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## **Advance of the agricultural settlement frontier and socio-spatial differentiation of the Miskitus in Nicaragua**

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### **Abstract**

This comparative study of agrarian dynamics and processes of socio-spatial differentiation between farming households focuses on three Miskitu territories (Tasba Pri, Li Aubra and Li Lamni) in the rainforests of Nicaragua's North Caribbean coastal region. This territory is characterised by different levels of land and resource grabbing by non-indigenous colonists, mainly for the development of cattle farming. For Miskitu families, whose income depends on farming and therefore on access to land, social inequalities and spatial injustice are closely linked. This research sheds light on the mechanisms and symptoms of these land grab phenomena, which are accompanied at local level by violent inter-ethnic conflicts, growing impoverishment, and rising inequalities within and between villages in rural Miskitu society.

**Keywords:** agricultural frontier, indigenous territory, agrarian dynamics, sociospatial differentiation, Nicaragua

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## Résumé

Cette étude comparée des dynamiques agraires et des processus de différenciation sociospatiale entre foyers agricoles porte sur trois territoires miskitus (Tasba Pri, Li A-bra et Li Lamni) de la forêt sempervirente de l'Atlantique nord nicaraguayen soumis, selon des degrés variés, à l'accaparement des terres et des ressources par des tiers non autochtones, essentiellement pour développer l'élevage bovin. Pour les familles miskitues, dont une part importante des revenus repose sur l'agriculture et donc sur l'accès à la terre, inégalités sociales et injustice spatiale sont intimement liées. Ce travail de recherche met en lumière les mécanismes et les symptômes de ces accaparements fonciers qui s'accompagnent localement de conflits interethniques d'une grande violence, d'une paupérisation croissante, et d'une progression des inégalités intra- et inter-villageoises au sein de la société rurale miskitue.

**Mots-clés :** frontière agricole, territoire autochtone, dynamiques agraires, différenciation sociospatiale, Nicaragua

## Introduction

In Nicaragua, in the so-called Atlantic regions located in the country's eastern zone and the coast of the Caribbean Sea (figure 1), different afrodescendant and indigenous populations coexist: the Garifuna, the Kriol, the Mayangna, the Rama and the Miskitu (vernacular spelling). The last of these is demographically the largest indigenous ethnic group (accounting for 76% of the indigenous and afrodescendant population across the two Atlantic regions, the North Caribbean Coast Autonomous Region [RACCN] and the South Caribbean Coast Autonomous Region, according to the most recent national census in 2005), and occupy more than two thirds of Nicaragua's Caribbean territories (Comisión Nacional de Demarcación y Titulación, 2013). According to satellite data compiled by Global Forest Watch (GSW), almost half the rainforest still present in the country is located in the North Caribbean Coast Autonomous Region,<sup>1</sup> principally in the Bosawas biosphere reserve which, along with the adjacent Río Plátano

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1. After an armed struggle between 1981 and 1987, the indigenous populations acquired autonomous status following a vote (Law No. 28), a status incorporated into the constitution in 1987. As a result, the Nicaraguan government created two new so-called autonomous regions. Each of them has its own political and administrative structure (the regional council consisting of 45 members elected by direct suffrage), and each has its own budget which is renegotiated every year.

reserve in Honduras, is the second-largest area of tropical rainforest on the American continent after Amazonia.



Figure 1: Location of the North Caribbean Coast Autonomous Region in Nicaragua and of the tenured Miskitu territories

Source: map archives taken from Natural Earth Data; boundaries of the indigenous territories obtained from the National Institute of Nicaraguan Territorial Studies; produced by the authors

Since the 1950s, Nicaragua’s Caribbean lowlands have been the arena of an advancing agricultural front led by mestizo Spanish-speaking colonists from western and central Nicaragua, seeking land to clear primarily for livestock farming. These population flows have been impelled by the profound social inequalities that mark the Pacific lowlands and the centre of the country (Bainville *et al.*, 2005; Hardy, 2005), inequalities that have caused farmers to migrate towards the rainforest regions in search of security. These migrations also offer rich farmers an opportunity to develop a land hungry cattle farming industry to supply a thriving export market (Maldidier and Antillon, 1993). This movement has accelerated sharply since the 1990s and the end of the civil war (1982-1987), despite the community ownership rights granted to the indigenous

populations under Law 445 in 2003. Indeed, since 2010 Nicaragua has experienced the highest rate of deforestation on the whole continent (loss of more than 20% of its rainforest cover [Hansen et al., 2013]) as a result of logging and cattle farming activities conducted by non-indigenous third parties. With 40 murders between 2015 and 2020, including twelve in the year 2020 alone, according to the Indigenous Peoples' Legal Assistance Center (Acosta, 2020), the country also has the world's highest rate of land-related interethnic killings per inhabitant (Global Witness, 2021).

In analysing agrarian dynamics in Miskitu indigenous areas exposed to the advance of this agricultural settlement frontier, the aim is to understand how this exogenous process is affecting trends in agriculture and the mechanisms of socio-spatial differentiation within and between villages in Miskitu rural society. How do these land grabbing phenomena in the Mosquitia region unfold in time and in space? According to their scale, what are their local effects on Miskitu families' access to land and more generally on the operation and economics of their units of production? What consequences do they have in terms of social inequalities for Miskitu families? Is the survival of this indigenous society in Nicaragua's rainforests under threat?

Conducted from a perspective of comparative agriculture (Cochet, 2015; Cochet et al., 2007), undertaken within the framework of the TruePath programme, and jointly funded by the National Research Agency, this study is based on long-term fieldwork. This entailed semistructured interviews conducted with farmers in 2015, then between 2018 and 2020, in three areas referenced as "Miskitu" and exposed to varying degrees to the influx of agricultural colonists: for 7 months between 2019 and 2020 in the village of Asang (Li Lamni territory); then 3 months in 2018 in the village of Santa Fé (Li Aubra territory); and finally, 5 months in 2015 in the villages of Sumubila, Kuakuil II and Kukalaya (Tasba Pri territory) (figure 2). This research also uses data on forest loss produced by the University of Maryland's Global Land Analysis and Discovery laboratory in partnership with GFW, through the analysis of chronological Landsat satellite images. The field materials are essential for interpreting these georeferenced data, which in return are used to precisely spacialise the mechanisms identified by means of in situ surveys and landscape observations. Combining these two sources of data thus provides unrivalled material for a study of the processes underway in Mosquitia territory.

