

# FROM ANCESTRAL PATHWAYS TO CLIMATE EMERGENCY

The centrality of rivers in an Amazonian perspective

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Ana Alves De Francesco

Universidade Estadual de Campinas (UNICAMP), Brazil <anade francesco@gmail.com>

**ABSTRACT:** Interweaving life stories and field notes, I describe how rivers, and the Xingu River in particular, structure the way Amazonian societies live, perceive and feel the world. In a historical journey from the beginning of the 20th century to the present day, I describe the particularities of the everyday life of the riverine communities and their knowledge system related to the ecological dynamics of the river and the forest, transformed into an inhabited world. Finally, I review how the damming of the Xingu River and recent extreme climatic events have affected local dynamics, and how strategies associated with traditional knowledge have proved effective in coping with ecological degradation and climate change, as well as enabling the permanence of the interconnection between these communities and the rivers.

**KEYWORDS:** Xingu River, Amazon, riverine communities, local adaptation to climate change, territorial rights

## Introduction

The Amazon is the largest hydrological basin on Earth (Figure 1), with 16-18% of the world's freshwater discharge to the oceans and about 13% of the world's continental precipitation. In 2023, the Amazon Basin experienced unprecedented environmental extremes, with its largest rivers hitting record-low water levels while temperatures soared to all-time highs. (Espinoza et al., 2024a). During the same period, Manaus, one of the largest cities in the Amazon, had the third worst air quality in the world due to illegal fires and dry air (Ferrante & Fearnside, 2024). The extreme drought left several cities and hundreds of communities isolated, without access to drinking water, food and other essential supplies. In Lake Tefé in the state of Amazonas, water temperatures reached nearly 40 degrees Celsius, killing hundreds of dolphins (*Inia geoffrensis*) and tucuxi (*Sotalia fluviatilis*) (Clarke et al., 2024; Fleischmann et al., 2024; IFAW, 2023).

Interweaving life stories and field notes, I describe how rivers, and the Xingu in particular, shape the way Amazonian societies live, perceive and feel the world. In a historical journey from the beginning of the 20th century to the present day, I describe the particularities of the everyday life of riverine communities, linked to a variety of activities such as gathering, hunting, fishing and planting, and the use of a variety of environments, through a

sophisticated system of knowledge about the ecological dynamics of the river and forest, transformed into an inhabited world (Francesco, 2020; Harris, 2005; Ingold, 2000, 2011).

