

ZERO DEFORESTATION AND CLIMATE CHANGE

(UPDATED IN JUL 2024)

Zero Deforestation

The success of the Forest Reserves Protection and Biodiversity Monitoring Programs is due to the zero deforestation and forest preservation policy adopted by Agropalma Group in the year of 2001.

It was during 2001 that the company had conducted the final deforestation activities on its lands, properly licensed and authorized by the competent environmental authority. The policy of banning deforestation and establishing new plantations only in areas already degraded by human activity has been adopted since then. We are proud to say that since 2001 company did not carry any deforestation (legal or illegal), so the area of deforestation is zero.

Our commitment to zero deforestation also applies to all our suppliers, which we monitor in person every two weeks. Following the RSPO and Brazilian Forest Code, our deforestation cutoff date in 2008. We are proud to say that record only one of our suppliers having made deforestation in an area of 81,3ha. This area was cleared in 2008 and 2009 and pastures (48%), shrubland (25%) and secondary forest (27%) occupied it. Currently 80.23ha are being restored as compensation and 1.06ha are being restored as remediation (in riparian buffer).

In 2021, according to guidelines from the Zoological Society of London (ZSL), Agropalma Group has undertaken the commitment of zero conversion of any Natural Ecosystem, including primary ecosystems, regenerated natural ecosystems, managed natural ecosystems and partially degraded natural ecosystems that still have a relevant ecological function and are liable to natural or assisted regeneration. This commitment applies to companies own plantations as well as to suppliers plantations.

In addition, since 2021, also following ZSL guidelines, Agropalma commits to restore ecosystems and their values to their prior condition and/or provide suitable compensation to restore these values in the case of non-compliant deforestation or conversion within the company's own operations. This commitment also applies to all FFB suppliers and in case any of FFB suppliers make a non-compliant conversion and it refuses to restore the area, company will stop buying from this supplier until a restoration plan is being implemented. Although we have no areas for restoration based in this commitment, must be crucial to follow the criteria established for new plantations as described below, especially as a preventive approach to avoid any damage to ecosystems and non-compliant conversions.

Furthermore to Agropalma's own areas, 245 third-party suppliers in Brazil were checked in 2022 for deforestation through satellite monitoring and field verifications of alerts received. This represents 99.6% of our third-party supplier base.

New Plantation

Agropalma establishes new plantations according to the following criteria, which are applied to our own plantations, family farm plantations and integrated producers in partnership with the Company:

• Conduct a socioenvironmental impact study, which includes assessment of high conservation value (HCV) areas before planting. The HCV assessment is done by a professional accredited by the HCV Network's Accreditation Licensing Scheme.

- The area to be planted is not, (or was not) covered by native vegetation, even secondary forests, since November 2005.
- The area to be planted does not have any high conservation value.
- The area to be planted has no peat or organic soils or any other type of soil considered unsuitable for planting oil palm.
- New plantings carried out in partnership with family farmers or integrated producers shall be established only after they provide their free, prior and informed consent.

Since November 2013, when the POIG Letter was published and introduced the concept of evaluation of High Carbon Stock (HCS), Agropalma has not established any new plantations. The few new plantations by integrated producers were implemented in areas with non-native vegetation, predominantly pastures, so that no HCS assessment was necessary. Since, 2019, after the implementation of RSPO P&C 2018, HCSA methodology became mandatory for all RSPO members, and HSC assessments using the HCSA toolkit were carried before all new plantings made by our family farmers and integrated outgrowers.

Complementing the efforts to ensure zero deforestation, Agropalma Group has a robust fire detection and firefighting system. The company has trained firefighters, equipment, tools, vehicles and heavy machinery used in firefighting. In addition to the local visual identification of fire outbreaks, Agropalma also has an alert service provided by RSPO and WRI (Fire Watch).

Whenever a fire outbreak is identified, the Emergency Action plan (EAP) is triggered and the company allocates the required resources to put it out. Moreover, the company occasionally carries out awareness raising campaigns on the importance of fire prevention.

The analysis of our data history reveals that very few fires affect Agropalma. They mostly start outside the farms and always occur in the second semester, during hotter and drier months. The chart below features the fire management information of 2020 and 2021:

Alert date	Amount of outbreaks	Areas inside farm or in the region?	Confirmed?	Action performed/Outcome
17/jul/20	01	External	Yes	Monitoring the situation. The neighbor controlled the fire before Agropalma was hit.
30/ago/20	01	Internal	No	A team was sent to the scene to check, but no source of fire was found.
14/out/20	01	External	Yes	The fire occurred in the neighbor's area, but the fire did not spread to the Agropalma area.
29/out/20	01	Internal	No	A team was sent to the scene to check, but the source of fire was not found.
30/out/20	01	External	Yes	Monitoring the situation. The neighbor controlled the fire before Agropalma was hit.
12/dez/20	01	External	Yes	The fire occurred in the neighbor's area, but the fire did not spread to the Agropalma area.
08/fev/21	01	External	Yes	Monitoring the situation. The neighbor controlled the fire before Agropalma was hit.
12/set/21	01	Internal	No	A team was sent to the scene to check, but no source of fire was found.
10/ago/22	01	Internal	Yes	A team was sent to the scene to check and the fire was found but the cause could not be identified. The fire was controlled and did not affect forests or plantations.
17/set/22	01	External	Yes	The fire occurred in the neighbor's area, but the fire did not spread to the Agropalma area.
13/nov/22	01	External	Yes	The fire occurred in the neighbor's area, but the fire did not spread to the Agropalma area.
10/jul/23	01	Internal	No	A team was sent to the scene to check, but no source of fire was found.
24/jul/23	01	External	Yes	The fire occurred in the neighbor's area, but the fire did not spread to the Agropalma area.
17/set/23	01	External	Yes	The fire occurred in the neighbor's area, but the fire did not spread to the Agropalma area.
01/dez/23	01	External	Yes	The fire occurred in the neighbor's area, but the fire did not spread to the Agropalma area.
11/dez/23	01	External	Yes	The fire occurred in the neighbor's area, but the fire did not spread to the Agropalma area.

