tropoc

Since 1973

SUSTAINABILITY REPORT 2020

tropoc
Since 1973

SAMAÚMA TREE

Ceiba pentandra

Planted in 1973 in the
beginning of TROPOC's activities.

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MESSAGE FROM THE MANAGING DIRECTOR
WIVALDO ARAÚJO

Welcome to the third TROPOC Sustainability Report. This year, marked by the COVID-19 pandemic that hit Brazil and the whole world, will go down in history. Despite all the difficulties and challenges imposed by the pandemic, we maintained the operations, offered support to people and communities and invested in different areas.The restriction of movement and the social distancing changed our routine and imposed new protection procedures regarding the coronavirus threat. But through cooperation, sense of community and respect to others, we have adapted and become stronger.

Changes in the consumer market behavior have been observed worldwide, especially regarding the intensification of the quality requirements and origin of food products.This fact has intensified the search for strategies to adapt and meet these demands. The requirements of guarantee of origin, the concern with the environment and people's social situation are more and more evident. TROPOC is a pioneer in traceability, sustainability, and excellence in quality of black pepper production in Pará.The continuous improvement efforts are mandatory and our actions, projects and the highlights of 2020 will be detailed in this report.

We were able to get around limitations and maintain our production at full blast this year, with our facilities and processes adapted to the World Health Organization standards, including employees training regarding the COVID-19 protection and prevention procedures, inside and outside companies' premises.Thereby, we served the market and secured jobs, helping to protect our employees and their families from the health and economic crisis that hit the country.

In 2020, in addition to the maintenance of the previous acquired certifications, we implemented processes and protocols to obtain new certifications, which strengthen our resilience and production capacity with the highest levels of quality. Furthermore, we expanded our production and storage capacity through investments in equipment and new industrial facilities.

This year we also reinforced the partnerships with institutions and professionals, allowing us to guide and train rural producers, collaborating decisively with the development of pepper production.

CERTIFIED KOSHER

FAMBRAS HALAL BRAZIL

HACCP CERTIFIED

BRCGS Food Safety CERTIFICATED FOR BLACK PEPPER

FSSC 22000

WHAT WE DO

Based in the city of Castanhal, TROPOC (Tropical Products of Castanhal) is a private company that has been buying and selling black pepper since 1973.

A pioneer in traceability and sustainability, the company has been investing human and financial resources in the sustainable development of Pará's pepper production. The TROPOC sustainability program has several projects and partnerships that promote and enable actions focused on developing the production chain of black pepper based on technical and scientific knowledge.

TROPOC supplies black pepper to the food processing industry and its distribution covers all continents. In 2020, the company served the American, European, and Asian markets with green pepper in brine, black pepper, and platinum pepper, categorized according to customer needs and respecting all the safety standards and regulations of the international markets regarding quality control.

TROPOC currently counts on a network of 640 producers distributed in 23 municipalities in the state of Pará.

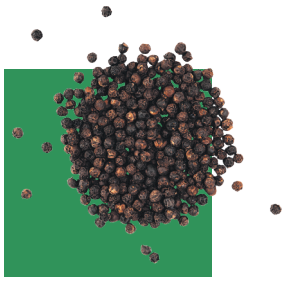
The business strategy is guided by a board of directors that are in constant communication. The company also counts on consulting professionals regarding planning and decisions related to sustainable strategy and social and environmental impacts assessments of its operations.

PRODUCTS

TROPOC has three separate processing lines, one for each of its products (black pepper, platinum pepper and green pepper in brine). In 2020, we handled approximately 10 thousand tons of black pepper.

Green Pepper in Brine

The green pepper is a much-appreciated spice in the kitchen. Harvested before ripening, it has a highly aromatic trace and has a fresher, milder flavor than black pepper. Our green pepper is carefully prepared in brine based on our special recipe.



Black Pepper

Black pepper is TROPOC'S main product. It's one of the most commonly used spyce worldwide and its production has increased considerably in recent years. The distinct pungent, hot and woody flavour of black pepper pairs well with just about any food.

Platinum Pepper

Pepper grains with light shell, free of genetically modified organisms, sun-dried and non-irradiated, according to the requirements of the food industry. This pepper is incredibly special because it has a woody odor and a high volatile oil content. In addition, its production has a low environmental impact, presenting a high degree of sustainability in relation to the production standards of white pepper.

In the year of 2020, there was a decrease in the production of black pepper in the state of Pará. Nevertheless, we were able to maintain the same volume of production and movement of black pepper in comparison to 2019.

2020 HIGHLIGHTS

- Experimental field
- Industrial facilities expansion
- Administrative facilities expansion
- Meliponary expansion
- Certifications
- Geo TROPOC Project
- 100% sun-dried pepper

MISSION, VISION AND VALUES

tropoc
Since 1973

MISSION

To ensure guaranteed, recognized, quality raw materials to our customers.

To offer a technical, logistical, and commercial unique service to our customers.

To provide business and income opportunities in the Amazon geo-economic region to rural producers.

To offer full transparency to our customers through TROPOC Total Traceability.

To offer a product based on a broad Sustainability Program to our customers.

VISION

To employ the experience of 45 years of agro-industrial activities to be globally recognized as a company with guaranteed quality and sustainability. To be the largest company in the segment in Latin America, supplying the global market with tracked, selected, and tested products, with quality and responsibility.

VALUES

Global presence and financial strength.

Commitment to customer needs, proposing solutions that encompass quality, innovation, and services.

Commitment to the environment and the society in which we live.

Respect for the employees, being a company where they are proud to work at.

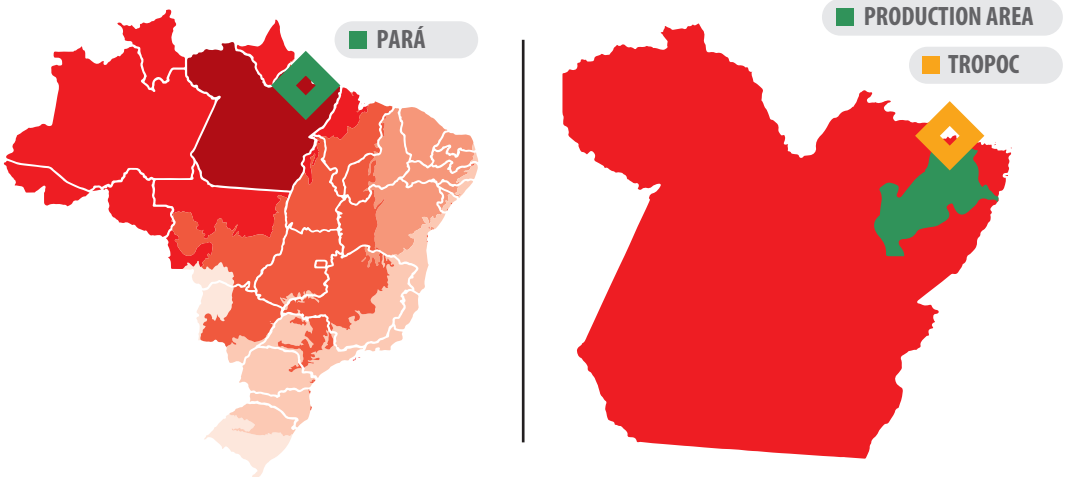
WHERE WE ARE

TROPOC is located in the state of Pará, where the black pepper was first introduced in Brazil. Based in the Amazon region, the biggest biodiversity hotspot in the world, the company deems the respect towards the environment and the local communities as a strategic premise.

Covering up to 49% of the Brazilian territory, the Amazon is the world's largest biome and embraces nine countries (Brazil, Paraguay, Bolivia, Peru, Ecuador, Colombia, Venezuela, French Guiana, and Suriname). There are around 40 thousand species of plants, 300 species of mammals, 1.3 thousand species of birds, living in 4,196,943 km^2 of dense and open forests.

The TROPOC Sustainability Program is focused on meeting the demands and requirements of the international market and the demands on environmental protection.