The first part of this article presents and illustrates the main forms of land settlement in Mosquitia, while the next section goes on to look at its concrete effects in

terms of agrarian dynamics in the different villages exposed to the process of agricultural settlement. The third section analyses how these processes affect economic differentiation between “households” and “families”, terms that are used synonymously here.<sup>2</sup>

### **Recent and variable land settlement through cattle farming in Mosquitia**

The advance of the agricultural settlement front into the Northern Caribbean region of Nicaragua is a recent manifestation of the process of agricultural settlement in Nicaragua, which affected only the south of Mosquitia before the outbreak of the civil war that marked the country in the 1980s. In Mosquitia, the conflict halted the advance of this process, while the Sandinista government emptied all the Miskitu villages along the Wangki river of their inhabitants. Half the Miskitu villagers were moved 70 km south of the river to regroupment camps in Tasba Pri for the duration of the armed conflict from 1982 to 1987. The other half fled to Honduras to settle in refugee camps or enrol in the counterrevolutionary Contra army—“a complex web of opponents [...] consisting of dissidents from Sandinista ideology, former supporters of Somoza and of the Indian organisation of the Caribbean Coast” (Bataillon, 2005, p. 653). Most of the displaced populations began to resettle gradually in their original territory from 1987 onwards, then once and for all in 1990, once the civil war was over. The agricultural settlement front resumed its advance in the early 1990s, at a rapid pace (figure 2). It was driven by migrants from the neighbouring departments further to the south (Matiguàs, Rio Blanco), descendants of landless farmworkers employed in the *haciendas*, or the sons of smallholders without the means to settle in their own region in the absence of available land to inherit. This first front was generally followed, a decade later, by a second one, this time driven by farmers from the same regions who, as descendants of bigger landowners, had the capital needed to quickly form a cattle herd and buy this land, which rose in price per hectare once the pastures were in place and the road infrastructures more developed, each time pushing the original occupiers a little further north (Maldidier, 2004).

This process of agricultural settlement took place in a context of booming demand for beef and dairy products. Production was destined for export to neighbouring Central American countries and to the United States. Indeed, while Nicaragua for a long

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2. The “household” and the “family” are simultaneously the basic unit of production and of consumption in the villages.

time remained primarily an exporter of coffee, cotton, and sugar, since the 1970s beef has been the country's chief agricultural export (Roux, 1975),<sup>3</sup> and 80% of the cattle slaughtered in Nicaragua now go to export markets (World Integrated Trade Solution and FAOstat). This settlement of land for cattle farming is the factor responsible for the large-scale conversion of rainforest into pasture. Between 2002 and 2021, the North Caribbean Coast Autonomous Region thus lost 46% of its rainforest cover (GFW). The rate of loss has been particularly intense in recent years. The land clearance front is now at the gates of the forest savannah ecosystems to the east, has penetrated the Bosawas forest reserve to the west, and has arrived in the territories of the Wangki river in the north, which marks the frontier with Honduras (figure 2).

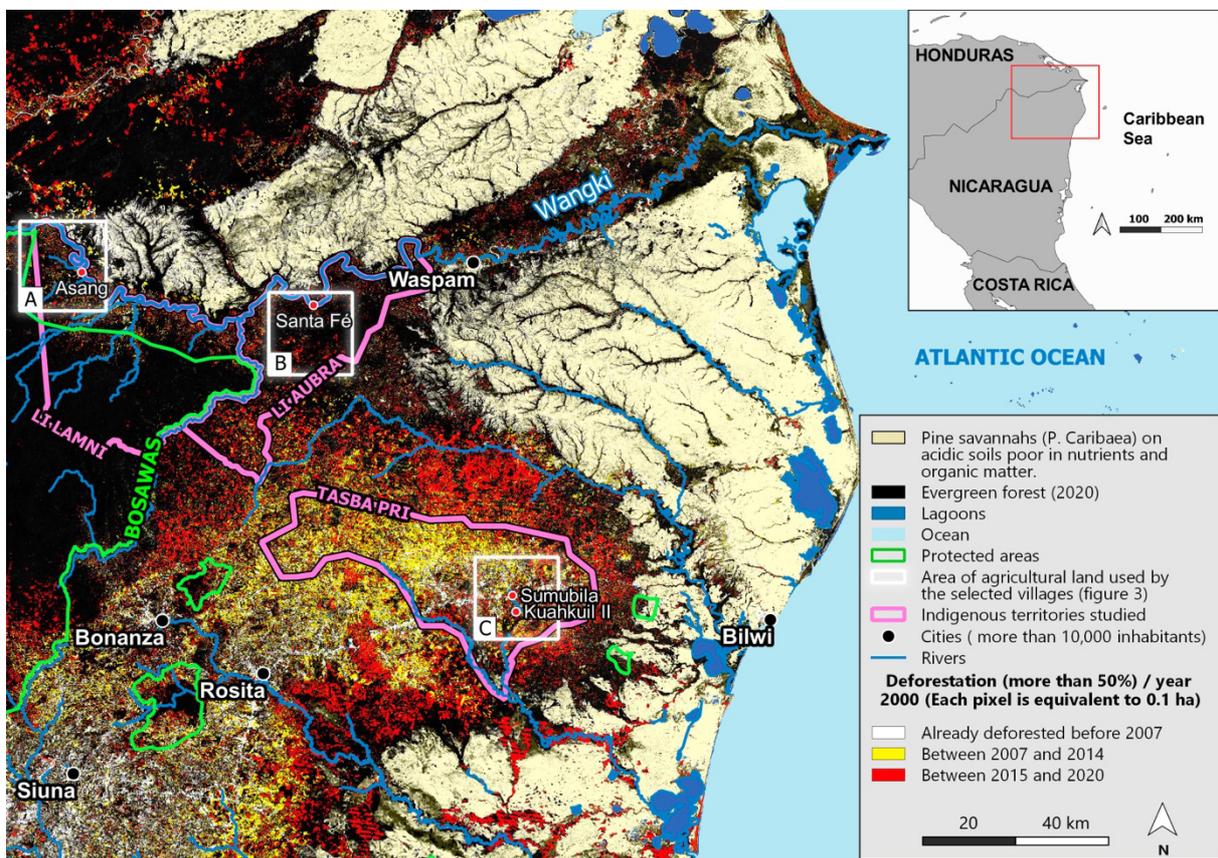


Figure 2: Spatialisation and pace of deforestation in Mosquitia and location of field study areas

Sources: Hansen, UMD, Google, USGS, NASA; produced by the authors using QGIS software

3. Up to 2009, the year when the value of raw gold exports outstripped that of the historic meat and coffee pairing as a result of the sharp increase in gold prices.