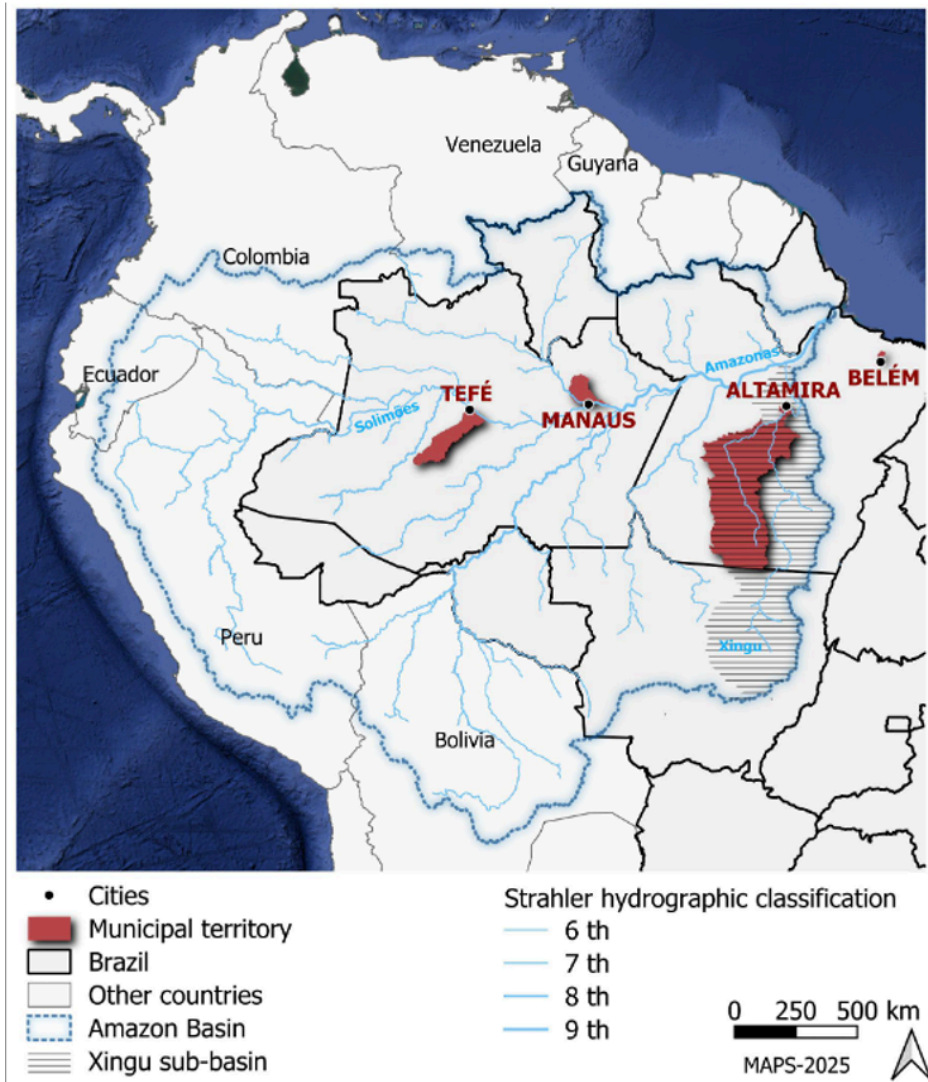


Figure 1 - Map of Amazon basin with location of the rivers and cities indicated (Sampaio, 2025).

Xingu means 'home of the gods' to the Indigenous people of the region, who see it as the father and mother from whom we have received the gift of life. The rocky stretch of the Volta Grande do Xingu forms a natural obstacle to direct navigation from the Amazon River and historically delayed the arrival of colonisation in the region (Sawakuchi et al., 2015; Snethlage, 2002). This has long guaranteed the environmental integrity and autonomy of indigenous peoples, making the region an important sociobiodiversity corridor. The Xingu basin covers 28 million hectares, with 22 indigenous lands and 9 protected areas, and is

currently inhabited by 26 indigenous peoples and hundreds of riverine communities (Villas\_Bôas, 2012).

The damming of the Xingu River in 2016 and the confiscation of its waters for the generation of electrical energy has had devastating effects, disrupting the livelihoods and social organisation of local communities (Calvi et al., 2020; Castro-Díaz et al., 2018) and causing a profound rupture in their ontologies and spiritual life (Araújo et al., 2014; Fainguelernt, 2020; Jaichand & Sampaio, 2013; Mello, 2013; Rocha & Silva, 2022). Today, disputes over water use and access to the river bring local communities into direct conflict with government agencies, regulatory bodies and the private sector. The centrality of the river for these communities led the Brazilian government to recognise the right of return of riverine families forcibly displaced by the dam to the banks of the Xingu (Francesco, 2020; Graça, 2020; J. A. M. Marinho, 2019; Santos et al., 2024).

In parallel to the effects of the river's disruption, I present some field observations from 2023 and 2024 on the consequences of climate change for Amazonian rivers and local communities. Based on collaborative research, I highlight some local strategies for coping with ecological disasters and climate emergencies. My intention is to stimulate reflection on the importance of rivers and river dwellers for the preservation of the Amazonian biocultural heritage. The reflections presented here stem from a decade of collaboration and knowledge co-creation with riverine communities displaced by the construction of the dam. Together, we have worked to forge pathways toward a future in a region celebrated for its cultural and ecological richness yet devastated by the relentless exploitation driven by capitalist greed, which has left little room for other forms of life to thrive. I want to show how political technologies are subverted and life-producing technologies are created by the riverine people to confront the repeated violation of their rights and to create ways of producing possibilities for the future (Francesco, 2020; Mantovanelli, 2020).