Having the UN's sustainable development goals as a reference base, the program encompasses multiple actions, including support to social projects, technical training campaigns, social-environmental awareness actions, deforestation and fire monitoring, and development of scientific and technological research for black pepper sustainable production.



PIPERICULTURE IN PARÁ STATE

The black pepper was first brought to Brazil by Japanese immigrants that came from Singapore and settled in Tomé-Açú in the 1930s. The climate and soil conditions were favorable to the development of the pepper production which consolidated the region as the main production pole in the country. Brazil is currently the second largest producer of black pepper in the world, behind Vietnam and followed by Indonesia and India.

There are 80 Conservation Units in Pará with the goal of protecting environmental and natural features such as biodiversity, water resources, and local culture. The state also has 54 indigenous lands protected by law.

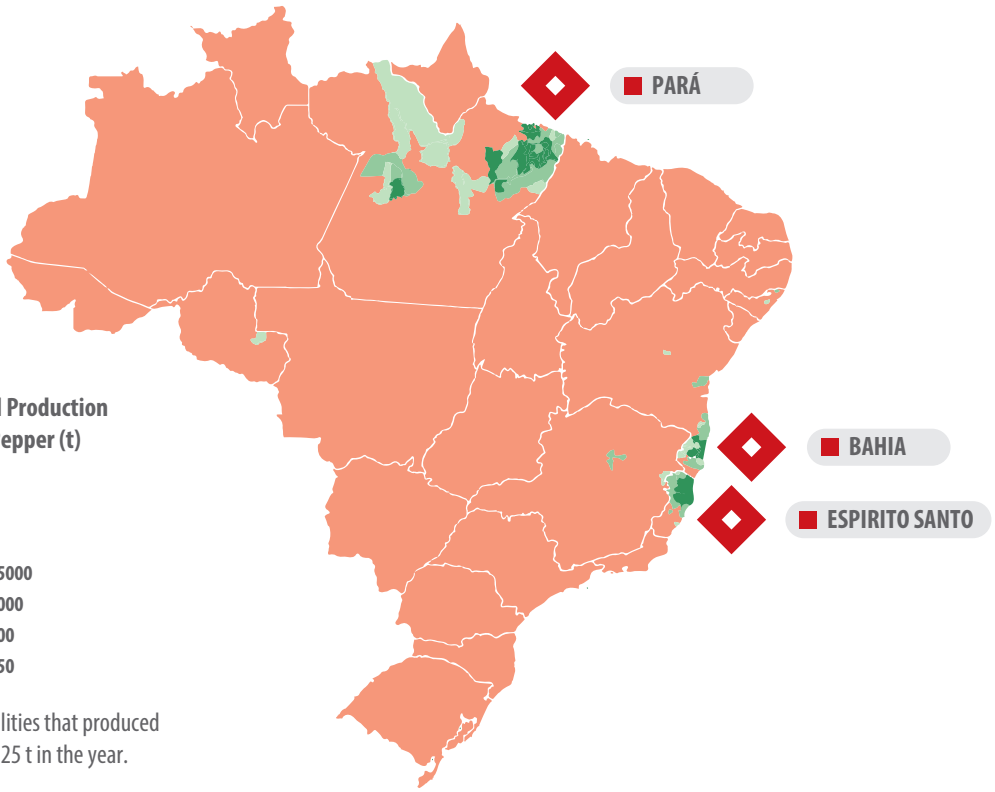
Together, the Conservation Units and indigenous lands have approximately 75 million hectares, representing 60% of the state's total area.

Occupying 0.01% of the total area of the state of Pará, the pepper production is inserted in the context of family agriculture and its production chain involves more than 30 thousand families in the state.

Over the last few years, the state of Espírito Santo has been a standout in the black pepper production scene and is currently the leading producer of Brazil thanks to its increasing production and productivity increment during said period.

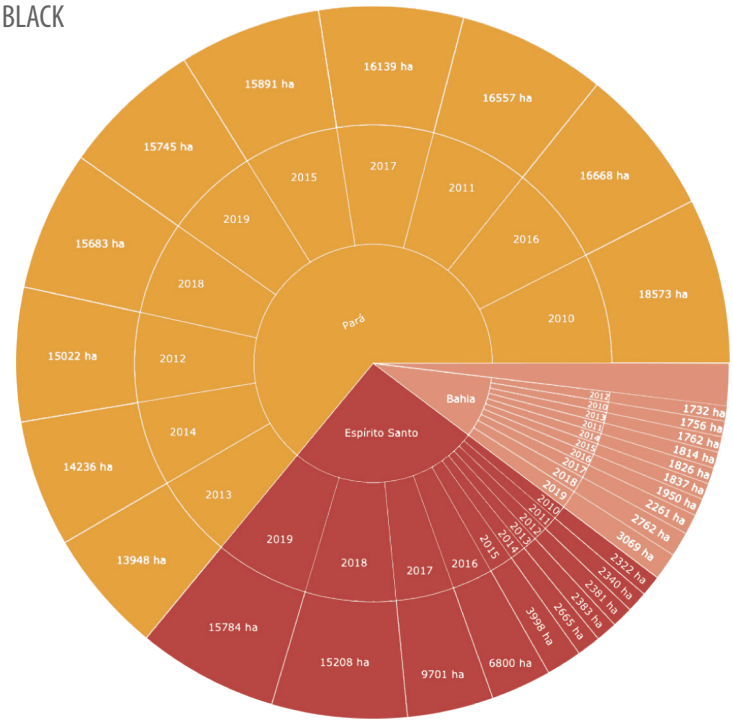
Pepper area in Brazil	35,320 Hectares
Pepper area in Pará	15,745 Hectares
Pará's share in Brazil's pepper area.	45%
Pará's area	124,587,100 Hectares
% of Pará's area covered by pepper	0.01%
Indigenous lands in Pará (54)	34,091,400 Hectares
Conservation areas in Pará (80)	40,854,100 Hectares
Pará's area (except Indigenous lands and Conservation Units)	49,641,600 Hectares
% of Pará's area (except Indigenous lands and Conservation Units) covered by pepper	0.03%

Black pepper production in Brazil is based mostly in the northeastern part of the state of Pará, northern Espírito Santo, and southern Bahia.

