

SOCFINDO
SUSTAINABILITY
REPORT

2024





📷 View of a predator insect *Sycanus* sp. foraging on a beneficial plant *Turnera subulata*



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ABOUT THIS REPORT

Reporting Boundaries and Changes in Reporting

This Sustainability Report (Report) covers and reports on the sustainability performance of PT Socfin Indonesia (Socfindo), a private entity which is part of the Socfin Group and has its headquarters in Medan, North Sumatra, Indonesia. It is a subsidiary of the Socfin Group in partnership with the Government of Indonesia who are a minority shareholder. Socfindo is a Oil Palm and Rubber Plantation Company based in Indonesia. This Report covers both Socfindo's Rubber and Palm Oil operations.

Report Scope and Content

This is Socfindo's fourth Sustainability Report and has been prepared in accordance with the Global Reporting Initiative (GRI) Standards including the relevant sector standard GRI 13 for Agriculture, Aquaculture and Fishing. In addition to the GRI, Socfindo has been influenced by the EU Corporate Sustainability Reporting Directive (CSRD), which while not mandatory on Socfindo, is highly relevant, therefore where possible, reporting is being prepared to align more closely with CSRD requirements. Finally, Socfindo's climate change disclosures are based on Task Force on Climate-Related Financial Disclosures (TCFD) recommendations. Socfindo's full GRI content index can be found on our website www.socfindo.co.id/documents/eng/TCFD-Report.pdf

This Report covers the calendar years 2023 & 2024 (i.e. from 1 January 2023 to 31 December 2024). For comparability, where relevant and available, historical data is also provided from 2022. It is Socfindo's intention to continue reporting on a biennial basis. There have been no significant changes to Socfindo to report since its last 2022 report and this report contains no material restatements of information from previous reporting periods.

This Report has been divided into 5 major sections: Our Approach to Sustainability, Socfindo Conservation, Market, Environment and People; which is consistent with how Socfindo organizes its internal approach to sustainability.

Socfindo has continued with its multiple certifications, which require extensive independent third party audits of its operations across a broad range of sustainability concerns. External assurance was not conducted on the information contained within this report, however Socfindo may consider obtaining external assurance on certain key disclosures in the future.

If you have any comments or questions regarding the contents of this report or on Socfindo's Sustainability, please contact us on head_office@socfindo.co.id.



📷 One of our dedicated harvester on the way to his harvesting block

MESSAGE FROM PRINCIPAL DIRECTOR

We are pleased to present Socfindo's fourth Sustainability Report. Socfindo remains both one of the oldest and leading dedicated plantation companies in Indonesia. Responsible land management, agronomy, family and community have been core values in Socfindo for over a 100 years and remain at the heart of Socfindo's continued success and the foundation upon which Socfindo's sustainability program lies. Today Socfindo proudly continues to be a leading producer of sustainable palm oil and rubber as well as a significant regional employer providing thousands of rural jobs in North Sumatra and Aceh and an important contributor to the regional economy and community. Socfindo's sustainability journey continues to evolve to stay in front of the rising bar of sustainability regulations and expectations of customers and consumers.

Two key pieces of sustainability regulation that have come out of Europe recently are the EU's CSRD and European Sustainability Reporting Standards (ESRS) and the EU Deforestation Directive. These represent a shift from voluntary measures to mandatory legal requirements. While not directly captured by the CSRD, Socfindo as a part of the Socfin Group has been moving to align its sustainability reporting closer to the CSRD and ESRS requirements. Socfindo already has in place a comprehensive internal sustainability reporting system that tracks and integrates sustainability data as part of its business as usual internal "dashboards" and this system has put Socfindo in good stead in being able to comply with these additional reporting requirements.

Socfindo is already fully compliant with the EU Deforestation Directive, through its No Deforestation, Peat or Exploitation (NDPE) commitments and current practices including full Chain of Custody (CoC) certifications which certify traceability of all its palm and rubber products back to the plantation level enabling Socfindo to demonstrate that its products do not originate from land which has been deforested. Socfindo welcomes and supports initiatives aimed at combating global deforestation and improving social standards. However, a balance needs to be struck to ensure these measures also respect developing countries right to develop economically, meet basic needs, and pursue a higher quality of life. In addition, to ensure fairness as well as effectiveness, all agricultural commodities should be subject to the same regulations – currently the EU Deforestation Directive only covers seven specific commodities¹.

Third party certification remains a key pillar in Socfindo's sustainability program ensuring the traceability of its products. We are proud to announce that all Socfindo's palm and rubber products have full CoC certifications and are traceable back to the Plantation level. Since 2023, Socfindo's rubber estates have achieved full Programme for the Endorsement of Forest Certification (PEFC) Certification, therefore Socfindo's rubber products are 100% certified under the PEFC traceable back to plantation level. Socfindo's palm products have been 100% RSPO Identity Preserved (IP) traceable back to the plantation level since 2020.

1. The Eu Deforestation Directive currently covers: cattle, cocoa, coffee, palm oil, rubber, soya and wood.

In relation to its palm product, Socfindo continues to embrace the Roundtable on Sustainable Palm Oil (RSPO) and Indonesian Sustainable Palm Oil (ISPO) sustainability certifications which remain the most stringent and comprehensive commodity sustainability standard. The 2024 RSPO Principles and Criteria (P&C) were recently adopted in November 2024, and Socfindo is in the process of transitioning to the 2024 P&C. In relation to its rubber product, in addition to PEFC, Socfindo remains committed to the Global Platform for Sustainable Natural Rubber (GPSNR), and anticipates that the GPSNR will become its core certification for its rubber business once it is fully released.

Despite ongoing targeted criticism of palm oil, it remains a fact that oil palm is by far the most land efficient food oil crop, producing significantly higher yields per hectare than any other food oil crop. We welcome a recent International Union for Conservation of Nature (IUCN) report² echoing the point that “there is no good or bad oil crop, only good and bad practices”. IUCN also found that oil palm produces on average 2.9 tonnes of palm oil per hectare which is around four times higher than alternatives, such as sunflower or rapeseed oil and 10 to 15 times higher than popular alternatives, such as coconut or groundnut oil. We note that Socfindo itself produces on average 5.2 tonnes of palm oil per hectare with 25% of its plantations, achieving more than 6 tonnes per hectare and does this on soils it has farmed continuously for close to a hundred years. These facts demonstrate how misguided conversations about “replacing” palm oil

with alternative food oil crops are to feed a growing world population.

Instead, the focus needs to be on improving practices and yields on the existing land base which can provide a pathway to double current output with no expanding land base. These efforts would also greatly improve revenue for the vast number of smallholders whose yields lag behind due to lack of knowledge and access to the best genetic stock, fertilisers and agronomic practices. Socfindo’s Smallholder Program was launched to improve the standard of living of independent smallholders through increased productivity by applying sustainable agricultural cultivation practices. So far, this program has been able to assist 528 Sei Liput farmers to receive RSPO certification, with 368 Aek Loba farmers to undergo RSPO certification in 2025. The program has multiple benefits, assisting farmers to increase their yield, access premium prices through RSPO certification as well as improve the sustainability of their agricultural practices.

There continues to be an underlying trend of uncertainty both in terms of the effects of climate, and in the wider geopolitical environment. Indonesia experienced a decline in palm oil production in 2024 by 6% or 2.9 million MT year on year due to extreme weather, specifically vastly higher rainfall in certain regions. This reduction in production was buffeted by the Indonesian Government announcing plans to raise biodiesel production through the B40 program and higher prices. Looking at the current global operating

2. IUCN Exploring the future of vegetable oils: Oil crop implications – Fats, forests, forecasts, and futures (2024) Meijaard, E., V et al, available at <https://portals.iucn.org/library/sites/library/files/documents/2024-010-En.pdf>.

environment, 2025 may bring continued challenges especially amidst the uncertainties around the ongoing geopolitical conflicts, the new US administration all of which will impact global supply chains, consumer spending and the demand and supply outlook for vegetable oils. Costs are also expected to remain at high levels, and this requires Socfindo to continue to be proactive in assessing and managing risk and maintain a disciplined control on our costs. Notwithstanding these challenges, as a committed responsible producer of sustainable palm oil and rubber, Socfindo continues to strive to make step wise improvements in all aspects of its sustainability performance.

An example of Socfindo's continued proactive strategy to assessing and managing risk is its approach to adapt to the effects of climate change. Socfindo continues to feel and adapt to the effects of climate change, in particular the effects of changing weather patterns, and their knock on effects on yield, infrastructure and pest and disease. Socfindo is a dedicated plantation company whose crops are 100% rain fed, therefore is reliant on stable weather patterns. Assessing climate risk and implementing proactive strategies to adapt to the effects of climate change and to climate resilient agriculture are a core part of Socfindo's long term agronomy strategy. As part of this strategy, Socfindo recently undertook a full assessment of climate opportunities and risks in accordance with the TCFD guidelines. Moving forward, Socfindo will incorporate these structured risk management assessments into its sustainability program.

Socfindo is committed to a stepwise reduction of its Greenhouse Gases (GHG) emissions in line with Indonesia's Nationally Determined Contribution (NDC) commitments. Socfindo undertook for the first time a full scope 1, 2 and 3 GHG assessment and this is the first time that Socfindo has quantified and reported on its Scope 3 emissions. Socfindo is committed in the future to continuing to report on its Scope 3 emissions.

Despite Socfindo's commitment, making material reductions in Socfindo's core Scope 1 GHG emissions remains a challenge. Socfindo's current GHG reduction program is focused on reducing its emissions associated with its Palm Oil Mill Effluent (POME) emissions, which are a significant source of its scope 1 emissions as well as a material source of methane emissions. Currently, there are no pragmatic solutions as biogas capture does not suit Socfindo's smaller mills and there is no requirement for additional power. Socfindo is working hard to develop an alternative solution we are trialling in our Bangun Bandar mill in conjunction with our compost, as it goes hand in hand with the maintenance of soil fertility and agronomy. The solution involves separating the solid portion of the POME which can then be used as organic fertiliser and can reduce emissions from POME by up to 50%.

Currently, Socfindo has one dewatering container installed in its Bangun Bandar mill and is planning to roll out the second one this year. Socfindo is still working on fine tuning the operational aspects of working with such large quantity of sludge and trying to maximize the nutritional potential of its compost. Once the technology has been mastered, Socfindo will look to implement this in its other mills, and it will also be a great potential solution for other smaller mills with older plantations, for which biogas is not a cost-effective solution. Despite the challenges, we are committed to the path of continued GHG reduction and stepwise improvement in sustainability.

Socfindo continues to support our female-led Toga team in Socfindo Conservation, which continues to scale its efforts both in the garden and in the community contributing to biodiversity, conservation, community skill enhancement, and community-based economic development. One such example, is the opening of the Tea House in our Bangun Bandar estate, next to the main Socfindo Garden.

The Tea House is not only a highly attractive setting for the Socfindo Family to meet and gather, but also serves as a community-based micro-enterprise model helping locals utilise herbal ingredients to create high-value tea products. As we reflect on the Socfindo Conservation initiative, I can only commend this team effort as it has had such a positive contribution to society. As per our stakeholder engagement, involving for the first time a double materiality questionnaire, we find that social and economic development is still paramount to our local communities, and this is reflected in the choice of projects developed under the Socfindo Conservation umbrella. Although difficult to quantify as compared to environmental benchmarks, we proudly continue our reporting on the efforts and successes of Socfindo Conservation in this Report which is only due to the more than 150 women who play a crucial role in program management and implementation.

Lastly, I would personally like to thank all the employees of Socfindo and their families for their hard work and effort without which nothing would be possible. At the heart of Socfindo's long standing success are good people and their families and without their continued dedication and support, Socfindo could not continue to exist and prosper. Socfindo's foundation is built on its people and their families, the "Socfindo family" and this is Socfindo's greatest asset and most important priority. I am very honored to be a part of the Socfindo family.

Harold O. Williams

Principal Director



 Fresh fruit bunch collection in Bangun Bandar estate

ABOUT SOCFINDO

Overview of Socfindo

45,799 ha
Total Planted Area



PLANTED BY REGION

■ North Sumatra	64%
■ Aceh	36%

8,738
Total Employees



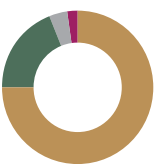
EMPLOYEES BY REGION

■ North Sumatra	65%
■ Aceh	35%



PLANTED BY CROP

■ Oil Palm	86%
■ Rubber	14%

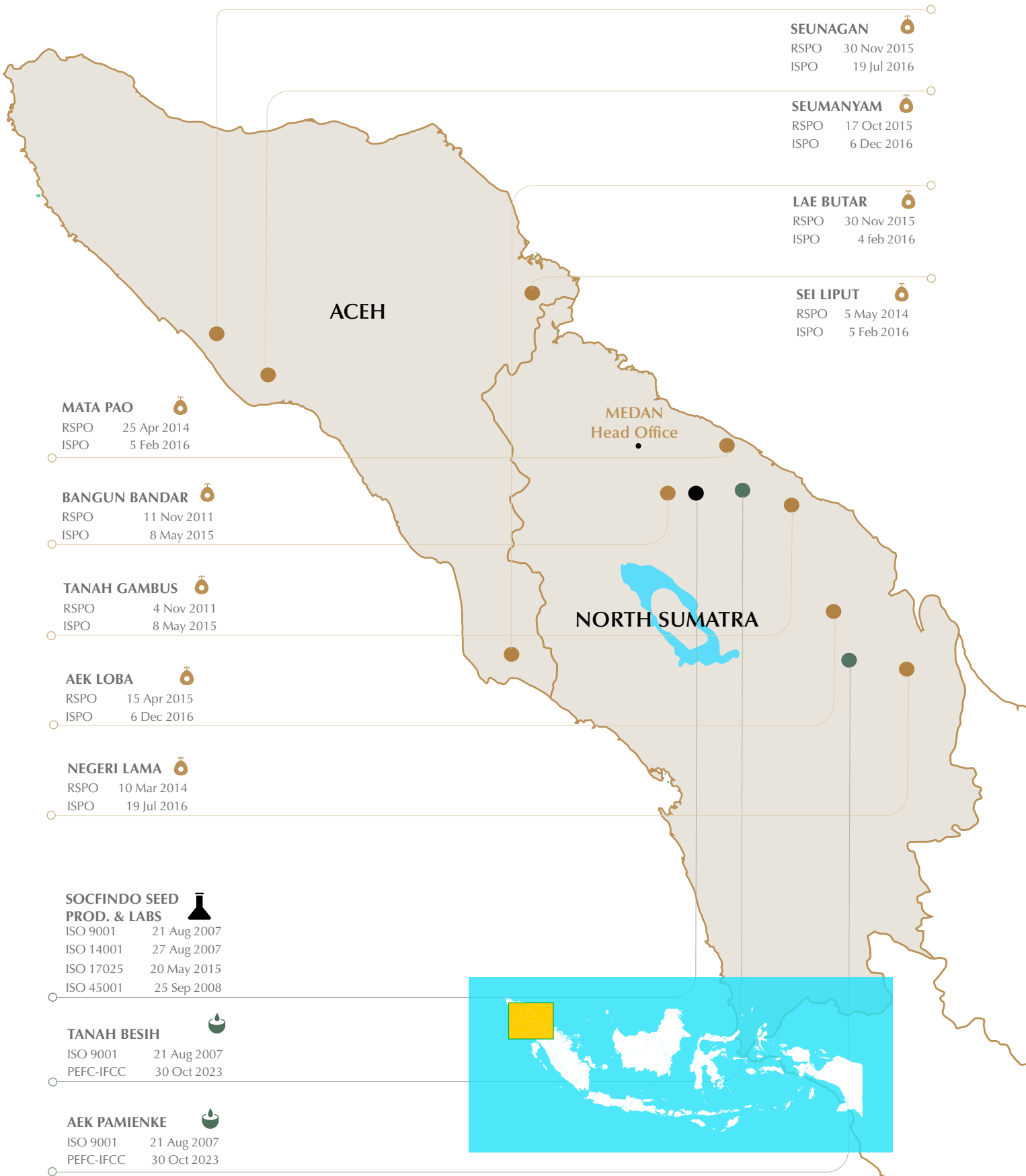


BY ACTIVITY

■ Oil Palm	78%
■ Rubber	16%
■ R&D Production	4%
■ Head Office	2%

PT Socfin Indonesia (Socfindo) is a world class Oil Palm and Rubber Plantation Company with its operations in North Sumatra and Aceh Provinces and its headquarters in Medan, North Sumatra, Indonesia. Socfindo is part of the Socfin Group and is a joint venture between the Socfin Group (90% of shares) and the Government of Indonesia (10% of shares). Socfindo is both one of the oldest and leading palm and rubber plantation companies in Indonesia. Socfindo's origin can be traced back to the early 1900's, when rubber estates were flourishing in Sumatra to serve the high global demand for natural rubber. Oil palm estates were created soon after, having noticed the high potential of the area to grow oil palm. Socfindo was not, however, formally established as PT Socfin Indonesia until 1968, and since then has remained active in rubber and oil palm planting activities in North Sumatra and Aceh provinces to this day. Socfindo is known for its efficiency and leading agronomic practices and is a leading responsible producer of sustainable Palm Oil and Rubber in Indonesia.

Socfindo's Operations



Oil Palm

39,474 ha
Total Palm Planted Area



BY REGION

North Sumatra	59%
Aceh	41%

Socfindo has the following products and services related to its Palm business.

CRUDE PALM OIL AND PALM KERNEL

Socfindo is an upstream Plantation company that produces intermediate processed products that are sold to downstream processors who use these products as raw materials, further refine and process to make a variety of products. Socfindo's major oil palm products are Crude Palm Oil (CPO) and Palm Kernel. Socfindo is not involved in the downstream value chain. In its palm operations, Socfindo only processes its own Fresh Fruit Bunches (FFB) from its palm estates therefore can ensure the source and sustainability of its operations.

OIL PALM SEEDS

Socfindo also has a long standing, established reputation for producing oil palm seeds of the highest quality, and it has been legally appointed as a source and producer of oil palm seeds in Indonesia since 1984. Socfindo has the fourth largest market share in terms of seeds sold in Indonesia and are the largest producer of Ganoderma tolerant seeds. Currently Socfindo produces the following seed varieties for sale :

- DxP Socfindo (L) - Lame variety
- DxP Socfindo (Y) - Yangambi variety
- DxP Socfindo MT Gano - variety tolerant to Ganoderma disease

For more details on Socfindo's seed business please see <https://www.socfindo.co.id/about-us/research> and <https://www.socfindo.co.id/products>.



Well protected employees loading FFB to one of our trucks

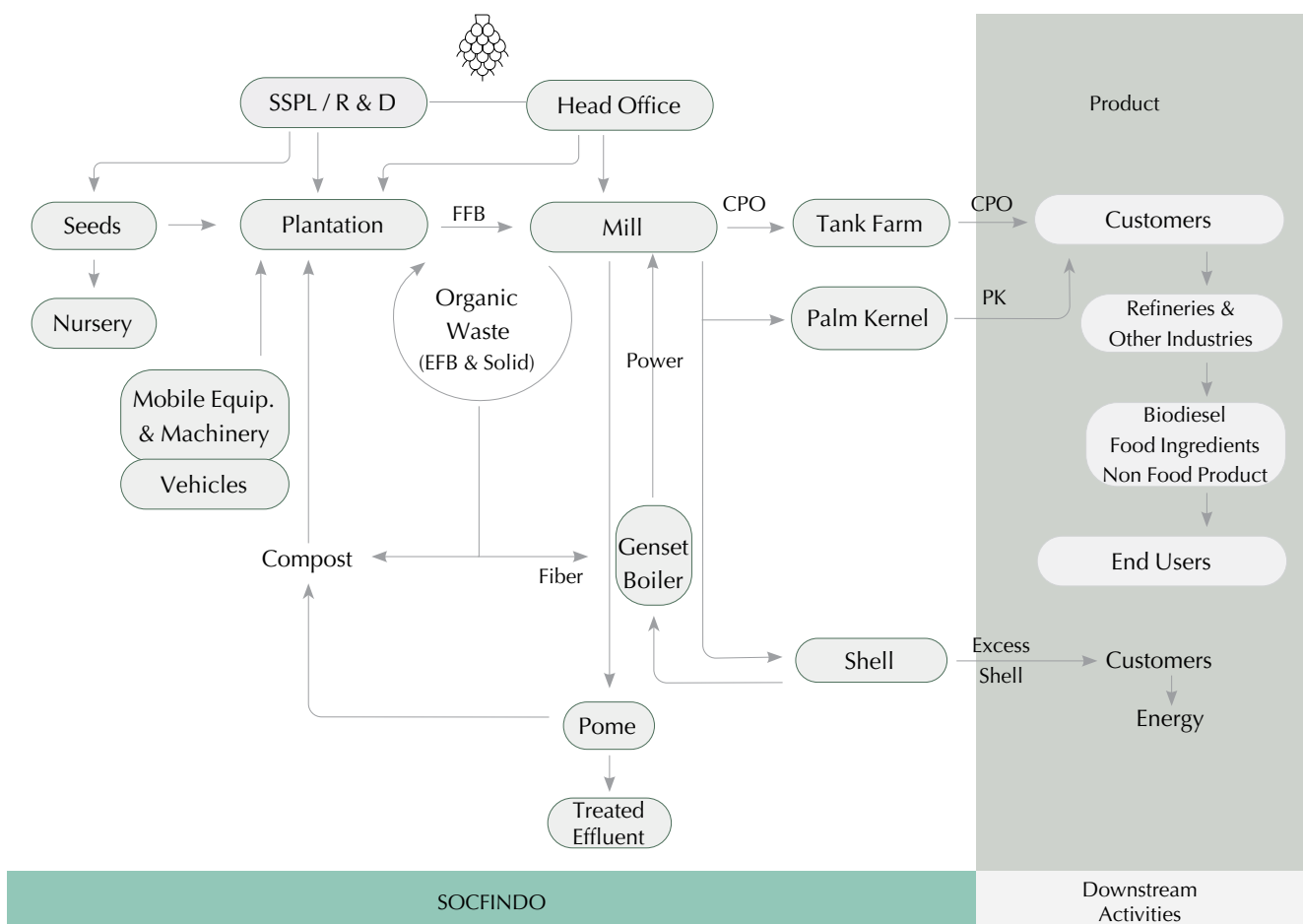
AGRONOMIC CONSULTANCY SERVICES & LABORATORY ANALYSIS

In addition to its core palm product, Socfindo provides agronomical consultancy services as well as analytical laboratory services from its own laboratories to other plantation companies. Socfindo's business over the last hundred years has been centered on the creation and management of oil palm and rubber plantations, and the milling of its associated products. Socfindo has always invested significant resources into research and improvement in its agronomic practices, and has a long history of cooperation in relation to research, development and agronomy science. Today, these services include :

- Leaf and Rachis Analysis
- Fertiliser, Compost Analysis and Fertiliser Recommendation
- Soil Analysis
- Latex Diagnosis and Rubber Exploitation Recommendation
- Waste and Effluent Water Analysis

For more details on Socfindo's Agronomy Consultancy & Analytical and Laboratory Analysis business please see <https://www.socfindo.co.id/services/analytical-laboratory>.