## Ancestrality

To talk about the importance of rivers from an Amazonian perspective, and to draw attention to what happens when rivers dry up or are dammed, I will use the life story and trajectory of Joana, a fisherwoman and *ribeirinha* (riverside dweller), as a guide. Joana was born on the Iriri River, one of the main tributaries of the Xingu River, where part of her family still lives today. Like many others, she is the daughter of a rubber tapper and the granddaughter of an indigenous woman.

At the end of the 19th century, rubber tappers began to migrate to the Amazon from northeastern Brazil to collect latex from native rubber trees. This was particularly pronounced in the Xingu region in the late 1940s due to the difficulty of navigation to the upper reaches of the river. With the outbreak of the Second World War, the increase in international demand for rubber and the decline in productivity of the historically exploited natural rubber forests near the Amazon, colonisation became more aggressive and advanced into remote areas (Weinstein, 1993). In the following decade, the emergence of rubber tree plantations in Southeast Asia and the decline in international demand for rubber caused the end of the rubber boom in the Amazon, but many rubber tappers remained in the forests and developed a way of life that was highly independent of the city and the market, structured around a variety of activities such as gathering forest products, hunting, fishing and agriculture. Over the generations, rubber tappers acquired a sophisticated body of knowledge about the ecological dynamics of rivers and forests and the species of flora and

fauna, combining the peasant knowledge they brought with them from northeastern Brazil with the indigenous knowledge with which they maintained a relationship, sometimes of war, sometimes of exchange (Almeida & William, 1993). This way of life, still associated by local people with the idea of abundance, became famous in the 1980s through Chico Mendes's fight to preserve the forest. The social organisation of the rubber tappers led by Mendes led to the creation of the Extractive Reserves in the Amazon, the first protected areas to combine environmental conservation with the traditional use of forest resources by local communities (M. W. B. de Almeida, 2004).

Joana lived this history. She started fishing at the age of 10 in her mother's canoe, learned how to collect fruits from the forest and everything needed to build a house, to make a paddle or a canoe, to make oil to prepare food and medicines. From the farm they took manioc to make flour, the basis of their diet, along with fish and game. For much of their lives, they relied only minimally on the city, requiring just a few essentials like fuel and salt. Joana's mother, Raimunda, lived until recently in a remote area, days by boat from Altamira. She knew the secrets of the forest and was a guardian of its secrets. Raimunda lived all her life in a region now known as 'Terra do Meio', a land in the middle of the Xingu and Iriri rivers, currently a mosaic of protected areas: extractive reserves, ecological station and indigenous lands; one of the largest blocks of preserved forest in the Brazilian Amazon (Villas-Bôas et al., 2018).

The riverine way of life revolves around diverse economic activities. While rubber extraction declined, it persisted until the 1980s, historically coexisting with chestnut gathering, hunting, fishing, farming, and artisanal mining (Magalhães & Cunha, 2017). As rubber sales dwindled, families shifted focus to other long-standing activities, which have alternated in economic importance and family labor over time (Macedo, 2016). This diversity of activities implies the use of a diversity of environments: a series of ecological niches are managed and transformed into inhabited territory, based on a sophisticated knowledge of ecological dynamics and species of flora and fauna, a set of knowledge constantly updated by the experience of inhabiting the world (Harris, 2005; Ingold, 2000; M. W. B. de Almeida, 2012). A riverine house must be located on land that guarantees access to the forest, including rubber trees, chestnut groves and a variety of seeds and fruits, as well as vines, wood and straw used in the construction of houses and artefacts (Francesco, 2020; Magalhães & Cunha, 2017). Small animals, especially chickens and ducks, are kept in small yards adjacent to the houses. The vegetable gardens, usually small and hanging, provide spices and medicinal herbs. Fruit trees are planted in the yard, forming a management unit that can be identified as an agroforestry yard (Silva & Lucas, 2022).