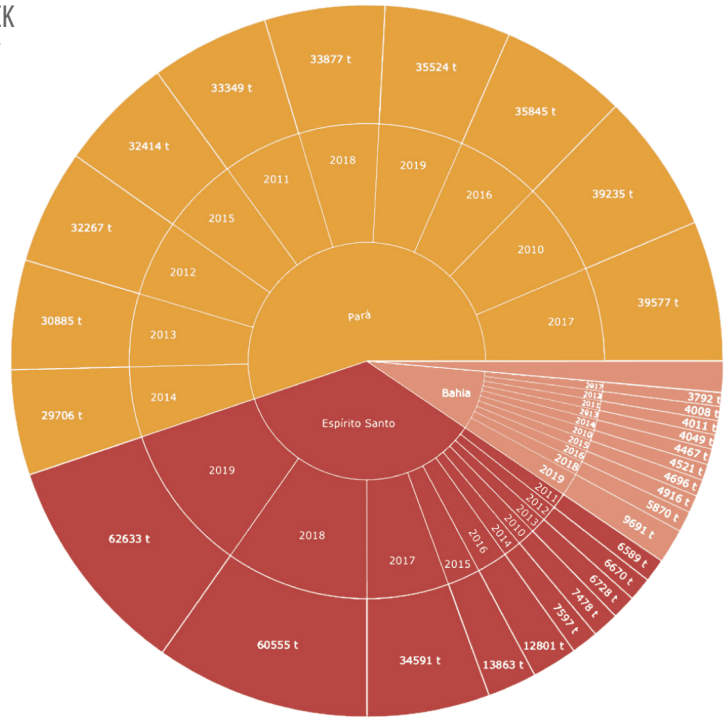


PEPPER PRODUCTION IN BRAZIL

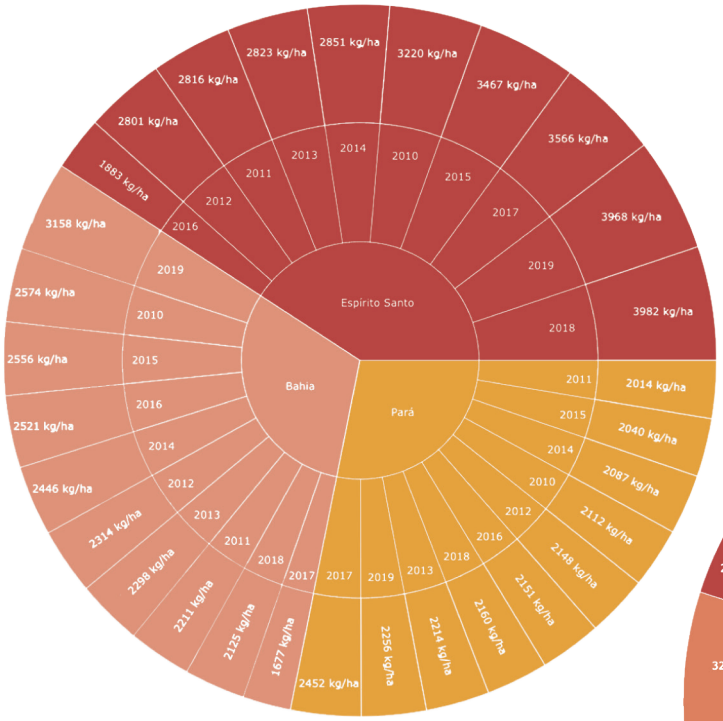
HARVESTED AREA OF BLACK PEPPER (hectares)



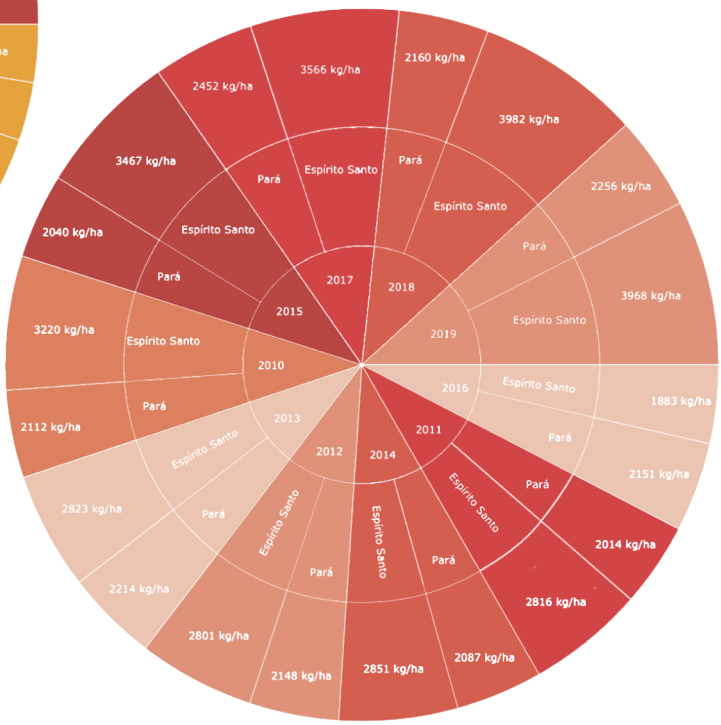
PRODUCTION OF BLACK PEPPER IN BRAZIL, BY STATE, IN TONS.



BLACK PEPPER PRODUCTIVITY IN BRAZIL, IN THE STATES OF PARÁ, BAHIA AND ESPÍRITO SANTO, IN TONS.



COMPARATIVE CHART OF THE PRODUCTIVITY OF THE TWO LARGEST PRODUCTION CENTERS IN BRAZIL (PARÁ AND ESPÍRITO SANTO STATES), IN kg/ha



TROPOC SUSTAINABILITY PROGRAM

Our Sustainability Program is aligned with the Sustainable Development Goals of the United Nations (SDG-UN), which aim to promote prosperity and protect the planet. Among the 17 UN goals, TROPOC selected 6 that are in synergy with the context of the company's operations, to guide the Sustainability Program and the company's actions.

In addition to the SDG-UN, the TROPOC Sustainability Program considers the needs and requirements of our stakeholders. Decisions are made by the company's managers, with the support of consultants specialized in topics related to agriculture, environment and sustainability.

Sustainable Development Goals – United Nations

Chosen Goals - TROPOC

In 2020, the company started its materiality research, considering relevant topics to the company and stakeholders, which cover the entire sector of the production chain and the regional context, including agricultural and operational practices, product quality and safety, social and environmental responsibility, and compliance with legislation.

This survey intends to enrich and improve the understanding about the relevant themes to our stakeholders, optimizing the strategic business decisions.

To such end, a survey was carried out with 30 stakeholders and it allowed the construction of the TROPOC materiality matrix, which will be complemented during the year 2021.

The main material themes indicated as highly relevant according to the preliminary survey of the TROPOC materiality matrix are:

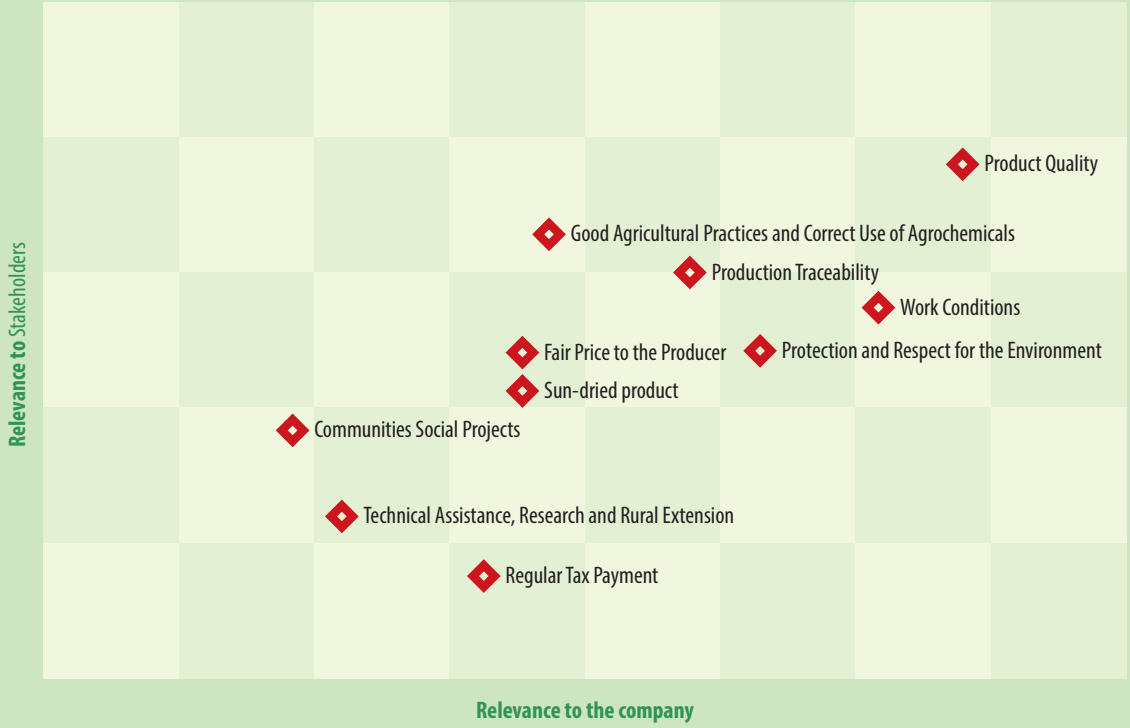
Product Quality | **Work Conditions** | **Production Traceability** | **Protection and Respect for the Environment**

There was a high synergy in the comparative analysis of the TROPOC materiality matrix with the materiality matrix prepared in 2018 by the Fuchs Group, our largest customer.