Oil Palm Process



Rubber

All Socfindo's rubber is located in North Sumatra

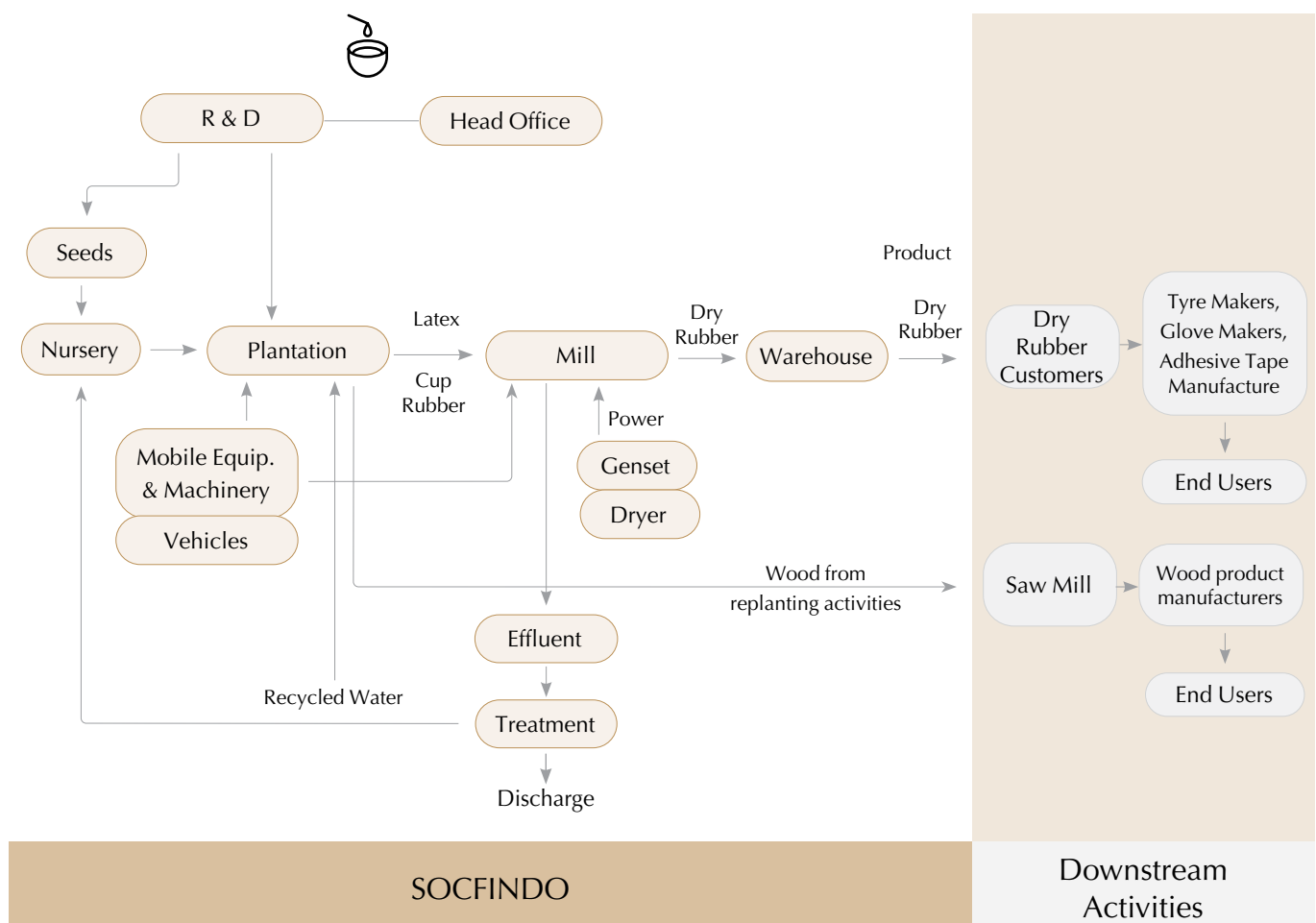
6,325 ha

Total rubber planted area

NATURAL RUBBER

Socfindo also operates its own rubber plantation, producing natural rubber certified by the Indonesian National Standard (SNI) for Rubber. Indonesia has its own classification of natural rubber, which varies according to its quality parameters. The three grades that Socfindo produce are SIR3CV50, SIR3CV60, coming from Latex and SIR 10, which is produced from Coagulum. Our natural rubber is sold to downstream companies who use natural rubber in their manufacturing process especially for tire making, glove making and adhesive tape making. Socfindo is not involved in the downstream value chain. As with its palm operations, Socfindo only processes its own rubber from its rubber estates therefore can ensure the source and sustainability of its operations.

Rubber Process





📷 Tapping trees is a skillful art which takes years to master

OUR APPROACH TO SUSTAINABILITY

Our Values

Socfindo is both one of the oldest and leading oil palm and rubber plantation companies in Indonesia, being able to trace its roots back to a pioneering Belgian agronomy engineer by the name of Adrien Hallet (1867-1925), who began planting palm oil in the Deli region of Sumatra and created the first commercial oil palm plantation in 1911 in the region. Hallet's pioneering spirit was envisioned in the group through his motto which we still hold by today:

"One can do nothing with
nothing but one can do
plenty with little."

– ADRIEN HALLET



📷 Aerial view of a HCV area in the midst of our blocks

Socfindo is still based in North Sumatra, Indonesia and is proud to be an involved and contributing member of the North Sumatra community. Socfindo has been at the forefront of oil palm agronomy research and practices, delivering high yields and productive gains on the same soils for over 100 years. The pioneering values of discipline, conserving resources and taking a hands on scientific approach to agriculture which have built Socfindo are still at the heart of Socfindo's success today 100 years later.

Being first and foremost a Plantation Company, Socfindo makes the agronomic decisions and investment to allow the plantation to thrive focusing on long term productive gains. A disciplined approach which focuses on continuous productivity of land and reducing waste is at the heart of Socfindo's success. These two core aspects of sustainability have been ingrained practices in Socfindo since its founding in 1911, long before the concepts of sustainability had been formally conceptualized.

Socfindo's vision is to remain the most efficient, world class oil palm and rubber plantation company in the industry.

Socfindo achieves its vision by having an ingrained culture of continuous improvement and has been able to achieve and deliver on its vision over the last 100 years through its core values :

- The best long term agronomical practices.
- Constant, disciplined approach focusing on:
 - Improving agronomic practices and optimizing yield.
 - Improving efficiency eliminating waste, ensuring wise and efficient use of resources .
- Mindful Management, building long term relationships based on trust, mutual respect and accountability.
- Investing in its people, their families and communities, creating a decent, healthy and harmonious workplace that rewards performance.
- Being a responsible, positive member of the North Sumatra and Aceh communities committed to contributing to their long term sustainable development and to Indonesia.

These core values are at the heart of Socfindo's success and form the foundation of its approach to sustainability.

Sustainability Policies

SOCFIN GROUP RESPONSIBLE MANAGEMENT POLICY

Socfindo is part of the Socfin Group and as such, its sustainability strategy, policy and decision making adheres to the Group's Responsible Management Policy (RMP). The RMP is Socfindo's umbrella policy, which outlines and sets out the Group's commitments to promote Responsible Tropical Agriculture, and to integrate the Group's purpose of enhancing rural livelihoods by driving respectful transformative agriculture. The RMP also specifically outlines the Group's core guidelines and commitments focusing on three impact areas of sustainability: rural development, local workers and communities, and the environment. The RMP provides a framework and roadmap for sustainability decision making within Socfindo. The RMP was adopted by Socfindo in June 2019 and was most recently updated in March 2023. A copy of the RMP policy is available here <https://www.socfindo.co.id/documents/eng/Umbrella-Policy.pdf>

Socfindo in turn implements the RMP through its specific sustainability policies which address specific environmental and social matters.

COMMITMENT TO NDPE

As a plantation company, a cornerstone policy is Socfindo's No Deforestation, No Peat Policy which sets out its commitments to no development on peat and no deforestation of High Carbon Stock (HCS) or High Conservation Value (HCV) forest. This policy was adopted in June 2019 and last reviewed and updated in February 2023. In addition to its cornerstone NDPE policy, Socfindo also a number of specific Social policies which cover a wide range of issues. These include :

- Non-Discrimination and Equal Opportunity Policy
- Decent Living Wage Policy
- Freedom of Association Policy
- No Forced Work Policy
- Child Protection Policy
- Reproductive Rights Policy
- Prevention of Harassment & Violence Policy
- Human Rights Policy
- Grievance Policy
- Occupational Safety and Health Policy
- Quality Policy
- Data Protection Policy

More details of these are set out in the specific sections of our Report below, and a copy of Socfindo's specific sustainability policies are available here <https://www.socfindo.co.id/sustainability>. Our **Governance** section explains how these policies are implemented and communicated.

EUROPEAN UNION (EU) DEFORESTATION DIRECTIVE COMPLIANCE

Socfindo's current NDPE commitments and practices are in line with the requirements of the recent EU Deforestation Regulation (EUDR) 2023/1115 on deforestation-free products, which require operators that place commodities on the EU market, be able to prove that the products do not originate from land which has been deforested after 31 December 2020 or to have contributed to forest degradation. Socfindo also has CoC certifications which certify traceability of its palm and rubber products back to the plantation level to ensure it can demonstrate compliance with its commitments and provides a source of trusted sustainably certified palm and rubber products. For more details see our **Certification & Traceability** section.

CERTIFICATIONS

In addition to policies, one of the key pillars of Socfindo's sustainability strategy by which sustainability is implemented is through certification. Certification requires both regular internal audits, as well as regular external audits of practices and as well as external assurance for customers provides a systematic method to implement and embed practices across the organisation and ensure their performance overtime. In relation to Palm Oil, Socfindo considers the most relevant and comprehensive standard for palm product is the RSPO Certification standard. In addition, in relation to the specific Indonesian context, the ISPO standard is an equally important domestic mandatory certification scheme. In relation to its rubber operations, in 2023 Socfindo successfully obtained certification under the PEFC, a leading international sustainable forest management and CoC certification. In addition, the GPSNR, is the key evolving standard which is expected to be released soon. More details of Socfindo's Certification is set out below in the **Certification & Traceability** section below.

RISK MANAGEMENT AND THE PRECAUTIONARY PRINCIPLE

Socfindo adopts the precautionary principle as a general risk management principle, not just for significant environmental risks, but also for significant social and environmental risks. This means in the face of significant or material adverse consequences, lack of conclusive evidence or certainty is not a reason for inaction or for taking reasonable measures to avoid such potential consequences when there is a reasonable alternative path forward which can avoid such negative outcomes. Proactively managing risk is an important part of Socfindo's business. A recent example of this in relation to the potential risks from climate change is Socfindo's recent TCFD assessment and report. For more details on this, please see our **Climate & Energy** section.

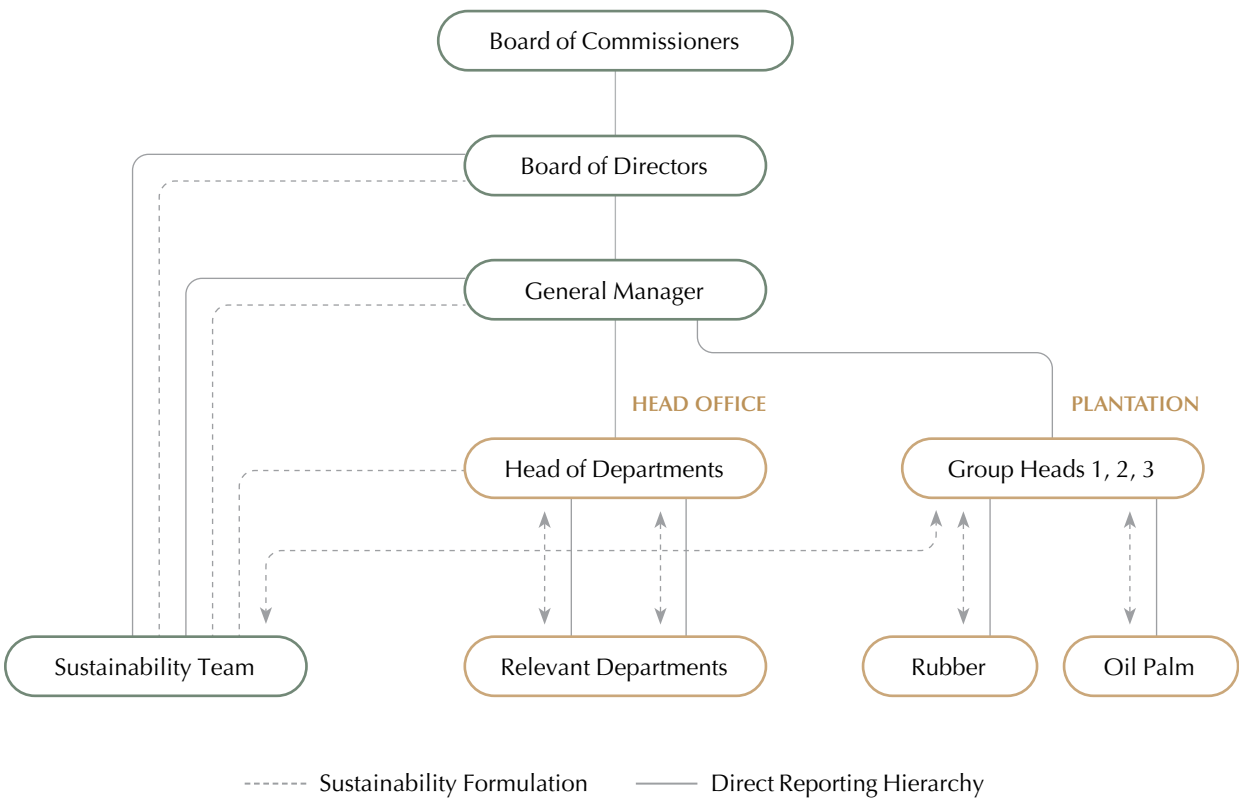
Governance

Socfindo implements sustainability throughout its organisation by having clear reporting structures, policies, guidelines and standard operating procedures and these being consistently implemented throughout the Company through a combination of formal and informal processes and training. Socfindo’s Code of Conduct sets out and explains Socfindo’s core sustainability commitments, policies and requirements and provides guidelines, rules of conduct and behaviours which are required to be adhered to by Socfindo employees. This expressly applies to all Socfindo’s employees, including casual workers, trainees and Socfindo’s contracting parties. The Code of Conduct is one key method by which these norms are socialized, implemented and enforced throughout the organisation. The Code of Conduct is updated regularly, with it last being updated in 2023. Socfindo also uses certification as a vehicle to implement, embed and ensure that practices have been implemented and maintained throughout the organisation. In addition, Socfindo has an ingrained culture of discipline, responsibility and accountability, which is at the core of Socfindo’s longevity and continued success.

GOVERNANCE STRUCTURE

The Board of Commissioners is the highest decision making authority in Socfindo accountable to its shareholders. The Board of Commissioners delegate decision making authority to the Board of Directors who are ultimately responsible for approving economic, environmental and social strategy and decision making within the Company reporting to the Board of Commissioners.

DECISION MAKING FOR SUSTAINABILITY



Sustainability Decision Making within Socfindo

In his role, the Principal Director takes the lead in setting policy on sustainability and managing Socfindo's sustainability strategy informed and supervised by the Board of Commissioners. Socfindo has a dedicated sustainability department which is responsible for management and delivery of sustainability matters. The Board maintains overall responsibility for sustainability. Quarterly progress reports are provided to the Board to keep them abreast of progress and material issues. In addition, there are biannual Board meetings in which any sustainability related issues may be considered during strategic decision-making by the Board where appropriate. Finally, there are informal communications between the Principal Director and the Board and any acute issues may be resolved through these pathways as necessary.

Socfindo as a Plantation Company maintains close connection and communication between its Head Office in Medan and its estate office in North Sumatra and Aceh. Senior Management, including the Principal Director and General Manager have hands on estate experience and background and many head office staff positions are filled from able people in Estates which is the preference within Socfindo where possible, as it provides an upward career pathway for those in the field, and ensures Head Office obtains the benefit of those within field experience. This is the reason for Socfindo's close connection between its Estates and Head Office which acts in an enabling and supporting function for those in the field. This close relationship between the Estates, Head Office and the Sustainability department allows information to flow from the Estate to Head Office and vice versa.

The close connection and trust between those in head office and in the field is a key to Socfindo's continued success and is also crucial in successfully implementing sustainability within Socfindo. Due to the close relationship and connectivity between head

office and the estate, sustainability strategy, policy and planning can be initiated either from top down or from bottom up initiatives in Socfindo depending on the issue and where it arises.

Formally, initiation of sustainability strategy, policy and planning formulation is tasked with the Sustainability team guided by Senior Management in line with the Group's RMP. The initial impetus may come down from a directive from the General Manager and Principal Director or it may come from the Estate Manager responding to an issue in the field or from within the Sustainability team itself. In relation to a sustainability issue, regardless of which department identifies and assesses a particular issue or risk, they are all compiled by the Sustainability Department which has overall responsibility for compiling and managing sustainability matters.

The Sustainability team is able to interact directly with the relevant people in the Estate and Head Office departments in order to obtain input and feedback. The scale, nature and formality of the feedback process will vary depending on the issue and who is affected, and as required can involve consulting relevant stakeholders which would be done through the Estates. Communication may take place through formal channels (such as monthly meetings) or any acute issues can be raised by direct channel from Sustainability team to General Manager, Head of Department, Estate Manager or the Principal Director depending on the issue and where it arises

Once the required input and feedback has been obtained, the relevant strategy, policy or plan is then drafted by the Sustainability team and validated and authorised by the General Manager and Board of Directors.

Implementation

Once approved and formalized, it will be the Sustainability team's responsibility to implement, socialize, monitor and review coordinating directly with the estates and relevant departments with support from the Group Estate Heads, Department Heads and Senior Management.

Sustainability cannot be successfully implemented unless there is understanding and a realistic assessment of the real issues and challenges in the field, provision of

the necessary support to the estates in implementation and a raising of awareness throughout the organisation of the importance of sustainability issues and their impact on the business and on its continued success. Implementing sustainability is a step wise long term ongoing process and requires close communication and mutual respect between those externally facing in Head Office and those on the ground dealing with the realities of the Estate.



📷 Subsidence monitoring in the peatland area of Negeri Lama estate

Materiality

This report covers the material sustainability matters most relevant to Socfindo's business and stakeholders.

Process to determine material matters

In identifying its material sustainability matters, Socfindo has drawn from various internal and external sources of information, which includes consultation with internal teams, industry benchmarking and drawing on issues identified by relevant standards bodies such as RSPO, ISPO, GRI, and Sustainable Development Goals (SDGs). In undertaking its materiality assessment to identify its material sustainability matters for this Report, Socfindo has also been guided by the double materiality principle as defined by the ESRs. Double materiality has two dimensions, namely: impact materiality and financial materiality. Socfindo has undertaken a materiality assessment to identify the material impacts, risks and opportunities which are to be reported.

Stakeholder Engagement

Socfindo has prioritized its material matters for reporting through its stakeholder engagement process as well as its analysis of financial impact in line with the double materiality principle. A comprehensive materiality assessment was conducted in 2024 including impact and financial materiality. Formal and informal stakeholder engagement of its core Stakeholders was also undertaken to prioritize material matters. This included undertaking a formal survey and feedback from Socfindo's key stakeholders. A full range of internal employees stratified to ensure feedback was obtained and represented the views of employees from field workers to head office and senior management as well as representative by gender. In addition, formal feedback from shareholders, and external stakeholders were obtained, from community, local and international NGOs, Local Government, customers and suppliers. In addition to the formal stakeholder engagement process, ongoing Stakeholder Engagement is an integral part of Socfindo's business. As a long standing member of the communities in which it operates, Socfindo works hard to maintain regular informal direct contact through its estate management with its key external stakeholders such as the local community, Government and local NGOs to ensure there is an open channel for two way communication to facilitate mutual understanding and awareness of the Company's activities, and for early identification of any issues or areas of concern or areas where assistance may be required. Socfindo also enjoys a close relationship with its main customers and suppliers and a key component to the success of these relationships is to have an open dialogue where it is possible to discuss issues which may arise from time to time, gain feedback openly and honestly and to seek ways in which to constantly improve. Socfindo as a member of the Indonesian community is particularly sensitive to the concerns of its Indonesian stakeholders as these are the stakeholders most affected by its activities and decisions.



📷 Fire monitoring from the lookout tower at Seunagan estate

Material Matters for 2024

As a result of undertaking the analysis above, the following 23 Material Matters were identified as being of particular concern or interest to Socfindo’s Stakeholders and to Socfindo in 2024. The list of material matters includes four new topics. These include Data Protection, which is a growing matter of concern worldwide. In addition, Anticorruption, Ethics and Transparency, and Partnership with Outside Collectives have appeared mainly due to new reporting requirements from the EU CSRD affecting Socfindo’s European headoffice the Socfin Group which Socfindo is also required to report on. One matter “Theft” while still relevant, no longer rises to the level of a material matter.

PRIORITY MATTERS

Socfindo’s priority material matters for 2024 are:

- Priority**
- Climate
- Wages, benefits and facilities
- Human rights
- Training & Human Resources
- Health
- Occupational safety and health (OSH)
- CPO Price
- Productivity and yield
- Certification
- R&D: Increasing yields, Ganoderma resistance
- Smallholders and Community Development

Socfindo has ranked its Material matters into two classes, Priority Matters and Important Matters. Priority Matters comprise those matters of very high importance to Socfindo and its key stakeholders. Important Matters are material matters, of medium to high importance to Socfindo and its key stakeholders.

We note that “Climate”, which includes carbon emissions and adaptation to the effects of climate change has risen in importance in 2024 from an important to priority material matter, reflecting the global importance of reducing carbon emissions and the potential impacts that climate change may have on Socfindo’s business. In addition, Certification, Training and Human Resources and R&D, increasing yields and Ganoderma Resistance have also risen in importance from Important to Priority Matters.

