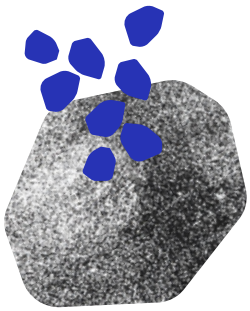
REPÓRTER BRASIL

Falls, stings and pain

THE WORK OF AÇAÍ HARVESTERS IN THE AMAZON

Workers describe the challenges of harvesting the fruit, which has become an important source of income and is gaining ground across Brazil and abroad



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PRESENTATION

Açaí is an Amazonian fruit known for its nutritional benefits, which is gaining increasing recognition in Brazil's domestic market as well as in international markets. It used to be restricted to Brazil's North region due to its historical and cultural importance, but it has spread to the rest of the country and is now exported to the United States, Japan, and other countries.

Experts analysing its supply chain say that açaí's potential for consumption is likely to grow with increased interest outside the country and the promotion of its image as a crop associated with forest protection.

This study, however, shows that the challenges faced in the açaí supply chain go beyond the economic aspects of increased production and food security for Amazonian communities. An analysis of the working conditions of açaí harvesters, according to the workers interviewed for the research, reveals that falling trees, venomous animal bites, and muscle injuries are part of their lives in Amazonas – the second-largest açaí producer among Brazilian states.

The study presents accounts from workers and data on the product's marketing and supply chain. The field research highlights the producing region of Codajás (AM) and the communities of Bom Jesus, Monte Sião and Taracoá on Lake Miuá, as well as the communities of Nova Esperança and Terra Preta on Lake Salsa.

Açaí harvesting is widespread in the Amazon as a traditional practice of riverine populations. It is part of the agricultural calendar of traditional communities, which also includes other activities such as fishing and Brazil nut harvesting. Currently, açaí has gained importance and became a significant source of income for its harvesters.

In addition to being harvested in native forest areas, açaí can also be cultivated, but its monoculture production occurs primarily in Pará – Brazil's largest producer state.

SOCIOECONOMIC OVERVIEW

Selection of the best berries and manual cleaning after threshing in the Monte Sião community, in Lago Miuá

PRODUCER STATES

According to IBGE (the Brazilian Institute of Geography and Statistics), the state of Pará is the main producer of cultivated açaí in Brazil. The country produced 1.7 million tonnes in 2023, and Pará accounted for 93% of that.[1]

Amazonas state is the second most important Brazilian producer, and its production is expanding, with the area around the municipality of Codajás2 standing out as a significant hub. In 2022, the area generated 150 million reais (about USD 27 million) from cultivated açaí.

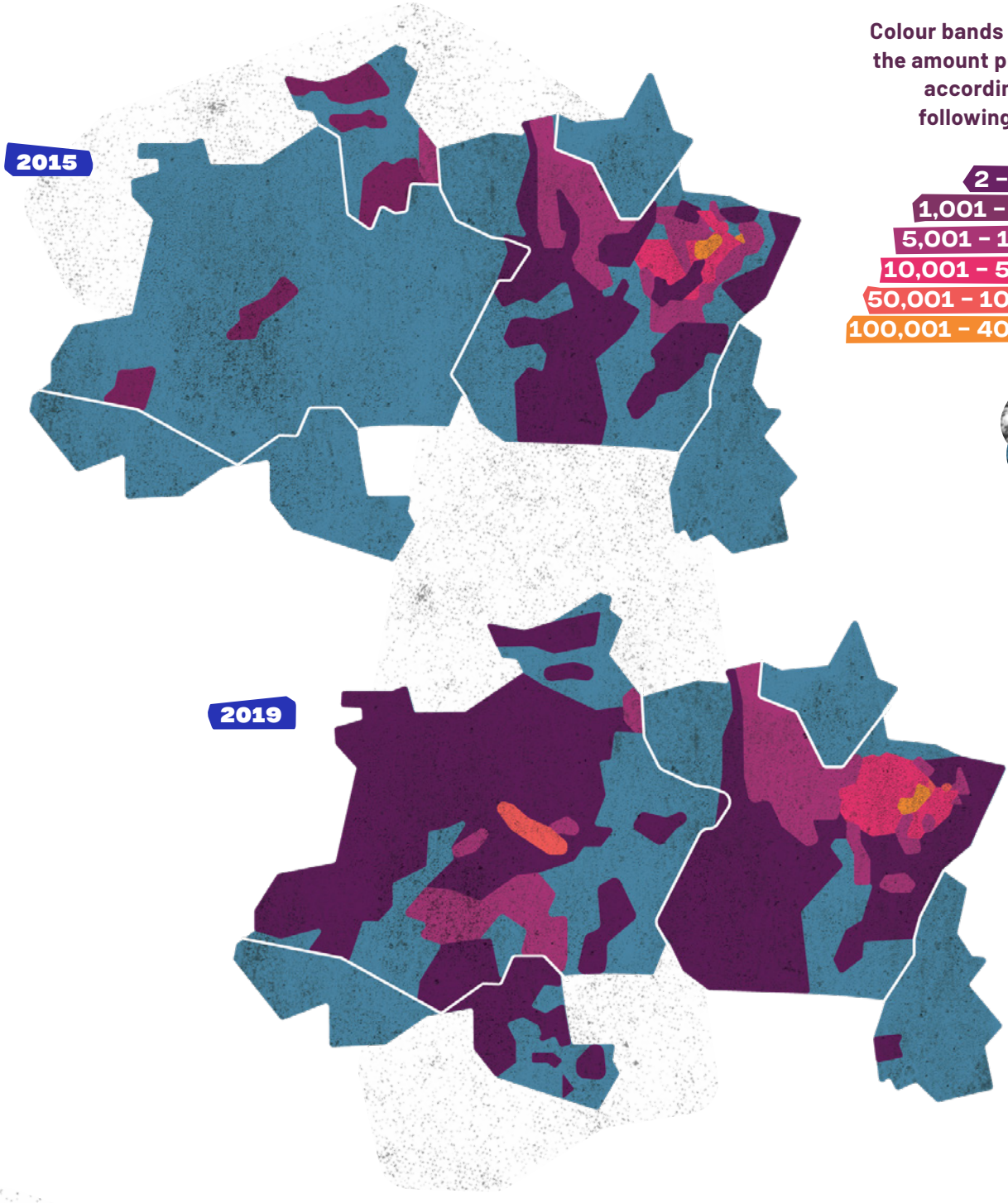
The states of Amapá, Alagoas, Bahia, Espírito Santo, Maranhão, Rondônia, Roraima, and Tocantins are also açaí producers, according to IBGE.

The agency says that 47,855 rural establishments are dedicated to açaí cultivation in Brazil3 – the latest data available is for 2017. It also estimates that the 2023 harvest covered 236,404 hectares and its production value exceeded 8 billion reais, with an average yield of 7,176 kilos per hectare.

1. https://www.ibge.gov.br/explica/producao-agropecuaria/acai-cultivo/br
2. https://www.ibge.gov.br/explica/producao-agropecuaria/acai-cultivo/am
3. Latest data is for 2017, at: https://www.ibge.gov.br/explica/producao-agropecuaria/acai-cultivo/br

Cultivation involves both small and large producers, with a significant presence of family farming.

EVOLUTION OF AGRICULTURAL PRODUCTION



Source: Based on data from the Municipal Agricultural Production Department (IBGE, 2021a)

Açaí can be planted, but it can also be harvested from native forests, cultivated in agroforestry, and harvested under floodplain management.

Extractive harvesting is carried out on private properties and community lands. It is considered a low-productivity method that does not require significant investment. The costs for producers, who are often also the harvesters, are mainly related to harvesting and transporting the fruit.

Managing açaí palms in floodplain areas, in turn, tends to optimize returns. A study by Idesam (the Institute for Conservation and Sustainable Development of the Amazon) shows that, compared to extractive harvesting, management tends to double productivity but requires small investments and technical knowledge.

Açaí can also be cultivated in monoculture areas, which require investment in farming inputs and technologies such as irrigation and mechanized harvesting. This type of production typically increases yields. There is also cultivation in intercropped agroforestry systems, where açaí is planted with other species to promote diversification and forest sustainability.

According to IBGE data, extractive production of açaí is significantly lower compared to cultivation. In 2023, 239,000 tonnes were produced – equivalent to 14% of the total yield of planted area.