STAKEHOLDERS

- Employees and colaborators
- Producers
- Clients
- Community
- Government
- Universities and Educational Institutions
- Research Institutions

TROPOC'S MATERIALITY MATRIX



PARTNERSHIPS

We believe that partnerships between institutions are the key to achieve the necessary traction and capillarity for the technological and sustainable development of Pará's pepper production.

The partnership with the Brazilian Agricultural Research Corporation (Embrapa) was established in the framework of the TROPOC Experimental field Project. Several researchers work together with TROPOC technicians on projects that focus on the identification of black pepper varieties adapted to local conditions and to the use of the gliricidia live stalk , establishment of technical parameters for crop management and quantification of carbon dynamics in different types of field management.

The partnership with the Federal Rural University of Amazon (UFRA) is focused on quantifying the parameters and irrigation technology suitable for growing black pepper in Pará. This pioneer work will be especially important to the sector sustainable development, because it will enable the technical dimensioning of irrigation systems, reducing management risks and water waste. University researchers and technicians conduct experiments in irrigation technology and management in the TROPOC experimental field.

The partnership with the State University of Pará (UEPA) was established aiming at the implementation and maintenance of TROPOC's Meliponary. Specialized professionals make frequent visits, monitoring the bees and promoting educational events for students from schools in the region.

Officialized by an official Technical Cooperation Agreement , the partnership between TROPOC and EMATER (Brazilian Entity for Technical Assistance and Rural Extension) is strategic and of great importance for the development of the production chain of Pará's pepper production, focusing on sustainable management and product quality. EMATER's rural extension technicians, in partnership with TROPOC's technicians, promote meetings, field days, events and training sessions with black pepper producers aiming at the optimization of management techniques with a focus on good agricultural practices and environmental protection.

The company is also a member of the Association of Brazilian Pepper Producers and Exporters (ABEP), located in the Pará State - Brasil

360 CYCLE

Our process begins in the field, through technical assistance and training of producers regarding good agricultural practices, product quality and socio-environmental responsibility.

Registration and visits to the producers allow the monitoring of the planting, management, harvesting and drying process activities of the black pepper.

The black pepper is electronically weighed as soon as it enters TROPOC's facilities. During the unloading process, a sample is taken from each bag previously identified at the origin, for quality and compliance testing.

In the industry, the pepper goes through the processes of cleaning, selection, and classification by means of modern equipment such as filters, classifiers, and magnets. This process enables us to guarantee a product that meets the highest levels of excellence demanded by the international market.

All batches undergo analytical verification steps according to the TROPOC quality and compliance protocol, in line with the highest standards of quality and safety required by national and international food safety and compliance agencies.

INDUSTRY

Headquarter

INVESTMENTS IN 2020

Paving of the areas surrounding the industrial facilities.

Purchase and installation of machinery for steam sterilization of black pepper, including gas supply station, boiler, and dryers.

Construction of a truck unloading station with a capacity of 25 tons per hour. Acquisition of an industrial forklift.

Construction of an additional warehouse for the storage of bags with a capacity of 2,000 tons of black pepper.

Acquisition and installation of a semi-automatic packaging machine with bagging capacity of 8 tons per hour.

Acquisition and installation of 4 silos with a total storage capacity of 100 tons of black pepper.

CERTIFICATIONS

EMPLOYEES

The workforce is made up of residents of the municipality and small villages in the vicinity of the company.

100% of our employess are hired under norms and specifications of the collective bargaining agreement of the Union of Food Industry Workers of Castanhal and Region - Pará State.

Temporary employees are hired on demand during the green pepper production period, which runs for up to 8 weeks of the year.

54 Employees

51 Men

3 Women

1 Work Accident

7 Days away from work

0 Occupational disease

125 COVID tests

7 COVID cases

Academic Degree

2% Incomplete Middle School

2% Master's Degree

4% College Degree

6% Incomplete College Degree

7% Incomplete Elementary School

9% Incomplete High School

11% Elementary School

24% Middle School

35% High School

WATER

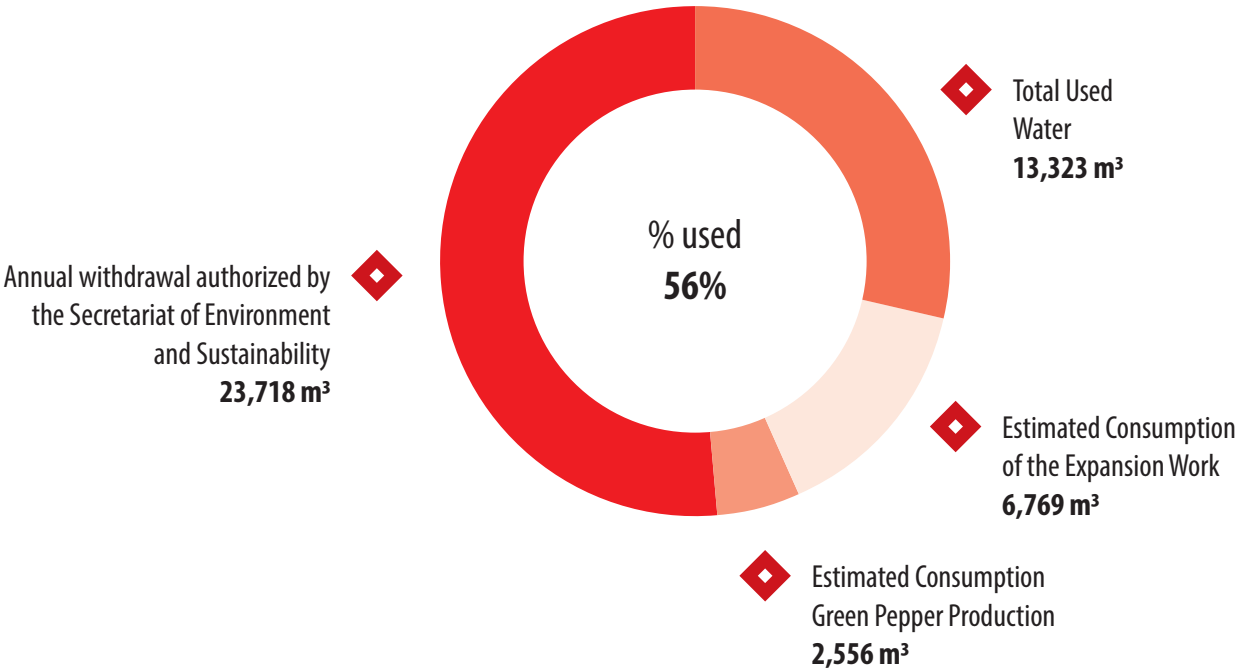
The company's water supply comes from an artesian well granted by the Pará State Secretary for the Environment and Sustainability.

The water from the well is used in all the company's facilities, including houses, administrative buildings, the living center, warehouses, and industrial units.

The quality of the water is frequently verified and documented in a report of physicochemical and microbiological analysis, complying with the requirements of the legislation in force and competent organs.

The operation's Global Water Footprint (GWP) is an indicator of the amount of water used in production, including the stages of industrial operations, cleaning, maintenance, and consumption in the company's support facilities and residences. Thus, it is an indicator of water consumption of the whole operation. In 2020 TROPOC's GWP was 1.06 m³/ton of product. This figure excludes the estimated water consumption of the expansion works carried out in the period in question. However, this footprint does include water used in the irrigation system installed at the TROPOC trial field in the last quarter of 2020.

With measures to monitor and control consumption, we use 56% of the amount of water granted by the Pará State Secretary for the Environment and Sustainability.



ENERGY

Renewable energy sources represent 83% of the Brazilian energy matrix. Hydroelectric, wind, biomass, solar and biogas power plants are the most used in the national territory.

The electric energy source used at TROPOC is supplied directly by Companhia de Centrais Elétricas do Pará - CELPA, which has most of the hydroelectric energy production sources, especially the Tucuruí Hydroelectric Plant, in the state of Pará.