In Nicaraguan Mosquitia, access to land among indigenous families is governed by the customary rules of the “Axe right”, which grant a permanent right of use and transmission by inheritance of any newly cleared plot. The rest of the village land constitutes a reserve where new generations can settle and villagers can carry on their hunting and gathering activities in the forest. Designed to protect the rights of indigenous populations over their land, Law 445<sup>4</sup> on the community property system for indigenous peoples, which came into force in 2003, assigns community land title to each indigenous area in Mosquitia, and in theory renders the land of every such community “inalienable, imprescriptible and unseizable”. Today, 60% of the surface area of the North and South Caribbean Coast Autonomous Regions is protected by community land rights. The application of Law 445 to community property rights is supposed to conclude with the “cleansing” (Clause 59 of Law 445) of indigenous land, in other words payment of rent to the community or the expulsion (with or without compensation according to the criteria established in clauses 36, 37 and 38 of Law 445) of Spanish-speaking mestizo colonists. However, this final stage has not begun in any of the 23 territories, despite the fact that title has been established on some of them for more than 10 years. With this law, the Nicaraguan government also potentially equipped the *síndico*<sup>5</sup> with a new power relating to land. Since the establishment of this land rights process, it has been granted the power to negotiate legal rights over the village’s agricultural land. Its signature alone can be enough for land that falls under this community title to be transferred to third parties, without consulting the community (Hale, 1996).

Figure 3 shows the scale of the process of deforestation in Mosquitia today. The coloured spaces indicate the dimensions of the plots and reveal massive contrasts between those cleared by the Miskitu villagers (thousands of small clearings) and the larger plots converted into fenced pastures, usually by non-indigenous third parties.

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4. Law 445 followed a complaint submitted, under the first indigenous laws passed by the Nicaraguan government at the end of the conflict in the 1980s, by the Mayangna Ahuas Tingni community to the Inter-American Court of Human Rights against the Nicaraguan government, which had granted a concession to a forestry company on the community property system for indigenous peoples.

5. Within each Miskitu village, elections are held every two years to appoint the two main political authorities: the judge and the village *síndico*. The judge is responsible for managing day-to-day matters and handling certain conflicts and minor offences; the *síndico* is responsible for managing the land and natural resources of the village. The position of *síndico* was created at the time when the first land titles were granted following the Harisson-Altamirano Treaty (1905). However, this was only relevant to certain coastal communities. With the end of the war, Law 28 relating to autonomy, and the reform of the constitution, *síndicos* began to be elected in the Wangki river communities in the very early 1990s. However, they only obtained legal authority over their village’s resources relative to third parties with the implementation of Law 445.

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Depending on their location in Mosquitia, therefore, Miskitu villages are exposed to different degrees to the process of agricultural settlement for cattle farming.

1) Villages situated along the Wangki river, such as Asang (Li Lamni territory), have so far been sheltered from the settlement of their land by Spanish-speaking mestizo third parties, but are exposed to the Honduran drug traffickers, often from Spanish-speaking mestizo families long present in the region, who occupy land on the Honduran bank of the river to develop cattle farms (figure 3, map A).

2) Villages on the Wangki river whose land has gradually been grabbed by mestizo colonists over the last 10 years, for example Santa Fé (Li Aubra territory) (figure 3, map B).

3) Villages more to the south of Mosquitia, which have been exposed since the 1990s to the advance of the agricultural settlement front emanating from the centre of the country, such as the Tasba Pri territory, which has now been wholly absorbed, as evidenced by the almost total absence of forest today (figure 3, map C).

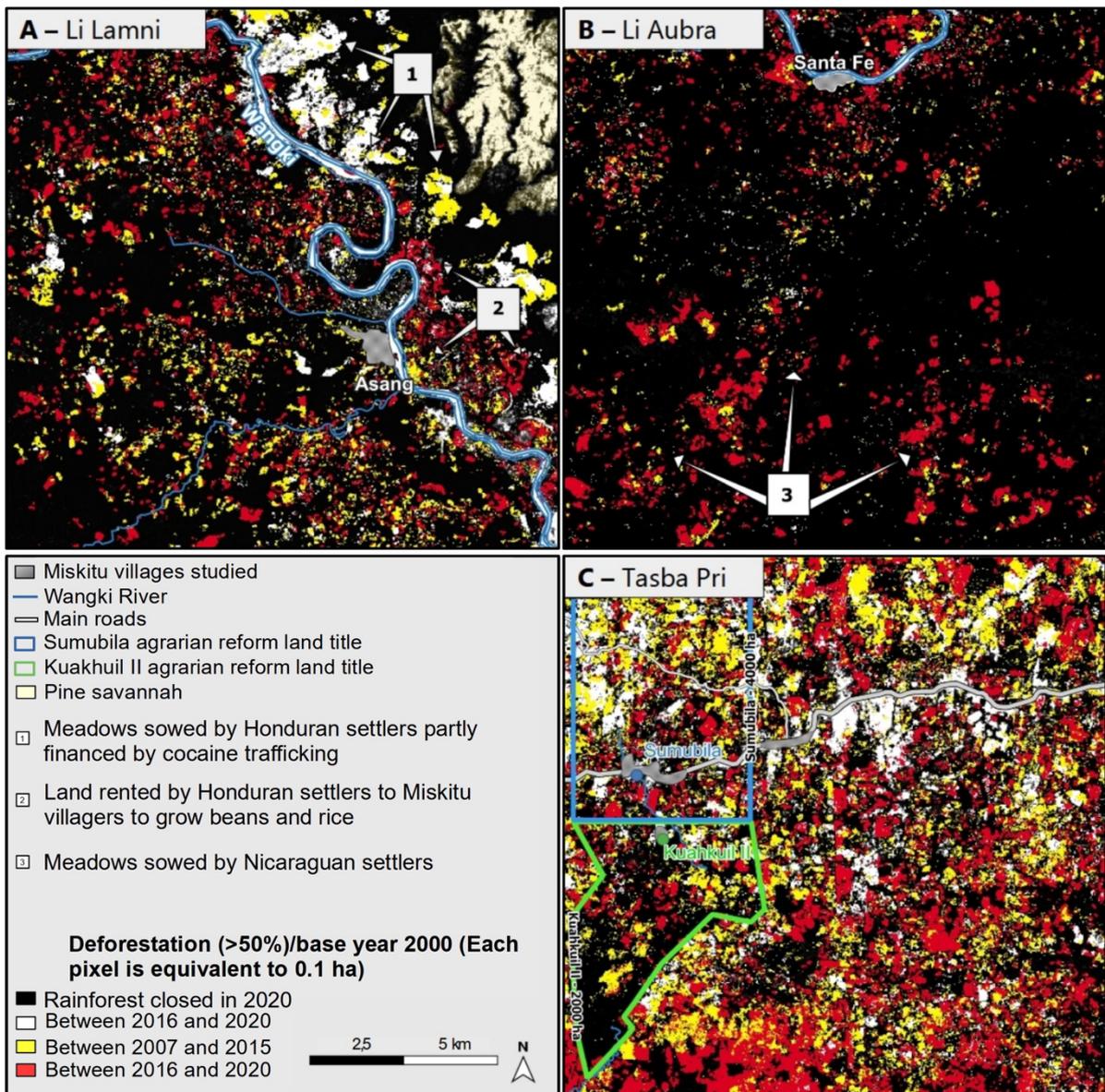


Figure 3: Pace, scale and causes of deforestation in the three study areas  
 Sources: Hansen, UMD, Google, USGS, NASA; produced by the authors using QGIS software