A prerequisite for the functioning of this system is the availability of space and low population density. The areas of use and occupation of each family must be far from each other, the distance being necessary to guarantee the availability of resources and the diversity of ecological niches essential for carrying out different daily activities, avoiding overcrowding of fishing, hunting and gathering areas (M. W. B. de Almeida, 2012). This system was described by the anthropologist Mauro Almeida in the 1990s as a particular type of Amazonian peasantry, organised around the minimum territorial units occupied by a domestic group in the forest. Almeida carried out fieldwork with rubber tappers in Acre between 1982 and 1987, in Riozinho, where some 26 domestic groups, made up of two or three nuclear families, lived on a total of 22,000 hectares, with a measured separation of 900 hectares for each domestic group area. These groups are linked by ties of kinship, marriage, patronage, cooperation and trade (de Almeida & William, 1993), and frequently visit each other for work, celebrations and football matches.



In the Xingu region, in recent decades, and especially since 1980, changes in economic dynamics have shifted the focus of productive activities from the forest to the river, leading to a greater connection and dependence on the city of Altamira. This historical circulation favoured the formation of an extensive family network that goes from remote regions to the city, forming an extensive network of houses, relatives and friends, constituting a particular territory and territoriality called *beiradão* (riverbanks) (Francesco, 2020). There is a constant movement between the riverbanks and the city, between the river and the street. The river is the path that guarantees continuity between life in the city and life in the forest. The Amazonian city also exists under the same ontological register of the river and the riverine (Magalhães & Cunha, 2017).

The importance of this constant movement rooted in the extensive family network is witnessed through Joana's life. She who married at the age of 15, leaving her family on the Iriri River to live on an island near the city of Altamira, maintaining the way of life she had on the upper reaches of the river. In 2014, with the forced displacement caused by the installation of the Belo Monte dam, she was moved from the Xingu River to the outskirts of the city. Away from the river, Joana became ill and fell into depression. It was in the struggle for recognition of her territorial rights and the need to be close to the river in order to remain who she was, a riverine woman, that she recovered.

In 2016, the displaced riverine families created the Conselho Ribeirinho (Riverine Council) and proposed, as a measure of reparation for forced displacement, a new model of resettlement that would allow them to return to the banks of the Xingu, a condition for maintaining their way of life. This right was recognised by the Brazilian State in 2019, and resettlement in the Ribeirinho Territory, on the banks of the plant's main reservoir, became a right for around three hundred displaced families. Joana was one of the first families to be resettled, in 2016 (Francesco, 2020; J. A. M. Marinho, 2019; Scabin et al., 2021).

During a visit to her home in May 2022, when we were assessing the impact of the Belo Monte hydroelectric complex on the Xingu River, Joana told me:

*We feel things of natures: when the river is going to dry; when the river will flood, when it's going to rain. We smell the ebb. We feel nature.*

Joana's affirmation is powerful, it leads us to a way of inhabiting and perceiving the world that is characteristic of an ontological system in which there is a continuum between nature and culture, between human and non-human, quite different from the dualism characteristic of scientific knowledge (Latour, 1993; Viveiros de Castro, 2013). It is a way of life in which knowledge emerges in the process of observing, interacting and living with environments and beings (Ingold, 2000). Because of this empirical and experimental nature of traditional knowledge, it is noteworthy that these people and communities have methods and observations that allow them to identify what would happen if the river were dammed. Their fears about the impact of the dam on the water flow of the river, on the migratory routes of fish and on their breeding and feeding habits often precede mathematical modelling and environmental impact studies that establishes the reality of such perceptions (Fainguelernt, 2016; Magalhães & Hernandez, 2009). It is also noteworthy how riverine lifestyles have shown the capacity to minimise or even reverse the impacts of the dam, anticipating what have been called adaptation strategies, as depicted by results from a Riverine Council workshop.

