insecticides and herbicides is banned – whether natural or chemical – for purposes of fishing, obtaining firewood for market, or hunting animals for market.

II.2. Use of forest resources and their protection

- a) For tree cutting for commercial or domestic use, the minimum tree diameter must be 18 inches, and height at least at chest (dap) level;
- b) Trees cannot be cut along river banks for at least 200 linear meters from the bank on each side of the river;
- c) Cutting of trees for commercial ends is prohibited for the following species: mahogany (*Switwnia macrophylla*), kapok or java cotton (*ceiba petandra*), chilamate (*picus grande*) and cedro real (*Cedrela odorata*);
- d) For domestic use, each family is authorized to cut up to

3500 board feet, subject to authorization of the community Síndico and overseen by the judge of that community. Use of that wood is not subject to any tax or stumpage fee;

- e) Any person making commercial or domestic use of a forest resource (trees) shall plant five trees for every tree taken, in order to guarantee the continuity and quality of the forest. This norm shall also apply to those who market firewood;
- f) Commercial extraction of forest resources, either by community members or outsiders, must comply with all national norms and laws. Prior to initiating the process of drawing up documents (PGM or PAF) a proposal must be presented to the community. Once INAFOR grants permits a communal assembly shall be held where the results of the process and a plan will be presented, explaining how the project will be of benefit, and a contract shall be presented, in accord with these norms;
- g) The unit of measurement for payment shall be in: cubic meters for logs and in board feet for sawed lumber. Prices to be paid are found in the following table:

II.3. Water resources

Species	US\$/M³	US\$/Board Feet
Precious (mahogany, granadillo, cedro real)		
Semi precious (guapinol, cortez, cedro macho)		
Blancas (other species)		

It is a priority for the territory and the territorial government to guarantee access to water for human consumption to each and every community inhabitant in our territory – with the quality and quantity to meet their needs.

II.3.1. Surface waters (rivers, creeks, water springs and lagoons)

- a) Use of water for human consumption is a PRIORITY for and a DEMAND of the community. For no reason can water use priority be given to animal, agricultural, or industrial consumption;
- b) Areas designated by communities for supplying potable water to inhabitants can be declared to be for community

use even though they may be on private land. In that case, prior payment of no more the C\$5,000 per hectare shall be made. No property owner can refuse to comply with what is stipulated in national water laws and the Constitution of the Republic;

- c) Negotiations over lands declared to be of communal use between private owners and the community will be conducted through mediation by the territorial government;
- d) It is strictly prohibited to clear areas to plant for agricultural purposes (corn, beans, rice, yuca, etc.) within 200 linear meters from the border of an area where water sources for human consumption are located. Such border areas can only be used for strictly forestry purposes or to be recuperated using agro forestry systems;
- e) Using forest resources within 200 linear meters of both sides of riverbanks is prohibited;
- f) Use of agrochemicals within 500 linear meters of water sources is prohibited;
- g) Installation of auto mechanic shops within 1,000 (one thousand) linear meters of river banks is prohibited;
- h) In communities with potable water systems, the CAP shall be the guarantor of compliance with these norms and application of sanctions established in this document;
- i) Non compliance with any of these norms shall be sanctioned in accordance with the stipulations of this document.

II.3.2. Subterranean waters (wells dug or perforated with machines)

- a) The use of community wells gives priority to human consumption and their management shall be in charge of members of the executive board or a person it appoints to that task;
- b) Agricultural activity is prohibited in an area of 200 meters surrounding a well used for human consumption;
- c) The executive board shall guarantee weekly cleanup of the area around the well to a distance of 200 lineal meters from the rim of the well;
- d) If a well lacks sufficient water to assure the full needs of the

community, the executive board shall take charge of instituting a rationing system that includes access for all inhabitants, with priority given to children, the elders, pregnant women, and water used for cooking;

- e) Cleansing of community wells (water testing and disinfection) shall take place at least once a year at the beginning of winter (rainy season), and the executive board shall guarantee availability of the materials needed for this work.