Pará also leads the production of açaí in extractive areas, but in this case, Amazonas – which ranks second – has a relatively larger share (18%) compared to cultivated açaí.[5]

Producers' socioeconomic profile varies according to the production system. In the case of extractive activities, family labour prevails. Harvesters interviewed during our field research said that most of them began working during childhood.

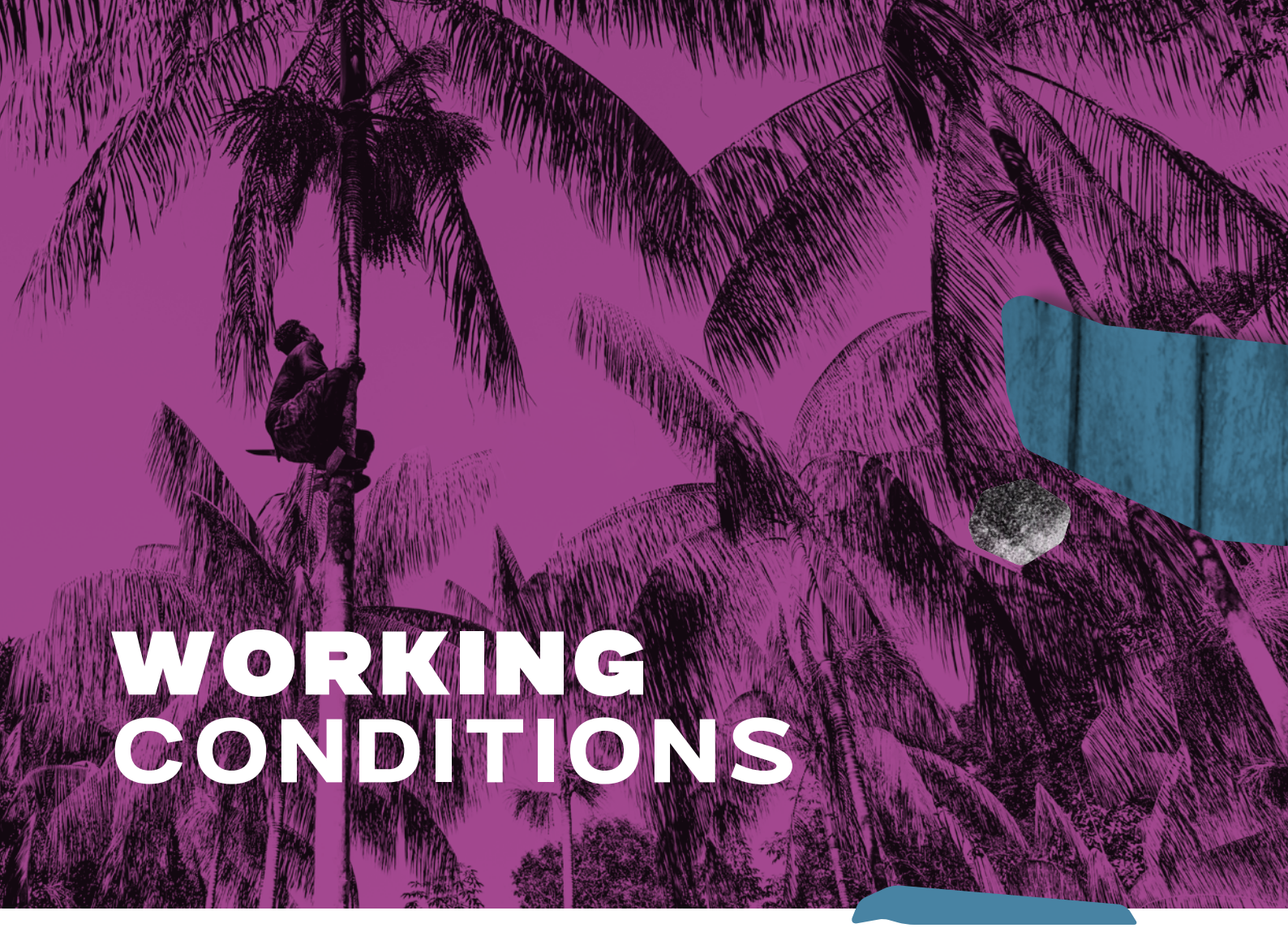
It is important to highlight that açaí harvesting is part of the culture of riverine communities in the Amazon. It involves sophisticated knowledge and techniques passed down through generations within the communities, so it is common for children and adolescents to help their families harvest the berries. Younger people are lighter, so climbing the açaí palm is considered easier, according to the harvesters interviewed during our research work. This topic will be explored further in the chapter on working conditions.

5. https://www.ibge.gov.br/estatisticas/economicas/agricultura-e-pecuaria/9105-producao-da-extracao-vegetal-e-da-silvicultura.html

In Amazonas, men usually climb the açaí palm and cut the heavy bunches. Women strip the berries once the bunches are on the ground

In the Amazon area around the municipality of Codajás, harvesting is predominantly done by men. Women usually thresh the berries from bunches that are already on the ground.

A 2021 study conducted by Embrapa (the Brazilian Agricultural Research Corporation), UEPA (the State University of Pará), and UFPA (the Federal University of Pará)[7] in the municipality of Igarapé-Miri, Pará, showed that most producers in that area were also male. Igarapé-Miri is also an important açaí hub in Pará. Producers were 50 years old on average, had low education, were native to the area, and earned 1-2 minimum wages per month. They lived in houses with "rustic infrastructure" and inadequate sanitation.



WORKING CONDITIONS

A harvester climbs an açaí palm to cut a bunch in the Monte Sião community, in Lago Miuá

The accounts in this report are the result of field research conducted in the açaí-producing area of Codajás between 23 June and 2 July by journalist Isabel Harari, in the communities of Bom Jesus, Monte Sião, and Taracoá, in Lago Miuá, and in the communities of Nova Esperança and Terra Preta, in Lago Salsa.

A consensus among the harvesters interviewed during field research is that their activity is dangerous but it is worth the risk because of the value of the product. They may climb an açaí palm up to 15 metres (in the case of the Amazonian palm, *Euterpe precatoria*), usually without protective equipment, using only a *peconha* – a tool made from a twisted fibre bag to help support the feet while climbing – and a machete in their shorts or held with their mouths. Accidents are common.

A 2016 report on açaí extractive harvest in Pará by the Regional Labor Court of Pará and Amapá and the Peabiru Institute defined açaí harvesting as one of the "most dangerous activities in Brazil."

Working with açaí requires dexterity and strength. Before climbing, the harvester must check the tree, ensuring that the roots are firmly in the ground and what the condition of the trunk is, since it may be vulnerable as a result of pests.

Harvester Francisco das Chagas de Souza Lima claims he fell from a height of five meters and dislocated his arm. He also said the açaí palm "was rotten inside" and broke. He reported feeling "unbearable pain" after the accident.