The operation's Global Energy Footprint (GEF) is an indicator of the amount of electricity used in production, including the stages of industrial operations, cleaning, maintenance, and consumption in the company's support facilities and residences. In this way, it is an indicator of energy consumption of the operation. In 2020, TROPOC's GEF was 37.6 kWh/ton of product.

The Global Electricity Footprint of the Industrial Process (GEFIP) is an indicator of the amount of electricity used in the industrial production process, limiting itself to the energy used by machinery and auxiliary systems and lighting. In the year 2020, the GEF was 29.1 kWh/ton of product.

Included in the GWP and GEFIP calculations are the energy expenses used in the expansion works and the use of an electric hydraulic pump in the irrigation system of the TROPOC trial research field.

Total energy consumption (MWh)	233
Energy Consumption in the Industrial Process (MWh)	180
% energy used in the Industrial Process	77%

CARBON FOOTPRINT OF THE INDUSTRIAL PROCESS

Electricity supplied TROPOC's entire industrial process in the year 2020. Greenhouse gas emissions from the acquisition of electricity occur physically at the site where the energy is produced and are classified as Scope 2 emissions according to the Greenhouse Gas Protocol (GHG Protocol), developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD).

Accounting for these emissions allows us to assess opportunities and risks associated with the environmental impacts of production. In 2020, the carbon footprint of the industrial process was 2.0 kg of carbon per ton of product.

WASTE

TROPOC has a protocol of waste separation and collection in the industrial, administrative and residential facilities of the company.

The organic waste is classified in two categories. Part of the waste is used in composting and organic fertilization of the company's plants and vegetable gardens cultivated by resident employees. The part which is unsuitable for such purpose is collected by a collection company authorized by the relevant regulatory bodies.

The company has Sewage Treatment Stations (STSs) monitored by qualified professionals, who perform the system maintenance and elaboration of reports for the operation authorization, obtained from the competent environmental agencies.

INDUSTRIAL PROCESS

Material	Product	Use	Exported	Destination	Wheight (Kg)
Metal	Rack	Packing GP	Yes	Reuse	12,816
Wood	Pallet		Yes	Reuse	7,770
	Plywood		Yes	Reuse	1,980
Paper	Cardboard		Yes	Recycling	710
	Craft paper	Packing BP	Yes	Recycling	956
		Processing GP	No	Recycling	8
Plastic	Blue Plastic Bag	Packing GP	Yes	Recycling	310
	Translucent Plastic Bag		Yes	Recycling	843
	Plastic Bag	Processing GP	No	Recycling	3
	Nylon Clamps	Packing GP	Yes	Recycling	17
	Bag	Packing BP	Yes	Recycling	5,625
	Big Bag	Packing GP	Yes	Reuse	532
		Processing GP	No	Recycling	56
	Stretch Film	Packing GP	Yes	Recycling	266
	Plastic Drum	Processing GP	No	Reuse	56
		Processing PLP	No	Reuse	310
--	Desiccant**	Transport BP	Yes	Refuse	3,750* (units)

The industrial process did not undergo significant changes in 2020. The TROPOC production process follows continuous improvement protocols and has been presenting increasingly lower levels of production breaks.

BP – BLACK PEPPER GP – GREEN PEPPER PLP – PLATINUM PEPPER

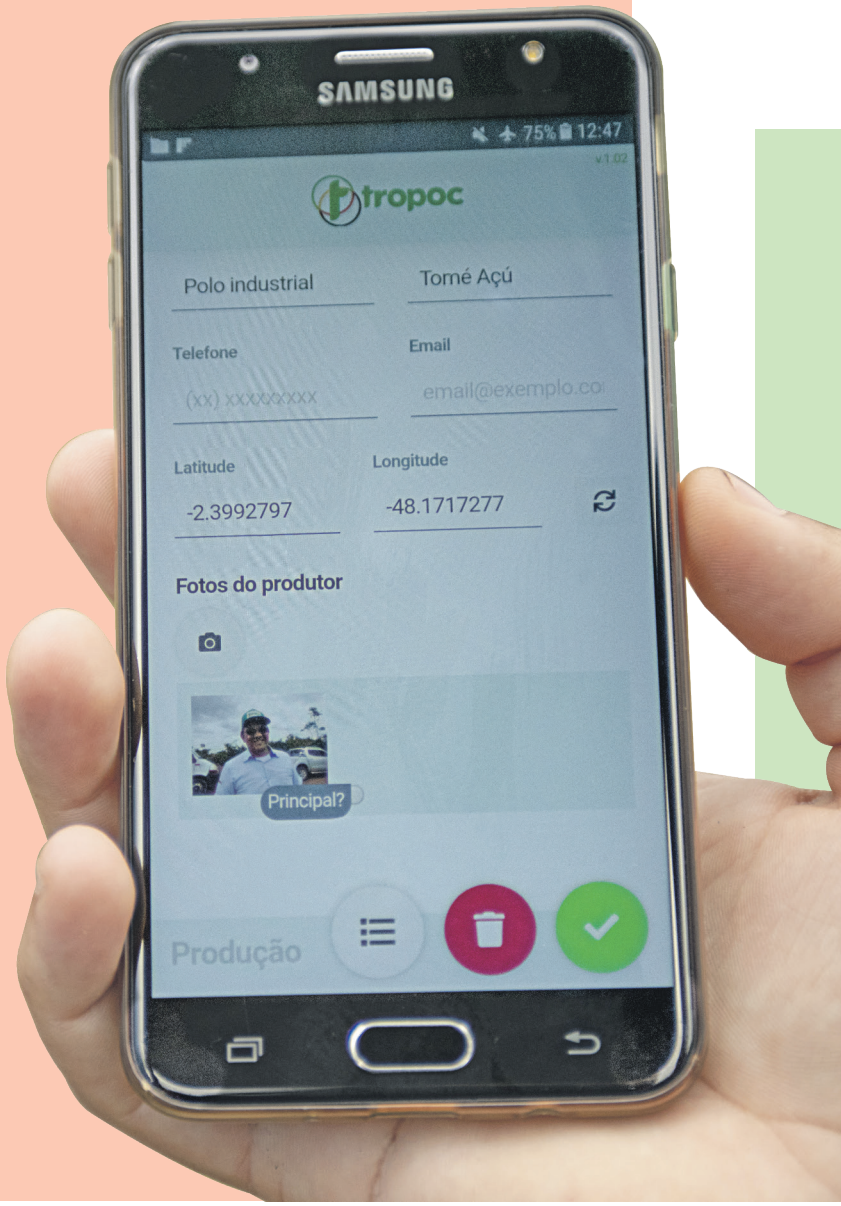
TRACEABILITY AT ORIGIN

TROPOC has its own system of traceability at source, consisting of a tool for remote data acquisition and automatic generation of reports per producer.

Farmers receive periodic visits to update their registration data. During these visits, plantation monitoring activities are also carried out, as well as updates and technical orientation regarding good management practices and the quality and regulatory requirements of the international markets.

The proximity with producers through events, dissemination of technical materials to support production, as well as the constant presence of TROPOC technicians in the fields are constant efforts that strengthen our partnership with black pepper farmers.

These constant efforts that have allowed us to ensure that 100% of our products are under the specifications of the Food and Drug Administration (FDA) and the European Food Safety Authority (EFSA). In addition, 43.3% of our products are free of pesticide residues in 2020.



SUN-DRIED PEPPER

Sun-drying is an important practice for pepper production in Pará. This natural process eliminates the environmental impact of the pepper drying process, which when performed by wood dryers, causes the emission of greenhouse gases and, if the wood is not produced legally, contributes to deforestation, causing negative impacts on the Amazon biodiversity.

Until the mid-2010s, about 60% of the pepper produced in Pará was dried in wood dryers and 40% of the product was sun-dried. Currently, about 95% of the production of Pará is naturally sun-dried.

Due to the anthraquinone contamination caused by the wood-drying process, added to the negative environmental and biodiversity impacts caused by these methods, TROPOC established in its quality requirement protocols that all its production must come from producers that use the natural sun-drying method.