IMPORTANT MATTERS

Socfindo’s important material matters for 2024 are:

- Important Material matters**
- Conservation & Biodiversity
- Waste
- Water
- Peat
- Data Protection
- Grievances / Whistleblowing
- Freedom of Association
- Land Expansion
- Partnerships with outside collectives
- Anti-corruption
- Ethics and Transparency
- Equality

Contributing to SDGs

Socfindo SDGs

Socfindo continues to be committed to the United Nations (UN) SDGs. The SDGs represent an interrelated and holistic framework of the most pressing challenges facing humanity. Socfindo, recognising as a responsible local and global citizen, it has its role to play. While Socfindo recognizes the importance of all 17 SDGs, it has focused on eight (8) priority SDGs that its business impact the most and are most material to its business footprint and its stakeholders. As part of its materiality review for this report, Socfindo has also re-examined its priority SDGs to confirm that these are still relevant. Informed by its ongoing engagement with its stakeholders and based on an assessment of risks and opportunities, Socfindo has added a further SDG, Climate Action, to the existing seven priority SDGs from the last reporting period, reflecting the growing impact of climate related risk on Socfindo's plantations and infrastructure and on the material GHG emissions resulting from Socfindo's operations. A summary of Socfindo's contribution to these eight priority SDGs is set out below. We note in addition to these contributions, Socfindo Conservation continues to make significant contributions to these SDGs as well, for more detail see **Socfindo Conservation**.



📷 Socializing proper tooth brushing techniques to elementary school students

Goal 2
ZERO HUNGER



As a dedicated plantation company, Socfindo is committed to sustainable production of palm oil, which is a key food ingredient. Socfindo is a significant food producer, and leading agronomical researcher.

Socfindo supports the achievement of the SDGs through its stunting prevention program in its operational areas. This support includes providing nutritious food and vitamins to pregnant women and children, as well as health education in collaboration with local healthcare workers. This initiative reflects Socfindo's commitment to improving community well-being and contributing to sustainable development

As part of its commitment to social responsibility and community development, Socfindo actively supports the government's efforts to reduce stunting in its operational areas. Stunting is a condition of impaired growth caused by chronic malnutrition is a major concern for the government. Recognizing the importance of the first 1,000 days of a child's life, Socfindo works closely with local health institutions to distribute nutritious food and vitamins to pregnant women, toddlers, and children under five years old.

This program is carried out regularly and includes activities such as:

- Distribution of nutritious food packages such as eggs, milk, and high-protein biscuits
- Provision of vitamins and iron supplements for pregnant and breastfeeding mothers
- Nutrition and health education sessions in collaboration with midwives and local health centers
- Monitoring child growth through community health posts (Posyandu) around estate areas

While palm oil is already the highest yielding vegetable oil crop in the world, Socfindo continues its R&D to improve yields, as well as develop more resilient seedlings, and sustainable agronomical practices to ensure sustainable long time yields. Currently, Socfindo has a number of initiatives to increase palm oil yield including through its "Super male" variety which improves pollination. For more details see **Research & Development**.

Goal 3
GOOD HEALTH & WELL-BEING



Socfindo is committed to the production of the highest quality products and promoting the health and well-being of the wider Socfindo family and the communities they belong to.

Improvement of quality product - Low FFA :

Socfindo is committed to producing CPO with low Free Fatty Acid (FFA) levels. This indicates that the CPO produced remains fresh and has undergone minimal hydrolysis reactions. Internally, Socfindo has set a strict standard, ensuring that the FFA content in CPO produced by its mills remains below 3%. Therefore, controlling FFA levels from harvesting to processing is crucial in maintaining the quality of palm oil. Socfindo's commitment and consistency in producing low-FFA CPO have been positively recognized by several buyers, who have rewarded this quality standard with a premium price per metric ton of CPO.

Ensuring Food Safety in Palm Oil Production:

With the growing awareness of food safety and consumer health, the palm oil industry faces a significant challenge in ensuring that CPO remains free from harmful contaminants such as MOSH (Mineral Oil Saturated Hydrocarbons) and MOAH (Mineral Oil Aromatic Hydrocarbons). As a leading CPO producer, Socfindo is committed to implementing the highest standards in palm oil processing. A key focus is eliminating MOSH & MOAH contamination by replacing traditional lubricants containing mineral oil with safer food-grade lubricants. Measures taken include:

- a. Replacing all lubricants in the production system with food-grade oil,
- b. Establishing new SOPs for regular inspection and lubricant replacement,
- c. Conducting laboratory tests to ensure that CPO is free from MOSH & MOAH contaminants.

Through these proactive steps, Socfindo reinforces its commitment to producing high-quality, safe, and sustainable palm oil.

Socfindo Conservation has implemented initiatives focusing on community health, including propagation medicinal plants and preparation of healthy foods and beverages. For more details see **Socfindo Conservation**.

Socfindo has a health awareness program aimed at both workers and the surrounding community, conducted annually on a regular basis. This has been focused on chronic degenerative diseases, which are prevalent among the community, such as gout, high cholesterol, and diabetes and strongly linked to lifestyle. This program aimed to raise awareness about the importance of a healthy lifestyle and disease prevention, particularly for estate workers and their families. An event was attended by more than 1,000 participants, including workers, their families, and the local community, who showed great enthusiasm and interest to learn more about how they could manage and prevent these diseases. The program also featured free health check-ups, which revealed that many participants had higher-than-normal blood sugar or cholesterol levels. This discovery further emphasized the importance of adopting a healthier lifestyle, increasing awareness among attendees about the need for lifestyle changes.

Goal 4
**QUALITY
EDUCATION**



Ensuring a foundation of quality education for the wider Socfindo family, their communities, as well opportunities for ongoing training and up skilling is a core focus for Socfindo. Measures during this reporting period include:

Scholarship

Every year, Socfindo provides opportunities for high-achieving students from various educational levels—ranging from elementary, junior high, and senior high school to university—to receive educational scholarships. This program is not only available for the children of estate workers but also for students from the surrounding villages. Below is the scholarship data for the 2023-2024 period:

Year	Number of student
2023	1,185
2024	1,317

To support the quality of education, Socfindo also contributes by renovating school buildings and providing learning facilities, particularly for schools in the estate areas.

Training for workers

Socfindo regularly conducts various internal and external training programs. These initiatives aim to enhance skills, update knowledge, and build capacity among employees. For more details, see our **Training** section.

Empowering Communities Through Socfindo Female Staffs & Wives Group (KISS-Kumpulan Ibu & Istri Staf Socfindo)

The KISS has played an active role in organizing various training programs that benefit Socfindo staff, their families, and the surrounding estate communities. Driven by a spirit of togetherness and empowerment, these initiatives aim to enhance skills and improve the well-being of both families and the broader community.

Some of the training programs conducted include:

- **Entrepreneurship Training:** Helping staff families develop home-based businesses, such as making noodles, herbal drinks (jamu), and food products from butterfly pea flowers, among others.
- **Household Skills Courses:** Teaching sewing techniques, cooking, crafting, and other essential skills.
- **Health and Nutrition Education:** Providing knowledge on healthy eating habits, disease prevention, and the importance of maternal and child health.

Through these programs, KISS continues to contribute to the empowerment and development of both families and communities.

Early Childhood Education Program

The Yayasan Tunas Bangsa foundation, Socfindo Early Childhood Education Program (PAUD-Pendidikan Anak Usia Dini) has become a key pillar in providing quality education for young children in the Socfindo estate areas. Aiming to build a strong foundation for children's growth and development, Socfindo PAUD is committed to creating a safe, comfortable, and supportive learning environment that nurtures their full potential. As of 2024, Yayasan Tunas Bangsa operates 37 PAUD units across all Socfindo estates, with a total enrollment of 865 children.

Internship Program for High School Students

Several vocational schools around Tanah Gambus estate face challenges due to limited practical training facilities. A shortage of equipment, restricted laboratory space, and minimal access to the latest technology often hinder the learning process. The Socfindo Tanah Gambus Workshop serves as a solution by providing hands-on training facilities where students can gain valuable practical work experience.

The collaboration between Socfindo and these vocational schools is formalized through a Memorandum of Understanding (MoU), ensuring a long-term commitment to enhancing the quality of vocational education.

The workshop is equipped with various industrial-grade facilities and mechanical tools, such as welding machines, drilling machines, cutting machines, rolling machines, and lathe machines. Students receive direct guidance from experienced technicians and industry experts, allowing them to develop practical skills that align with industry standards. Through this program, Socfindo has made a significant contribution to preparing the younger generation to be competent and competitive in the industrial workforce.

Goal 8

DECENT WORK & ECONOMIC GROWTH



Socfindo is a major generator of wealth especially for rural areas of Indonesia, providing direct employment as well as supporting secondary businesses and communities in the areas they operate in. Socfindo directly employs 8,738 employees within the regions of North Sumatra and Aceh, and 8,208 from rural areas see **Our Workforce** section.

Goal 12

SUSTAINABLE CONSUMPTION & PRODUCTION



Eliminating waste and efficiency and wise use of resources are a core value and at the heart of Socfindo's long term success farming the same soils over a 100 years.

At an industry level, Palm oil is the lowest input, highest yielding food oil crop. Socfindo's Oil Palm and Rubber crops are rain fed, not irrigated. Socfindo is always looking for ways to minimise its water use (see **Water**). Socfindo's Integrated Pest Management (IPM) strategy, ensures that pesticide use is minimised and used only as a last resort (see **IPM & Pesticide**). Socfindo also is researching and implementing sustainable agronomical practices such as composting of palm waste, utilising biochar as a soil additive, and cover crops to protect soil (see **Environment**).

Socfindo utilises industry leading sustainable certification to adopt and implement the best responsible practices and meet the need for sustainably certified palm oil and rubber products. For more details on Socfindo's sustainable certifications see **Certification & Traceability**.

Socfindo works hard to minimise, reduce, recycle, and reuse waste as much as it can. Socfindo recycles 100% of its solid palm organic waste to the estate as organic fertiliser, and is also implementing initiatives to capture and recycle palm oil solid from its palm effluent and combine this with organic compost for the estate. Socfindo also reuses and recycles waste wherever possible. For more detail see **Waste**.

The continuing implementation of updated Information Technology (IT) at Socfindo has been highly effective in optimizing resources, reducing waste, and enhancing operational efficiency. By utilising digital devices for data entry in production activities, operations, and inventory management, the Company has significantly reduced paper usage, contributing to a more sustainable and efficient workflow.

Goal 13
CLIMATE ACTION



Socfindo's operations have a material GHG footprint. Socfindo strives to minimise and reduce its GHG emissions. Existing practices, such as the recycling of all solid biomass to its fields, co-composting of palm waste and no burning as well as energy efficiency in its use of diesel fuel in operations where possible help minimise emissions.

Socfindo has been trialing and has implemented a dewatering system into one of its mills to reduce its POME emissions, a major of source GHG emissions. For more details see **Climate & Energy**.

To better understand its full emissions profile, Socfindo undertook a full Scope 1, 2 and 3 GHG assessment. See **Climate & Energy** for details.

Climate adaptation, resilience and managing and reducing its GHG emissions are already key parts of Socfindo's sustainability program. To better understand its key climate risks, impacts and opportunities, Socfindo underwent a full TCFD assessment. See **Climate & Energy** for details.

Goal 15
LIFE ON LAND



As a plantation company, improving sustainable land management practices are at the heart of minimizing its environmental footprint. Socfindo has strict NDPE policies compliant with the EUDR that ensure no deforestation and no new development on Peat. See **Conservation, Biodiversity & Peat** for details.

Socfindo Conservation established the first garden in Bangun Bandar. In 2022, the second garden was built in Berastagi, specifically for highland medicinal plants. So far the total number of species cultivated is 1,600 and the Socfindo Conservation Garden has become an important resource for conservation of rare medicinal plants and cultural knowledge. For more information see **Conservation, Biodiversity & Peat**.

Goal 17
PARTNERSHIPS
FOR THE GOALS



Rather than a separate goal, partnership and cooperation is an overarching method through which Socfindo achieves meaningful and measurable change.

Socfindo actively fosters partnerships with various stakeholders to support economic growth, education, and environmental sustainability. Through collaborative programs with local smallholder farmers, Socfindo provides mentorship and training to enhance productivity and promote sustainable agricultural practices. Additionally, the Company assists smallholder farmers in expanding market access by helping them obtain RSPO and ISPO certifications. With this support, farmers can improve their livelihoods while ensuring environmental sustainability.

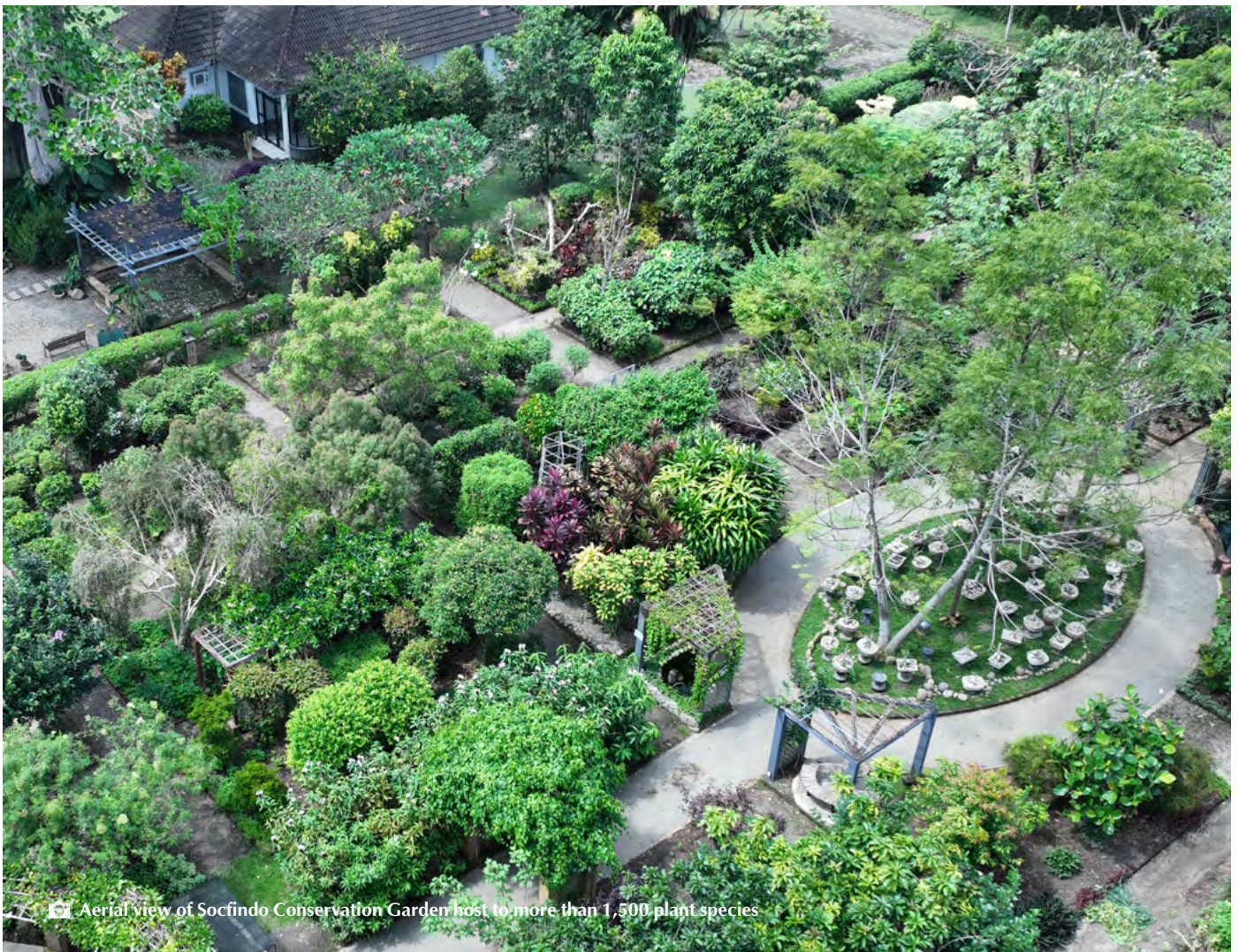
In the field of education, Socfindo collaborates with vocational high schools by offering Field Work Practice (PKL-Praktek Kerja Lapangan) programs for students. Through training facilities and guidance from industry professionals, students gain hands-on experience in estate management and modern agricultural industries.



Socfindo Conservation was set up in 2019 as an initiative of Socfindo for specific significant sustainability programs which have an external interface with the community or other third parties.

Socfindo Conservation's goal is:

**to deliver long term positive impact through
programs focusing on education, conservation
of biodiversity & cultural heritage and
community empowerment.**



 Aerial view of Socfindo Conservation Garden host to more than 1,500 plant species

Socfindo Conservation Garden: TOGA

Socfindo Conservation's flagship project is a medicinal garden, a concept known in Indonesia as Family Medicinal Garden (TOGA-Tanaman Obat Keluarga). It is a place where the diversity of plants meets herbal remedies, in a tradition that is part of the cultural heritage of Indonesia. The Socfindo Conservation garden's purpose is to contribute to the preservation of biological and cultural diversity of Indonesia by collecting and planting medicinal plants and recording their traditional uses and recipes associated with its use.

The Socfindo Conservation garden is managed and implemented by a female-led TOGA team which is a collaboration between Socfindo employees and their wider families and it has grown significantly and been an incredible success due to the continual dedication and efforts of the TOGA team.

The Socfindo Conservation garden today is an outstanding physical garden with a collection of 1,600 plants contained in two separate gardens.

Socfindo's main garden located in Bangun Bandar, and a highland garden established in 2022 located in Berastagi which allows for the cultivation of highland plants not adapted to the lowland conditions of Bangun Bandar. The physical collection is paired with an online catalogue and database providing an important online resource. The Socfindo Conservation garden also serves as an important community resource, as a centre of ongoing activities and courses aimed at a variety of subjects related to health, education, conservation, cultural heritage and community empowerment and as an inspiration for other areas within Indonesia, which may be interested in setting up similar projects.

In 2024, Socfindo Conservation established a herbal tea production facility and tea house called the Tea House next to the TOGA in Bangun Bandar. The presence of the Tea House has had a further positive impact on community well-being, economically, for communities that cultivate TOGA herbal plants, as well as a social and gathering place for members of the community. Tea House also serves as a training and education center for the community, providing knowledge on processing medicinal plants into market-ready products.

Socfindo fully supports the Socfindo Conservation garden, which is established and run as a separate not for profit organisation (yayasan) with any revenue generated being accounted separately and used for the further expansion of the Socfindo Conservation garden and its initiatives. In addition to providing funding, space and resources, Socfindo contributes to this project by providing its world class agronomy knowhow, nurseries, plant breeding and genetics laboratories and converting the gardens in front of the estate bungalow in a prime location to host the collections and the Tea House.

This section provides a summary of some of the recent activities and successes of the Socfindo Conservation garden during this reporting period. The online plant database and more information on the Socfindo Conservation's activities can be found here <https://www.socfindoconservation.co.id/>



The Socfindo ladies group at the launch of their latest project - Tea Blending facilities

Message from the TOGA Team

Socfindo Conservation, established in 2019, continues to show a strong commitment to the preservation of medicinal plants and biodiversity. As a conservation and education center, this initiative has become an important destination for both local and international visitors seeking to learn about the benefits of medicinal plants and cultivation techniques. To date, Socfindo Conservation has collected more than 1,600 beneficial plants, including orchid species. Each plant is recorded in a digital database integrated into the Socfindo Conservation website, providing comprehensive information on cultivation methods, medical benefits, and potential herbal product development. Additionally, Socfindo Conservation has developed herbal plants for tea production as an innovative step in utilising conservation yields.

Since its inception, Socfindo Conservation has made a significant positive impact, particularly in empowering women in the estate area. More than 150 women are actively involved in various activities, including trainers, tour guides, plant caretakers, researchers, and photographers. This conservation effort also serves as a training center for diverse groups, from students and women to local and regional community groups, who benefit directly from the regularly organized skill training, workshops, and empowerment programs.

The diversity of plants at Socfindo Conservation also attracts international students looking for research references and final assignments. The comprehensive, informative, and educational collection offers students broad access to study various medicinal plants and their uses, relevant to various scientific fields. The available information not only helps students complete their final projects but also provides practical insights that can be applied and shared with a wider audience, making Socfindo Conservation a valuable global learning resource.

Through various training and coaching programs, Socfindo Conservation also focuses on improving community welfare, especially for women and housewives facing economic challenges. The House of Inspiration, established in 2022, acts as a skill development center promoting community empowerment through health training, cultural preservation, and natural resource management. Furthermore, Socfindo Conservation collaborates with surrounding villages to develop TOGA as an innovative solution for improving food security and public health.



In 2024, Socfindo Conservation introduced two new initiatives: the Tea House and the Mie Rame Production House. The Tea House is a community-based micro-enterprise model helping locals utilise herbal ingredients like ginger, passion fruit, peppermint, and lemongrass to create high-value tea products. This program not only increases family income but also provides training on licensing, packaging, and product marketing.

On November 29, 2024, the Mie Rame Production House was inaugurated in Martebing Village as a result of collaboration between Socfindo Conservation and Village-Owned Enterprise (BUMDes-Badan Usaha Milik Desa) "Rame Sumber Rezeki". Socfindo Conservation provided comprehensive assistance to BUMDes, from forming organisational structures, and noodle-making technology training, to production site provision and administration and marketing support.

Through this community-based approach, Socfindo Conservation ensures that every stage of producing these healthy noodles, made from natural ingredients without preservatives and artificial coloring, can be independently managed by the local community. This initiative aims to empower the village economy by developing healthy, high-value local products.

The success of these various programs is due to the dedication and hard work of the entire team, especially the more than 150 women who play a crucial role in program management and implementation. Socfindo proudly continues to contribute to biodiversity conservation, community skill enhancement, and community-based economic development. With a vision of creating a balance between conservation and community development, Socfindo Conservation is committed to growing and providing tangible benefits to the environment and communities, both locally and globally.



Zero Hunger

As well as its focus on medicinal plants, Socfindo Conservation also has specific focus on food production and to assist with improving food security within the communities it belongs to. A snapshot is set out below on how Socfindo Conservation garden has contributed to SDG 2 Zero Hunger during this reporting period.

ESTABLISHMENT OF HEALTHY NOODLE PRODUCTION FACILITY - RUMAH MIE RAME

Socfindo Conservation Healthy Noodles are a natural food innovation made with a focus on health and sustainability. This initiative capitalized on the fact that instant noodles are an integral part of Indonesian culture and therefore Socfindo Conservation thought of combining this tradition with the use of some of its special natural herbal plants originally grown in the TOGA.

They are made from natural ingredients like spinach, carrot, turmeric, and butterfly pea flower, using natural coloring that not only gives vibrant colors but also offers health benefits.

The noodles are produced in a clean and eco-friendly process. Unlike regular instant noodles that are fried, these healthy noodles are oven-dried, making them free from excess oil and safer for daily consumption.