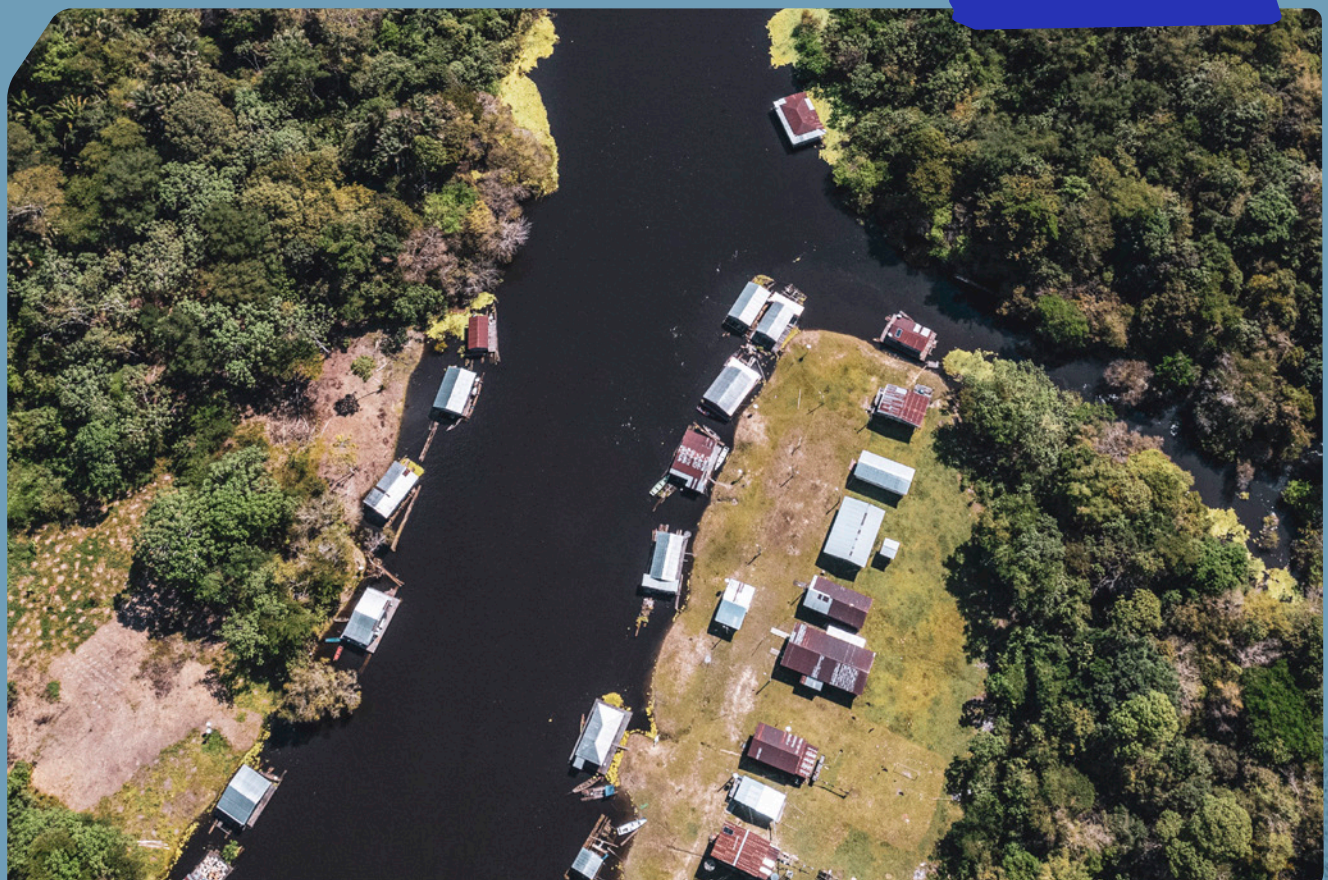
The height they must climb to catch an açaí bunch varies according to the production method and the tree species – *Euterpe oleracea* in Pará and *Euterpe precatoria* in Amazonas. In extractive harvesting, palm trees are taller, reaching 10-15 meters. According to EMBRAPA,[8] in monoculture, their height can be managed so that the berries remain about 5 meters from the ground, reducing the risk of accidents.

Speaking about climbing a palm tree, harvester Abimael Guimarães, from the Nova Esperança community in Amazonas's Codajás area, stated that there is "nothing safe up there." When discussing the dangers of the activity, he recounted an accident in which he managed to hold onto a branch of another tree when his *peconha* broke while he was descending a nearly 20-metre-high açaí palm. "If I had fallen, I could've died," he said.

João Paulo Araújo Ferreira, a harvester from the Lake Miuá area, also in Amazonas, said he fell while cutting a bunch from a floodplain açaí palm, a species that grows near riverbanks. Because they are close to the water, the roots of these palm trees tend to be more fragile. Ferreira says he did not notice that the trunk was soaked, and the tree bent under his weight. He sprained his ankle.

8. Study: Crescimento do Açaizeiro em monocultivo e em sistema agroflorestal no município de Rio Branco (Acre). Authors: Aureny Maria Pereira Lunz, Francisco de Sales, Romeu de Carvalho Andrade Neto and Sônia Regina Nogueira from Embrapa Acre; Cleyton Silva de Araújo from União Educacional do Norte; and Leonis Ferreira Lima from UFAC (Federal University of Acre)

Aerial view of floating houses in the Nova Esperança community in Lake Paraná and Lake Salsa, Amazonas

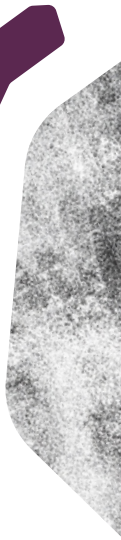


CUTTING AND THRESHING THE BUNCH

After cutting a bunch at the top of the açaí palm, harvesters slide down the trunk to the ground, holding a machete and the bunch in their hands. The bunches are laid out on a tarp for threshing. One of the risks involved is burning one's skin while descending the trunk.

Harvester Waldivan dos Santos Cardoso claims to have been doing it since he was ten years old; he has burn marks on his arms and chest. He lives in the Bom Jesus community at Lake Miuá. "The trunk burns through one's shirt, 'thickening the hide,'" he says. "It's dangerous work and requires a lot of skill. The man dies, but the açaí remains," he says. Despite being an experienced harvester, he suffered an accident when the *peconha* broke during harvesting: "It rasped my body; I left my 'hide' on the palm, but I didn't let go of the bunch," he recalls. "People come here only looking for the berries; no one ever comes to ask about the açaí harvester," he complains.

During the threshing stage, harvesters clean off any remaining dirt and separate the berries from the bunches by hand. They can also beat the bunches on a tarp, but this method may damage the berries and compromise their quality.



To cut açaí bunches in an extractive area in the Lake Salsa forest, harvesters use a machete and a peconha

Açaí producer and harvester Dina Gomes de Oliveira at her farm in Codajás

Afterward, they fill sacks weighing approximately 50 kilos and take the product to **middlemen**, who will take the product to the processing facility by foot or canoe, depending on the area.

Another danger pointed out by harvesters is being attacked by snakes, scorpions, and insects. This type of accident is more common in native açaí areas located deep in the forest. In remote areas, a venomous animal bite can be fatal due to the time it takes to get medical care. Elizeldo do Rosário Pereira, a health assistant in the Nova Esperança community in Amazonas, says he once sailed for hours at night to take a patient bitten by a snake to Codajás.

Márcio de Oliveira Guimarães, a harvester from the Nova Esperança community, reported being bitten by a snake on his ankle.

Harvester Abimael Guimarães, mentioned above, was stung twice by scorpions. He reports that the first time the animal was hidden among açaí berries arranged on a tarp: "To thresh them, we put our hands between the berries; it's dangerous. I felt a blow to my hand, which swelled up immediately." The second scorpion was in the açaí bunch high up in the tree, and Guimarães did not see the animal.

MUSCLE PAIN AFTER WORK

Pereira, the health assistant from the Nova Esperança community, explains that because the workers start harvesting at a young age, they experience back, hip, leg, and knee pain when they are 30-35 years old. "Most take painkillers so they're ready for battle the next day," he comments.

Harvester Gabriel Freire, a resident of the Nova Esperança community in Amazonas, confirms that he takes pain medication. "I get backaches and headaches, but then I take medication and I get better, so I can come back the next day," he said.

Judenir Carvalho de Oliveira, a harvester from the Monte Sião community in Lago Miuá, estimates that at least three people in his community have herniated disks. He has been harvesting açaí since he was 12. Now 33, he says he spent two months in town undergoing treatment for back pain. "As the harvest season ended, I started getting sick. Most people who work with açaí feel pain," he stresses.

AÇAÍ HARVESTING

With repeated climbs and descents, harvesters report **back and hip pain** and have **burns on their arms and abdomens**, caused by descending the trunk

Accidents involving **snake and scorpion bites** are also common

ARTWORK: DÉBORA DE MAIO

PPE

(PERSONAL PROTECTIVE EQUIPMENT)

Among the harvesters interviewed, there is no consensus on the ideal garment for the job: some wear pants and long-sleeved shirts; others prefer shorts and t-shirts; some wear boots, while others prefer to work barefoot. This varies because some consider that having their entire body covered by clothing disturbs their work and compromises their safety when climbing up to 15 meters with a machete to harvest a heavy açaí bunch.

The use of PPE such as gloves, face masks, and leg guards is also not common, according to workers interviewed in Amazonas. Harvesters say they do not always feel comfortable or safe wearing the equipment. They believe that, because it interferes with their weight and comfort, the equipment may hinder their work in the field rather than preventing accidents.

Idesam bioeconomy innovation manager Paulo Simonetti explains that the realities of extractive workers must be considered when deciding which equipment is best suited for the activity and makes it safer.