In a workshop organised by the Riverine Council in February 2024 for the preparation of the Plan of Use of the Riverine Territory, families were asked to draw how they planned their place and what dreams they had, drawing from their homes, the backyard, the agricultural areas, etc., up to the areas of common use and the river. The children also made collective drawings on this theme. At the end of the day, adults and children presented each family's use plan. During the presentations, the similarity of the drawings and the recurrence of the same elements became apparent. Below in Figures 2, 3 and 4 are three drawings made by the children that show the centrality of the river in the children's imaginary, the river being the starting point along which all the other elements are arranged: the houses, the backyards, the chicken coop and the orchard. The three drawings depict boats anchored in front of the houses, a central element in the riverine way of life, essential for transport as the only access route is the river.

In Figure 2 (drawing #1) we see an aluminum boat anchored in the harbour and a canoe tied to a buoy. Two houses have access to the riverbank. On the riverbank there are fruit trees, chickens and a girl, in the background a chestnut tree, an açai grove, a corn plantation and a lake. In Figure 3 (drawing #2) three canoes with engines stopped next to each other. In the river there are rocks, ducks and fish swimming; on the riverbank there are fruit trees with a hammock, chickens and dogs and an açai palm plantation; in the background there are coconut and cassava plantations, açai palms and a large chicken coop; and on the house there is a solar panel. In Figure 4 (drawing #3), there are five boats in the river, two of them are wooden canoes, which can be seen by the wooden benches. There is a path leading from the river to a house and another path leading to the chicken coop. On the banks of the river, there are various types of trees, coconut, copaíba,<sup>1</sup> acerola (*Malpighia emarginata*),<sup>2</sup> tangerine trees and a hammock. At the edge of the yard, different management zones have been designed, a forest area with chestnut trees, an açai grove, a cassava field, a cornfield and a stream.

The children's drawings include elements similar to those described by Mauro Almeida in Acre and observed by me during the fieldwork, as well as the same elements drawn by the adults in their family plan of use for the riverine area. These elements include the centrality of the river, the presence of the forest, lakes and streams, and the interconnection of houses, boats, plants, trees and animals. This form of socio-spatial organisation is recurrent among riverine families and shows how social organisation revolves around domestic groups based on an agro-extractive system.

These drawings function as both maps and kinship diagrams, resembling family trees in the way they visually express relationships and connections. Reading these drawing as a kinship diagram allows us to understand the place and the people as existing in the same ontological register. Both are alive and have an interdependent constitution, the existence of one implies the existence of the other. Place and people do not exist without the other. We can understand kinship as a kind of landscape, or as a waterscape. Kinship, as history, can be seen in the landscape, in the paths, in the arrangement of houses, in the history of cultivated plants (Leach, 2006).

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<sup>1</sup> A native tree whose oil is extracted for medicinal and commercial purposes.

<sup>2</sup> A small tree that produces cherry size fruits



Figure 2 – Free drawing #1 made by a group of children during a territorial planning workshop (2024).



Figure 3 – Free drawing #2 made by a group of children during a territorial planning workshop (2024).



Figure 4 – Free drawing #3 made by a group of children during a territorial planning workshop (2024).

This reciprocity and interconnectedness among beings, places, and people enable Joana to feel deeply attuned to nature—she is not separate from it but intricately woven into its fabric. In this context, the river is the link that permeates all beings, the father and the mother, and the constant flow of life. This way of living, thinking, and feeling extends beyond the remote reaches of the Amazon. The river serves as a vital connector, and the relationship between the river and the city is an essential part of the lives of riverine communities. However, this vital connection gets broken by the construction of dams such as the Belo Monte dam causing socio-ecological distress.