The goal is to try to understand, in these different situations, how the agriculture and economy of rural Miskitu households in the rainforest have evolved since the 1990s under the impact of these processes.

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## **Contrasting agrarian dynamics between Miskitu territories**

### *Miskitu villages on the Wangki river protected from land settlement*

As a result of demographic growth, increasing scarcity of food-producing land in Asang

The families that returned to Asang after the civil war in the 1980s recovered the land abandoned when they went into exile a few years before. Since then, demographic growth has limited access to the lowlands along the Wangki river and its tributaries, key land for the cultivation of flood-recession rice and beans. As a result, these families have gradually cleared land further and further from the village, using slash and burn methods that produce lower yields both per hectare and per hour of work if the hours of walking to reach these plots are included. In addition, this forest land has been extensively divided up by Miskitu households, for agriculture and cattle rearing, but also for gold panning, encouraged by the rise in global gold prices in the last 15 years or so and by the presence of alluvial placers within Asang village land (figure 4).

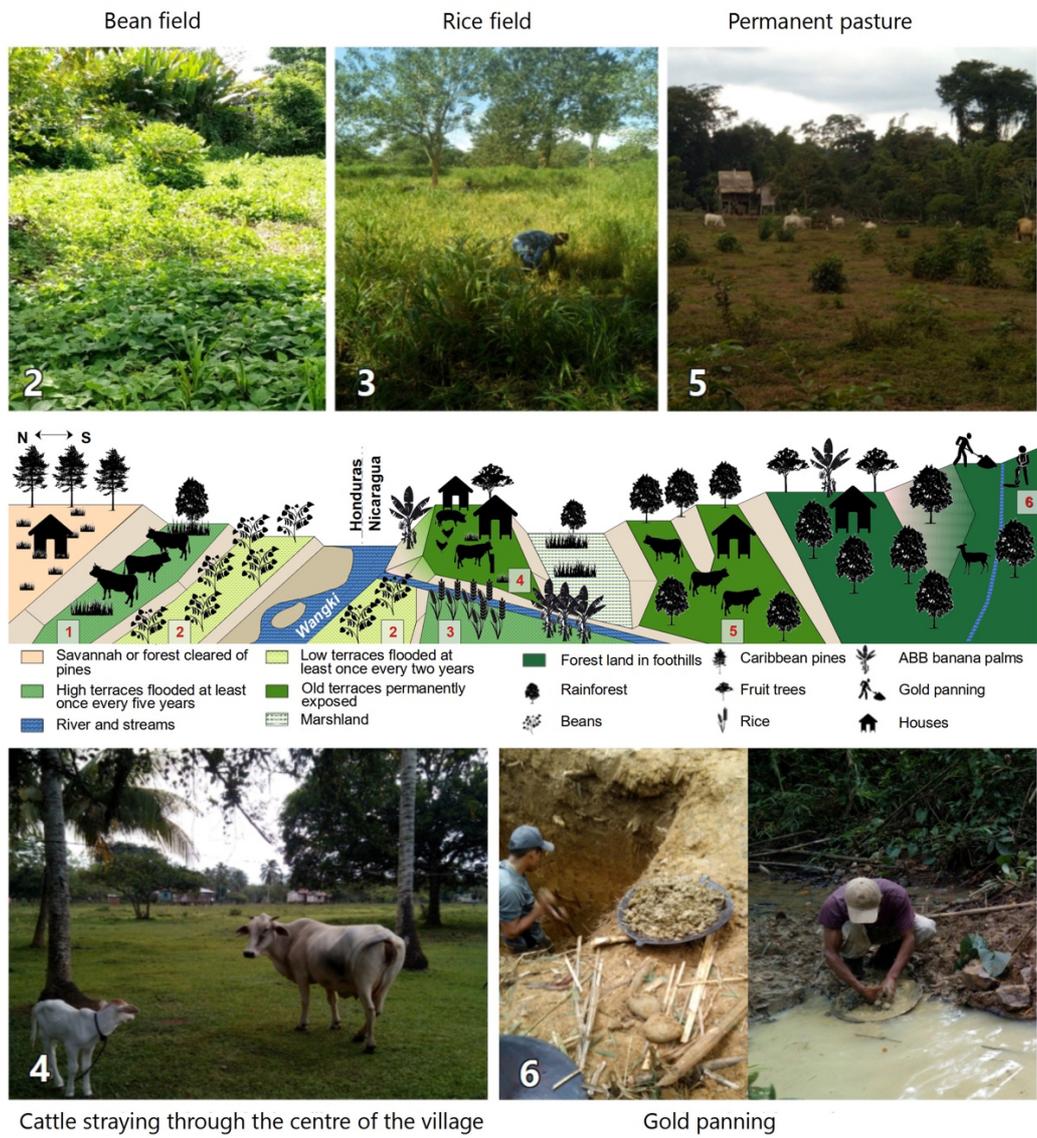


Figure 4: Layout of the landscape and main ecosystems in the Miskitu villages along the Wangki river. The case of Asang  
 Source and production: authors, photos taken in 2019 and 2020

The rise of drug trafficking: loss of markets and proliferation of theft

For the villages situated along the Wangki river, the main method of travel remains river transport. Travelling from Asang by boat, it takes 12 hours in the dry season and 7 hours in the rainy season to reach Waspam downstream, then a further 4 hours by bus to reach Bilwi. These are the urban centres where agricultural produce could be sold (e.g., Bilwi’s population 80,000 in 2020 [estimate by the National Institute for Information and Development-INIDE]) if the addition of transport costs did not raise

prices too high compared with products transported by truck from Western Nicaragua. The market for food within Asang itself is small (1700 inhabitants in 2020 according to our field surveys), since most Miskitu farming families largely grow their own food. However, the growth since the 1990s of the commercial Honduran village of Ahuasbila, located nearby on the opposite bank and mainly populated by livestock farmers, provided a market for the agricultural produce grown by Asang families for two decades. Drug trafficking put an end to this trade.