This requirement led to a change in the habits of many producers, who stopped using drying systems that demand wood burning after receiving orientation and technical instruction from TROPOC's professionals.

It takes approximately 40 to 60 cubic meters of wood to dry a standard export lot, consisting of 25 tons of black pepper.

Considering the production of the year 2020, we avoided using about 14,000 cubic meters of wood in the drying process, avoiding the release of up to 12,800 tons of CO_2 equivalent into the atmosphere.

Although the carbon from burning of comercial wood is part of a closed biological cycle and the biomass burning results in emissions are classified as biogenic, they can be considered neutral in terms of climate impact, since the carbon dioxide gas is generated through a biological cycle (and not a geological cycle, as in the case of fossil CO_2). However, the burning of wood or biomass from deforestation is not considered neutral, having impacts on global warming and on the loss of biodiversity.

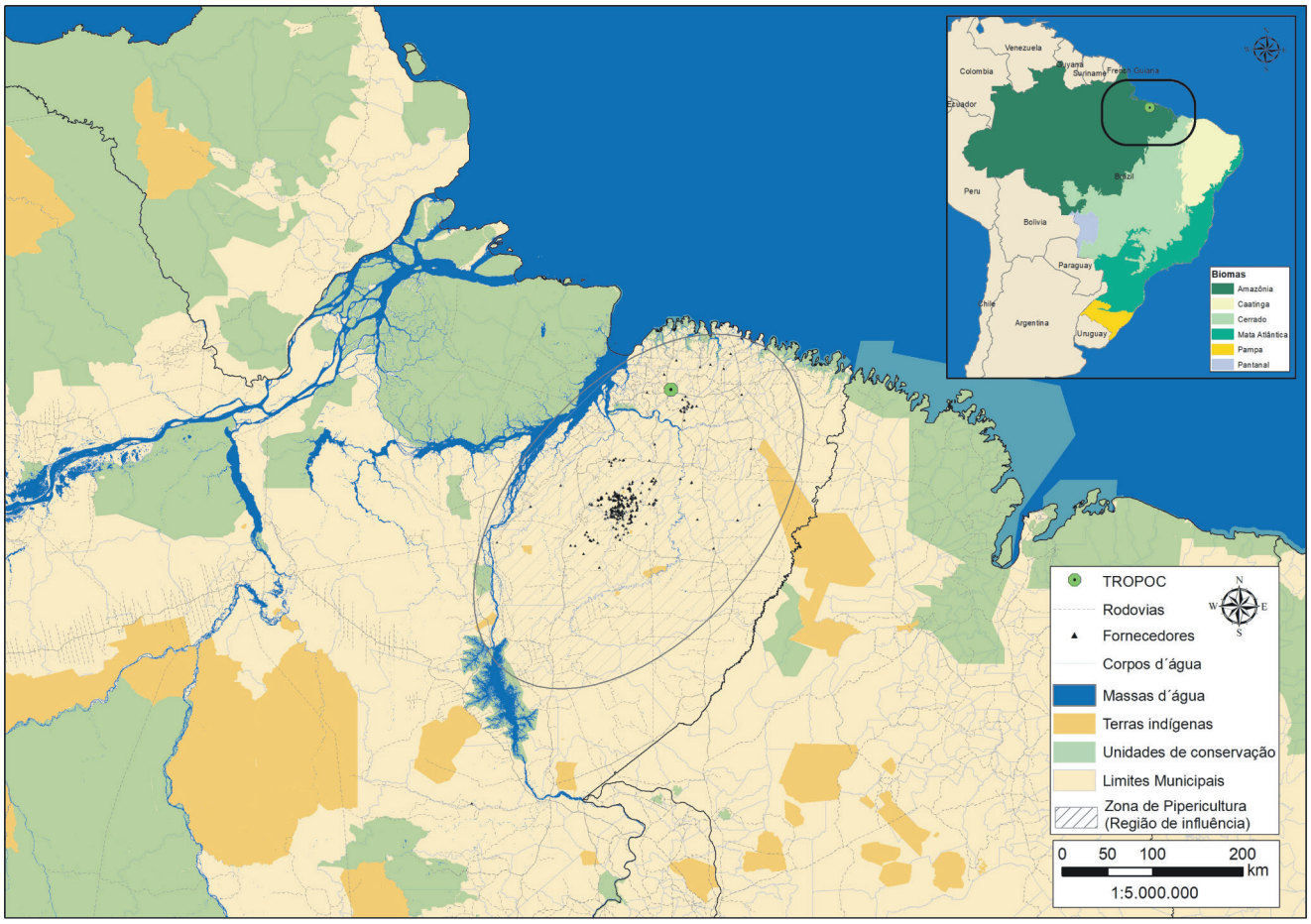
GEO TROPOC PROJECT

The Geo TROPOC project aims to monitor the dynamics of land use on the suppliers' properties, as well as the occurrence of wildfires in the regions where black pepper is produced.

We use satellite images made available by the European Space Agency, added to geoprocessing and artificial intelligence techniques to identify areas with different land use and land cover.

The project is carried out constantly and is an essential tool for the company's sustainability and traceability program.

With mapping, we provide subsidies to the farmer for the assessment of environmental compliance and guidance as to the requirements and regularization processes, in joint actions with the Brazilian Entity for Technical Assistance and Rural Extension(EMATER-Pará).



The Geo TROPOC Project aims to assure the origin of our products and help in the sustainable development of pepper production in the Amazon through transparency, respect to the environment and commitment with sustainable development.

What is the GEO Project?

TROPOC's priority is to offer high quality black pepper, produced according to good agricultural practices and with social and environmental responsibility to the foreign market.

To ensure that our pepper comes from producers who respect the environment, we are developing the Geo TROPOC Project, which ensures that our producers respect and protect our forests through satellite imaging.

What is the importance of the GEO Project?

Our producers are inserted in the most important biome on the planet. The pepper production in the Amazon is a national and international reference in production and quality.

The Geo TROPOC Project assures our clients that we produce pepper in the Amazon and at the same time we are aligned with practices and ideals of respect and protection to the environment.

What is the importance of the GEO Project to the producer?

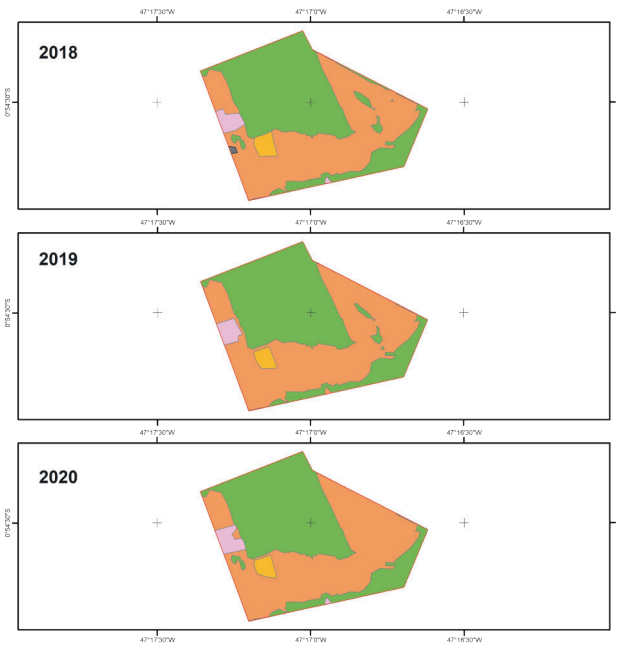
Through the Geo TROPOC Project we will ensure that the property preserves the native forest. This way we will guarantee the origin and credibility of our products and the trust of our customers.