Frooty, one of the leading companies in the industry, supplies PPE to harvesters. The company sells açaí-based fruit pulp and sorbets. Joacy Rodrigues, an agricultural technician at IDAM (the Amazonas State Institute for Sustainable Agricultural and Forestry Development), explains that the company maps and selects harvesters in the Codajás area, whether they do extractive work or cultivation.

A month before harvest season begins, Frooty sends employees to harvesting sites to conduct inspections together with the association of harvesters from the Codajás community. They answer a 109-item questionnaire to ensure product quality control in the harvesting stage. During the inspection, the company provides PPE and training on best practices. The relationship between harvesters and processing companies will be addressed again in the chapter on supply chain.

With the diversification of companies and a growing açaí market, it is not possible to say that workers always wear PPE. "Many climb the açaí palm barefoot; it's risky. Harvesters don't use the equipment 'kit'," warns health assistant Elizeldo do Rosário Pereira.

There are devices designed to facilitate harvesting and avoid climbing the palm tree – the açaí harvesting tool and the açaí harvesting machine.[1] Their use, however, is limited by cost. The tool is a simpler technology. It consists of an aluminium or wooden pole,

> **"It's no use simply providing PPE because the market demands it. How can I best serve that worker? We need to adapt and understand local reality"**
>
> **PAULO SIMONETTI**
>
> **Idesam bioeconomy innovation manager**

Producer Hilário de Oliveira Cesário carries an açaí bunch in the Monte Sião community, Lago Miuá. A bunch can weigh up to 30 kilos

adjustable in length or not, with a device at its upper end for cutting and supporting the bunch. Slightly more structured and more expensive, the açaí harvesting machine has safety mechanisms.[2] It consists of a metal base that is attached to the trunk of the palm tree and slides up to the bunch. The machine has blades that resemble scissors, and this central structure supports the bunch after cutting. One of the challenges of using both types of equipment is that producers cannot get close to the bunch during harvesting, making it difficult to accurately identify the ripeness of the berries.

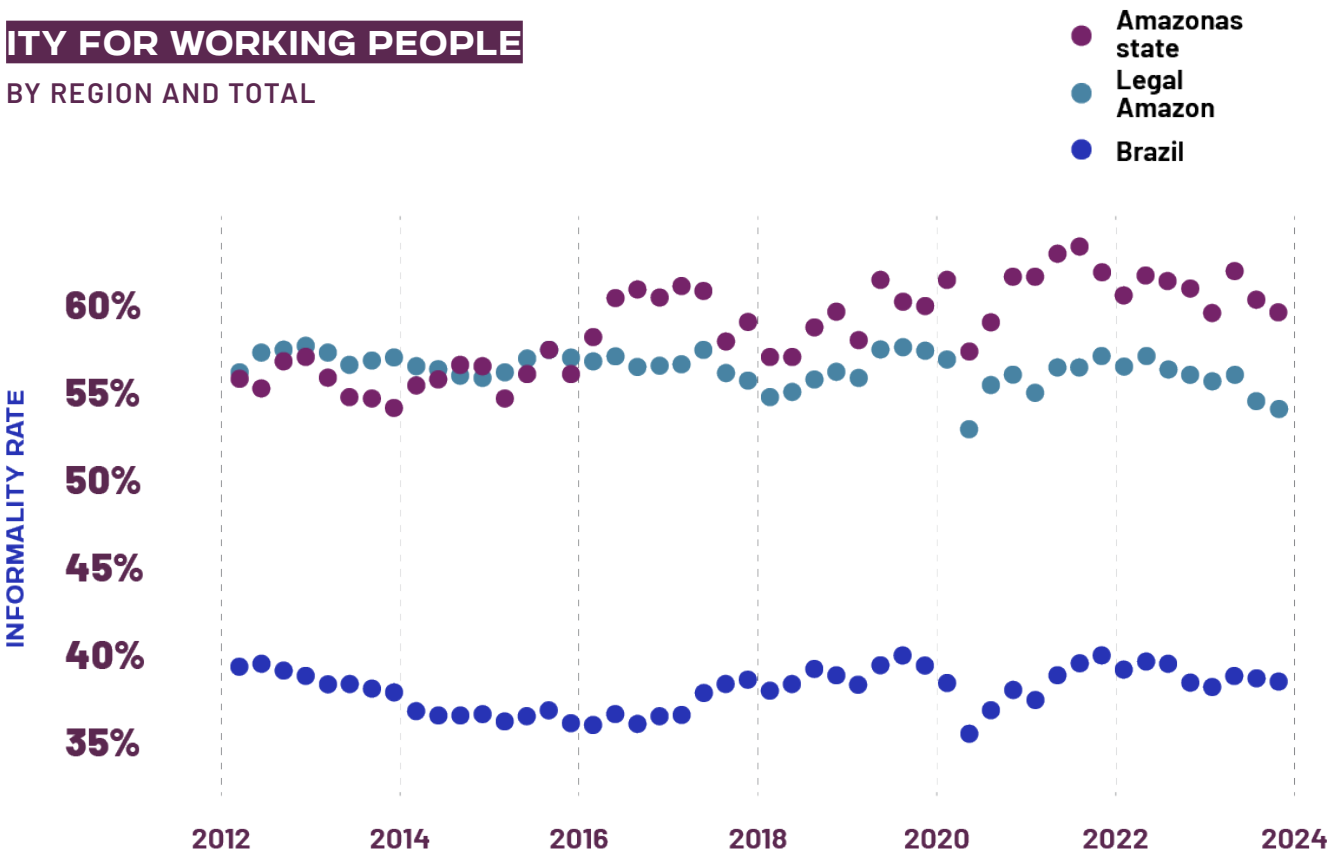
For Simonetti, these technologies will evolve and should become increasingly important for açaí production over time. He compares their application to changes in the behaviour of riverine communities regarding the predatory hunting of manatees that used to occur in the past and has been reduced after efforts to raise the population's awareness. "With increased awareness and technological advancement, these pieces of equipment tend to be used more often," he says about harvester safety.

9. https://www.ilo.org/sites/default/files/2024-08/OIT_Relato%CC%81rio%20Ac%CC%A7ai%CC%81_web.pdf
10. https://revistapegn.globo.com/Feira-do-Empreendedor-Para/noticia/2018/05/empresario-inventa-maquina-que-facilita-extracao-de-acai-e-salva-vidas.html

INFORMALITY

Historically, Amazonas' informality rate is higher than Brazil's. In the fourth quarter of 2023, they were 59% and 39% respectively. The figure comes from Data Zoom Amazônia, a project of the Economics Department of the Pontifical Catholic University of Rio de Janeiro (PUC-Rio).

See the graph below generated by Data Zoom Amazônia:



Source: Departamento de Economia da PUC-RIO

Açaí extractive harvesting falls within this context of informality. It is a seasonal activity that follows the berries' ripening time. Off season, harvesters engage in other activities such as fishing and small-scale farming.

Informal labour among açaí producers is also pointed out by Idesam as an obstacle to accessing credit for investing in production in order to improve productivity.

"Geographical distance as well as lack of formal education, access to communication technologies, and knowledge, combined with the complex local land tenure status, ultimately make it difficult for producers to access the DAP (Declaration of Eligibility to Pronaf, a government credit program), CAF (National Family Farming Register), and CAR (Rural Environmental Register)," notes an IDESAM study published in 2021.[11] The institute stated that year that an estimated 56,000 producer families in Amazonas were registered, but only 250 of them had their CARs examined at the time.

CHILD LABOUR

Açaí harvesting is an important element of local culture. Emerson Costa, an inspector with the Ministry of Labour and Employment, stresses the importance of considering the particularities of traditional communities, but also the need for a careful approach to the intensity of the activity. "To what extent does it cross this line and become an activity that, due to its length, severity, and risks, actually constitutes child labour?" he asks.

A 2016 report by the TRT-8 (the 8th Regional Labor Court, covering Pará and Amapá states) and the Peabiru Institute[12] states that young açaí harvesters who used to climb palm trees once or twice a day due to the cultural aspects of Amazonian communities began climbing them ten times or more as a result of the growth in the açaí market. Because they are lighter and more agile, young people can even jump from one tree to another to optimize their harvesting time.