Honduran Mosquitia, a frontier region made vulnerable by its isolation and a limited government presence, especially since the 2009 coup d'état, became a hub for drug trafficking (United Nations Office on Drugs and Crime, 2012). This phenomenon particularly affected the Nicaraguan Miskitu villages situated along the Wangki river, near the frontier with Honduras. Because of its location, Asang is particularly exposed to Honduran drug trafficking. In 2011, the violence between drug traffickers in Ahuasbila escalated to such a point that the inhabitants fled the village. All that was left was a criminal gang that monopolises the land on the Honduran side of the river, where the presence of pastures grazed by huge herds of cattle provides a means to recycle some of the money from drug trafficking, while the same gang rents out the lowland areas to families from Asang (figure 3, map A, legend 2). In addition, the drug traffickers have introduced cannabis to Asang on a large scale. It has become a parallel currency used for buying stolen cattle (McSweeney et al., 2018), the gold extracted by the families, and the services of pauperised young villagers. The end of the trade with Ahuasbila deprived the inhabitants of Asang of most of the outlets for their agricultural produce and, at the same time, they had to deal with a proliferation of cattle thefts within the village. Given the problems of commercialisation, the fall in agricultural revenues and the cattle thefts, the difficulty for many households in Asang in accumulating capital in kind led to a collapse in the number of head of cattle in the village, which fell tenfold between 2000 and 2020.

### Growing differentiation between households in Asang

Over a period of 30 years, the social differentiation that characterised Asang before the civil war changed and was accentuated. The well-off families, often descended from non-indigenous inhabitants who had become part of Miskitu villages by union<sup>6</sup>

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6. Exploitation of the resources of the Atlantic forests since the second half of the 19th century—latex, colour wood and gold, as well as banana cultivation—attracted Spanish-speaking mestizo and foreign labour into the Wangki river region. Gradually integrated into the Miskitu villages by union, these non-indigenous populations acquired

in the early 20th century, had sufficient capital by the end of the 1990s to establish a small cattle herd (five to twelve cows) which grazed on 20 to 40 hectares fenced pastureland plots converted from former forest land. Their markets are little affected by the new conditions: self- or intra-consumed crops<sup>7</sup> are used to pay pieceworkers, the livestock (cattle, pigs) are sold outside the region, and their farmhouse cheese is easy to sell locally because of its rarity. Guarded by a cowherd, their herds are in principle and for the moment protected from theft. The wealthiest of these households own thirty to fifty cows which are grazed on 100 to 250 ha of clearance forest. However, they represent no more than 5% of Asang's families. Their current position at the head of production systems in which family labour is supplemented by the structural use of wage labour recruited from other households in the village is explained by the fact that the latter have, at the same time and in contrast, seen their situation decline.

Most of the families in Asang now employ slash-and-burn methods of cultivation to grow beans in lowland areas and rice on exposed terraces, as well as cultivating their cleared forest plots (in rotation with a longer five to fifteen years' wooded fallow area), and small-scale pig rearing. In the absence of outlets for their food products, the farmers concentrate on growing crops for their own family consumption, and also look to additional activities that do not require much capital: fishing, gold panning, and farm work. Among these households, only the ones that can rely on a skilled job locally (civil service, artisan work) or on occasional remittances from family in the city are able to avoid farm labour and gold panning and to keep one or two heads of cattle that stray graze near the village. The poorest families can only access lowland plots by renting them from the drug traffickers on the Honduran side and are often only able to feed their one pig by stealing from the plantain banana crops on other families' plots. Structurally indebted and reliant solely on a meagre income from gold panning and farm labour, these households are forced to sell their services and some of their rice, after harvesting, cheaply to rich lending families, in order to cover unavoidable household expenses. A few months later, once the attic is empty, they buy the same rice back from

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access to land under customary rules. Starting with more initial capital (based on wages from more skilled jobs than those then available to Miskitus), these hybrid households were also able to build up capital more quickly from arable and grazing land. This initial social differentiation persisted despite the decade of civil war.

7. Intra-consumed produce is produce that is consumed to keep the system of production functioning, for example certain vegetable crops eaten by livestock (in this case plantain bananas used to feed pigs); these intra-consumer products are thus not included when calculating the gross proceeds of the production system. Self-consumed produce is produce that is used to feed the farm household, and for its part is included in the calculation of gross proceeds.

these rich families at four times the price, each time descending a little deeper into a spiral of debt.

*The Miskitu villages on the Wangki river facing agricultural settlement: recent exposure of an already weakened society*

Unlike Asang, Santa Fé—another Miskitu village close to the Wangki river—has retained its agricultural market in the nearest Honduran town (Suhi), but has recently experienced uncontrolled settlement by Spanish-speaking third parties on its land. The stages in these land grabs are characteristic of the processes underway in these villages located closer to the so-called Mining Triangle sector (formed by the cities of Siuna, Bonanza and Rosita, and home to the country's largest gold deposits). There are three stages: 1) advent of extractive activities (minerals, timber) and of the first roads into the heart of the forest; 2) consolidation and extension of the road system; 3) explosion of settlements and land conflicts between allochthonous and indigenous populations. In Santa Fé, it is the nearby Murubila mine which, since the early 1990s, has acted as a magnet for mestizo migrants coming into the southern part of Miskitu territories from Bonanza, travelling down the navigable Waspuk river, and from Tasba Pri along logging tracks. In 2005, a Guatemalan forestry company obtained a licence to log valuable timber on Santa Fé land, by agreement with the regional authorities but without consultation with the village. These years of operation resulted in the clearing of most of the community land kept in reserve by the villagers and in the formation of a dense network of tracks. The subsequent influx of non-indigenous colonists led to the first land conflicts in Santa Fé, starting in 2010. These conflicts have escalated since 2015, the year when growing violence between Spanish-speaking mestizo third parties and Miskitus led to the deaths of several dozen people (successive waves of tit-for-tat killing in the forests, sometimes led by armed groups of mestizo colonists, sometimes by armed Miskitu groups). Since then, mestizo colonists have settled in close proximity to the seed plots of the inhabitants of Santa Fé and have cleared forest plots of 50 to 300 hectares for conversion to pasture land (figure 3, map B; figure 5).