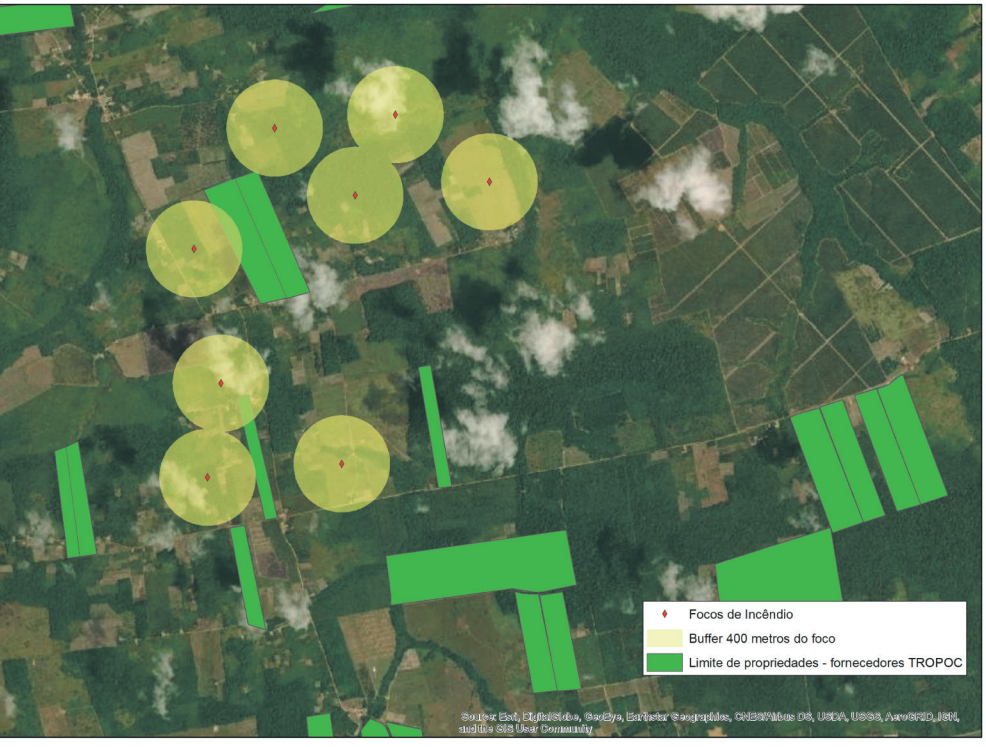
Together, we are engaged in the development of pepper production in the Amazon through transparency, respect for the environment and commitment to sustainable development.

The results of the project are composed by maps and analysis regarding to the quantification of the areas occupied by peppers, forests, other crops, and pastures, for each TROPOC supplier.

This project allows the temporal analysis of the dynamics of land use and occupation, identifying, for example, occurrence of suppression of forest vegetation within the properties.

The acquired information is organized and summarized for different geographic regions, allowing a spatial analysis of the results and providing the basis for the company's decision making.





The Geo Project has been improved and as of 2020 will detect areas of producers in the vicinity of fires detected by satellite by the National Institute for Space Research (INPE)

In this way, we obtain a robust information base for the direction of verification actions, instruction, and eventual support for producers' compliance with environmental legislation.

FUTURE OF PEPPER PRODUCTION

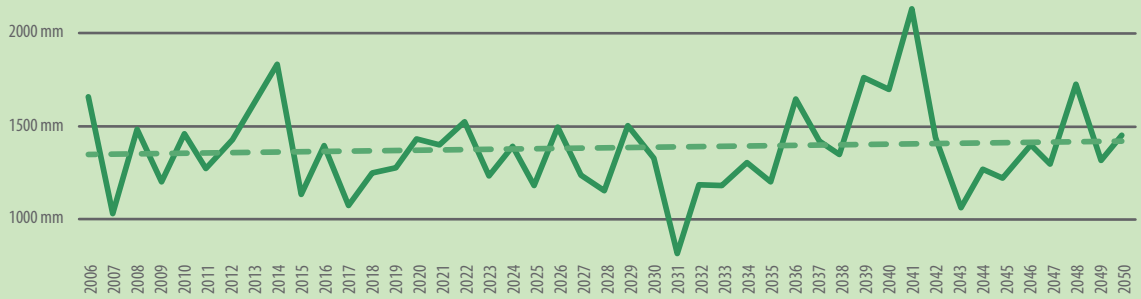
Through partnerships with public institutions involved in the production chain of black pepper in Pará, TROPOC acts intensively in the development of the sector. Future challenges include the concepts and practices of sustainability and environmental protection, social responsibility and food safety.

Climate change is occurring, and adaptation and mitigation measures must be taken so that the perpetuity and good development of the black pepper sustainable production are possible.

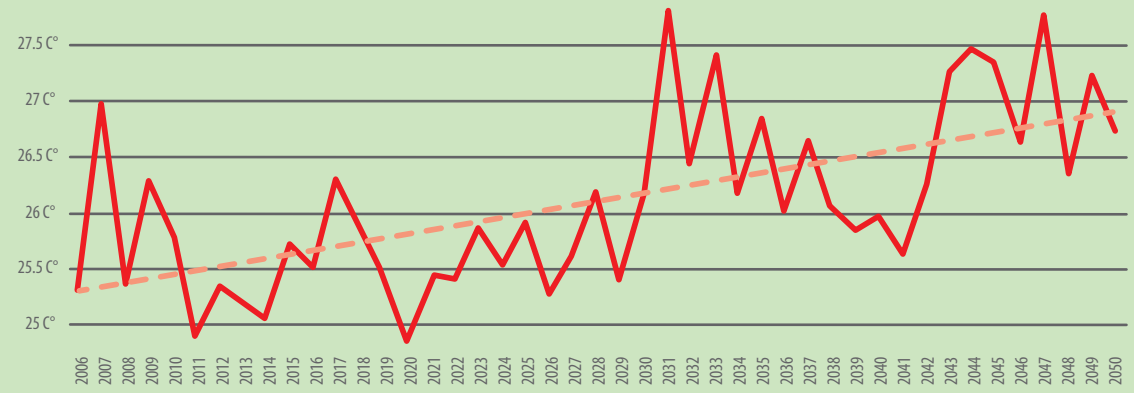
Climate models indicate a future scenario of stability in rainfall patterns and an increase in the average temperature in the Tomé-Açú region, the main center of black pepper production. The impact of this increase could severely affect crop productivity if adaptation measures are not taken.

The research and development project carried out by TROPOC, in partnership with UFRA, EMATER and Embrapa, will provide subsidies for quantifying the impact of the activity in relation to carbon emissions into the atmosphere and will generate results that will guide the planning and management practices aligned with the concepts of sustainability and adaptation to climate change.

Annual Average Rainfall Tomé-Açú - HadGEN 4.5 – 2050 Model



Annual Average Temperature Tomé-Açú - HadGEN 4.5 – 2050 Model



RESEARCH AND DEVELOPMENT

This project is developed in the TROPOC's experimental field in partnership with public research, development, and extension agencies (Embrapa, UEPA, and EMATER-Pará). This project allows us to provide sustainable production technology with the possibility of cultivation with live gliricidia tutors, eliminating the need for the use of wood stakes, which often come from illegal extraction done in forests.

We have implemented and are currently sponsoring a state-of-the-art experimental field focused on defining the benchmarks and KPIs of a sustainable pepper field.

IMPACTS OF THE ADOPTION OF GLIRICIDIA ON FOREST BIODIVERSITY

Acapú is a tree native to the Amazon and its wood has high quality and durability, being used by the construction and ship building industries and in the construction of agricultural improvements.

Traditionally, Acapú wood is used for staking the black pepper plants by Pará producers and can be obtained legally by purchasing certified stakes. However, the wood used often comes from illegal deforestation, causing various negative impacts on the climate and biodiversity.