We spoke with Elisa*, 16, and Pedro*, 17. Both said they work harvesting açaí in the Codajás area. Elisa said she worked with her father early in the year, before school started. Pedro says he climbs between 25 and 30 palm trees a day during peak harvest season. He also said he has back pain but considers the work rewarding: "Açaí is better for our earnings, and we need to work," he said, comparing it to other sources of income based on extractive work.

*** Fictitious names are used to protect the identity of the adolescents.**

11. Study: Idesam – Diagnóstico – Gargalos e oportunidades: Cadeia do açaí no Amazonas. Authors: Nelson Poli; Mariano Cenamo; and Carlos Koury, in 2021.

12. Study: "O peconheiro" – Diagnóstico das condições de trabalho do extrativista de açaí. Authors: TRT8 and Instituto Peabiru, in 2016.

Bom Jesus community, in the Codajás region, the main producing area of Amazonas

There are no official records of labour law violations involving child labour associated with the açaí supply chain in Amazonas, but that does not mean it does not exist in the state. The lack of records may even reflect the informal nature of the activity. "There is underreporting and a serious issue of invisibility, especially in rural child labour," warns Costa from the Ministry of Labour and Employment (MTE).

According to IBGE, the state of Amazonas had more than 56,000 children and adolescents in child labour situations in 2019.[13] The data comes from the Continuous National Household Sample Survey (PNADc – 2019) and shows that they "dedicated 18.2 hours a week of their time to work." The survey also found that 82.3% of working adolescents aged 14-17 had no formal employment.

"We're talking about the reproduction [teaching] of these families who traditionally harvest and manage açaí. This craft – working the land – is not taught in school. But what is the problem? The problem is the volume. While a family used to climb two or three times a week and children did it as a form of leisure, now we're talking about hundreds of climbs during the harvest season," says Manoel Potiguar of the Peabiru Institute.

In 2023, a Ministry of Labour and Employment operation uncovered cases of child labour on açaí plantations[14] in Pará.

Açaí harvesting involves several activities listed on the Worst Forms of Child Labor (TIP List),[15] such as the use of sharp instruments, working at heights exceeding two meters, and the risk of falling and being bitten by venomous animals. Therefore, it would only be permitted for people over 18 due to the dangers to workers' health and lives.

The 2019 PNADc survey had already indicated that 18.1% of children and adolescents aged 5-17 and working in Amazonas state engaged in some of the worst forms of child labour listed on the TIP, totalling 10,251 individuals.

"In a supply chain system, even the company that benefits from it can be held accountable, because it is also responsible for the origin," says Costa from the Ministry of Labour and Employment (MTE), regarding the increasing number of companies in the Amazon region dedicated to processing and distributing açaí.

Source: IBGE Brazilian Institute of Geography and Statistics

13. Study: Diagnóstico situacional referente ao trabalho infantil no estado do Amazonas: um panorama dos últimos cinco anos (2017 a 2021), by FEPETI/AM (Fórum Estadual de Prevenção e Erradicação do Trabalho Infantil e Proteção ao Trabalhador Adolescente no Amazonas). Available at: https://drive.google.com/file/d/1h1vWSGF2rGWEv33YkIo0PTugHGKchXBI/view

14. https://g1.globo.com/pa/para/noticia/2023/08/01/processo-de-colheita-do-acai-esconde-casos-ligados-ao-trabalho-infantil-no-pa.ghtml

15. https://www.planalto.gov.br/ccivil_03/_ato2007-2010/2008/decreto/d6481.htm

MARKETING AND INCOME GENERATION

About two decades ago, riverine communities used to let açaí rot on the trees due to lack of demand. This situation has changed, and there is a race to harvest it. In addition to supplying the Amazonas market, açaí has great sales potential in Brazil's Southeast region and abroad, with the United States as its main buyer. This expansion will be addressed in the chapter on supply chain.

When marketing açaí, the major challenge is its very fast deterioration. And in more remote producer areas, it can be stored before shipping because there is little access to electricity and proper refrigeration in native forest or managed floodplain areas. Therefore, extractive production needs to be transported quickly by boat or even on foot before it is lost.

Conab (Brazil's National Supply Company) monitors and analyses harvest values in the country. In its December 2022 Sociobiodiversity Bulletin – its latest study on the açaí market – it acknowledges that açaí has been important to increase the income of Brazilian extractive producers.

"The extractive method for producing açaí and the income of traditional riverine producers may be compromised by changes in

the supply chain and the migration of production values towards large conglomerates," the publication warns.

In the last harvest season, which ends in June in Amazonas, açaí factories paid an average of 140 reais for a 50-kilo sack of berries. Harvesters interviewed for the survey stated that they had been paid 5 reais for the same amount years ago, when there were no buyers.

Emerson Costa, a labour inspector with the Ministry of Labour and Employment (MTE), also raises this concern. "Families, who used to harvest açaí only for their own consumption, are now working more intensely, taking greater risks. When this larger scale involves major employers that profit significantly from the product of that labour, these companies also draw social responsibility along with this profit. Many companies certify the origin of their products, but do they certify the way the product is harvested?", he asks.

The analysis conducted by Frooty in the month before harvest includes checking harvesters' working conditions, according to Rodrigues from IDAM.

The president of the Codajás Agricultural Cooperative, Francisco Dantas, explained that the price of a bag of açaí used to be heavily influenced by middlemen – the second links in the supply chain. Their role is to transport freshly harvested açaí to small establishments that process the fruit into pulp or larger industries that process it into a puree for future sale.

Because the fruit deteriorates quickly, harvesters used to rely heavily on the transportation provided by middlemen to avoid losing the product. This situation has changed with the increased presence of factories in producer regions. If the processing company is closer to the producer, middlemen's services are less required.

"About three or four years ago, middlemen used to be everywhere; they dictated prices precisely because there weren't many alternatives. Things have improved a lot in the last two years. Competition increased. The number of small factories also increased; many producers have their own factories, and when they don't have [açaí], they buy it from their neighbours. The middlemen have been left without product," Dantas said, discussing how middlemen have lost influence in price setting.

"Market pressure will make extraction predatory. This renders labour relations increasingly vulnerable

PAULO SIMONETTI

bioeconomy innovation manager at IDESAM.

PRODUCERS' ASSOCIATION

Producers are also forming associations to demand better working conditions. In the Codajás area, 65 producers and harvesters are joining forces in an association. Leading the group is IDAM agricultural technician Joacy Rodrigues, who says that the association has been negotiating with Senators Plínio Valério (PSDB-AM) and Eduardo Braga (MDB-AM) to ensure that producers receive benefits similar to fishers' closed season insurance.

Senator Plínio Valério told **Repórter Brasil** that the debate on insurance has not yet progressed, but that he supports the creation of public policies that provide security and improve productivity in the açaí supply chain. His aids say he is also willing to discuss producers' demands. When contacted, Senator Eduardo Braga did not respond to questions about the harvesters' organizing efforts, citing health reasons.

GEOGRAPHICAL INDICATION IN AMAZONAS STATE

In 2024, the açaí from Codajás received a GI (Geographical Indication) registration from INPI (Brazil's National Institute of Industrial Property), an agency affiliated with the MDIC (Ministry of Development, Industry, Commerce, and Services).

In addition to guaranteeing origin, quality, and traceability, the registration requires producers to sign a document attesting that their property complies with the country's current labour and environmental regulations. This measure contributes to improving harvesters' safety. In addition to Codajás, the area covered by the GI include the municipalities of Coari, Anori, Beruri, and Anamã.

"It's a product identity – in this case, açaí from Codajás. It guarantees that behind that product, there's a whole organizational process, since the moment it's planted until it reaches consumers' tables. The geographical indication adds this value to the product," celebrates Dantas, president of the cooperative, who conceived the project.

The cooperative has 30 members and works to implement best practices in açaí harvesting and management from the perspective of product quality and harvesters' health and safety. One example of best practice is improving the threshing stage. Instead of bending over the tarp to separate the berries, Rodrigues advises harvesters to hang the bunches on a wooden structure at waist height, ensuring

AÇAÍ DE CODAJÁS
INDICAÇÃO DE PROCEDÊNCIA

Geographical Indication Seal granted by the INPI

that the worker's spine is more upright during threshing and prevents future back pain.

Rodrigues is a member of the IG technical committee and also encourages the use of gloves to prevent hand injuries. "Our concern as technicians is to provide information on best practices so that they can reach maturity without so many health problems," the IDAM technician advises.