Figure 5: Cattle farm of non-indigenous colonists located nearby on illegally occupied land (left) and Miskitu farmer from Santa Fé village working on his rice plot (right)

Source: MAM, 2018

These land grabs, which are still ongoing in Santa Fé, have primarily been carried out, up to the time of writing, to the detriment of the poorest Miskitu households, the ones which, in the absence of sufficient land near the village as a result of inheritance divisions, have cleared the most distant plots, almost 10 km from the village. Faced with armed colonists, they have had to abandon their land and resort to cash rent farming on land closer to the village rented from well-off Miskitu families, and to finding work as farm labourers. As cash tenant farmers, they are obliged to give a percentage of their harvest every year to the landowner. Moreover, they are prohibited from planting anything on these plots other than annual crops (rice, beans), and are therefore unable to grow fruit trees, tubers and bananas. Without the latter, they cannot rear pigs. The exacerbation of village inequalities is accompanied here by a growing decline in mutual aid with farm work and an increase in piecework labour. With much more limited, gold bearing resources in this village than in the surrounding areas, young workers from poor households can only rely on informal and poorly paid jobs in Waspam, the small nearby town, or on farm labour. Boosted by access to Honduran markets and a low-cost labour force (half as much per hour of work as in Asang, for example, where gold panning drives up wages for farm labour), well-off Miskitu families have moved into the cultivation of cash crops (cacao) and are able to sell food surpluses.

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*Miskitu villages: 30 years of colonists arrivals*

## Tasba Pri: recent Miskitu settlement and mass influx of mestizo migrants

Located in the heart of the rainforest, the current territory of Tasba Pri coincides with the zone chosen by the Sandinista government during the war to set up regroupment camps for the Miskitu populations previously settled along the Wangki river. Previous settlements in this part of Mosquitia dated back no further than the 1970s, and came from two sources: 1) Miskitu families from villages on the Wawa river, driven off their land by extractive activities; 2) a few Spanish-speaking mestizo migrants arriving from departments further south in search of land, all of them expelled during the civil war.

At the end of the war, when the camps were dismantled, a handful of these Miskitu families (often some of the poorest from their original village, and also sometimes sympathisers with the Sandinista regime) chose to stay where they were and formed the Miskitu villages of Sahsa and Sumubila. From 1990 onwards, the original Miskitu populations of Wawa returned to the land that they had begun to occupy in Tasba Pri to form the village of Kuakuil II. And finally, mestizo communities were founded (Naranjal, Nazareth, San Pablo, Akawasito) outside the boundaries of the Miskitu villages, and grew rapidly with the increasing influx of mestizo colonists from the regions further south. Populated more recently, the territory of Tasba Pri is therefore also more diverse than that of the Miskitu villages along the Wangki river.

## Profound differences between Miskitu villages in the management of land rights

In Tasba Pri, spatial settlement is now complete, as illustrated by the sparseness of uncleared forest areas (in black) on figure 3, map C. Felling of the forest cover by non-indigenous third parties initially took place mostly outside the boundaries of the Miskitu villages covered by the land titles introduced in the agrarian reform. In Sahsa and in Sumubila, the land close to roads and health and education infrastructures was nevertheless sold in the 1990s by the Miskitu leaders responsible for managing community land (síncico). Conversely, in Kuakuil II, the síndico has so far only agreed to sell a very small number of parcels to colonists, always with community agreement, in order to fund village projects.

This sharp difference seems primarily to be explained by a historical divergence in settlement processes. Kuakuil II came into existence in 1974 and was created by families from a village of the same name on the Wawa river, which they had been forced

to leave following the seizure of some of their farmland. Displaced during the civil war, in 1986, these families submitted a request for resettlement to the Ministry of Agricultural Development and Agrarian Reform, and a few years later were granted community land rights. In this case, management of the land is based on a system of rules established by the villagers: 1) each family only has rights over land that it clears and works; 2) the rest of the village land constitutes a reserve where new generations will be able to settle and where the villagers can continue their hunting and gathering activities in the forest; 3) the *síndico* cannot grant land to third parties without the unanimous agreement of the villagers. In Sahsa and Sumubila, the families come from different villages on the Wangki, and share no mutual bonds of family or acquaintance, but they are close to the Sandinista party and have adopted its vertical hierarchical organisation. They received marked and individualised plots on village land in 1986 under the agrarian reform process.

## **Growing inequalities and impoverishment**

### *General increase in income inequalities between Miskitu households*

Today, in the three study zones (Asang, Santa Fe and Tasba Pri), we find—in different proportions—three categories of Miskitu farming households: 1) households that only have access to land as tenant farmers, renting plots where they can grow only basic crops (rice and beans); 2) families with their own land where households cultivate a greater variety of crops and do a little livestock rearing (a few fattened pigs, one or two heads of cattle that stray graze near the village); 3) trader and employer systems concentrating largely on cattle farming, and sometimes also on certain cash crops (such as cacao in Tashba Pri), which produce food surpluses for sale.

Applying a reasoned sampling process designed to represent the different social categories identified independently of their numbers in the villages, our techno-economic surveys<sup>8</sup> were used to model the economic results of the different production and labour systems employed (Cochet and Devienne, 2006) by Miskitu families within the three territories studied. To facilitate the comparison of farming revenues per economically active family member,<sup>9</sup> three of these productions or working systems per village were chosen in figure 6, illustrating each of the three social categories.