### The interruption of the flow

The Belo Monte hydroelectric complex was built on the Xingu River between 2011 and 2015, despite numerous protests from local communities and global environmentalists (Albert, 2004), and became operational in 2016 (Xingu + | UHE Belo Monte, [s.d.]). The Belo Monte dam caused the death of thousands of tons of fish by interrupting their migratory flow and the reproductive cycle of important species of aquatic fauna (Castro-Diaz et al., 2024; Doria et al., 2018; Isaac et al., 2015; V. de N. M. Marinho et al., 2019). Moreover, the damming of the river caused the forced displacement of 40 thousand people, most of them from the urban area of Altamira, 1,500 of whom were riverbank dwellers (J. A. M. Marinho, 2019).

The dam has not brought the promised development to the region; on the contrary, it causes the disruption of local communities' livelihood systems, the interruption of economic activities, the fragmentation of neighbourhood and mutual aid networks, generating disorientation, impoverishment and violence (Francesco, 2020). A recent study of 500 households in Altamira found that 61% of these households experienced some degree of food and nutrition insecurity (Johansen et al., 2024).

In addition to the disruption and deterioration of quality of life, the dam has caused an ontological rupture (Holbraad et al., 2014). An ontology is the collection of all that exists, all that is presupposed by past experience. In the ontology of the riverine communities, a presupposition of ordinary everyday life is the possibility of going out on the Xingu River in a small canoe, of finding certain types of fish in certain places, of finding islands for shelter and inhabitants to help if necessary. With the damming of the river and the construction of the hydroelectric complex, when a *ribeirinho* goes out to fish on the Xingu River, they find that their small canoe is no longer safe for navigation due to the strong waves created by the decline of the vegetation around the islands flooded by the dam. They can no longer find fish in the fishing spots, and even if there are some, their artefacts are no longer adequate as the river has become much deeper. The islands are gone, leaving limited shelter during storms, and no inhabitants to offer help. People and fish have been removed from their places. In this context, the ontology of the river no longer corresponds to the lived experience, causing disorientation and pain (Auyero & Swistun, 2008; Francesco, 2020).

When the lived experience does not correspond to the expectations that are taken for granted, a temporality marked by a continuous present is established, which generates the impossibility of planning future actions. This disruption of daily life began with the damming of the Xingu River and was further intensified by the 2023 drought, which has returned even more severely in 2024. Situations such as these have been caused by infrastructure projects and extreme climate events, and they are occurring on a larger scale and with increasing frequency. The effects are profound ruptures in socio-ecological systems or lifeworlds. Our historical context is one of disruption.

### Socio-ecological disruption

In September 2023, the Amazon was in the headlines around the world due to the extreme drought (Gual, 2023; Hughes, 2023; Paddison, 2023; Rivero, 2023) that isolated several municipalities and hundreds of communities. The impossibility of navigation, the only way to reach many places, left thousands of people without access to drinking water, food and other essential services. Manaus, one of the largest and most important cities in the Amazon, was isolated due to the extreme drought (Espinoza et al., 2024a). Not only did the city suffer from isolation, scarcity and heat waves during this period, but it also experienced some of the worst air quality in the world due to the concentration of smoke from illegal fires.

Similarly, in Tefé, a city on the Solimões River, one of the main tributaries of the Amazon, the water temperature reached almost 40 degrees Celsius (Clarke et al., 2024). Within days, more than 150 dolphins and tucuxi were found dead (Fleischmann et al., 2024). To prevent further deaths, researchers and the local community isolated the warmest parts of the lake and moved the dolphins to deeper, cooler areas using a physical barrier of wooden stakes called *pari*, a traditional fishing artefact. Although renowned researchers from various disciplines and universities were brought together to understand what was happening to the dolphins and to try to save them, it was the traditional knowledge of the fishermen that guaranteed the rescue of the animals and the management of the lake to prevent further deaths. These animals are important indicators of the quality of the environment due to their high sensitivity, and they also occupy a central place in the imagination and symbolic



life of the Amazonian peoples.<sup>3</sup> The death of so many animals in such a short time has led to a general alarm, from local communities to the global scientific community.