This project results from a collaboration with the Government initiative called Bumdes, also known as « village based enterprise » whereby the production facility is an integral part of the local community whilst the product is commercialized under the Socfindo Conservation brand. This new initiative aims at delivering affordable, local food whilst remaining nutritious and fitting in the local cuisine.



📷 Healthy and nutritious food is a key to a bright future

MEDICINAL PLANT COMMUNITY HEALTH AND LIVELIHOOD PROJECT

Since 2021, Socfindo has been fostering close collaboration with village governments in North Sumatra and Aceh to establish TOGA in all villages surrounding Socfindo's estates. This program aims to enhance the self-sufficiency of village communities in utilising medicinal plants while also promoting economic growth based on local agricultural resources. This program delivers multiple benefits for community wellbeing improving health as well as providing a supplementary income source.

During the reporting period, this initiative has continued to expand, visits from Socfindo Conservation to these villages. During these visits, they distributed butterfly pea plant seedlings and conducted seminars on the benefits of the plant. The butterfly pea flower is well known for its numerous health benefits, including its function as a natural antioxidant, a preventive measure against diabetes, and a safe natural coloring agent for food and beverages.

Beyond providing education, they also organized workshops on various culinary applications of butterfly pea flowers. These workshops taught the community how to process butterfly pea flowers into diverse products such as butterfly pea tea, syrup, cakes, and herbal beverages. This initiative broadened public awareness of the economic potential that can be developed from TOGA, particularly through butterfly pea flowers.

The results of this collaboration have been highly significant, with a recorded distribution of 95,030 seedlings to villages. The downstream potential of TOGA products has also become increasingly evident, particularly through the development of high-value derivative products. One of the initiatives undertaken by the wives of Socfindo staff is the utilisation of TOGA yields for the production of herbal tea. This provides a channel for community members who establish Socfindo Conservation gardens to earn an income by supplying the growing Socfindo Conservation tea production.



📷 Training session on medicinal plant cultivation with local farming communities

SOCFINDO CONSERVATION TEA HOUSE

To provide a sales channel for the community TOGA herbs, in 2024, Socfindo Conservation established a herbal tea production facility and tea house called the Tea House. The presence of this Tea House has had a positive impact on the village economy, particularly for communities that cultivate TOGA plants. With this facility, TOGA yields can be further processed into high-value products, creating business opportunities for local communities and generating new employment opportunities.

The Tea House also serves as a training and education center for the community, providing knowledge on processing medicinal plants into market-ready products. With the support of Socfindo, village communities now have greater opportunities to develop businesses based on medicinal plants, improve their economic well-being, and strengthen food security through natural resources. Finally, the Tea House also provides a centre for people from the community to be able to meet and socialize.

PROGRAMS RELATED TO FOOD SECURITY

Socfindo Conservation has run the following courses which specifically relate to food security.

NO TOPIC OF COURSE

- 1 Cooking
- 2 Eco-enzyme
- 3 Fruit vinegar
- 4 Garden design and simplisia
- 5 Jamu scientific
- 6 Making soap
- 7 Organic agriculture
- 8 Plant identification
- 9 Planting medicinal garden
- 10 Technical guidance for butterfly pea

PRODUCTS

In addition to teaching courses, Socfindo Conservation also makes a range of the food and dry herb products from plants grown in its garden. This includes Jamu, healthy noodles, and a large selection of herbal teas. Not only does Socfindo Conservation produce these products, many of Socfindo Conservation courses centre around passing the knowledge of how to grow and make these products to the community.

1 Herbal drinks (jamu):

Jamu Sehat (healthy drinks)

Jamu Sinom (herbal drinks made of turmeric and tamarind)

2 Simplisia (tea):

Dried butterfly pea flower

Dried chamomile

Dried king of drug

3 Jamu scientific (traditional herbal recipes):

Herbs for diabetes

Herbs for gout

Herbs for hypertension

Herbs for cholesterol

Herbs for hemorrhoids

4 Trigona honey

5 Eco-enzyme

6 Liquid smoke

7 Homemade fruit jam

8 Mushroom:

Oyster mushroom

Black jelly fungus

9 Fruits and vegetables



Some of the tea products at Socfindo Conservation

Focus on Food Security – Growing Organic Vegetables and Herbs in Berastagi

In addition to the main medicinal garden in Bangan Bandar, The TOGA association also grow herbs and organic vegetables in Berastagi. This town is part of the Karo district, having specific weather conditions that are suitable for growing vegetables and fruits. Various kinds of vegetables and fruits are grown in Berastagi such as chicory, kale, radishes, broccoli, cauliflower, beets, parsley, strawberries, passion fruit and much more. In addition to vegetables, herbal plants are also planted in Socfindo's Berastagi garden such as Ashitaba (*Angelica keiskei*), Comfrey (*Symphytum officinale*), Chinese Mugwort (*Artemisia argyi*), Stevia (*Stevia rebaudiana*), Yellow Dock (*Rumex crispus*), Borage (*Borago officinalis*), etc.

The produce grown in these gardens is provided to the community / Socfindo families. It also functions as a hands on classroom where Socfindo families and the community can come and learn how to grow their own organic vegetables and herbs.





Health

The foundation of Socfindo Conservation is health: health of land and the community. As it grows in its importance as a store of traditional Indonesian knowledge on medicinal plants and recipes, it also becomes an important centre for passing on this information back into the community to improve the health and well being of both the individual and the community. A snapshot is set out below for how Socfindo Conservation garden has contributed to SDG 3 Good Health & Well Being during this reporting period.

HEALTHY FOOD CAMPAIGN

Socfindo Conservation, together with local government has collaborated in a community health awareness program. In an effort to raise public awareness regarding the importance of the healthy diet, the Indonesian government, through the Minister of Health Regulation No. 41 of 2015, initiated the "Isi Piringku" program, which aims to educate the public on the composition of a balanced and nutritious diet. This program has received support from various parties, including Socfindo Conservation, represented by the wives of staff members of Socfindo, who actively participate in promoting the Healthy Food Campaign.

As a commitment to this campaign, Socfindo Conservation team conducted visits to villages surrounding the Socfindo estates. During these visits, they not only shared information on the importance of balanced nutrition but also organized seminars on major degenerative diseases in Indonesia, such as gout, acid reflux, diabetes, and cholesterol—collectively abbreviated as ASDIAKOL.

These seminars provide the community with insights into risk factors, prevention, and proper dietary habits for individuals suffering from degenerative diseases. In addition, the wives of staff members of Socfindo have compiled a cookbook featuring healthy recipes specifically tailored for ASDIAKOL patients. This book is designed with nutritional needs in mind, using easily accessible ingredients while ensuring that the meals remain delicious and appealing. As part of the campaign activities, a workshop on preparing healthy menus in alignment with the principles of the "Isi Piringku" program was also conducted. During this workshop, participants were guided on how to compose a well-balanced meal that includes sources of carbohydrates, animal and plant-based proteins, vegetables, and fruits. They also gained hands-on experience in preparing nutritious dishes that can be incorporated into their daily lives.

Through the synergy between the government, the private sector and the community, the "Isi Piringku" program and the healthy food campaign are expected to enhance the quality of life, reduce the prevalence of degenerative diseases, and foster healthy eating habits from an early age.

ESTABLISHMENT OF HEALTHY NOODLE PRODUCTION FACILITY - RUMAH MIE RAME

Recognizing the high consumption of instant food in society, the TOGA team members also took the initiative to develop healthier alternatives, such as nutritious instant noodles. To support this initiative, in 2024, the Company collaborated with the BUMDES to establish a healthy noodle production facility known as Rumah Mie Rame. This production house is expected not only to serve as a source of healthy food for the community but also to create economic opportunities that contribute to the well-being of the village residents.



📷 Production of healthy noodle at Rumah Mie Rame part of Socfindo Conservation community project

FOCUS ON HEALTHY TEAS

A core focus of Socfindo Conservation is to promote and provide practical steps to promote Health in both the Socfindo family and the wider community. The medicinal garden is not just a repository for plants, and traditional cultural health recipes but a living hub for the teaching and dissemination of how to grow, harvest herbs and to make traditional recipes to keep them live in the community and to help make healthier people. As well as continuing to collect and teach Jamu recipes, Socfindo Conservation has also focused on producing healthy teas, which is another important vehicle for improving health as well as a potential economic benefit for communities who supply much of the teas recipes.



📷 Tea mixing at the Socfindo Conservation Tea House facility



Education & Empowerment

Socfindo Conservation garden has become a hub for education being utilised by schools as well as for women and community groups. Socfindo Conservation believes education is a key vehicle to empowerment, particularly practical educational programs that provide people with skills, methods and resources by which they can improve their own and community health, as well as to provide the ability to grow their own food and herbs, to make products that can be directly used or can also potentially provide alternative livelihoods. A snapshot is set out below for how Socfindo Conservation garden has contributed to SDG 4 Quality Education during this reporting period.

FEMALE EMPOWERMENT

Socfindo Conservation is a highly visible model its example of a highly successful female led initiative in the community. Socfindo Conservation and its garden are a female created, led and implemented initiative which exists only due to the collective efforts of the TOGA team, a collective with over 150 women involved including 4 women in leadership roles who comprise the entire leadership team.

150
Women involved

4
Women in leadership



📷 The driving force behind the success of Socfindo Conservation

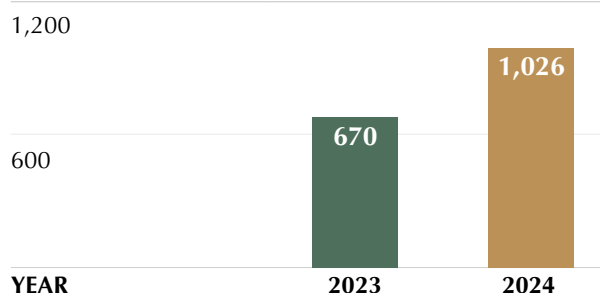


📷 An awareness program focused on developing healthy meals

TRAINING FOR WOMEN

In addition to being a female led initiative, Socfindo Conservation also has a number of courses targeted to other women groups within the community. Between 2023 and 2024, a total of 1,696 women have participated in training programs at Socfindo Conservation, covering a diverse range of topics. This represents significant growth compared to previous years. The breakdown of participation is as follows:

WOMAN PARTICIPANTS



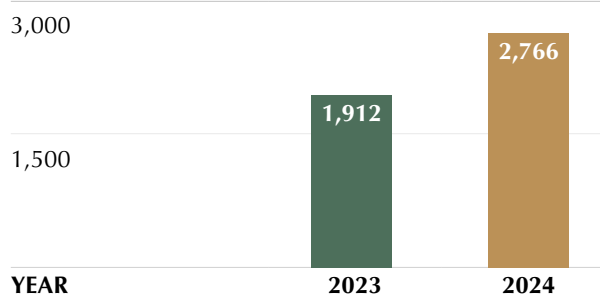
TRAINING & EDUCATION

During the reporting period, Socfindo Conservation held 102 workshops with 4,678 people receiving training.

	2023	2024	Grand Total
Total Course	49	53	102

The number of workshop participants segmented by workshop topic are shown below:

PARTICIPANTS





📷 Vinegar making workshop for the local community

WORKSHOP TOPIC	TOTAL PARTICIPANTS		GRAND TOTAL
	2023	2024	
Basic Tea Workshop & Tea Blending	0	120	120
Business and Management of Small Medium Enterprises (SMEs)	20	0	20
Butterfly Pea Flower : Various food and drinks	550	0	550
Cooking : Granola, Yoghurt, Cookies, Ice cream	199	0	199
Creating Books	20	0	20
Healthy Meal for degenerative diseases	300	700	1,000
Integrated Organic Farming Training	0	105	105
Jamu scientific, kombucha, eco-enzyme	458	599	1,057
Making crocheted bag	0	50	50
Making homemade oven noodle	0	60	60
Moringa Leaves : various food & drinks	50	652	702
Planting Medicinal garden	179	309	488
Simplisia to tea production & digital marketing	68	171	239
Tea House Development	15	0	15
Workshop Cyanotype Botanical Print	53	0	53
Grand Total	1,912	2,766	4,678

A breakdown of total training participants segmented per group during the reporting period is set out in the table below.

COMMUNITY CATEGORY	2023	2024	GRAND TOTAL
Association	100	52	152
Government	20	5	25
General Public	0	0	0
Local Community	20	0	20
NGO	0	0	0
Professional	300	55	355
School	678	1424	2102
University	124	204	328
Women Association	670	1026	1696
Grand Total	1,912	2,766	4,678

A further breakdown of participants segmented by village / district is set out below.

VILLAGE/DISTRICT	2023	2024	GRAND TOTAL
Aceh Tamiang	50	50	100
Aek Natas	50	50	100
Bangun Bandar	50	113	163
Batubara	50	50	100
Bogor	15	0	15
Dolok Masihul	111	193	304
Dolok sagala	24	0	24
Labuhan Batu Utara	50	50	100
Labuhan Batu	50	50	100
Lae Butar	50	50	100
Mata Pao	99	86	185
Medan	1,120	1,226	2,346
Nagan Raya	100	100	200
Serdang Bedagai	50	70	120
Tapanuli Selatan	0	70	70
Tebing Tinggi	43	270	313
Binjai	0	86	86
Desa Perbaungan	0	184	184
Siantar	0	68	68
Grand Total	1,912	2,776	4,768



📷 Crochet bag-making workshop for the women's association around Bangun Bandar estate

COMMUNITY EMPOWERMENT – PROGRAM TO REPLICATE THE MEDICINAL GARDEN

Socfindo Conservation is still continuing to scale up its program to empower the community to develop their own medicinal gardens. Socfindo Conservation team trains community members on how to develop their own medicinal garden. The training activity covers both theory and practice about medicinal plants and health benefit, land analysis, garden style and design, areal preparation, sowing and planting techniques also garden care and management. Not only is training provided, but Socfindo Conservation also provides seedlings and consultation for the development of their medicinal garden. More details on how this program is continuing to evolve is set out in the **Zero Hunger** section. The total of plants distributed to districts through this program during the reporting period was:

PLANT DISTRIBUTED

DISTRICTS	TOTAL
Serdang Bedagai	26,773
North Labuhanbatu	165
Labuhanbatu	25
Aceh Singkil	40
Nagan Raya	355
Asahan	195
Aceh Tamiang	45
Batu Bara	110
Total	27,708

In addition to training and assistance in the propagation and care of herbs, Socfindo Conservation also have put a program in place to train and assist communities in the processing, marketing and sales of herbal products. The training has focused on herbal tea production and digital marketing

Simplisia to herbal tea production & digital marketing participants:

	2023	2024	Total
Total Workshop Participants	30	291	321



📷 Socfindo Conservation supports the Herbal Village by purchasing harvested products



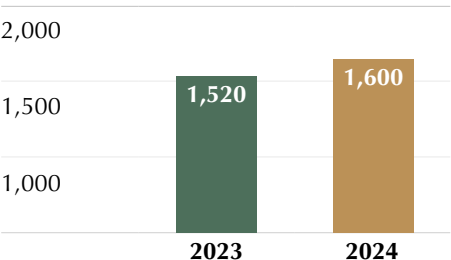
Biodiversity & Conservation

Socfindo Conservation garden has become an important regional focal point for showcasing the biodiversity and importance of Indonesia’s medicinal plants as well as the conservation of medicinal plants and traditional cultural knowledge with its significant physical collection, nursery, educational programs and online database. A snapshot is set out below for how the Socfindo Conservation garden has contributed to SDG 15 Life on land during this reporting period.

THE PLANT COLLECTION

The Socfindo Conservation garden collection continues to grow and now has a total of 1,600 species in its Bangun Bandar and Berastagi gardens.

NUMBER OF PLANT SPECIES



The collection can be broken into the following categories:

NO	AREA	2023	2024
1	Important Medicinal Plants	630	729
2	Beneficial Weed	59	97
3	Vegetabale	46	58
4	Orchard	139	120
5	Aquatic	53	50
6	Palm	53	26
7	Orchid	209	214
8	Fern	8	18
9	Bamboo	13	4
10	Berastagi Garden (Highland)	310	284

BERASTAGI GARDEN

Since its establishment in 2022, Socfindo Conservation’s second garden in Berastagi specifically for highland medicinal plants continues to grow. Berastagi is a highland approximately 1,300 m above sea level and the mean annual temperature of the district is cooler (18 °C – 25 °C), suitable for highland plants and most vegetable growing. Our Berastagi garden houses specific medicinal plants that only grow in highlands that are not possible to be planted in Bangun Bandar where it is hotter. An additional 40 plant species have been cultivated in this reporting period taking the total number of species in the Berastagi garden to 340.



Harvesting organic vegetables at the Berastagi garden

RARE PLANTS

Among the collection of plants, we have some plants classified as rare such as:

- *Amorphophallus titanum*
- *Agathis dammara*
- *Johannesteijsmannia altifrons*
- *Nepenthes tobaica*
- *Paphiopedilum liemianum*
- *Phalaenopsis javanica*
- *Vanda sumatrana*
- *Phalaenopsis celebensis*
- *Phalaenopsis sumatrana*



📷 *Nepenthes tobaica*



📷 *Vanda sumatrana*

A LIVING CLASSROOM – CREATING AN ONLINE DATABASE

A core part of Socfindo Conservation's work has been to not just have a physical garden for people to look at, but also to create an online database and catalogue of all these species so people can not only see them, but also learn about their propagation and uses. This online database has been integrated into the physical garden to create a real living classroom where people can see, smell and then learn about the plants as they go through the garden. The Toga team has worked hard to make the garden into this living classroom, by having a signboard for each plant which lists its common and scientific name. It also then has a Quick Response (QR) code which a person in the garden can scan with their smart phone and be taken to the specific plant in the Socfindo Conservation online plant database which has all the information which has been recorded about the plant. This will include information about its propagation, and medicinal use.

So far, 59% of the entire collection has been uniquely identified and QR coded, with 500 plants in 2021 growing to 888 plants in 2022.

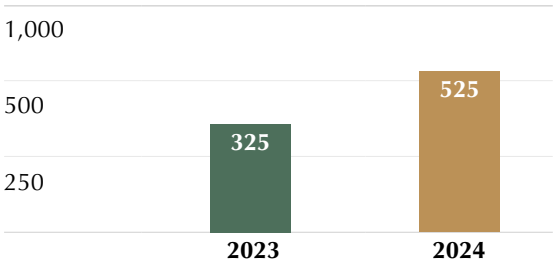


📷 Accessing the information compiled by using QR code

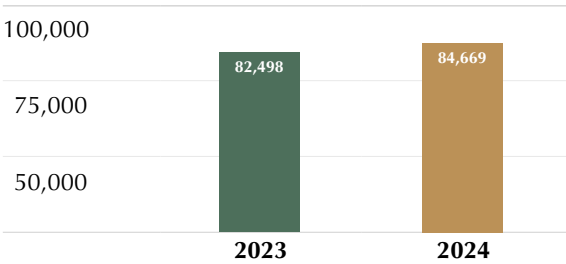
NURSERY

Socfindo Conservation has also become a significant nursery resource for the propagation of medicinal plants. Socfindo has leveraged its cutting edge plantation and agronomy know how, technology and resources to provide a significant nursery resource for medicinal plants. The nursery has propagated over 84,000 medicinal plants in 2024 from over 525 different species. Socfindo also provides seedlings to community groups to assist them in starting their own community gardens

NUMBER OF SPECIES NURSERY (UP TO YEAR)



NUMBER OF PLANTS PROPAGATED (UP TO YEAR)



📷 More than 84,000 medicinal plants have been propagated in Socfindo Conservation nursery so far

MARKETPLACE

Certification & Traceability

Certification is one of the key pillars of Socfindo's sustainability strategy by which sustainability is implemented throughout the organisation in a verifiable way. Socfindo supports and complies with leading industry sustainability certification and verification schemes and has been an early adopter and champion for the core sustainability standards for Oil Palm and Rubber. Certification is a key vehicle which Socfindo implements to ensure and demonstrate traceability of its products, and ongoing compliance with the best practices for the production of sustainable palm oil and rubber products. Robust certification standards provide a consistent measurable benchmark for an organisation's sustainability performance that is objectively certified through onsite third party audits providing independent verification and assurance to stakeholders, consumers and the general public. Certification is also a key mechanism that Socfindo can demonstrate its compliance with evolving regulatory requirements such as the EUDR.

We provide an overview below on the core sustainability certifications which Socfindo follow in its Palm Oil and Rubber business.

Oil Palm

The most relevant and comprehensive standards for palm products is the RSPO Certification standard and in relation to the specific Indonesian context, the ISPO P&C, an equally important domestic mandatory certification scheme. RSPO and ISPO currently remain the most robust global sustainability standards compared to all agricultural crops and are the leading benchmarks for sustainable agriculture certifications.

Socfindo has been an RSPO member since 2004 and achieved full certification for all its mills and estates in 2015. Currently Socfindo maintains RSPO certification for all its mills and all of Socfindo's palm products are sustainably certified under the RSPO and fully traceable to plantation. In addition to RSPO certification, all Socfindo's mills and estates have been fully ISPO certified since 2016.



📷 Socfindo seeds ready to be packed

ROUNDTABLE ON SUSTAINABLE PALM OIL (RSPO)

The RSPO in its latest iteration is currently the most robust, comprehensive sustainability standard setting a benchmark for certification of agricultural products.

Established in 2004, the RSPO is a not-for-profit that unites stakeholders from the 7 sectors of the palm oil industry: oil palm producers, processors or traders, consumer goods manufacturers, retailers, banks/ investors, and environmental and social NGOs, to develop and implement global standards for sustainable palm oil. The RSPO has developed an evolving set of environmental and social criteria which companies must comply with in order to produce CSPO. Currently, the RSPO has more than 4,000 members worldwide, and certifies 13.61 million tonnes of sustainable palm oil which represents 19% of palm oil globally produced. For more details on the RSPO, please see <https://rspo.org/about>. RSPO certification for each mill requires verification every year, which involves a mandatory in depth onsite audit against the full RSPO criteria, thus maintaining RSPO certification requires constant improvement in practices, vigilance and training of staff in the field. To achieve this, Socfindo has embedded the RSPO standard into the core of its strategy for producing sustainable palm oil.

The current 2018 iteration of the RSPO Principles and Criteria are a zero-deforestation standard through its requirement for members to implement the High Carbon Stock Approach. It also prohibits expansion onto peatlands as well as providing measures for the management, protection and eventual restoration of peatland which was converted into palm plantation prior to the birth of the RSPO. As well as a full suite of environmental standards, the RSPO also comprehensively covers human rights, social and labour issues with the latest standard strengthening its already stringent labour and employment rights.