NDPE Profile

Since 2021, Agropalma has carried out monitoring of No-deforestation and No-Peat Exploitation - NDPE annually from its refineries. This commitment guides our engagement actions with high-risk supplier mills to comply with our policies.







Origin by product







Greenhouse gas management

Our carbon footprint is measured using the RSPO PalmGHG Calculator, considering scopes 1 and 2 emissions, including total land use change emissions. The Calculator reports on two indicators: one that offsets the carbon sequestration resulting from our 64,000 hectares of conservation area and one that excludes conservation areas. Including Agropalma's conservation areas allows us to understand the real impact of our entire operations and highlights the importance of forests in mitigating climate change. However, we also want to measure our progress and impact against other companies in the palm oil sector, including some that do not consider conservation areas in their calculations.





Agropalma is committed to global targets aiming at 1.5°C. Our goal is to maintain our operations, improve CFF production and continue with a carbon neutral footprint. Based on the data obtained, the main source of GHG

emissions in our plantations is historical land use change, which represented 474,663 tons of CO2 in 2021. Moreover, around 32% of our gross emissions come from manageable sources, such as effluent from the palm oil industry (POME) and diesel for transportation and use in the operation.



Our actions to mitigate and combat climate change cover four main areas:

- Ensure that future plantings carried out by our CFF suppliers or ourselves do not result in further emissions. In addition to our policy of prohibiting planting on organic soils (peat) and zero deforestation from 2015, we are also committed to avoiding future development in areas with high carbon stocks, such as primary forests or areas undergoing regeneration.
- In our refining operations, we expect to complete the transition to renewable energy in boilers, as well as expanding the vehicle fleet to lower emission options. In 2023, from the operation of transporting crude oil by waterway, replacing the traditional road mode, we achieved the retention of 81.7 tons of CO2 emissions. The transportation of oil by trucks powered by natural gas was responsible for retaining 7,466 kg of CO2 in our operations in Limeira-SP.
- In planting activities, another measure of our plan is the application of adequate dosages of agricultural fertilizers and maintenance of tractors and trucks used for harvesting and transporting CFF in good condition, in order to avoid unnecessary increases in fuel consumption.
- New technologies for effluents (POME) are being studied and implemented. We hope to complete the effluent treatment and methane capture for all six factories by 2025. In addition, the composting project began in 2023 and is in the installation phase and aims to dispose of the effluents generated in our plants in a more sustainable way. extraction industries. We are committed to reducing the intensity of our manageable GHG emissions by 60% by 2027 for scope 1 and 2 emissions.

Climate risks

While we can contribute to climate change mitigation, by managing well our operations and residues and especially by assuring the protection of our forest reserves, we might be affected by climate change.

Agropalma plantations are located between the latitudes 2° 13' 20"S and 2° 42' 19"S. The average annual rainfall is 2.500 mm, not so well distributed. The dryer months (July, August, September and October) regularly receive less rainfall (57 mm in average), resulting in an average cumulative hydric deficit of 300 mm. This situation means that Agropalma plantations are located in the lower limit for the recommended requirement of rain as well as in the superior limit for hydric deficit.



However, in between 2014 and 2018, average rain was 2321 mm with an increased hydric deficit of 438 mm. This situation had a severe impact in our plantations, causing a drop of up to 20% in our yields. Fortunately, 2019, 2020 and 2021 presented a regular rainfall and hydric deficit of 2.775 mm and 277,4 mm in average, respectively.



Considering we have a relatively short historical series of data for climate analysis (38 years), it is not possible to predict a reliable trend to our specific location. Nevertheless, company clearly understand that climate

change is happening and, if it causes the reduction of the total amount of rainfall or make the driest months even dryer, the yields of our plantations will be severely affected, and company will face important agronomic and commercial challenges.

To mitigate or eliminate the damage caused by the potential fewer amount of rain, company have to implement three strategies: (1) implement regenerative techniques to improve soil chemical and physical conditions to allow palm roots grow deeper to explore water not available to them currently – already being implemented; (2) seek for or develop genetic varieties more tolerant to higher hydric deficits (already been implemented); (3) as last resource, implement irrigation system – company already have a trial in 60 ha, testing 2 different technological options.

Climate change has also potential to modify incidence of plagues and diseases in our plantation. Currently we have every year 4 or 5 months in which the rainfall is low. This "dry" season breaks the life cycle of many species that otherwise could become a plague or disease. To a plant disease develop, it needs at same time a host, a pathogen and a proper environment. Therefore, in case climate change makes our region rainier and more humid, especially in the months that are currently drier, probably some species of insects and fungus will be benefited from the new environment, by don't having their life cycles broken. In this case, we might have more plagues and diseases to manage, changing our current natural condition of low plagues and diseases incidence.

To mitigate the risks of Agropalma being surprised by new diseases or plagues caused by changes in climate patterns, we need to keep our phytosanitary monitoring activities as well as comparing and analyzing the results against the climate indicators, especially rainfall and air humidity, bus also considering temperature and the incidence of hours of direct sunlight. If we have an indication that a new plague or disease is likely to develop, we will then exchange experience with other companies that face the same problems to exchange expertise and making our own efforts to develop a non-chemical management strategy. It is important to register that no chemical prophylactic is going to be adopted.