The immensity of the Amazon, where we find one of the greatest concentrations of ecological and cultural diversity in the world, also reflects the scale of the impact and damage caused by the global climate emergency. The extreme events of 2023 prompted rapid collaboration among climate scientists from universities and meteorological agencies worldwide, resulting in the report 'The new record of drought and warmth in the Amazon in 2023 related to regional and global climatic features' (Espinoza et al., 2024b), published in *Nature*. Widely publicised, the report warned of the Amazon nearing a tipping point, where deforestation, climate change, and widespread fires could irreversibly degrade the forest's ability to regenerate. Analyzing hydrological patterns, regional rainfall, record heat, and sea surface temperatures, the study concluded that the 2023 drought and warming exceeded conditions seen during extreme El Niño years, suggesting factors beyond El Niño were at play.

In November 2023, I personally witnessed how the Xingu River had diminished (Figure 5) and could only be navigated by small boats; even the shortest journeys took a long time and became very risky. Many families were unable to reach their homes across the river and had to walk long distances in the extreme heat. There was no drinking water as the river water was unfit for consumption even for domestic or personal use, and water sources on the mainland and wells had dried up. Fishing in the river became very difficult, and agricultural production and small animal husbandry were threatened by the lack of water. As a result, people went to the city in search of drinking water and food.



Figure 5 - Access to riverine houses in Paratizinho, Xingu River, during the November 2022 drought (author's photo).

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<sup>3</sup> According to local lore, the dolphin transforms into a strikingly handsome man on some nights who appears in river communities to enjoy himself.

## Ancestral future

Mainstream discourse has been increasingly dominated by talk about climate finance, the need to structure effective adaptation mechanisms to address climate change, discussions about heavy investment in humanitarian aid, and the urgency of producing and disseminating scientific data to guide public policy and decision-making. On the other hand, it is important to bear in mind that the disastrous effects of climate change will mainly affect those who have contributed least to this planetary crisis, precisely those people and communities whose ways of life and ontological systems have guaranteed the continuity of other life-worlds for generations. There is an urgent need to introduce into public debates and discussions on global governance a movement that we in anthropology call the ontological turn: the effort to relativise our beliefs and theoretical models in order to try to access other regimes of knowledge and understand others according to their own ontological reference (Holbraad & Pedersen, 2017). It's not just about understanding others, it's about going beyond and placing these knowledge regimes in a position of symmetry in relation to the scientific knowledge system.

As previously discussed, when Lake Tefe heated up and the dolphins began to die, scientists used the *pari*, an artisanal fishing artefact, and the traditional knowledge associated with it, to direct the dolphins to colder waters and try to save them. Moreover, when due to the Xingu River, the damming of the river and the interruption of its natural flow led to a huge fish kill and the disruption of their migratory routes. The people living along the river began to plant forest species in their yards to try to restore the breeding and feeding habitats of the local ichthyofauna.

Similarly, in Rio Negro, in the state of Amazonas, there are more than 100 varieties of cassava (manioc)<sup>4</sup> that have been cultivated by indigenous women for generations. They have experience in cloning cassava plants to ensure the reproduction of advantageous modifications perceived in some individuals, such as the presence of larger roots that guarantee greater use, or some characteristics more suitable for a certain type of processing. There is an extensive network for exchanging regional varieties between villages, which is part of the social organisation of the indigenous people of Rio Negro. Due to the importance of this system for the production of agrobiodiversity and food security, the traditional agricultural system of Rio Negro was registered in 2010 by the National Institute of Historical and Artistic Heritage (Iphan) as part of Brazil's Intangible Heritage.