The RSPO standard receives a full review and update every 5 years with the most recent 2024 RSPO P&C being adopted in November 2024. The revised RSPO 2024 P&C Standards are another step wise evolution of the already stringent 2018 Standard, including a number of new social and environmental obligations. The revised standards will be effective 12 months after adoption in November 2025. Some of the key revisions include :

1. Increased Human Rights Due Diligence (HRDD) requirements – indicator 1.3.1
2. Traceability for indirectly sourced FFB – indicator 2.3.2 (Not applicable for Socfindo)
3. Revision to the grievance mechanism – indicator 2.5.1
4. Clearer guidelines to improve housing conditions – indicator 6.2.8
5. Living Wage strategy – indicator 6.3.1
6. Repayment to workers for recruitment fee and related costs – indicator 6.8.3
7. No new plantings on marginal soils and/or fragile soils – indicator 7.3.3
8. Records of water consumption and water withdrawal – indicator 7.5.2

During the 12-month transition period, Socfindo has started preparing to meet all the requirements of the 2024 P&C. This includes conducting a gap analysis, reviewing existing policies and procedures, and adjusting the current management system to align with the new standards.

INDONESIAN SUSTAINABLE PALM OIL (ISPO)

The Indonesian government released Presidential Regulation No. 44 of 2020 on the Certification of ISPO. This regulation mandates ISPO certification not only for plantation companies but also for smallholders.

The detailed guidelines for this regulation are outlined in the Minister of Agriculture Regulation No. 38 of 2020, which covers the implementation of ISPO certification, including revised principles and criteria, certification requirements and procedures, as well as guidance and supervision of ISPO certification.

The issuance of these two regulations does not significantly impact Socfindo's management system, either in principle or technical. Based on a gap analysis of the new ISPO principles and criteria, there is no impact on existing implementation. Regarding the



ISPO certification requirement for smallholders, this does not apply to Socfindo, as the Company does not rely on smallholders as its supply base.

Nevertheless, Socfindo Management is committed to supporting partnership farmers in obtaining RSPO and ISPO certifications, which will be done progressively.



📷 Fact checking during audit

Rubber

Our two rubber estates are still implementing the ISO 14001-2015, which specifies the requirements for an environmental management system that organisations can use to enhance its environmental performance. Socfindo's two rubber factories are certified against ISO 9001, which is the international standard that specifies requirements for a Quality Management System (QMS). Organisations use the standard to demonstrate the ability to consistently provide products and services that meet customer and regulatory requirements.

PROGRAMME FOR THE ENDORSEMENT OF FOREST CERTIFICATION (PEFC)



PEFC is a leading international sustainable forest management and chain of custody certification. For more information on the PEFC, please see <https://pefc.org/standards-implementation/standards-and-guides>. In Indonesia, the PEFC is implemented through the Indonesian Forestry Certification Cooperation (IFCC) which was established in October 2011 and was accepted as the National Governing Body of PEFC in Indonesia as of November 2012.

Since 2023, Socfindo's rubber estates have achieved full PEFC Certification both Sustainable Forest Management (SFM) and CoC scope.

GLOBAL PLATFORM FOR SUSTAINABLE NATURAL RUBBER (GPSNR)



Socfin group is a founding member of GPSNR, created in 2018, an evolving leading sustainability certification specifically for the rubber industry. Socfindo anticipates that the GPSNR will become its core certification for its rubber business once it is fully released and that GPSNR will become a comprehensive standard like RSPO is for Palm oil. GPSNR is not yet at the standard implementation phase. In June 2024, GPSNR adopted an assurance model that provides guidelines for companies to commit to, implement, and verify sustainable practices. This model includes key elements such as an assessment checklist, assurance protocol, remediation protocol, and a roadmap for members toward sustainability. This model is currently being piloted with full implementation by all members planned for 2025.

Socfindo continues to work with and comply with the requirements of the evolving GPSNR standard and has submitted its "Reporting Requirement" documents in 2025 for period 2024. For more information on GPSNR standard, please see <https://sustainablenaturalrubber.org/>

Other Certifications



In addition to these comprehensive sustainability certifications, all Socfindo's operations are implemented the following OSH standard, which is a health and safety management system. Its seed production unit has ISO 9001:2015, ISO 14001:2015, and ISO 45001:2018; and its laboratory was awarded the ISO 17025:2015 by the National Accreditation Committee (KAN-Komite Akreditasi Nasional).

The rubber estates have achieved ISO 9001 while their respective factories have achieved the Indonesian National Standard (SNI-Standar Nasional Indonesia) 1903:2017 (product).

All of our palm oil mills have received Company Performance Rating Program in Environmental Management (PROPER-Program Penilaian Peringkat Kinerja Perusahaan dalam Pengelolaan Lingkungan Hidup) certificates, showing that the Company has made the required environmental management efforts in accordance with the applicable rules and regulations.



Regular audits of our operations are parts of the continuous improvement strategy

Traceability

100% of Socfindo's Palm Oil Products are fully Identity Preserved (IP) certified and traceable back to the plantation level.

Importance of Traceability

Traceability is important for both transparency and to build trust with end users so that they can be assured of where the ingredients and raw materials come from. The market today demands more sustainable products and this involves knowing where they have been sourced from. It is also essential for product quality and food safety reasons. Traceability continues to grow in importance, driven by both consumer demands to understand the sources of origin and sustainability of products and ingredients and increasingly required for compliance purposes such as the EUDR which requires demonstration that commodity products entering the EU market are "deforestation free". Traceability is a key vehicle for responsible producers like Socfindo who through traceability certification can demonstrate to customers and regulatory bodies the point of origin and supply chain involved in each shipment of their products providing an extra level of trust and transparency in the goods they produce.

As a dedicated plantation company, 100% of Socfindo's Palm oil and Rubber products are traceable right back to the plantation level. Socfindo verifies the traceability of its products through third party certification.

Palm Traceability

Socfindo is committed to producing sustainable certified palm oil and is proud to confirm that 100% CPO and Palm Kernel (PK) can be traced back to the plantation level.

100%

CPO & PK traceable to plantation.

Traceability to mill and plantation

Traceability to mill refers to the traceability level of products processed by a refinery, right down to mill or CPO / PK level. Traceability to plantation refers to the traceability level of products right down to plantation where the specific palms which produced the fresh fruit bunches were grown. Socfindo's directly controlled supply chain as an upstream producer finishes at the CPO / PK level. All of Socfindo's CPO and PK can be traced back to the plantations and it is certified as such under the RSPO Certification Scheme.

RSPO Supply Chain Certification

Under the RSPO supply chain certification, if it can be proven that a specific batch of CPO originated from an RSPO certified estate or mill, and is kept physically isolated from all other oil palm sources throughout the supply chain (including other segregated RSPO CSPO sources), it can be sold as IP certified sustainable CPO. Socfindo is proud to report that 100% of its palm oil products are now certified under the IP method, having its supply chain uniquely identifiable to one of our RSPO certified mill and its certified supply base.

100%

CPO & PK RSPO IP certified.

Rubber : Chain of Custody

As with its palm products, 100% of Socfindo's rubber products are certified traceable back to plantation level.

Socfindo's crumb rubber products are sourced from our own rubber plantation and managed sustainably to the PEFC standard. Rubber latex and lump as raw materials come 100% from Socfindo's own plantation. Since 2023, Socfindo's rubber estate have achieved full PEFC Certification both Sustainable Forest Management and CoC scope, therefore Socfindo's rubber products are 100% certified under the PEFC traceable back to plantation level.



📷 Recording geo location and bunch information using Socfindo mobile application

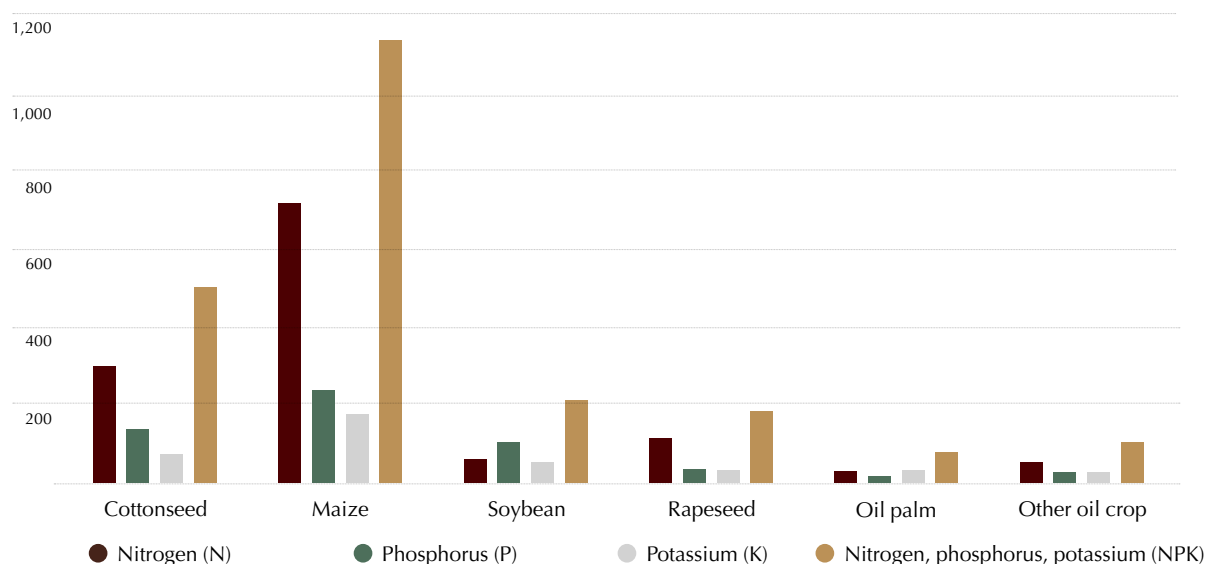
Productivity & Yield

Palm oil the most land efficient oil crop

Despite ongoing targeted criticism of palm oil, it remains a fact that palm oil is by far the most land efficient food oil crop, producing significantly higher yields per hectare than any other food oil crop. A recent comprehensive report on food oils by IUCN. Exploring the future of vegetable oils³ made as one of its key insights – that there is no good or bad oil crop, only good and bad practices. As the figures below demonstrate, palm oil is significantly higher yielding per hectare than any other food oil, therefore needs less land base to produce more oil, compared to any other alternatives. In addition, palm oil requires less fertiliser inputs than alternatives. On average, palm oil produces on average 2.9 tonnes of palm oil which is around four times higher than alternatives such as sunflower or rapeseed oil and 10 to 15 times higher than popular alternatives such as coconut or groundnut oil. We note that Socfindo itself produces on average 5.5 tonnes of palm oil per hectare with 25% of its

plantations achieving more than 6 tonnes/ha. Based on the lower global average of 2.9 tonnes/ha, palm oil currently produces 35% of the world's food oil, from less than 9% of the croplands devoted to food oil⁴. These facts demonstrate how misguided any attempts to try to "replace" palm oil with alternative food oil crops. Palm oil has a crucial role to play in meeting the world's demand for food oil and preventing further deforestation of our remaining intact forest cover areas. If we want to limit our environmental impact, reducing the amount of land we devote to agriculture is key. The less land we need for farming, the better. As with like every industry there are issues within the palm oil industry and bad actors which need to be addressed, however the narrow focus on palm oil as the sole cause and driver of deforestation is unhelpful to solving the complex issue of how to meet the world's rising demand for food oil and preserving the remaining intact forested areas.

FERTILISER RATE APPLIED PER TONNE OF OIL

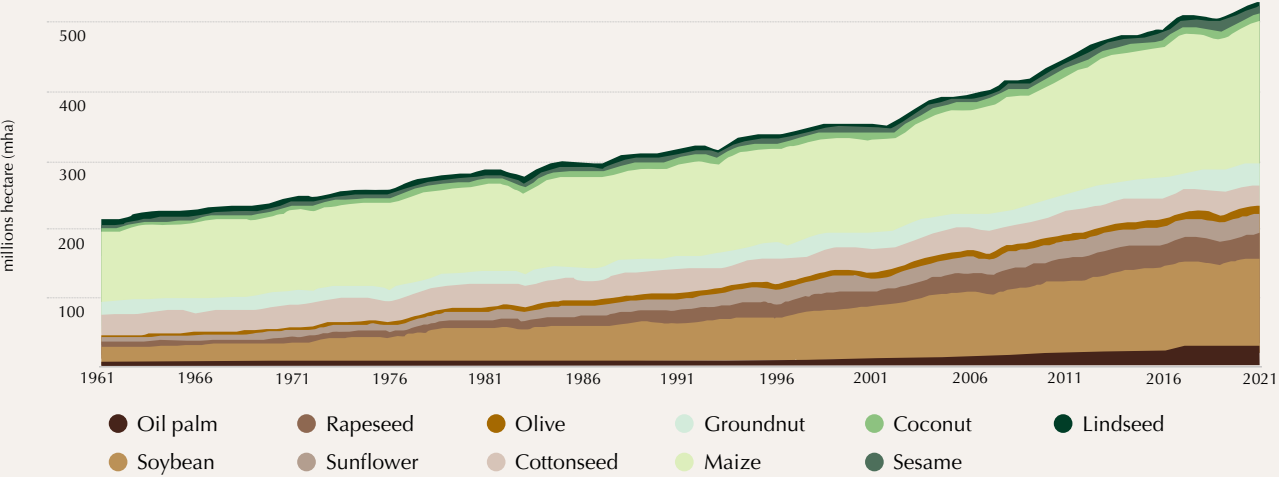


3. IUCN Exploring the future of vegetable oils: Oil crop implications – Fats, forests, forecasts, and futures (2024) Meijaard, E., V et al, available at <https://portals.iucn.org/library/sites/library/files/documents/2024-010-En.pdf>.

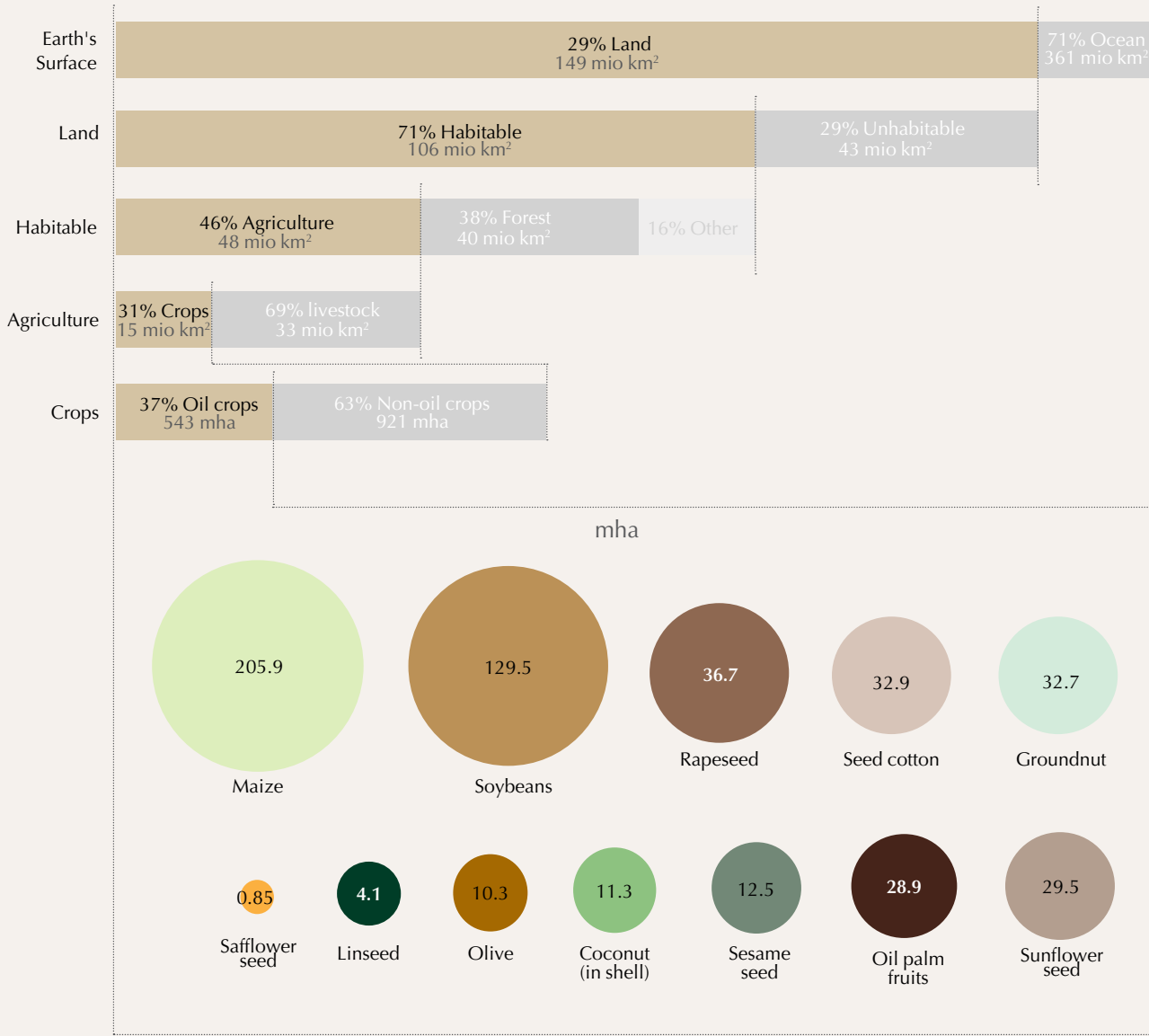
4. See Hannah Ritchie and Max Roser (2021) - "Forests and Deforestation".

Published online at OurWorldInData.org. Retrieved from: <https://ourworldindata.org/forests-and-deforestation>

LAND ALLOCATION TO OIL CROPS 1691 - 2021



LAND ALLOCATION TO OIL CROPS 1691 - 2021



Increasing Productivity and Yield as an Industry

Increasing the yield and productivity of palm oil is the single most important method to improving the sustainability of palm oil production and to solving the dilemma of how to meet the world's growing demand for food oil, without a commensurate expansion in land base. Improvements in yield and productivity, provide not just economic gains but also social and environmental benefits. As an industry, there are two key pathways to achieving a step wise increase in palm oil without an increase in land base. They are to increase the average yield of smallholder farmers, and to continue research and development into increasing industry yields and sustainable agronomy methods to allow high yields to be sustained from the same soils over the long term.

Increasing Smallholder Yield

The Indonesian palm oil industry is unique in that approximately one-quarter of Indonesia's palm oil plantations are owned and managed by individual "smallholder" family farmers. The smallholder program is very important and has been extremely successful to improve rural livelihoods, with millions of Indonesian farmers benefiting from the smallholder scheme with the average net income seven times that of subsistence food production⁵. However, unfortunately yields for these smallholders on average lag far behind the industry average⁶. Therefore, large gains can be made by improving the productivity and yield of smallholder farmers through extending access to and education in the current best existing agronomy practices and genetic stock. Whilst Socfindo is not directly supplied by smallholders, it recognizes the importance of raising smallholder's productivity and yield and for more information on Socfindo's smallholder initiatives, see **Smallholder** section.

In addition to raising smallholder productivity and yield, industry leaders like Socfindo need to continue to invest time and resources into improving long term productivity and yield beyond its current boundaries through continued innovation and performance.

5. <https://www.spott.org/palm-oil-resource-archive/impacts/economic/>

6. <https://www.wri.org/blog/2018/03/smallholder-farmers-are-key-making-palm-oil-industry-sustainable>, and <http://www.snv.org/sector/agriculture/topic/palm-oil>

Socfindo Applied Research – Improving Productivity & Yield

Socfindo is uniquely situated to assist with the issue of continuing to improve productivity and yield on the same land base and soils. Socfindo is one of the oldest dedicated plantation companies and has been farming the same soils in some estates for over 100 years. The only way Socfindo can continue to productively farm these soils is through implementing the best long term agronomy and sustainable practices and by consistent and constant investment into research and development. Through these practices, Socfindo been able to consistently deliver comparatively high industry yields on soils which have been farmed for generations.

Socfindo still maintains agronomic and plant research & development known as Socfindo Seed Production and Laboratories (SSPL). At any one time, Socfindo has a number of initiatives focused on improving long term productivity and yield.

Improving and maintaining productivity and yield is complex, especially for organisation like Socfindo which have been farming the same soils for over a hundred years, where maintaining long term, consistent high yields can be challenging. In practice, there are many factors which impact on and interact to determine productivity and yield.

For more detail on SSPL and its industry leading research and development programme, please see our **Research & Development** section.

A snapshot of some of Socfindo's current ground research initiatives are set out below, provide a flavour of this complexity.



📷 One of our SSPL skilled workers performing genetic analysis

Research and Development

Socfindo – A Culture of Agronomical Research

Research and development is a core pillar in Socfindo's ongoing success. Since its inception in the early 1900's, Socfindo has continually invested significant resources into agronomic research and development with the R&D Division always playing a key role in maintaining and improving Socfindo's competitiveness in particular to produce superiority and quality.

Socfindo's history of applied agronomic research, development and innovation has created an internal culture of excellence around practical documented experimental research into agronomy. This together with an ability to continually implement company

wide new and improved practices on the basis of these experiments is at the heart of Socfindo's continued success. Socfindo undertakes research both internally and also has a history of cooperating with renowned third party scientific researchers since its first formal agreement in 1974 with Institut de Recherche pour Les Huiles et Oleagineux (IRHO), a French institute which provided scientific support and supervision for applied agronomical research. Today, Socfindo still collaborates with Centre de coopération internationale en recherche agronomique pour le développement (Cirad) with whom it has an agreement to conduct field research.



📷 Water sample preparation activities at the SSPL

R&D and Innovation Today

Today SSPL leads the Group's Research and Development and is the driving force behind continuously delivering superior product and quality as well as increasing the sustainability of its oil palm plantation business.

SSPL's R&D Division focuses on 4 pillars, consisting of :

1. Research program in plant breeding and genetics,
2. Continued development of a world class supporting analytical laboratories to provide experimental testing and analysis,
3. Soil fertility maintenance (agronomy), and
4. Crop pest & disease control measures.

Socfindo has a detailed program under each of these four pillars. For more details, please see <https://www.socfindo.co.id/about-us/research>. Next is a snapshot of some initiatives the SSPL team is working on. Set out below are some initiatives the SSPL team is working on.



📷 Activities in the tissue culture laboratory support research programs in plant breeding and genetics

INCREASING YIELD THROUGH BETTER POLLINATION - COMMERCIALIZATION OF SUPERMALE

Breeding oil palm to produce high yielding crop face problematic consequences due to the monoecious (single sex) characteristics of oil palm. High production will be achieved in oil palm with a large number of bunches (female flowers) and the natural consequence is to reduce male flowers. In young palms, the number of male flowers that are present is not proportional to the number of female flowers that need to be pollinated and as a result, the fruit set is lower than ideal (bad fruit set). The lack of male flowers means that there is a lack of pollen. When a female bunch is well pollinated, it means that all the little flowers have been fertilized and will become fruitlets, this in turn will contribute to a high ratio of oil per bunch. Bad fruit set in contrast means the fruit is not developed well, so there is no fruit – no oil. Fruit set will affect the quality of FFB from which palm oil is extracted from. Fruit set also impacts on oil production Oil Extraction Rate (OER), with low/bad fruit set causing low oil production. Fruit set problems at a young age can cause a decrease in production of about 30% of the production potential.