II.4. Mineral resources (gold, select materials, etc.) and other geological resources

II.4.1. Gold exploitation

- a) Any community member dedicated to artisanal gold exploitation (panning or sluicing) must have a community permit extended by its *Síndico*;
- b) In the exploitation of open air gold areas the use of equipment that causes any kind of contamination of the community's ecosystem is prohibited, especially of its sources of water;
- c) Regarding exploitation of gold in community areas: a community member who utilizes this resources must pay a fee of C\$ XX per gold penny extracted, payable to the community *Síndico*. In the case of exploitation of private areas, this activity will be controlled by community norms and shall require a permit from the community executive board. The person exploiting these areas will pay a fee of C\$ YY per gold penny;
- d) Each community member and outsider dedicated to gold exploitation shall respect the laws and technical norms associated with this activity (environment and natural resources laws, mining laws). The community judge shall be in charge of overseeing compliance of these norms in the community;
- e) Exploitation of gold mines by companies and private persons outside the regime of artisanal exploitation shall be regulated by these norms, the Mining Law and Law 445.

II.4.2. Other geological resources

The use and exploitation of other resources shall comply with pertinent laws, the Environment Law, laws on natural resources, and the Mining Law.

II.5. Hunting of forest wild life

Hunting of endangered species is prohibited, according to the list stipulated by MARENA, and in respect for the seasonal closures and bans established by that institution.

- a) Prohibited are:
 - Capture of living forest animals;
 - Use of explosives and agrochemicals or natural materials that contaminate water for fishing;
 - Capture and transport of parrots and macaws in the month of May;
 - Use of fishing nets in rivers and lagoons
- b) The executive board shall establish family fishing and hunting quotas;
- c) Sites where iguanas, lizards, and turtles lay their eggs shall be conservation areas;
- d) Fishing can only be done with harpoons, hooks, and arrows. Other fishing methods are prohibited;
- e) The *Síndico* or judge, under mandate from the communal assembly, shall regulate the exploitation of natural resources.

II.6. LAND TENANCY, RENTING AND LEASING, AND PAYMENT OF STUMPAGE FEES

II.6.1. Land lease contracts

- a) In community lands, any outsider who wants to settle in this community shall pay a rent for the quantity of land to be exploited. This rent shall be set by means of a contract that will establish: the area to be exploited, intended land use, duration of contract, general laws that apply to the lessor, and clauses imposed by the community;
- b) The measurement unit in the case of land lease shall be the hectare, and will have an annual rent that depends

- on the activity to be undertaken (commerce, industrial, mining, agricultural, ranching), but will be set at a minimum of \$4.50 per hectare at the official exchange rate;
- c) The list of community norms shall be annexed to the contract, and the lessor shall commit to comply with them to the letter;
 - d) For leasing areas to state institutions, and national and international firms, the community shall obtain advice from the territorial government. Its approval is required to sign any such contract.

III.7. SANCTIONS

III.7.1. The following sanctions are established

- a) Damage to natural resources shall be classified as slight or grave;
- b) Slight damages are: hunting over the quota assigned by the executive board of the community, allowing a fire to reach other land parcels when burning agricultural areas, cutting down trees of great value to flora and fauna, using fire to collect honey comb, extracting iguana or turtle eggs, using fishing nets in rivers or lagoons, dumping garbage or animal waste into water sources;
- c) The community member who commits a slight damage shall be sanctioned with a C\$100 fine, and ten days of community work;
- d) Grave damages are: burning forests, agricultural burning that damages private property, contamination of any water source, hunting endangered animal species, using explosives when fishing, and non compliance with norms established in this document;
- e) A community member who commits grave damage shall be sanctioned with a C\$5,000 fine and 30 days of community work;
- f) If damages are greater, the judge shall proceed to present a complaint with the competent authorities (civil and military).