Today, multilateral agencies recognise traditional agricultural systems as important mechanisms for ensuring food sovereignty in situations of deep ecological and water crisis. Since 2015, the Food and Agriculture Organisation of the United Nations (FAO) has recognised traditional agricultural systems through GIAHS (Globally Important Agricultural Heritage Systems), defined as agro-ecological systems inhabited by communities living in a complex relationship with their territory. These places constitute resilient systems characterised by remarkable agrobiodiversity, traditional knowledge, cultures and landscapes, sustainably managed by farmers, pastoralists, fisherfolk and forest dwellers to contribute to their livelihoods and food security (FAO, n.d.).

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<sup>4</sup> A woody shrub of belonging to the *Euphorbiaceae* family that is extensively grown in Brazil for its starchy tuberous root, which is a dietary staple.

In the Xingu, the river dwellers won the right to return to the riverbanks, but they were resettled in a modified and degraded environment. Still, even without any support, they were able to restore the forest with their knowledge and traditional way of life. In 8 years, many degraded areas have already become productive agroforestry backyards. These backyards not only provide food for people, but also for fish. The photo below (Figure 6), was taken from the backyard of a riverine family resettled there in 2016. On the left side we see dead vegetation due to permanent flooding caused by the filling of the plant's reservoir. On the right side, there are dozens of fruit trees planted by the family, including fruit species suitable for feeding the fish in the area. The creation of a river house in a degraded area has been able to reverse the bleak landscape, giving way to an edible forest in less than ten years. This presents an example of forest restoration based on the traditional way of life, resulting in an adaptation strategy based on local knowledge, which proved to be more appropriate and faster than official reforestation projects.



Figure 1 - On the left, the degradation of vegetation caused by the flooding of the forest by the reservoir of the Belo Monte dam, on the right, a six-year-old agroforestry yard. Photo taken by the author during fieldwork in November 2023 in the community of São Lázaro do Rio, Xingu River.

## Conclusion

In this article I reconstruct the historical processes of the recent occupation of the Amazon and the establishment of a way of life characterised as a type of forest peasantry, the riverine people. The description of their way of life, illustrated by children's drawings and specialist literature, points to the importance of these local groups for the conservation and production of Amazonian socio-biodiversity. On the other hand, I describe how destructive processes, represented by large infrastructure projects and extreme climate events, have affected Amazon rivers and their inhabitants.

I draw attention to how local communities maintain or create a livelihood strategy based on their traditional knowledge by illustrating riverine backyards, the traditional agricultural system of the Rio Negro and the traditional fishing knowledge. I draw attention to an issue that is considered urgent today: the creation of climate adaptation mechanisms that have been tried and tested by local communities with effective results. It is not only a matter of looking for nature-based solutions to the challenges of our time, but also of looking at other political and economic perspectives that have been perpetuated over the centuries. It is in this sense that I borrow a current catchphrase, 'the future is ancestral', not as a romanticisation but, rather, to draw attention to the imperative of thinking in future possibilities taking other premises as a starting point.



Today we hear increasingly about locally led adaptation and community-based solutions. Taking these mechanisms seriously means that we need to change the structure and distribution of power, empowering those who have less destructive ways of living and more inclusive and supportive relationships with other beings. To achieve truly transformative change, we need to listen to people like Joana, who still have the ability to feel nature and restore its vitality. These people - indigenous and traditional - are the guardians of an arsenal of strategies and actions capable of guaranteeing possibilities for the future.

As the indigenous peoples of Brazil have said and repeated, the future is the ancestral past. This does not mean, as some might understand, an idealisation or a desire to return to the past, on the contrary, it is about the future, an appeal to decolonise our narratives about the past and, more than that, to subvert the political and economic hegemonies that have led to the exhaustion of the earth's carrying capacity. What indigenous peoples are emphasising is that adaptation strategies to the climate emergency should be based on ways of life and systems of knowledge that have shown their capacity to produce life over the centuries, in their interconnection with the free flow of water and the coexistence of a diversity of species and beings, based on coexistence and mutual aid (Kropotkin, 1902; Sahlins, 2014).

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