Since 2014, Socfindo has been developing supermale oil palm, establishing a ±64 ha trial block at Bangun Bandar estate. Supermale palms are genetically designed to produce a higher number of male flowers, serving as a complementary planting alongside high-yielding oil palm varieties to enhance pollination.

Trial results indicate increased FFB yield and oil productivity when supermale palms are planted at an optimal density of 12 trees per hectare. Based on these findings, Socfindo adopted a policy in 2022 to integrate supermale palms with the DxP Moderat Toleran Ganoderma (MT Gano) variety across all replanting programs.

Observations in commercial blocks confirm the effectiveness of supermale palms in producing male flowers and supporting pollination. The resulting fruit bunches exhibit improved fruit set and higher oil content compared to conventional plantings. These results reinforce Socfindo's confidence in commercializing supermale palms as a long-term solution to address low fruit set issues in the oil palm industry. Its commercialization is currently under government approval process.



📷 Supermale oil palm contributing to a good fruitset on a neighbouring MT Gano palm

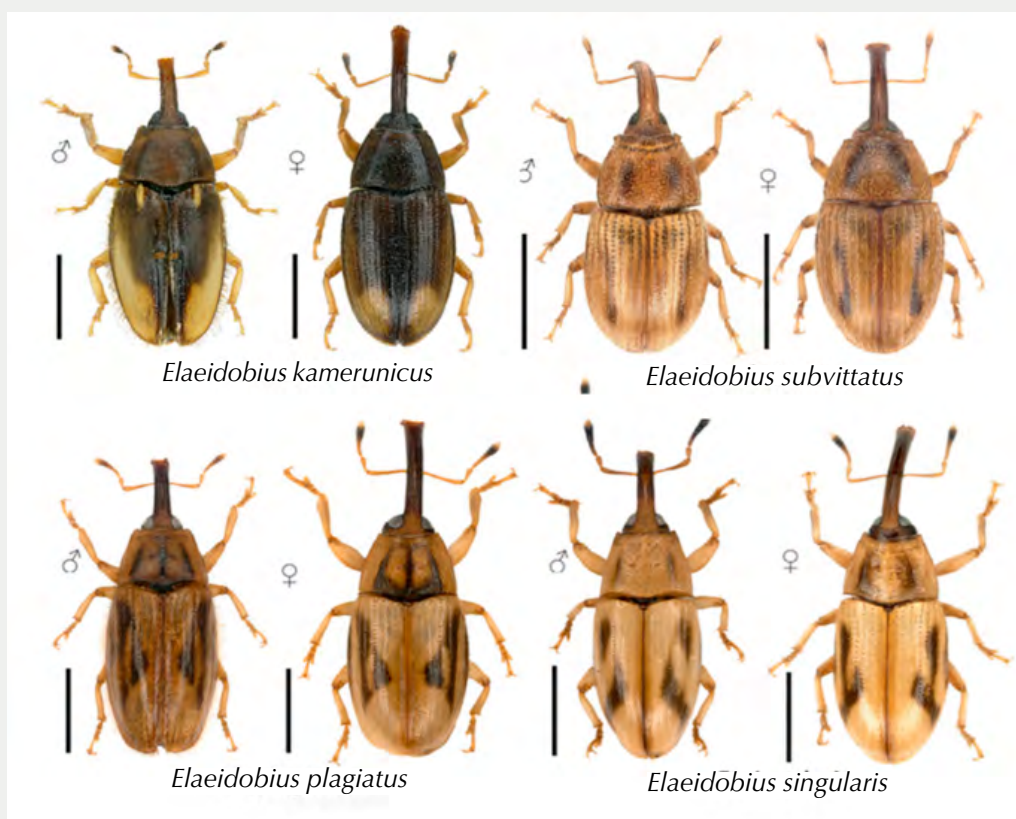
MAXIMIZING POLLINATION THROUGH REINTRODUCTION OF *ELAEIDOBIOUS KAMERUNICUS*

Over the past 15 years, Indonesia has faced ongoing challenges with oil palm fruit set, largely due to the declining effectiveness of *Elaeidobius kamerunicus*, the primary pollinator introduced from Africa in the 1980s. As oil palm plants have become higher-yielding, requiring more pollinators, the current *Elaeidobius kamerunicus* population often fails to pollinate all flowers, particularly in the deeper parts of the bunch structure.

To address this, the Indonesian government, through Indonesian Palm Oil Estate Fund Management Agency (BPDPKS-Badan Pengelola Dana Perkebunan Kelapa Sawit), is reintroducing additional *Elaeidobius kamerunicus* species to enhance pollination. Exploration in Tanzania identified several species, including *Elaeidobius kamerunicus*,

Elaeidobius subvittatus, *Elaeidobius plagiatus*, and *Elaeidobius singularis*, as suitable for introduction to Indonesia.

Socfindo and other oil palm companies are supporting this initiative by funding exploration and assisting with the observation, testing, multiplication, and release of these weevils. A pre-introduction phase took place from October 27 to November 5, 2024, culminating in an agreement with the Tanzania Agricultural Research Institute (TARI) to proceed with the introduction. The *Elaeidobius* sp. exploration will continue from January 4 to April 4, 2025, focusing on species diversity, biological testing, and mass breeding for export to Indonesia. The photo below is extracted from an interesting article about the diversity of palm pollinators weevils. (Haran J.M. et al., 2020)⁷.



📷 Various strains of *Elaeidobius*

7. HARAN J. M. et al. 2020. — Revision of the palm-pollinating weevil genus *Elaeidobius* Kuschel, 1952 (Curculionidae, Curculioninae, Derelomini) with descriptions of two new species European Journal of Taxonomy 2020 (684): 1-32

EXPLORING OIL PALM GERMPLASM IN TANZANIA

The growth of the oil palm industry in Indonesia is driven by continuous efforts to improve palm productivity through the development of superior planting materials. This process involves breeding activities, including selection, crossing, field testing, and recombination of the best progeny for future cycles.

To further enhance this effort, Indonesia's oil palm industry needs new genetic resources, both Dura and Tenera / Pisifera, to meet the challenges of productivity and climate change. In 2024, Socfindo, in collaboration with other companies under PIPPSI (Indonesian Palm Oil Breeding and Seed Association), conducted a

germplasm exploration in Tanzania to increase genetic diversity. Previous explorations were carried out in Cameroon (2008), Angola (2010), and Ecuador (2019).

The exploration in Tanzania took place from March to April 2024, resulting in the collection of 102 accessions (83,004 dry seeds) from various regions with different altitudes in the prospected areas, including Kigoma, Tabora, Katavi, Pwani, and Mbeya. The seeds are currently in quarantine at CABI (United Kingdom) and will be germinated at Socfindo for distribution to PIPPSI members and other contributing companies.



📷 Oil palm germplasm exploration mission in Tanzania



Special Focus on Socfindo's Seed Programme

GANODERMA TOLERANT SEEDS

One significant area of research Socfindo is leading the industry in, is in the fight against Ganoderma disease. Ganoderma disease is a lethal and endemic disease in Asia, Africa and South America, and can cause up to 80% mortality (palm death) in the plantation, with an even higher risk in successive replantings. Ganoderma disease represents a significant threat to oil palm, with certain areas of Indonesia and Malaysia particularly at risk.

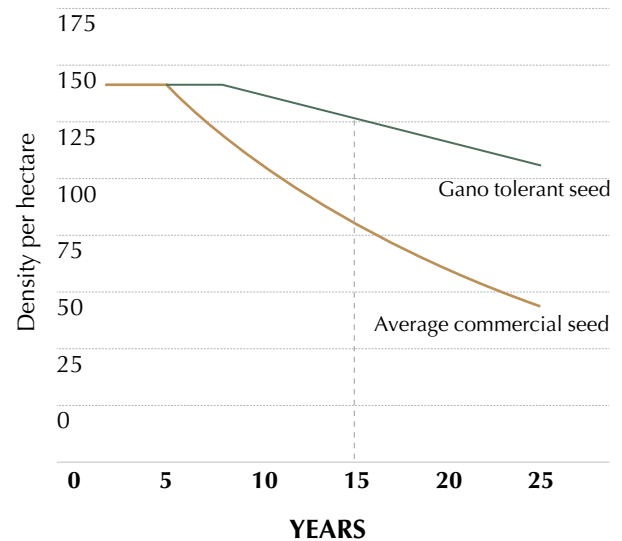
Socfindo has led the industry in research to combat this significant threat. In 2000, in collaboration with Centre for International Cooperation in Agricultural Research for Development – Climate Protection (CIRAD – CP), Socfindo initiated a specific long-term breeding program to control this disease. This research led to the development of plant DxP MTGano which was released in 2013. Socfindo was the first oil palm seed producer to develop and release a seed variety tolerant to Ganoderma disease.

By using Socfindo's DxP MTGano, the impact of Ganoderma on the productivity and yield of the plantation is significantly reduced. Socfindo currently leads the supply of DxP MTGano seeds for the Indonesian oil palm industry, having distributed 18.5 million DxP MTGano since its release 10 years ago.



Example of a field impacted by heavy Ganoderma

SIMULATION OF LOSSES DUE TO GANODERMA DISEASE



IMPROVEMENTS IN GENETIC MATERIAL

In addition to Ganoderma tolerance, Socfindo's genetic plant material has the following proven improved qualities :

- Slower Vertical Growth (40-50 cm/year) than other seeds (which have 70-90 cm/year of vertical growth). Slower growth allows for a longer harvesting lifetime. Socfindo seeds have been verified for high-yielding output exceeding 25 years (compared to others that can only be harvested for 15 to 18 years). This means a single palm can productively yield for longer and pushes out the replanting window which is both a significant economic and sustainable benefit.
- Climate Resilience: Seeds producing high bunch number with maximum yield per year, more adapted to marginal areas and climate conditions, in particular water deficit. This is particularly important as the impact of climate change is felt and weather conditions become more and more irregular and unpredictable even in areas which have historically delivered consistent prime climatic conditions.

For more details on Socfindo's seed business, please see <https://www.socfindo.co.id/products>.

SOCFINDO'S ANALYTICAL AND LABOURATORY SERVICES



Socfindo has its own analytical laboratory to support its internal Research and Development Program which relating to oil palm includes:

- Leaf and rachis Analysis
- Fertiliser, Compost Analysis and Fertiliser recommendation
- Soil Analysis
- Latex Diagnosis and Rubber Exploitation Recommendation
- Waste and Effluent Water Analysis

These analytical laboratory services give the hard data which help Socfindo's agronomists to decide efficient fertiliser applications. Our laboratory also now provides services to third party such as companies, smallholders, researchers and students.

As a testimony to the accuracy of Socfindos' laboratory analyses, our analysis results consistently score very high results in the Wageningen Evaluating programs for Analytical Laboratories (WEPAL), a worldwide laboratory proficiency testing scheme, with an average score of acceptance of 100 % for soil samples (International Soil-Analytical Exchange Program). Our laboratory also has ISO17025 certification, which is the main standard used by testing and calibration laboratories worldwide. For more details on our Laboratory and Analytical services, please see <https://www.socfindo.co.id/services>.



📷 Wastewater analysis carried out in our accredited analytical laboratory



📷 Wildlife and biodiversity monitoring activities conducted within the HCV areas of our plantation

ENVIRONMENT



Conservation, Biodiversity & Peat

Socfindo's NDPE commitments

Socfindo is committed to biodiversity & conservation in our operations which extends from its overarching NDPE policy. Socfindo's strict NDPE policy initially formulated in 2011 and last updated in 2019 is a cornerstone of its environmental commitment and in line with the requirements of the new EUDR. These commitments are a core part of its RSPO commitment and certification and consistent with the Socfin Group's RMP. Socfindo's NDPE policy commits it to:

- No development or deforestation of primary forest or areas identified as HCV or of HCS forests as defined by the HCS Approach,
- Any new land clearing or new planting (in existing plantations or new plantations) is preceded by an HCV/HCS Assessment as required by the RSPO and GPSNR,
- Existing HCV areas and HCS forests are identified, clearly delineated, actively protected and monitored. The presence of HCV areas in our operations is made known to neighbouring communities. Social HCV areas remain accessible to communities,
- No new development on peatland, regardless of depth,
- Adherence to the best practices guidelines laid down by the RSPO.

In the case of future developments, expansions or conversions, Socfindo is committed to follow RSPO's New Planting Procedure (NPP), which is applicable to all new plantings since 1 January 2010. Furthermore, in relation to its rubber plantations, Socfindo commits to Sustainable Forest Management practices consistent with GPSNR and PEFC / IFCC.

Ensuring Deforestation free products

Socfindo's palm and rubber operations are located in North Sumatra and Aceh in the Island of Sumatra, Indonesia, one of the biodiversity hotspots of the world. The majority of Socfindo's plantations and operations, however, are located proximate to more developed areas of North Sumatra or Aceh where they border mostly other agricultural land and are not located next to any identified protected areas nor key biodiversity areas. As Socfindo is one of the oldest operating plantation companies in Sumatra, Socfindo's estates are all old established estates, with the earliest current estates developed in the 1920's and for this reason, closer to urban or more developed rural areas. Socfindo does not have any new "greenfield" plantations nor does it has a land bank of unconverted, unplanted forest. Socfindos "planting" activities are currently replanting of existing palm plantation (which takes place every 28 years or so) or "brown field conversion" of another crop such as rubber into oil palm. For this reason, whilst conservation

and biodiversity are material sustainability issues for Socfindo given their importance, Socfindo’s own direct impact from its operations on unconverted natural forest and significant biodiversity areas is not currently significant.

Socfindo manages biodiversity and conservation & ensures its NDPE commitments through traceability certification. Socfindo is committed to ensuring full traceability of all its palm and rubber products back to the plantation level. Socfindo only sources palm and rubber from its own estates – it does not source fruits from outside third-party growers. This allows Socfindo to ensure the source of all fruits processed. Socfindo also has full traceability certification for 100% of its palm and rubber products to plantation level. All Socfindo’s palm products have full RSPO traceability certification to the plantation level, allowing it to verify that each batch of CPO from existing RSPO certified "conversion-free" plantations. Likewise, all Socfindo’s rubber products have PEFC traceability certification back to plantation level. This allows Socfindo to ensure that its commitments are implemented and complied with on the ground. It also ensures Socfindo is able to comply with the EUDR through its existing NDPE commitments and full traceability certification back to the plantation.

Biodiversity

SOCFINDO’S HCV AREA

There has been no change in the area of Socfindo’s HCV areas over the reporting period.

HCV	OIL PALM		
	2022	2023	2024
Surface of HCV area (ha)	632	632	632

HCV	RUBBER		
	2022	2023	2024
Surface of HCV area (ha)	155	155	155

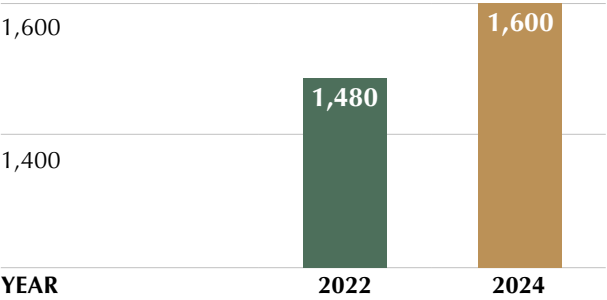
AFFORESTATION	HCV
	2024
Number of trees planted until now (2024)	40,308

CONTRIBUTING TO BIODIVERSITY AND CONSERVATION – SOCFINDO CONSERVATION GARDEN

As Socfindo does not have any unconverted landbank and its plantations are proximate to more developed areas rather than significant conservation areas, Socfindo’s approach to contributing to biodiversity and conservation continues to focus on leveraging its strengths in agronomy and to take a community focused approach within its own communities through the creation of the Socfindo Conservation medicinal garden.

The Socfindo Conservation garden’s purpose is to contribute to the preservation of biological and cultural diversity of Indonesia by collecting and planting medicinal plants and recording their traditional uses and recipes associated with its use. Socfindo continues to grow and build its collection of traditional medicinal plants in its main garden in Bangun Bandar, and its second garden located in the Berastagi highland, which is located 1,300 m above sea level and due to its cooler climate provides a suitable climate for highland medicinal plants. A further 126 species of medicinal plant have been added since our last reporting period. For more details, see <https://www.socfindoconservation.co.id/index>.

NUMBER OF PLANT SPECIES



Conserving Andaliman: A Rare Highland Spice of Significant Cultural Importance

In the highlands of Tanah Karo, amidst the cool expanse of lush greenery, lies a plant that holds significant cultural value for the people of North Sumatra. Andaliman (*Zanthoxylum acanthopodium*), a distinctive spice often referred to as “Batak Pepper,” is an integral component of traditional Batak cuisine. Its unique flavor, a blend of spiciness and a tingling sensation on the tongue, makes andaliman a special seasoning in various dishes. However, despite its aromatic and flavorful appeal, andaliman’s availability is becoming increasingly limited due to challenges in its cultivation.

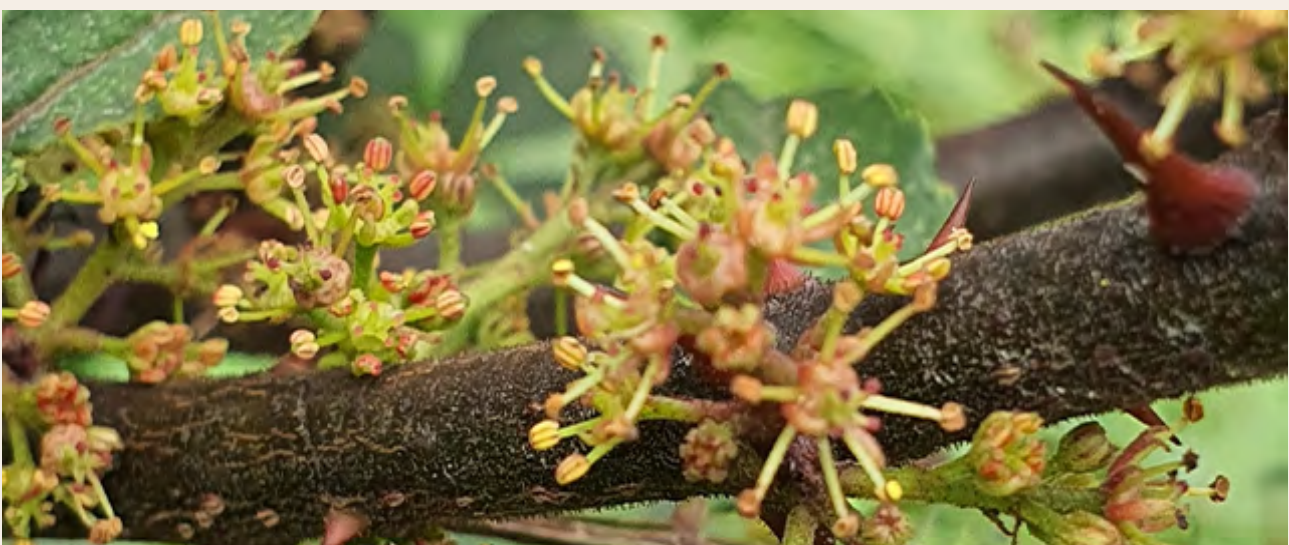
Currently, the natural population of andaliman faces serious threats. This plant grows wild in hilly regions with specific environmental conditions that are difficult to replicate in modern agricultural systems. Andaliman requires precise altitudes, humidity levels, and soil conditions to thrive. Attempts at cultivation have often been unsuccessful, as the plant is highly sensitive to environmental changes. As a result, the majority of andaliman supply still relies on wild harvesting, which is declining due to overexploitation and land-use changes.

Recognizing the importance of conserving this plant, Socfindo Conservation has taken an active role in its preservation. The organisation manages two main

conservation gardens, one in Martebing and the other in the highlands of Tanah Karo. The conservation garden in Tanah Karo serves as a strategic location for ensuring the sustainability of andaliman, given its environmental similarities to the plant’s natural habitat. To further its commitment, Socfindo Conservation has successfully cultivated andaliman, thereby expanding its collection of preserved plant species. However, to date, no further research has been conducted on the large-scale cultivation of this plant.

Within the conservation garden, Socfindo conducts various studies to gain a deeper understanding of andaliman’s life cycle, propagation techniques, and the environmental factors that influence its growth. These efforts aim to identify effective methods for sustainable cultivation, reducing dependency on wild-harvested resources.

Through these sustainable conservation efforts, Socfindo Conservation hopes that andaliman will not only continue to exist as part of North Sumatra’s natural wealth but also be developed into a high-value economic commodity without jeopardizing its survival in the wild. As a unique cultural and natural heritage, andaliman deserves greater attention to ensure that future generations can continue to enjoy the distinctive qualities of this rare spice.



📷 Andaliman (*Zanthoxylum acanthopodium*) is a distinctive native plant of the Karo Highlands

Peat

SOCFINDO'S PEATLAND PROTECTION COMMITMENT

As part of its RSPO commitment and consistent with the Socfin Group's RMP, Socfindo's NPDE Policy commits to:

- No new development on peat, regardless of depth; and
- For existing plantations on peat, they are to be managed to meet or exceed the RSPO "Best Management Practices for existing peat plantations".

SOCFINDO'S PEATLAND RESOURCES

Socfindo does not have significant areas of peatland. Approximately 4% of Socfindo's oil palm is planted on peatland. The amount of peatland remains unchanged since the last reporting period. Socfindo's rubber estates do not have peat soils, as historically, rubber was either planted on well drained soils or on hilly areas and as a result none of Socfindo's rubber estates are developed on peatland.

PEATLAND (ha)

	2022	2023	2024
Surface of peat area	1,905	1,905	1,905

MANAGEMENT OF PEATLAND RESOURCES

Socfindo is committed to careful ongoing management of the small amount of its plantations that do exist on peatland soil. Socfindo manages its approach to existing plantation on peatland soil by strict adherence to its Peat Protection Policy and the RSPO Best Management Practices for Existing Peat Plantations. These include having in place a drainability assessment duly validated by the RSPO together with a peatland management plan which covers water and ground

cover management as well as ongoing monitoring of both peatland water levels and subsidence. Socfindo was the first company in Indonesia to have its drainability assessment report validated by the RSPO. Water levels are actively managed by maintaining it to an average of 50-70 cm from the surface in the drains, thanks to water gates. The monitoring of water levels is done both inside the blocks with piezometer and on the periphery of the blocks in the drains.