He also recommends that harvesters always work with partners. "Fatal accidents have occurred because the harvester was alone. He fell from the palm tree and we spent four days searching, and we couldn't find him," he says.

The president of the Codajás cooperative acknowledges that harvesting work is difficult, but he says that there has been progress in recent years regarding accident rates in the sector.

Joacy Rodrigues de Lima (wearing a cap) demonstrates best practices, such as threshing at a height that prevents back pain, for harvesters Marcelo de Oliveira Guimarães and Gabriel Freire Guimarães, in an açaí palm grove at Lake forest, Codajás

SUPPLY CHAIN

Producer Alberto da Silva Nunes processes açaí at his own home in the community of Monte Sião, on Lake Miuá (AM)

The açaí supply chain is organized as follows: the first link in the chain is harvesting, followed by transportation, then processing, and the last one is marketing.

According to Idesam estimates, the açaí market in Pará is a source of income for approximately 13,000 producers,[16] and its supply chain serves 300,000 people in 54 municipalities, generating approximately 3 billion reais per year.

Açaí is distributed in a variety of ways, from local consumption to shipments to other continents. It is a complex distribution network lacking figures and mapping. Generally, the açaí that is harvested, bagged, and sold to middlemen or small-scale smashers is distributed in municipalities in the Amazon states without registration.

"Açaí smashers typically process the berries on a small scale to sell the pulp to end consumers. These are small-scale units whose sales and processing points are scattered throughout urban areas. There are also small fruit industries that include açaí pulp in their menus, supplying local markets such as restaurants, cafes, and others. To meet local demand, smashers buy the fruit at açaí markets, directly from

16. Study: Idesam – Diagnóstico – Gargalos e oportunidades: Cadeia do açaí no Amazonas. Authors: Nelson Poli; Mariano Cenamo; and Carlos Koury, in 2021.

producers, or purchase the portion that middlemen haven't traded with the industry," describes an ILO (International Labor Organization) report on the açaí supply chain. According to the document, transactions are largely informal, making traceability difficult.

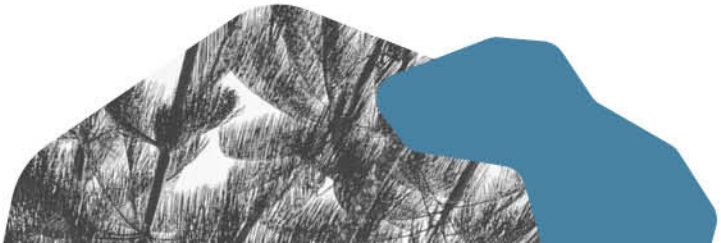
Larger industries, in turn, are responsible for processing production on a large scale for the domestic market and exports. These companies source it in a variety of ways: directly from producers or through middlemen, cooperatives or producer associations. Processing consists of transforming the fruit into pulp or powder for later marketing. To facilitate logistics, these industries are typically established in producer municipalities with access to roads or boat transportation and electrical grid infrastructure.

PRODUCER MUNICIPALITIES

In addition to the biodiversity bulletin mentioned earlier in this report, CONAB used to conduct a monthly analysis of the açaí supply chain until 2020. In its latest report published in December of that year,[17] the agency listed the largest açaí-producing municipalities. Igarapé-Miri, Pará, was the largest producer in Brazil at the time, accounting for 21% of the country's açaí. Combined with Cametá, Abaetetuba Limoeiro, and Portel during that period, the municipality accounted for over 60% of Pará's total production. The analysis compared data from 2015 to 2019.

CONAB's 2020 analysis also highlights Pará's leadership in national production. The institution listed the 20 top municipalities between 2015 and 2019, representing 85% of total Brazilian production. Of that total, only Codajás was outside the state. In Pará, the largest açaí producers are located in the Lower Tocantins and Marajó areas, in the Portel microregion.

The season varies by region, but it usually begins in December and ends in June for extractive açaí harvesting in Amazonas.



17. Monthly analysis of the agricultural and extractive market by CONAB. Available at: https://www.conab.gov.br/info-agro/analises-do-mercado-agropecuario-e-extrativista/analises-do-mercado/historico-mensal-de-sociobiodiversidade/item/15517-acai-analise-mensal-dezembro-2020

TRANSPORTATION AND MIDDLEMEN

The transportation stage varies by region. In more remote areas accessible only by river, harvesting can be limited by the carrying capacity of small canoes used to transport sacks of threshed açaí, notes IDESAM.[18] There are cases where the product is transported still in its bunches to delay ripening and oxidation, but this requires more space and therefore reduces transportation capacity.

"When production areas are accessed by land, the product ends up being transported on harvesters' backs, making the work even more exhausting and difficult," says the IDESAM study. The institute also emphasizes that, in order to enable transportation means and develop the supply chain, road and port infrastructure must be improved.

We have already mentioned the role of middlemen in this report: to connect harvesters and producers in more remote regions with small-scale smashers and processing industries.

IDAM's Rodrigues estimates that half of the production that passes through the processing hubs of Codajás and Manacapuru still relies on the services of middlemen.

Simonetti, from Idesam, sustains that the role of middlemen in the economic dynamics of the açaí supply chain is still "relevant." He explains that they date back to Brazil's rubber cycle, with the historical role of the so-called *regatão*, who owned the rubber plantation and bought and controlled rubber tappers' production. "You could only sell to them; they had real 'grocery stores' inside their boats," he explains about the traditional trade in the Amazon region, where remote communities still meet their needs through bartering. "The middleman is a very important character, not only in the açaí supply chain, but also for Brazil nuts and other Amazonian products."

The further away from these hubs, the greater the middleman's importance for the producer area. According to the ILO, most of the middlemen's commercial transactions are informal.[19]

"In some areas, the middleman not only buys harvesters' product but also sells industrialized items or those that are not produced locally to the communities. Payment to harvesters is made in kind at the time of purchase, and the middleman may also offer an advance on this payment so that harvesters can provide for their families while they continue their work," says the ILO report. "The terms of trade are unfavourable to harvesters, as they receive very little for the products extracted from the forest and are forced

Boats leave loaded with açaí from the port of Codajás (AM)

18. Study: Idesam – Diagnóstico – Gargalos e oportunidades: Cadeia do açaí no Amazonas. Authors: Nelson Poli; Mariano Cenamo; and Carlos Koury, in 2021.
19. Monthly analysis of the agricultural and extractive market by CONAB. Available at: https://www.conab.gov.br/info-agro/analises-do-mercado-agropecuario-e-extrativista/analises-do-mercado/historico-mensal-de-sociobiodiversidade/item/15517-acai-analise-mensal-dezembro-2020

Gabriel Guimarães climbing an açaí palm tree to collect fruit bunches in the Codajás region (AM)

to pay local traders for hygiene, food, and other items at prices three to four times above market values." According to the ILO, "this monopolistic power held by middlemen may lead to debt bondage."

For IDESAM, one of the main bottlenecks in açaí production is the informality of commercial relations in the initial links of the supply chain, which involve producers, middlemen, and smashers. In the Codajás area, we found producers who had machines at home and produced the fruit puree by hand. "It's not uncommon to hear reports about producers who take their products to market and can't even get a price that covers their travel costs. It's also not uncommon to hear reports of buyers who make advance payments, but when they go pick up the product, it's already been sold to someone who passed by earlier and offered a few cents more, or even less," the agency points out.

In the domestic market, Pará has a competitive logistical advantage over Amazonas because it can ship products at lower prices, according to EMBRAPA, and therefore has a significant influence on the price of the açaí.

A CONAB report[20] shows the increase in production and value of açaí over the last two decades. In 2003, the average price per kilo was 0.49 reais, and the country produced 131,000 tonnes. In 2015, national production jumped to 1.2 million tonnes, and the price rose to 2.22 per kilo. The latest analysis in 2019 showed that the country produced 1.6 million tonnes that year and sold a kilo of açaí at 2.64 reais on average.

20. Monthly analysis of the agricultural and extractive market by Conab. Available at: https://www.conab.gov.br/info-agro/analises-do-mercado-agropecuario-e-extrativista/analises-do-mercado/historico-mensal-de-sociobiodiversidade/item/15517-acai-analise-mensal-dezembro-2020

Açaí harvesters Marcelo de Oliveira Guimarães and Gabriel Freire Guimarães carrying freshly harvested açaí by boat on Lake Salsa, in the Codajás region (AM)

COMPANIES

According to Rodrigues from IDAM, many companies that buy açaí from the Codajás area were established in Manacapuru in the last decade because the municipality of Codajás lacked the electrical capacity to support the processing of smashing industries. Shipping was also more expensive. Currently, according to Rodrigues, energy supply conditions have improved, and some factories have also been established in Codajás.