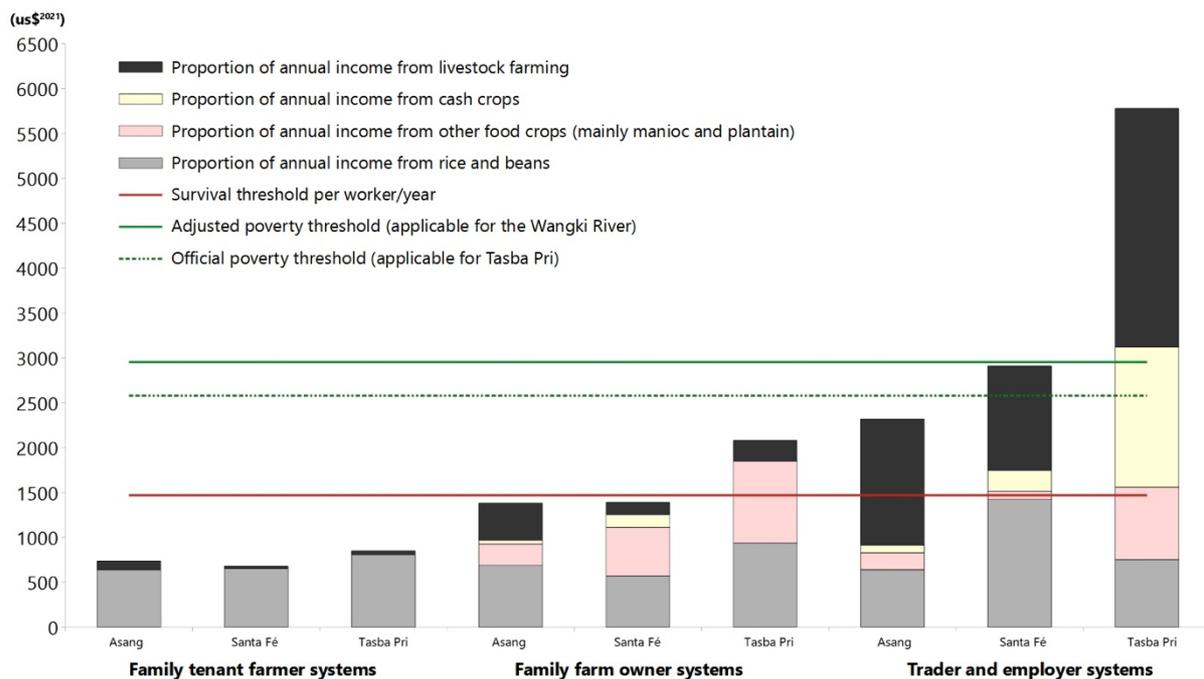


Figure 6: Comparison of agricultural revenue (AR) per active family member for the different categories of Miskitu rural households, within and between villages, related to survival and poverty thresholds<sup>10</sup>

Source: surveys; produced by the authors

8. Our sample consists of 130 techno-economic interviews conducted with Miskitu families within the villages themselves: 50 in Asang, 30 in Santa Fé and 50 in Tasba Pri.

9. Farm revenue is the equivalent of net added value, in other words the value of the outputs, minus the different amounts of annual consumption and the average annual expenditure on investment, as well as any costs associated with access to land, capital and labour. This farm revenue is expressed per active family member, hence related to the number of household members involved in farming activities.

10. The survival threshold indicated in figure 6 is the threshold for an economically active adult and the people dependent on them (two children), which thus corresponds to the needs of half the household (\$1,500 per year). It is the equivalent of the minimum revenue needed to meet the irreducible needs of a rural Miskitu family for one year.

The poverty threshold employed corresponds to the average basic basket of goods (canasta básica) in Nicaragua. It consists of 53 goods and services and, in Nicaragua, is used as a poverty indicator. In the Wangki river zone, it is calculated as \$3,000 per year for a working person with two children, and as \$2,550 a year in Tasba Pri.

Our results indicate that the Miskitu households that have been able to maintain access to land as owners, to maintain mixed farming and livestock activities, have farming revenues just equivalent to the survival threshold (only exceeding this in Tasba Pri). Despite, households that only have access to land as tenant farmers achieve only half these levels of farm revenue, that is a very low level, consisting only of rice and bean crops, and still have insufficient output to cover their own family consumption needs for these basic items. Their situation is all the more critical in that it is they that suffer from the most unfavourable consumer/producer ratio (Chayanov, 1966) within the household. Except in Asang, the families at the top of trader and employer systems achieve much higher farm income per active member, but even this places them no higher than the Nicaraguan poverty threshold (Santa Fé), or else above it (Tasba Pri) because of better access to the market for their beef and cacao production. Our findings also reflect sharp intra-village social inequalities, especially when villages are exposed to the influx of agricultural sectors: these inequalities represent a factor of 2.5 in Asang, a factor of 4 in Santa Fé and a factor of 7 in Tasba Pri. Indeed, in Tasba Pri, Miskitu households that still own their own plots generate markedly higher farm revenues, despite the very high levels of land grabbing found in this territory. This phenomenon, which might at first sight seem paradoxical, is explained by this territory's close connections to commercial networks. Wholesalers, for example, offer farmers in Tasba Pri prices for rice and beans 20 to 40% higher than those available in Asang. However, the comparative advantage brought about by the influx of agricultural colonists should not be allowed to mask the almost complete disappearance of Miskitu families engaged in mixed crop or livestock farming, or with their own land in Tasba Pri (particularly in the villages of Sahsa and Sumubila). And this is despite the fact that, at the time of writing, they still accounted for more than two thirds of the households in Asang, a village which—though affected by drug trafficking—has up to now been spared the attention of land grabbers. By contrast, pauperised families reduced to renting land account for 30% of Miskitu households in Tasba Pri, in villages where land grabbing by Spanish-speaking mestizo colonists has been particularly intense. Moreover, they can no longer rely on fishing, hunting or gathering activities in forest reserves, which are now entirely occupied by mestizo livestock farmers. Social inequalities, which are almost three times greater in Tasba Pri than in Asang, are caused much more by these land grabbing phenomena than by the higher prices offered to agricultural producers: the trader and employer systems in Sahsa and Sumubila are often headed by the local political elite which, by selling parcels of land to mestizo colonists, has been able to

substantially accelerate and expand its investment in the conversion of forest into pasture and in livestock.

All the Miskitu households in the three case study villages practise, in parallel with agriculture, other activities that bring in additional income. The total revenues per economically active family member, including the income from these additional activities, are presented in figure 7. The income generated by these other activities nevertheless plays a varying part in total revenues: less than 25% among households that have been able to maintain mixed crop and livestock farming, compared with around 35% for poor tenant farmer households. In Asang, this nonfarm income comes primarily from gold panning at a time of rising gold prices. In Santa Fé and Tasba Pri, however, the source of additional income is usually piecework farm labour for the most physically taxing activities (pastureland maintenance, soil preparation, crop sowing and weeding, milking), first for wealthier Miskitu families in the village, then for nearby mestizo stock farmers. Despite these additional revenues, landless households exist well below the survival threshold, a situation that is reflected in deteriorations in clothing, in diet (one meal of white rice per day), in education (older children leaving school), or in housing (several generations living under the same roof, a single room without furniture, house repaired with bamboo and palm leaves). In terms of proportion of total income, it is the most well-off families that record the highest nonfarming revenues, thanks to their commercial buying and resale activities (goods, cereals and gold), and above all by lending to pauperised households. So rather than reducing inequalities, nonfarming activities tend to reinforce them.