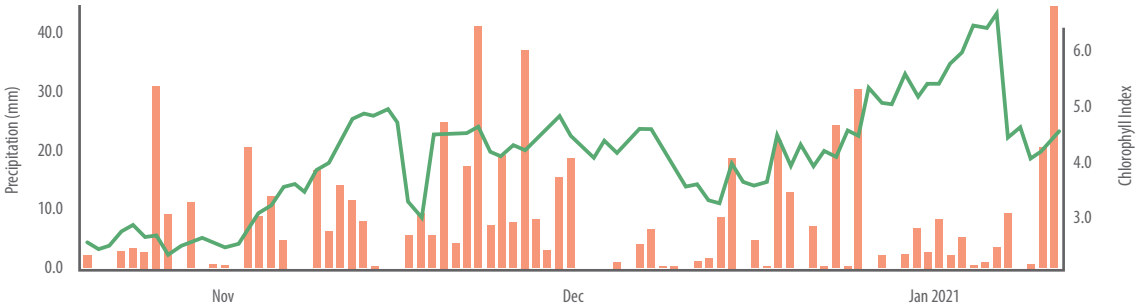
In the Amazon forest, there are naturally 4 to 7 Acapú trees per hectare. Considering that one tree produces up to 55 stakes, a one-hectare black pepper production formed from illegal stakes has removed Acapú trees from approximately 4.3 hectares of forest.

The adoption of gliricidia stakes in the cultivation of black pepper prevents illegal deforestation, collaborating with the preservation of the environment and the maintenance of the biodiversity of the Amazon.

We have installed modern sensors in our experimental field that collect meteorological information and plant development indicators in real time with the aim of providing subsidies and enriching the analyses carried out by the project's researchers.

Constant monitoring of:

- **Precipitation**
- Evapotranspiration
- **Radiation**
- Chlorophyll Levels
- **Temperature**



The benefits of adopting the pepper plants conduction system with gliricidia live stakes have already been observed in the field and in some scientific papers. The highlights already identified are:

- **Greater field longevity**
- **Greater field uniformity**
- **Better soil structure**
- **Dynamic nutrient cycling over time**
- **Carbon fixation in the soil**

Besides the agronomic benefits, the adoption of the system saves production costs in the pepper field implementation stage, promotes better working conditions due to lower temperatures in the plantation, and prevents trees from being illegally extracted from the forest to be used as stakes.

THE USE OF LIVING GLIRICIDIA TUTOR IS ESSENTIAL FOR THE SUSTAINABLE DEVELOPMENT OF PIPERICULTURE.

MELIPONARY

The technical collaboration project in meliponiculture was structured through the research group in the Amazon Agroindustrial Science and Technology from the Pará State University (UEPA),. The project consists in the management of native stingless bees and in carrying out educational and environmental awareness practices for students in the region.

The TROPOC Meliponary is based in the company's green areas and has two species of indigenous stingless bees: *Melipona flavolineata* and *Melipona fasciculata* species.

The presence of pollinators in the ecosystem can bring several benefits to biodiversity, among them:

- Maintenance of population and genetic variability of plants
- Enabling diversified pollination of fruits and seeds
- Honey production

Several studies point out antimicrobial and anticancer properties of honey from stingless bees. They also indicate an improvement in hypertension and diabetes levels when compared to honey from sting bees.

This initiative brought a practical character to the actions of environmental education and biodiversity maintenance and TROPOC is open for educational visits to the project site.

In 2020 TROPOC expanded the meliponary structure expanding the capacity of bee boxes. The company also launched informative and technical material about meliponiculture and its economical and environmental aspects, guiding and encouraging the expansion and adoption of the practice in Pará.

PROJECTS AND SOCIAL ACTIONS

EEEM DOUTOR FÁBIO LUZ

TROPOC has a tradition of sponsoring projects, providing equipment, and fostering the execution of educational activities in rural schools in the region where the company operates.

In 2020, TROPOC collaborated in the following campaigns in partnership with the State School of Education (EEEM) Doutor Fábio Luz, located in the municipality of Tomé-Açú, which has 1658 students divided into 40 classes.

- Supply of 100 plastic chairs for the use in classes and events held by the school.

- One dringking fountain to provide filtered and safe water for the students, teachers, and employees of the school.

HEALTH DEPARTMENT OF TOMÉ-AÇÚ

In 2020, TROPOC collaborated in the following campaigns in partnership with the Health Department of Tomé-Açú:

- Donation of 850 protective masks to fight the COVID-19 pandemic.

- Donation of 250 T-shirts for health agents in the vaccination campaign against polio, which achieved 97% vaccination coverage, applying 5.227 doses to children in the municipality, including rural, riverside, quilombola and indigenous population.

- Sponsoring for printing campaign folders to fight prostate cancer in the context of the Public Health Campaign Blue November, which promoted 300 clinical exams in the municipality.

SOCIAL ACTIONS

Castanhal City Hall

The economic crisis resulting from the COVID-19 pandemic hit thousands of families in the country. Aiming to collaborate effectively in combating the effects of the crisis, TROPOC sponsored the purchase and provided support for the distribution of 150 food baskets to families in need in the region.

Evangelical Church Assembly of God of Castanhal

In 2020, TROPOC donated construction materials for the renovation and expansion of the religious temple headquarters of the Assembly of God Church in Castanhal, to help maintain and improve the facilities of a hall with capacity for 120 people, where weddings, birthdays, graduation ceremonies and meetings are held.

GRI INDEX

DISCLOSURE		PAGE OR REASONS FOR OMISSION
GRI 101 - FOUNDATION 2016		
GRI 102 - GENERAL DISCLOSURES		
102-01 Name of the organization		02
102-02 Activities, brands, products, and services		02
102-03 Location of the organization's headquarters		02
102-04 Location of operations		02; 06
102-05 Ownership and legal form		*The legal entity is subject to national law and is configured as a limited liability company (Ltda.).*
102-06 Markets served		02
102-07 Scale of the organization	*The company has chosen not to disclose the economic information in the public version of the report because it is strategic data. However, the version of the report with such information can be requested. The company will assess whether or not disclosure is authorized.*	02; 15
102-08 Information on employess and other workers		15
102-09 Supply Chain		21
102-10 Significant changes to the organization and its supply chain		*Não houve mudanças significativas na cadeia de suprimentos*
102-11 Precautionary principle of approach		12; 13; 19; 21; 23; 25
102-12 External Initiatives		12; 39 - 31
102-13 Membership of assiciations		12
102-14 Statement from senior decision-maker		01
102-16 Values, principles, standards and norms of behavior		05
102-18 Governance structure		02
102-40 List of stakeholder groups		11
102-41 Collective bargaining agreements		15
102-42 Identifying and selectiong stakeholders		11
102-43 Approach to stakeholder engagement		11
102-44 Key topics and concerns raised		11
102-45 Entities included in the consolidated financial statements		*TROPOC does not disclose its balance sheet publicly because it is a privately owned company.*

DISCLOSURE	PAGE OR REASONS FOR OMISSION
102-46 Defining report content and topic boundaries	11
102-47 List of material topics	11
102-48 Restatements of information	*There were no restatements of information*
102-49 Changes in reporting	*There were no changes*
102-50 Reporting period	*January 1, 2020 to December 31, 2020*
102-51 Date of most recent report	*Year 2019 referring to January 1, 2019 to December 31, 2019*
102-52 Reporting cycle	*Anual*
102-53 Contact point for questions regarding the report	35
102-54 Claims of rerporting in accordance with the GRI Standards	35
102-55 GRI content index	33
102-56 External assurance	*This report was not submitted to an external verification process*
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GENERAL INFORMATION AND CONTACT

This annual report covers the year of 2020. The information presented is relative to projects, actions and operations carried out from 1 January to 31 December of 2020, unless otherwise stated. The last report refers to the year of 2019.

We have implemented projects and systems to gather and analyze data and information related to our operations more efficiently and accurately. This will allow us to provide more information in the next reports.

This Report was prepared following the norms and instructions of GRI Standards: "Core Option". When presenting the Report's contents, we adhered to the Reporting Principles as defined by the GRI Standards to specify the contents of the Report – Inclusion of Stakeholders, Sustainability Context, Materiality and Completeness – and to the Reporting Principles defining the Report's quality: Accuracy, Balance, Intelligibility, Comparability, Reliability and Up-to-Dateness.

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EXCLUSION OF LIABILITY


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