Fire

Unlike many plantation companies in Indonesia, Socfindo is fortunate that fire is a minor issue. This is because Socfindo operates in plantations which were developed many generations ago, in locations that are by now, mostly developed and less at risk of being subject to forest or peat fires.

Socfindo remains vigilant to the threat of fire, maintaining fire watch towers and teams of well-trained personnel across its plantations even though it is very seldom that fire brigades are needed to be deployed to put out fire in the plantation. Socfindo also maintains a program of ongoing education of local communities to ensure local people living in and around the plantations do not use fire for clearing or disposal activities, as the main fire risk would come from anthropogenic sources.

In addition, Socfindo ensures that all operational units are equipped with standard fire prevention facilities to support quick and effective response in case of fire risks. This infrastructure plays an important role in the Company's strategy to minimise fire hazards while supporting sustainable and environmentally responsible operations.

Finally, since 30 December 2010, Socfindo has adopted a zero burning policy in developing new plantations or replanting of aged plantations. Socfindo relies on mechanical means to chip the old stands and the biomass is then left to decompose, providing nutrients to nurture the soil. Even though mechanical means of land clearing may be more expensive, it is environmentally sustainable.

IPM & Pesticides

Pests and Disease is a material issue in tropical agriculture where crop losses due to pest and disease can be significant. High productivity cannot be separated from good pest management and using various control methods. As a dedicated tropical plantation company that implements the IPM, which includes pesticide use is a material matter to Socfindo and management of pests and diseases through IPM is one of the core pillars of sustainable agronomy practiced by Socfindo. IPM takes a holistic approach to the management of pests, diseases, weeds and invasive species through the use of a systematic pest management plan, which includes where possible the use of biological and natural agents and only as a last step targeted use of pesticides. Appropriate IPM techniques, together with safe use and minimizing of pesticides are key criteria under the new RSPO P&C 2024. In addition, when their use is necessary, ensuring the health and safety of employees through training and use of Personal Protective Equipment (PPE) is always a core concern for Socfindo

Socfindo's Integrated Pest Management (IPM) Strategy

Where possible and practicable, Socfindo reduces the use of chemical pesticides in its agricultural operations. It does this through Socfindo's IPM strategy that focuses on prevention to stop the conditions arising that create pest and disease and through natural agents, where possible, to reduce and stop infestations before they become a severe issue and where targeted use of chemical pesticides become necessary. Like nature, IPM is complex and ever evolving and pest and disease and their management is affected by a wide variety of on the ground factors. The principle in Socfindo's IPM systems is based on an understanding of pest ecology. Socfindo accurately monitors the type and number of pests as well as the nature and source of pest problems, as well as taking preventive and reactive actions in pest control. The first arm of defense in Socfindo's IPM plan is prevention through the use of disease-resistant palm varieties (DxP Socfindo MT Gano) and strict plantation protocols which avoid where possible the conditions which allow pest and disease to establish. Application of empty bunches and compost to the field to increase soil health, sowing cover crops, planting of "beneficial" plants, which provide habitat for leaf eating insects predators and to support the local ecology and the release of natural predators are some of the measures utilised to fight pests that may cause damage to palm health and yield. Socfindo's IPM strategy achieves effective control of pests and diseases delivering a positive impact on productivity, while minimising impact on the environment. Below we set out a snapshot of some of the current key biological measures that Socfindo are using in its IPM strategy.



Both of these species (*Tyto alba* & *Eucanthecona furcellata*) contribute to our IPM strategy

BENEFICIAL PLANTS

Socfindo currently propagates and plants the following species of beneficial plants that attract predatory insects, *Cassia*, *Antigonon*, *Turnera* and *Crotalaria*.

BENEFICIAL PLANTS

	2022	2023	2024
<i>Cassia cobanensis</i>	145,890	157,761	140,438
<i>Turnera</i> sp.	30,064	36,686	33,173
<i>Antigonon</i> sp.	21,830	25,872	18,730
<i>Crotalaria</i> sp.	6,399	6,314	29,241
TOTAL	204,183	226,633	221,582

Beneficial plants are still very much part of Socfindo's strategy, as a sustainable palm oil plantation company. "Beneficial" plants provide habitat for leaf-eating insect predators and support the local ecology by serving as a pest trap and promoting ecosystem stability so that pest populations can be suppressed and kept in balance. To this end, useful crops are grown every year, especially in the plantations that need them the most. In general, leaf pests are rare because they are controlled by natural predators. However, we did observe leaf pest outbreaks in some plantations with more extreme weather or, in some cases, during actual seasonal changes.



📷 *Antigonon leptopus*

NATURAL PREDATORS - BARN OWLS

In oil palm plantations, the hunting ability possessed by owls can be used to control rat pests in plantation areas. In Socfindo, rat pest attacks usually occur on plantations that are prone to flooding. At this time,

owls are not always enough to overcome rat plague and control must be carried out in combination with rodenticide chemicals that do not belong to groups 1A and 1B. Owls usually use existing nests or takeover abandoned nests. To protect the owl population, Socfindo places an owl cage in every plantation area where there are indications of rat infestation to invite the owls to nest and breed.

BARN OWL

	2022	2023	2024
Total boxes (boxes)	98	83	196
Land to boxes ratio (ha/box)	401	476	201
Occupancy (%)	39	29	37

BAGWORM TRAP

Female traps are one of the biological caterpillar control techniques that uses receptive female bagworms as traps/bait to catch male moths (imago) with the aim of breaking the life cycle of the bagworm. Receptive females release special pheromones that attract male moths so that male moths are trapped on the plastic sheets on which females have been attached. Pheromones are chemical compounds that are natural, environmentally friendly and species-specific. The key to the female trap is the accuracy of determining receptive female bagworms. Female traps are a prime choice because they are cost effective and the moths that are trapped are selective (moths other than bagworms are not trapped) and reduce the possibility of mating and laying eggs of bagworms, which results in lower populations and, therefore, lower leaf damage and higher production.



📷 Female pheromone trap used to attract male bagworms

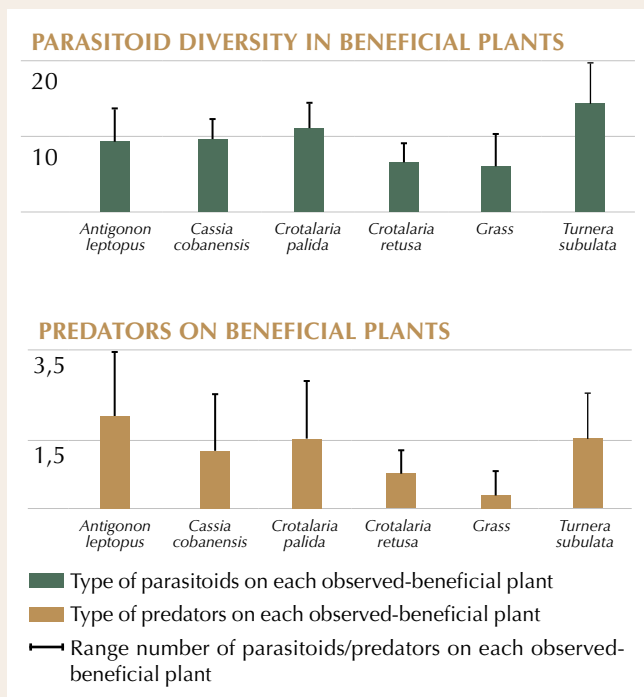
BENEFICIAL PLANT AND INSECT PESTS (BEPIPE) PROJECTS

Socfindo has long implemented beneficial plant cultivation to control pests in its oil palm plantations, aiming to provide habitats for natural predators and parasitoids. However, the effectiveness and specific role of these plants in pest regulation remain unclear.

To address this, Socfindo in collaboration with its scientific partners, launched the BEPIPE project in 2023. The project aims to assess the real impact of beneficial plants on the natural control of nettle caterpillars and bagworms, including which plant species attract parasitoids, their effect on defoliator regulation, and the effective distance within estate blocks.

The project will continue through 2025, and its findings will guide the design and selection of beneficial plants for effective agroecological pest control. Initial observations indicate that *Turnera subulata* hosts the highest number of predators, while *Antigonon leptopus* supports the greatest parasitoid diversity.

Below is diversity of parasitoid and predator in the beneficial plants.



📷 Counting insects as part of BEPIPE project

BREEDING PREDATORY INSECTS IN SOCFINDO

One of the preventive actions taken is to develop predatory insects as natural enemies, namely *Sycanus* sp. and *Eucanthecona furcellata*.

Sycanus sp.

SYCANUS SP.

	2022	2023	2024
<i>Sycanus</i> bred	24,017	26,850	24,249
<i>Sycanus</i> released	24,017	26,837	23,850

Socfindo continues its programme of breeding and releasing *Sycanus* sp., which is a predatory insect that can be found in various habitats such as plantations, horticultural crops, food crops, and forestry. This predator is polyphagous because it has a wide range of prey such as *Lepidoptera*, *Hemiptera*, *Diptera*, and *Coleoptera*. In oil palm plantations, *Sycanus* is a natural enemy for leaf-eating caterpillars and plays an important role in maintaining leaf-eating caterpillar populations.

Socfindo has specially bred *Sycanus* to be placed on plants that will become host plants. With all the benefits it has, *Sycanus* is able to improve the ecological balance in estate areas. The success of pest predation by *Sycanus* sp. evidenced by the decline in caterpillar pest populations and the decrease in the use of chemical insecticides in estates endemic to leaf-eating caterpillar pests. *Sycanus* sp. released on-site as we work to reduce the incidence of leaf eating pests on certain estates.



📷 Releasing predator insects on our beneficial plants

Eucanthecona furcellata

Eucanthecona furcellata is a promising predator as a means of biological control against bagworms and other pests. *Eucanthecona furcellata* preys on fireworms and bagworms by piercing and sucking the caterpillar's body fluids. The ability of *Eucanthecona furcellata* to prey on fireworms in the field with its short life cycle and high reproductive ability makes the *Eucanthecona furcellata* predator opens up new potential in controlling pests. In October 2024, Socfindo initiated an *Eucanthecona furcellata* predator breeding program. So far, the number of imago and *Eucanthecona furcellata* that have been released into the field is 2,051.

EUCANTHECONA SP.

	2024
<i>Eucanthecona</i> bred	3,706
<i>Eucanthecona</i> released	2,051



📷 *Eucanthecona* sp. predating on a caterpillar pest

SOCFINDO'S COMMITMENTS RELATING TO PESTICIDE USE

Despite best efforts, it is still necessary to use some pesticides in the estate to effectively control pests and diseases. To ensure responsible and safe use and minimization of pesticides Socfindo has implemented its pesticide policy which includes :

- Development of an IPM plan for all operations which is reviewed annually.
- No Paraquat Use: The active ingredient Paraquat has been successfully phased out of all of palm operations.
- Pesticides in World Health Organisation (WHO) classes 1A and 1B and Stockholm or Rotterdam conventions are used only when no effective alternatives are available. Their use is authorised in writing by local senior management on a case by case basis, following a due diligence process.
- Ensuring Workers' Safety: All workers, permanent or not, involved with pesticides are trained and equipped adequately and their health is monitored.

Socfindo manages IPM and pesticides in their plantations through strict adherence to these policies and procedures which are consistent with the RSPO management principles and protocols. This involves having a systematic IPM plan, which is the first line of defense to effectively manage pests, diseases, weeds and invasive species. Only once these have been exhausted will pesticides be considered and their use will only be used in accordance with Socfindo's pesticide policy and the stringent guidelines under the new RSPO P&C 2024.

Some new chemicals are now available on the market seem to be promising, having a more selective target with less impact on the palm trees or on its pollinating weevils. Socfindo therefore welcomes the addition of new products on the market which are more targeted, effective and less toxic.



📷 Using adequate protection is key when performing spraying activities

Pesticide Use in Socfindo

OIL PALM

PESTICIDE USED (kg + l commercial PRODUCT / PLANTED ha)

	2022	2023	2024
Herbicide	2.66	3.41	3.43
Fungicide	0.01	0.02	0.02
Rodenticide	0.04	0.08	0.05
Insecticide	0.82	1.19	1.00

PESTICIDE TOXICITY (LD 50 (pesticide) / ha)

	2022	2023	2024
Pesticide toxicity	828	1,149	1,103

The tables show Socfindo's pesticide use in 2023 & 2024 vs 2022. Although higher than 2022, they demonstrate a reduction in pesticide toxicity in 2024 compared to 2023 due to lesser quantities of chemicals used such as acephates (insecticide against leaf eating caterpillars). Herbicide, Fungicide & Insecticide have all increased in the current reporting period over 2022. This is due to recent climate conditions with more rainy days which provided suitable conditions for more pests and weed growth. In addition, with higher rainfall more respraying work was required.



📷 Herbicide application is conducted as part of the upkeep of immature oil palm plantations

RUBBER

PESTICIDE USED (kg + l commercial PRODUCT / PLANTED ha)

	2022	2023	2024
Herbicide	1.55	1.92	2.34
Fungicide	0.39	0.34	0.34
Rodenticide	*	*	*
Insecticide	0.01	0.00	0.03

PESTICIDE TOXICITY (LD 50 (pesticide) / ha)

	2022	2023	2024
Pesticide toxicity	112	207	264

The tables show Socfindo's pesticide use for rubber in 2023 & 2024 vs 2022. While fungicide has remained steady, herbicide and insecticide use has increased during the reporting period. This is due to effects of the the leaf fungus *Pestalotiopsis* sp. which is still an issue in the rubber estate, and has resulted in a reduction in canopy. This in turn increases light on the forest floor which together with more rainy days meant greater weed and insect growth. This in turn resulted in a greater need for herbicide and insecticide control.



📷 Centralized pesticide mixing station in Aek Pamienke estate

Soil Health

As a plantation company, along with its people, soil is Socfindo's key asset. For generations, Socfindo has focused on long term soil health and soil fertility maintenance (agronomy), one of Socfindo's four pillars in its ongoing R&D program. Socfindo has a host of practices and procedures in place to ensure protection and enhancement of the soil in plantations which are continually being updated and improved through SSPL, its dedicated R&D department. A snapshot of these is set out below.

RECYCLING OF BIOMASS

A key concern for soils like those in Socfindo's plantations, which have been farmed for generations is the gradual loss of organic carbon in the soil. To protect soil and to improve soil organic carbon, Socfindo recycles 100% of its solid field and mill biomass residues back to the soil, improving the soil's characteristics by creating a closed resource loop and recycling organic carbon back into the soil which would otherwise be lost. All of the organic waste such as Empty Fruit Bunch (EFB), solids and compost are returned to the field, however their amount varies according to yearly production levels

In the field, the fronds are disposed in a U shape around the circle and slowly degrade, providing an ideal medium for root development. From the mill process, EFB waste are recycled by mulching and reapplying these to the plantations. In Bangun Bandar, Socfindo operates a long running United Nations Framework Convention on Climate Change (UNFCCC) certified

co-composting project which creates organic compost from the mill where EFB mixed with liquid POME, which is then recycled back and applied in the field. For more details on this co-composting project, please see our **Climate & Energy** section of this report. These organic fertilisers are likely to have a lasting positive effect which will contribute positively in recovering the loss of fertility due to sometimes four generations of intensive culture of crops on the same soil. By understanding better the soil issues which are specific to the tropics and to our regional environment, we seek to recover the organic carbon that is needed for the soil to be able to function. In addition, organic fertilisers will likely have an effect on the soil exchange capacity and on the microbial activity, two parameters being key to a healthy and productive soil. In our rubber plantations, organic waste resulting from the process are very limited, as the product brought to the factories are directly processed as such, without generating bi-products.



📷 Mechanized application of fresh organic compost

SNAPSHOT OF SOCFINDO BIOMASS RECYCLING

BIOMASS

	2022	2023	2024
EFB to estate (MT)	160,701	157,706	149,666
Solids to estate (MT)	17,013	17,548	24,158
Compost produced and recycled to the estate (MT)	14,948	16,381	17,038
POME used in compost process (m ³)	13,687	13,912	13,933



📷 Daily application of EFB is a key to prevent leaching of nutrients

SOIL PROTECTION AND PREPARATION DURING REPLANTING

Oil palms require to be replanted in a cycle approximately every 20-25 years. During this replanting phase, the old palms need to be removed, the ground prepared and the new palms replanted. Measures to maintain soil health and protect the soil from erosion, compaction and run off are critical during this time. Along with adhering to the RSPO new planting procedures, Socfindo has its own very strict and careful protocols to ensure the protection of its soils which include :

- **Soil Decompaction:** During the land preparation, soils are decompacted by ripping and ploughed in order to ensure that our seedlings and cover crop find the best condition to grow.
- **Cover Crops:** A lot of effort is given to the establishment of cover crop to ensure there is no exposed soil. Cover crops help in covering the soil, limiting erosion and improving moisture retention. In addition, a well thought out good cover crop will prevent the rise of invasive weeds such as woody growth and grasses which in turn reduces the need for maintenance and chemical operations and further protects the soil.
- **Terracing:** In cases of specific steep terrains, contour terraces are built to prevent soil erosion and improve to access for work and harvesting.



📷 Thick cover crop on terraces will prevent erosion

BIOCHAR

Socfindo has continued to build on its successful rice husk biochar program using biochar in its agronomic activities. The raw material source utilised are organic rice husks, an agricultural waste which is widely available around its Mata Pao estate. The project was initiated for agronomic purposes to remediate and compensate for the poor soils, characteristic of the area. However this program is also beneficial for the local community who produce the biochar, providing a new income stream for a product that was previously seen as a low value organic waste.

Socfindo started using Biochar in 2022 in Mata Pao estate, in blocks with low soil fertility (sandy soil, pH < 5, average low rainfall < 1,300 mm/year), and have since carried out maintaining the same treatment in these blocks since then. Based on soil analysis in 2024, the application of biochar showed a positive impact by increasing soil organic C and cation exchange capacity.

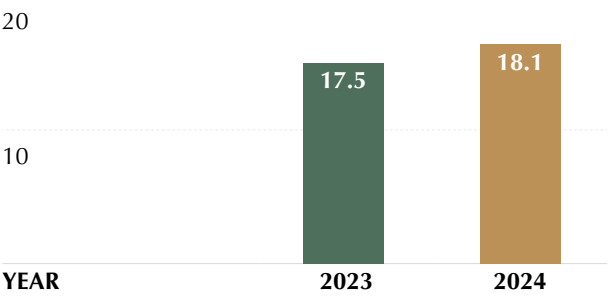
SOIL ANALYSIS OF MATA PAO ESTATE SOIL WITH BIOCHAR APPLICATION

Year	pH-H2O	C-Org (%)	Sand (%)	Lime (%)	Clay (%)	CEC
2023	4.80	0.37	58.33	22.49	23.68	9.76
2024	4.83	0.66	63.03	21.10	15.88	11.20

We also have observed that there appears to be a positive effect on production from the addition of biochar vs those blocks without biochar added (see graph below). Longer term results are need to confirm this.

Socfindo will continue to monitor the application of biochar in its Mata Pao estate, and it is hoped that it will help increase soil fertility, unlocking the soil's ability to store water and nutrients whilst rebuilding the top soil ecosystem, hosting beneficial bacteria and retaining elements.

PRODUCTION INCREASE IN THE BLOCKS USING BIOCHAR (t/ha)



Application of biochar on marginal soil will increase nutrient exchange capacity

Climate & Energy

Climate is a material issue for Socfindo. As a dedicated tropical plantation company, Socfindo is both adversely affected by the effects of climate change as well as having a material footprint from its operations. Managing and reducing its GHG Emissions and climate adaptation and resilience are key parts of Socfindo's sustainability program in both its palm and rubber operations.

During this reporting period, Socfindo has undertaken a full GHG assessment of its entire palm and rubber operations, including for the first time Scope 3 emissions. Socfindo has also undertaken a full assessment of climate opportunities and risks in accordance with the TCFD guidelines (TCFD Assessment).

GHG Emissions

Managing and reducing its GHG emissions are key parts of Socfindo's sustainability program for both its palm and rubber operations. Socfindo has been proactively and voluntarily quantifying and reporting its Scope 1 and 2 GHG emissions for palm under the RSPO since 2018 and for its Rubber operations since 2020. For the first time, Socfindo undertook a full GHG assessment of its entire palm and rubber operations, in accordance with the GHG Protocol including Scope 3 emissions, and this report is the first time Socfindo has reported on its Scope 3 emissions. Socfindo is committed to continue to report on its Scope 1, 2 and 3 emissions. We note for Socfindo's Scope 3 emissions, it has applied a "Cradle to Gate" approach to its operations given that Socfindo is solely an upstream plantation company which grows and then produces intermediate products which are sold to downstream processors who then convert them into a variety of potential end products which have a variety of possible use profiles. Consistent with a Cradle to Gate approach, indirect (Scope 3) emissions have not been estimated for downstream processes and have been excluded from its Scope 3 assessment.