Processing the fruit into pulp requires electricity. In addition, the product is pasteurized and frozen for large-scale production and shipped for sale over long distances.

Bellamazon was established in Brazil's North region in 2008. The company is based in Codajás and also grows açaí in the municipality of Curralinho, in Pará's Marajó microregion. It also has a processing plant in Marituba, Pará.

In 2018, Frooty opened a plant in Manacapuru, between Codajás and Manaus. It claims to be "the world's leading açaí brand." Its raw material sourcing policy stresses its "concern for the proper

Producer Maria Eliete da Silva Nunes packing açaí at her home in the community of Monte Sião, Lake Miuá, Amazonas

21. Monthly analysis of the agricultural and extractive market by Conab. Available at: https://www.conab.gov.br/info-agro/analises-do-mercado-agropecuario-e-extrativista/analises-do-mercado/historico-mensal-de-sociobiodiversidade/item/15517-acai-analise-mensal-dezembro-2020

use of tools and occupational safety processes, suppliers' health, and workers' living conditions."

Frooty claims to distribute its products nationwide. Furthermore, it exports them to the United States, the United Kingdom, the Dominican Republic, Costa Rica, and Australia, among others, according to customs data accessed by **Repórter Brasil** and its sustainability report. The company has a processing unit in Mocajuba, Pará, and a sourcing and distribution centre in Manacapuru, Amazonas, as well as an industrial unit for production and packaging in Poços de Caldas, Minas Gerais. Its administrative headquarters are in São Paulo.

In its sustainability report, Frooty states that it tracks all the production it processes and sells. "Frooty only buys açaí from those who a) do not cut down trees of other species to plant açaí palms; b) do not condone child labour; c) wear PPE during harvesting; d) have attended training programs; and e) do not have waste or domestic animals on their land."[22] In the same document, the company states that it opposes child labour.

According to Simonetti from Idesam, public awareness campaigns have grown due to market pressure. He explains that companies want certifications to expand their presence in the industry and sell abroad, but they are faced with the Amazonian reality. "Manaus is very hot, temperatures in the Amazon are very high, and it's difficult to convince harvesters to wear hats and clothing. This equipment needs to be adapted to local conditions," says the bioeconomy manager. He estimates that it will take a decade for real change to be seen in the mindset of the populations that are most vulnerable to accident risks.

In 2021, logistics company Bertolini started using a floating agricultural processing unit. The Amazon Treasure barge, which belongs to the company, buys the açaí harvested by riverine dwellers, processes and freezes the product, and then sells it.

A study[23] published in 2021 by UnB (the University of Brasília) and UFG (the Federal University of Goiás) on the açaí supply chain highlights some of the main companies operating in the sector. In Pará, industrial-scale processors include Sambazon, an American company founded in 2000, which has a facility in Macapá, Amapá. There is also the Tomé-Açu Mixed Agricultural Cooperative (CAMTA), headquartered in Tomé-Açu, Pará. The cooperative has been processing açaí since 1991 and sells it to Japan, according to the study.

In the municipality of Castanhal, Pará, there is also Petruz Açaí, pointed out by the study as owning the largest açaí processing

Açaí producer Elineia Rodrigues Freires in the flour house of the Nova Esperança community, Lake Salsa, Codajás (AM)

Aerial view of planted açaí farms in the Codajás region (AM)

22. https://frooty.com.br/wp-content/uploads/2024/09/Relatorio_ESG_24_V5.pdf
23. Estudos em Agronegócio: participação brasileira nas cadeias produtivas – V. 5. – Gabriel da Silva Medina, José Elenilson Cruz (eds.) – Goiânia / Kelps, 2021

complex in Fortaleza, Ceará, since 2008, and in Macapá, Amapá, since 2013. According to the study, the company exports to 35 countries, with emphasis on the European market, the Americas, and Asia, as well as small amounts to Africa. The Belém-based company Bela laçá also belongs to Petruz Açaí and exports to the United States. It creates promotional videos of the brand about its social initiatives, which include tours to raise awareness among families in Castanhal and riverine communities against the exploitation of child labour, according to a company social worker featured in one of these videos.

According to the study, Bony Açaí is based in Igarapé-Miri, Pará. Palamaz (Amazonia Food Products Ind. e Com. Ltda.) is based in Marituba, Pará, and focuses on the domestic market. There is also a factory in Óbidos, Pará, called Açaí Amazonas, which has its own irrigated plantation (1,400 hectares, the largest in the country). According to the publication, its açaí is marketed domestically and internationally.

EXPORTS

Açaí is exported as pulp and powder. According to Brazil's Ministry of Agriculture and Livestock (MAPA), foreign sales of açaí puree reached 314,744 dollars in 2023, corresponding to 79 tonnes.[24] The ministry also stated that exports in that year represented a 41% increase over the previous year, when 48 tonnes had been exported. The United States is the main importer of the product.

The foreign market for açaí continues to expand. India, which already purchased pulp, has authorized the sale of açaí powder produced in Brazil this year, the Ministry of Agriculture and Livestock reported.

When analysing exports data from Comex Stat, Brazil's official foreign trade statistics system, it is important to consider that there are several NCM codes for açaí. NCMs (Mercosur Common Nomenclature) are eight-digit codes that identify goods in international trade.

The only Comex Stat code that mentions the word açaí is "NCM 20.07.99.21: açaí puree (*Euterpe oleracea*)." In 2024, the country sold 128 tonnes of the fruit under this code, totalling 567,061 dollars. The United States was the main buyer, accounting for 66% of the exports. This data covers the period of January to November of this year. This NCM refers to the Pará variety of the fruit and does include the Amazonian species.

The figures are probably underestimated, as exporters may use other codes to sell açaí. The fruit leaves the country under various NCMs, such as "20.09.40.00 (unfermented pineapple juice)",

23. Estudos em Agronegócio: participação brasileira nas cadeias produtivas - V. 5. - Gabriel da Silva Medina, José Elenilson Cruz (orgs.). - Goiânia / Kelps, 2021

24. https://www.gov.br/agricultura/pt-br/assuntos/noticias/mapa-conquista-11-novos-mercados-e-amplia-marca-historica-para-89-desde-2023

Bagged açaí being transported by boat from Codajás to Manaus for sale

"20.08.99.00 (fruit otherwise prepared or preserved with or without added sugar)", "08.11.90.00 (frozen fruit, even with added sugar)", "20.09.89.90 (juices from other fruits, unfermented, without added sugar)", according to the study by UnB and UFG.[25]

"The lack of statistical data hinders planning, not only for açaí, but also for other products from the Amazon region, such as cupuaçu, tucumã, bacuri, andiroba, copaíba, among others. NCM 20.07.99.21, which classifies açaí pulp as puree, makes no sense whatsoever," the study's authors say about the difficulty of tracking and researching Amazonian products' supply chain.

In 2024, Brazil sold açaí to the United States, Greece, Canada, French Guiana, Chile, France, Portugal, Suriname, Serbia, and Hong Kong, according to Comex Stat.

According to the authors of the UNB/UFG study, açaí pulp and its byproducts also go to Italy, Singapore, Germany, Spain, the Netherlands, the United Kingdom, France, Norway, Switzerland, Belgium, Austria, Denmark, Sweden, Slovenia, Portugal, Estonia, New Zealand, Australia, Japan, South Korea, China, Thailand, Abu Dhabi, Israel, Kuwait, Bahrain, Mexico, Costa Rica, Chile, Uruguay, Puerto Rico, Ecuador, Canada, and Angola, totalling 35 countries.

25. Estudos em Agronegócio: participação brasileira nas cadeias produtivas – V. 5. – Gabriel da Silva Medina, José Elenilson Cruz (eds.) – Goiânia / Kelps, 2021

Responding to the high demand for açaí, Geisa Cardoso produces açaí palm seedlings in her nursery in Codajás

The researchers emphasize in their study that the product is "quite difficult" to trace given the diversity of NCMs adopted by exporters. They estimate that 10% of the national production is exported.