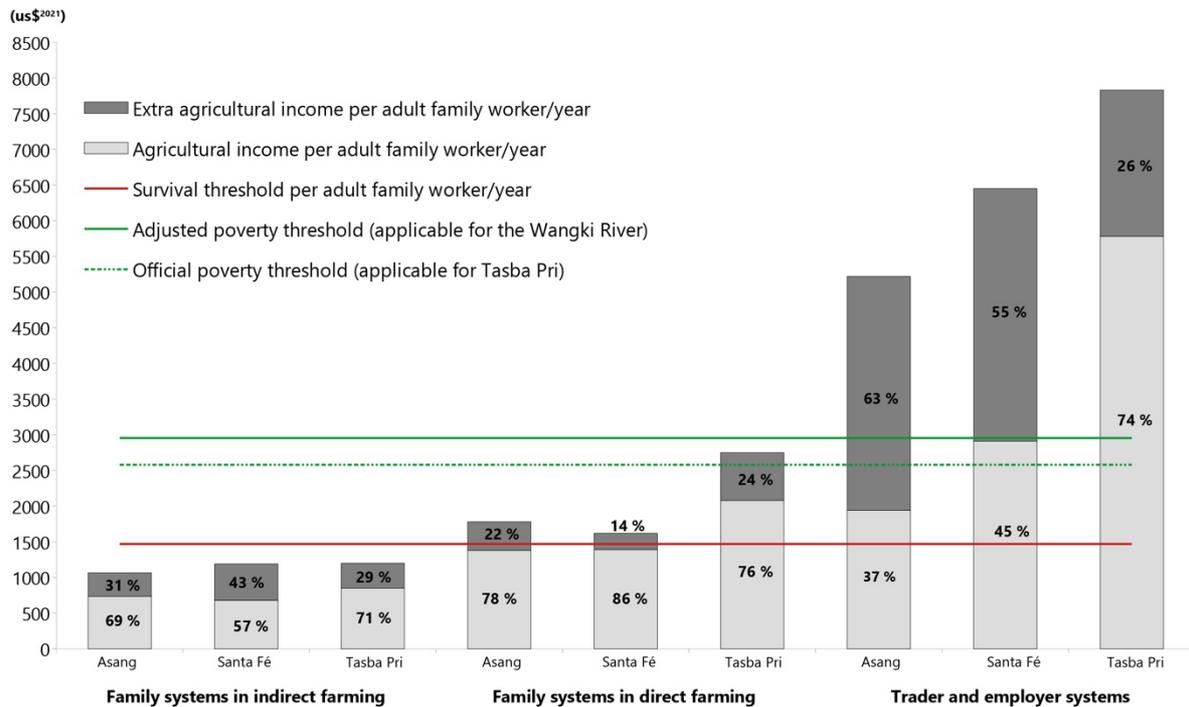


Figure 7: Total revenue per active household member and proportion of nonfarming revenues for the different categories of Miskitu rural household

Source: surveys; produced by the authors

### Increasing migration to urban centres among young Miskitus

In Santa Fé and in Tasba Pri, Miskitu families can no longer rely on forest reserves to expand their crop growing capacity nor as a place for the next generation as the village population grows. Young people from families without land reserves are therefore obliged to move to Bilwi to sell their services. The small numbers who have begun higher education in the city, staying with a member of the extended family, often have to interrupt their studies because of the cost of living and the need to send money back to their families in the village. Initially, they maintain close links with the family (sending part of their wages, returning during the most intense periods of farming activity). However, the informal economy in the urban centres of the North Caribbean coastal region offers monthly wages of just around US\$100 (night guard, gardener, cleaner, docker, sailor...). Given that the poverty threshold calculated for Bilwi is US\$260 a month per worker for a family of two adults and two children, families in this rural exodus live in absolute poverty and are not long able to send support to their families in the village. After a while, therefore, these financial remittances dry up. These migrations, which may be forced or voluntary, depending on the social category, have led to

a doubling of Bilwi's population in the last 15 years (2005-2021, INIDE), and a 150% increase in the population of Waspam, the Wangki river's administrative centre and port. Illustrating the impact of this rural exodus, over the same period, the population of the villages of the Wangki river has only grown by 15%, compared with a 30% increase for Nicaragua as a whole.

## Conclusion

In the three territories studied for this research, each to varying degrees exposed to land grabbing, the ongoing agrarian dynamics are marked by a sharp increase in social differentiation, growing pauperisation and, in the villages experiencing an influx of agricultural colonists, increasingly large-scale migration to the cities, especially among young rural Miskitus. For these Miskitu populations living in the rainforests, who depend economically largely on agriculture and therefore on access to land, social inequalities and spatial injustice are intimately linked.

Bites effect in deepening the vulnerability of the families that are already most disadvantaged, land grabbing in this part of Nicaragua is a major factor in the exacerbation of initial social differences.

These processes which, for the Miskitus, mean loss of sovereignty for the first time in their history (Bataillon, 2002), indicate the possibility that Miskitu households able to live primarily from mixed crop and livestock farming may ultimately disappear entirely from the indigenous forest territories of Mosquitia. This potential disappearance is happening in favor of migrations to regional urban centres or the proletarianisation of households in the villages, as they are increasingly reduced to wage labour on farms and cash rent farming, and face constant insecurity associated with the growth of interethnic violence. This violence is aggravated by the double game played by certain indigenous leaders, who sell the usufruct of already occupied land. How much longer will the villages concerned be able to contain these land grab trends? The violence is often hidden from public opinion, as with the recent massacre (August 23, 2021) that took place in the Bosawas protected reserve for the control of the Wilakambaih artisanal mining site, which was leased by indigenous leaders to mestizos who were then expelled by villagers. This led to at least eleven deaths among the indigenous gold panners (Miskitu and Mayangna).

All the events discussed in this article are, in both their nature and their symptoms, similar to those described in other regions on the continent, although paradoxically the autonomy and land rights of indigenous peoples have never been so well recognised. While some ethnic groups, like the Wichis in Chaco in northern Argentina, are still fighting to obtain title to their land (Preci et al., 2020), most of them—like the *comarcas* in Panama, the *resguardos* in Colombia, the *terras* in Brazil or the *territorios* of Nicaragua—have already obtained collective land rights. However, the legal process of “cleansing” everywhere remains blocked by local actors, often representatives of state power, who support non-indigenous colonists occupying land in the different territories.

### To quote this article

**Leo Florent, Garambois Nadège**, 2023, « Expansion de la frontière agricole et différenciation sociospatiale des Miskitus au Nicaragua » [“Advance of the agricultural settlement frontier and socio-spatial differentiation of the Miskitus in Nicaragua”], *Justice spatiale / Spatial Justice*, 18 (<http://www.jssj.org/article/expansion-frontiere-agricole-differenciation-sociospatiale-des-miskitus-au-nicaragua/>).

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