Chart prepared by CONAB using data from Agrostat, the national database for exports and imports of agribusiness products:

Customs data accessed by **Repórter Brasil** show that approximately half of Brazil's production leaves ports in the South and Southeast regions, in the states of São Paulo, Paraná, Santa Catarina, and Rio Grande do Sul. Pará is a major port handling almost two-fifths of export shipments. Amapá also exports açaí, but in smaller amounts compared to the states mentioned above. The data correspond to the last three years.

Based on the customs data accessed, it is not possible to determine exports in weight, as most shipments contain açaí mixed with other beverages and fruits. This difficulty in tracing was already highlighted in the previously mentioned study by UnB and UFG.

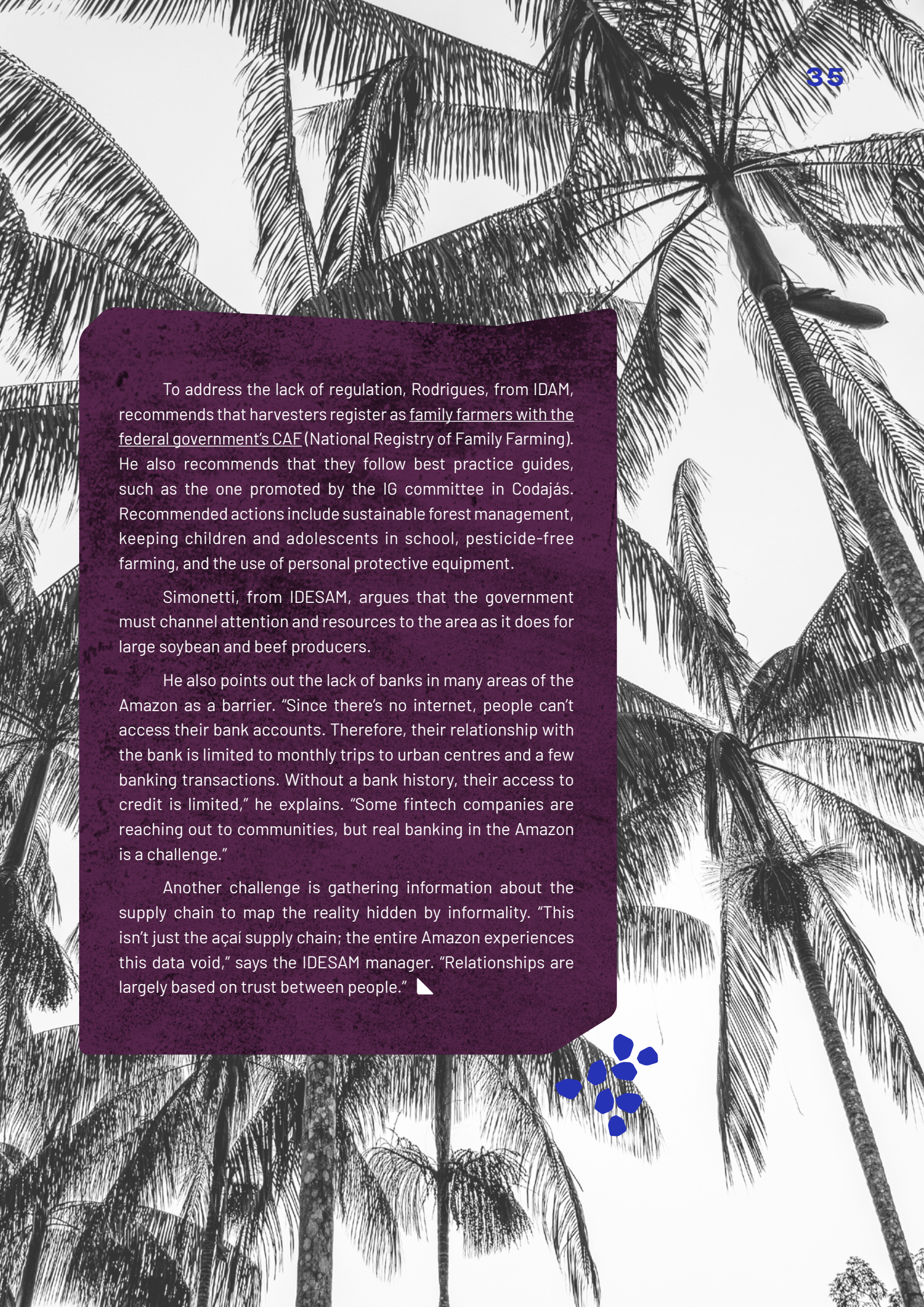
CONCLUSION

Aldelzimar Cardoso is an açaí harvester and lives in the Nova Esperança community, on Lake Salsa (AM)

Açaí harvesting has proven increasingly profitable for workers at the upstream end of this supply chain. Harvesters and experts interviewed in this study underscore how it has provided better income compared to other extractive products. The growth of the açaí market in the last decade is another factor driving the race for the Amazon's "black gold."

However, **the lack of regulation of the açaí harvester profession is still an obstacle to enforcing labour rights**. Informal workers face more challenges to guarantee access to benefits and assistance in the event of accidents and illnesses. For harvesters to enjoy benefits in case of accident, they must prove their connection to that activity.

Currently, gathering in cooperatives is one of the strategies used by groups of harvesters seeking alternatives to insecure work. These groups also offer courses and training in best practices and increase harvesters' knowledge and awareness of the risks involved in their work. For producers to use the Codajás GI seal, for example, the cooperative says it assesses the application of established guidelines to ensure product quality. Safety during harvesting is part of those best practices.

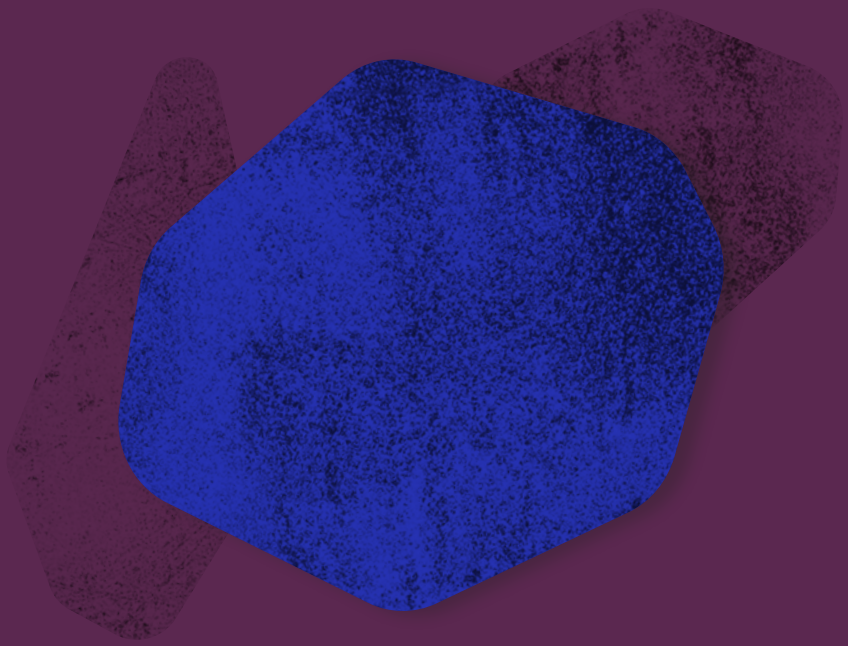


To address the lack of regulation, Rodrigues, from IDAM, recommends that harvesters register as family farmers with the federal government's CAF (National Registry of Family Farming). He also recommends that they follow best practice guides, such as the one promoted by the IG committee in Codajás. Recommended actions include sustainable forest management, keeping children and adolescents in school, pesticide-free farming, and the use of personal protective equipment.

Simonetti, from IDESAM, argues that the government must channel attention and resources to the area as it does for large soybean and beef producers.

He also points out the lack of banks in many areas of the Amazon as a barrier. "Since there's no internet, people can't access their bank accounts. Therefore, their relationship with the bank is limited to monthly trips to urban centres and a few banking transactions. Without a bank history, their access to credit is limited," he explains. "Some fintech companies are reaching out to communities, but real banking in the Amazon is a challenge."

Another challenge is gathering information about the supply chain to map the reality hidden by informality. "This isn't just the açaí supply chain; the entire Amazon experiences this data void," says the IDESAM manager. "Relationships are largely based on trust between people."



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