📷 Our compost facility in Bangun Bandar has continuously delivered quality amendment for the past 10 years

GHG EMISSIONS BREAKDOWN

Socfindo GHG Footprint

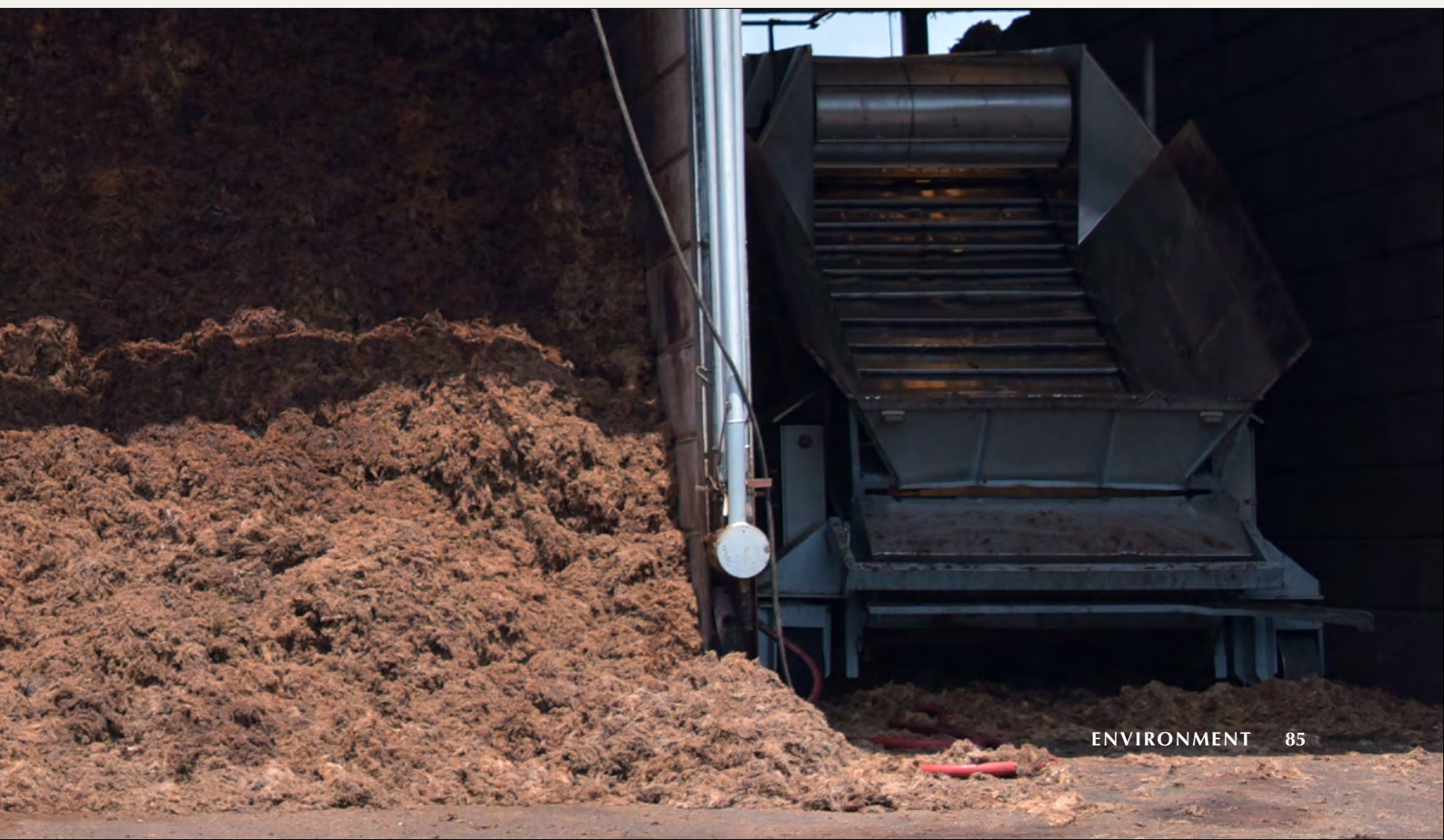
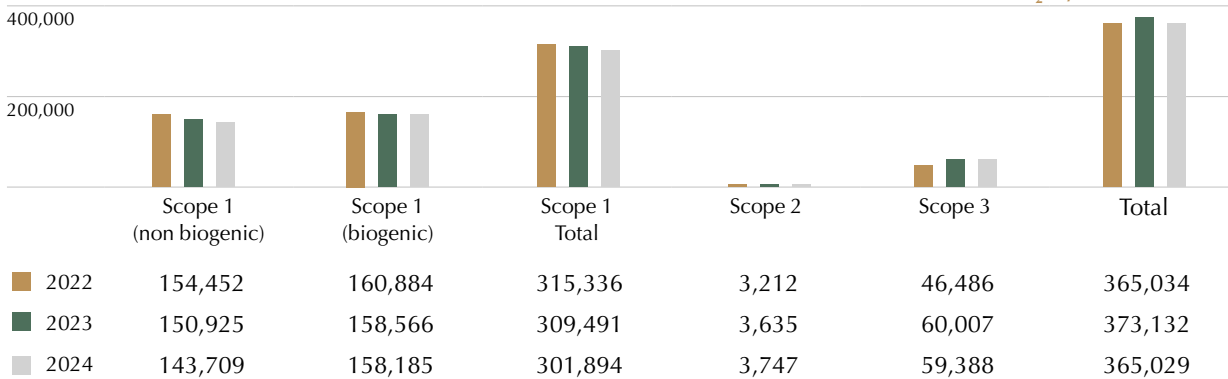
As part of the Group's commitment to sustainable operation, it monitors a range of metrics and targets in support of achieving its goals. Whilst not all emissions are carbon dioxide (CO₂), for ease of comparison, they are converted to equivalent amounts of CO₂ and reported as tonnes of CO₂ equivalent, or 'tCO₂e'.

As per the chart below, overall, the total footprints of Socfindo, including its head office and SSPL hectare remained quite stable, with a slight reduction in scope 1 and a slight increase in Scope 3, the total remaining constant.

The Group monitors carbon intensity measured as the amount of CO₂ emissions, per tonne of CPO produced and per tonne of dry rubber produced, respectively for both its products sold.

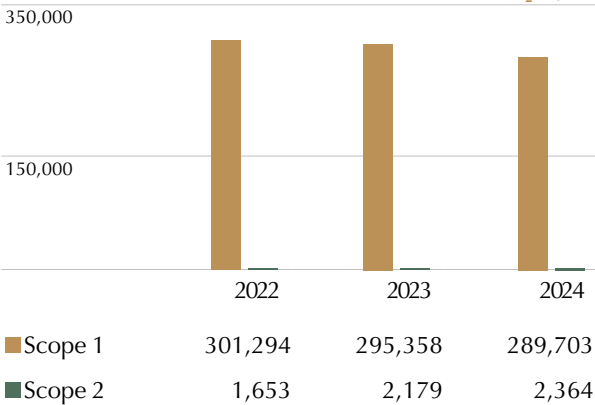
Going forward, the Company continues to work within its own operations on sustainable and responsible practices, including new initiatives which are expected to bear fruits in the long term.

SCOPE 1,2, & 3 OIL PALM AND RUBBER GHG EMISSIONS, INCL. HEAD OFFICE & SSPL (tCO₂e/yr)



OIL PALM

SCOPE 1 & 2 OIL PALM GHG EMISSIONS (tCO₂e/yr)

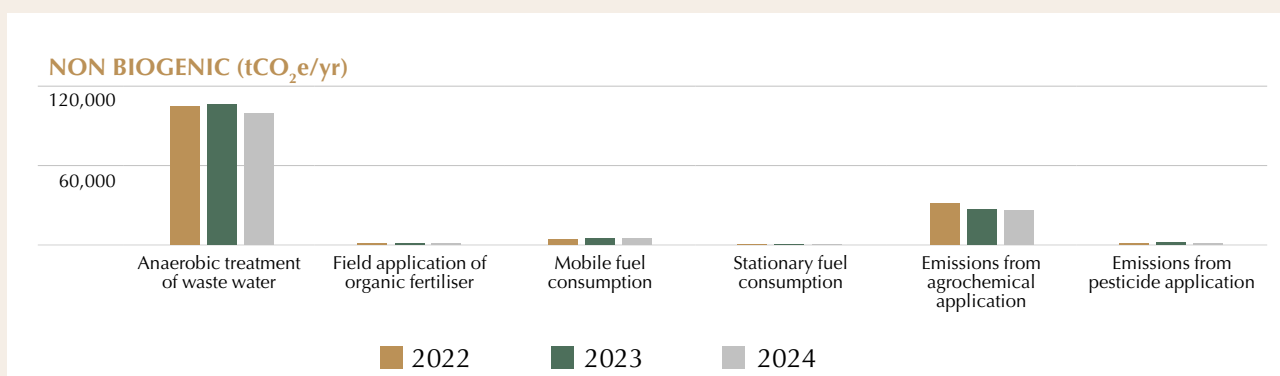


Socfindo’s Direct GHG emissions associated with its Palm operations has reduced from 2024, over both 2023 and 2022. This has been due to Socfindo making a reduction in its Scope 1 emissions which comprise over 99% of its direct emissions from 301,294 tCO₂e in 2022 to 289,703 tCO₂e in 2024. Whilst there has been an increase in Scope 2 emissions, this is mainly due to 2023 and 2024 including electricity use from the field and nursery in all estates which was not captured in 2022.



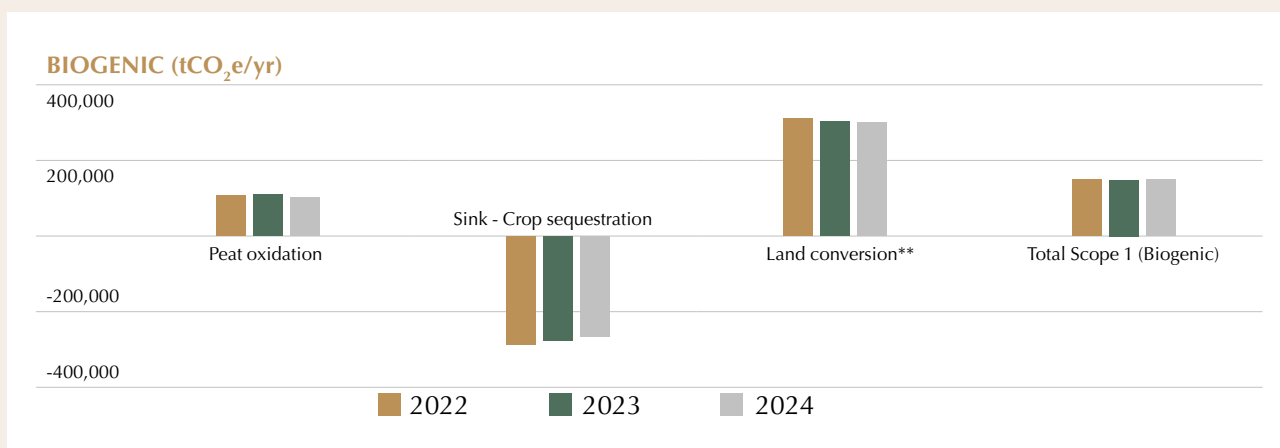
📷 The major part (90%) of our power needs in palm oil mills is derived from our turbines, running on green waste from the milling process

Scope 1 Non Biogenic



Socfindo's Non-Biogenic emissions have reduced in 2024 (141,524 tCO₂e) from 2022 (152,085 tCO₂e). These reductions are due to a reduction in POME effluent emissions in 2024 due to the Seumanyam mill, which was able to lower its water consumption and therefore produced a lower volume of POME. There has been an increase in direct diesel fuel emissions, reflecting an increase in the number of field vehicles including mini tractors and compost applicators. We note that Socfindo has been doing more field work inhouse rather than using contractors, therefore this increase also reflects that change. We note all Socfindo vehicles use Indonesia B35 fuel, which is comprised of 35% biofuel. Whilst this fuel has less emissions, it also has a lower calorific value than mineral diesel, which means more fuel is required to do the same work as 100% mineral diesel fuel.

Scope 1 Biogenic



Socfindo's biogenic emissions have also slightly decreased in 2024 (148,178 tCO₂e/yr) from 2022 (149,209 tCO₂e/yr). Socfindo's Conversion emissions have reduced due to less brownfields conversion of rubber to palm, whilst its sequestration has reduced due to the average age of its palm being older and therefore having a lower growth and therefore sequestration rate.

Emissions Intensity

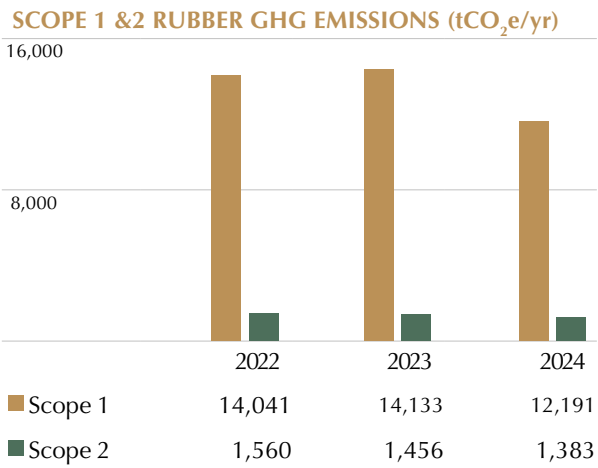
We note that the carbon intensity in 2024 is higher than previous year with 2023 being the better performing year.

GHG DIRECT EMISSION INTENSITY

(oil palm t CO₂e/ t CPO)

	2022	2023	2024
Carbon intensity (Scope 1 & 2 oil palm)	1.69	1.58	1.63

RUBBER

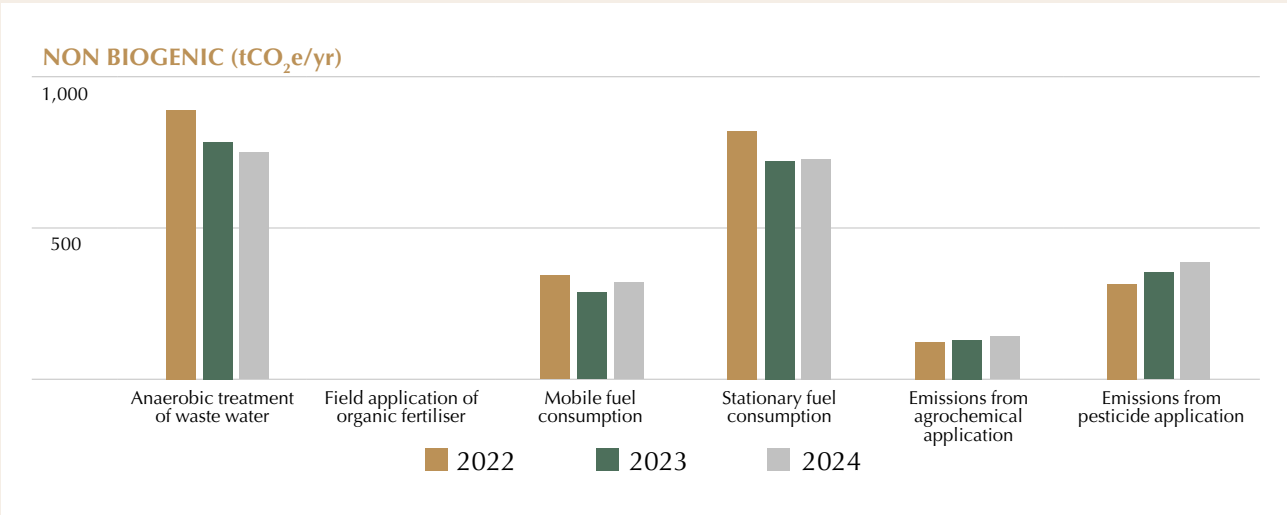


We note that both Scope 1 and 2 have reduced for our rubber segment, which, although some of its scope components have slightly fluctuated, the fundamental trend is due to a lower production, which was in turn mainly affected by the *Pestalotiopsis* sp. leaf disease.



📷 Replanting rubber fields, although once every 25 years, has an impact on biogenic emissions, in this case rubber wood is usually used for furniture and therefore carbon is locked in the wood

Scope 1 Non Biogenic



Scope 1 Biogenic



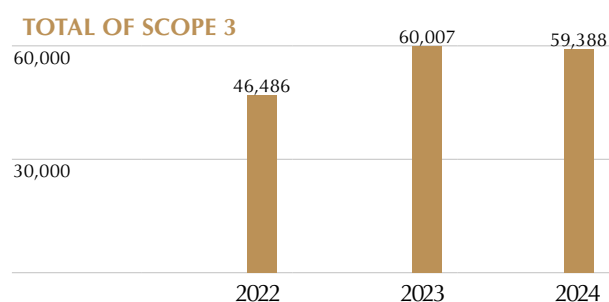
Socfindo’s direct GHG emissions (Scope 1) from rubber operations decreased in 2024 compared to 2022, although there was a slight increase in 2023. The rise in 2023 emissions compared to 2022 was due to higher biogenic emissions from increased replanting and land conversion activities. Grid electricity emissions (Scope 2) continued to decline from 2022 to 2024.

Emissions Intensity

The emission intensity from rubber increased from 2022 to 2023 due to a larger area of replanting and land conversion. In 2023, Socfindo's management decided to complete the remaining rubber conversion program. As there was no more conversion activities in 2024, the emission intensity has decreased.

GHG DIRECT EMISSION INTENSITY (t CO ₂ e/ t dry rubber)			
	2022	2023	2024
Carbon intensity (Scope 1 & 2 rubber)	2.26	2.44	2.20

SCOPE 3 OF OIL PALM AND RUBBER GHG EMISSION



EMISSIONS OF SCOPE 3 (tCO₂e/yr)

	2022	2023	2024
1-Purchased goods and services	32,698	40,667	41,217
3-Fuel- and energy-related activities (excl. scope 1 or 2)	1,733	1,720	1,794
4-Upstream transportation and distribution	2,542	2,894	3,095
5-Waste generated in operations	445	591	594
6-Business travel	159	-	-
7-Employee Commuting	1,400	1,550	1,560
9-Downstream transportation and distribution	7,510	12,585	11,127
Total Scope 3	46,486	60,007	59,388

The majority of Socfindo's Scope 3 emissions comes from Category 1 purchased goods and services, followed by Category 9 downstream transportation and distribution of its products, and Category 4 upstream transportation and distribution of its products. There has been a material increase in Socfindo's Scope 3 Category 1 emissions in 2023 and 2024 compared to 2022. This is due to Socfindo increasing its use of compound fertilisers and reducing urea, and these compound fertilisers having higher shipping emissions. In addition, Scope 3 Category 9 has increased in 2023 and 2024 compared to 2022 as the 2022 figure did not take into account shipping transportation which has now been accounted for. Socfindo expects that its Scope 3 emissions may continue to increase as it increases its scope to account for and include more items as data become available and as the methods to calculate Scope 3 continue to improve.

REDUCING GHG EMISSIONS

Socfindo is committed to a long term step-wise reduction of its GHG emissions overtime. Overall, Socfindo's major GHG emissions sources are land use activities (brown field replanting), peat oxidation and liquid POME. Socfindo's current GHG reduction efforts are focused on reducing its POME emissions, which account for almost 75% of Scope 1 non biogenic emissions.

Unfortunately, current industry solutions to replace the traditional anaerobic POME ponds focus on biogas capture, and conversion to electricity. These solutions only work on large mills where there is an economy of scale to justify the capital cost, a need for the power or an ability to export the power to the grid under a long term power purchase agreement. In the case of Socfindo, which has comparatively smaller mills, no need for power, and there is not guaranteed power purchase agreement nor preferential tariff available, biogas technology is not a good fit.

For this reason, Socfindo has focused on alternative methods to reduce its POME emissions. Thus far, Socfindo has implemented co-composting as an alternative which has worked well at its Bangun Bandar mill, producing a material reduction of emissions as well as converting waste biomass and POME into organic compost enabling it to be used as organic fertiliser in its plantations. However, this has not been a total solution either due to its inability to use all the POME produced.



Our dewatering container being tilted to send the POME sludge to the aerobic compost therefore preventing most of the potentially methane generating solids from reaching the ponds

DEWATERING SYSTEM - REDUCING POME GHG EMISSIONS

Socfindo has invested in a system that potentially able to reduce up to 50% of its POME emissions that works hand in hand with its current aerobic compost operation at Bangun Bandar estate. In the dewatering system, Socfindo is able to send the nutrient-rich sludge into the compost, whilst the filtrate coming out of our dewatering system will enter the effluent ponding system with a greatly reduced Chemical Oxygen Demand (COD).

There is a direct correlation between the level of COD in POME and its potential to emit methane in anaerobic digestion – the higher the COD, the greater methane will be created and released during the anaerobic digestion process. In traditional open air anaerobic ponds, this methane will be released into the atmosphere and is a material source of GHG emissions. The dewatering system provides a process to separate the suspended solids contained within the POME, which greatly reduces the COD and Biochemical Oxygen Demand (BOD) of the remaining liquid effluent and therefore its methane creating potential.

"Reducing 90% of suspended solids in POME"

Under the dewatering system, raw POME exiting the mill is cooled, then run through the system, which comprises a closed container, equipped with a set of special screens along the two sides of the container and one set in the middle. The filtration screens drain and dewater the flocculated sludge inside the container. Dewatering of the POME wastewater and sludge are achieved by adding flocculants, in Socfindo's case, organic polymers to the sludge. The rear of the container is equipped with a full width door with a hydraulically locking mechanism, through which the dewatered sludge is emptied. A ladder mounted at the front of the container allows for quick and easy access to the top of the container where inspection hatches are installed. The treated POME wastewater is discharged at the side of the container and directed to the existing treatment ponds for further treatment. The captured nutrient rich POME solid is then added as another ingredient into Socfindo's co-composting

"Potentially reduces methane emissions from the Anaerobic ponds by 50%"

facility which together with the existing EFB and a portion of the liquid POME will be composted then returned to the field as organic fertiliser.

Currently, Socfindo has one dewatering container installed in its Bangun Bandar mill and is planning to roll out the second one this year. This will allow Socfindo to treat all POME coming out of its Bangun Bandar mill through the AVC system. Socfindo is still working on fine tuning the operational aspects of working with such large quantity of sludge and trying to maximize the nutritional potential of its compost. So far, Socfindo has achieved significant results reducing the suspended solids in raw POME by 90% and the COD by 50%, which reduces the methane emissions from its anaerobic effluent ponds by 50%. Going forward, Socfindo hopes to reduce its COD even further whilst producing a drier sludge. Once the technology has been mastered, Socfindo will look to implement this in its other mills, and it will also be a great potential solution for other smaller mills with older plantations, for which biogas is not a cost effective solution.



📷 Dewatering container at Bangun Bandar plantation

CLIMATE ADAPTATION & RESILIENCE

As a dedicated tropical plantation company, Socfindo is particularly exposed to the effects of climate change. Socfindo's rubber and palm plantations are not irrigated – they rely on natural rain fall. Socfindo relies on stable weather patterns and adequate rainfall without which its productivity and even its existence are threatened. Recent years have seen less stable climate with more extreme weather, being either drought or very wet weather patterns, resulting in material impacts on yields. Assessing climate risk and implementing proactive strategies to adapt to the effects of climate change and to climate resilient agriculture are a core part of Socfindo's long term agronomy strategy. Socfindo recently undertook a full assessment of climate opportunities and risks in accordance with the TCFD assessment. A brief summary is set out below, for more details, a full copy of this report is available on Socfindo's website <https://www.socfindo.co.id/>.

CLIMATE RELATED RISKS

As part of its TCFD assessment, Socfindo undertook a forward-looking assessments of climate-related risks and opportunities. Socfindo examined risks related to the transition to a lower-carbon economy (Transition Risks), and risks related to the physical impacts of climate (Physical Risks). Socfindo undertook its assessment under three different Climate scenarios being future projections of climate, under differing warming pathways. Socfindo used specific Shared Socioeconomic Pathways (SSP) scenarios developed by the Intergovernmental Panel on Climate Change (IPCC) in their AR6 Report. Socfindo also had regard to the ESRS Disclosure Requirements⁹. The three warming pathways were :

CLIMATE SCENARIOS USED BY SOCFINDO

Low	Intermediate	High
1.5°C with no or limited overshoot (SSP1-1.9) (C1)	limit warming to >3°C (SSP2-4.5) (C6)	limit warming to >4°C (SSP3-7.0) (C7)

In addition to the three climate scenarios, Socfindo also undertook its analysis under the following short, medium and long term time frames, which reflected its business in particular oil palm cycles of planting and infrastructure.

SOCFINDO DECISION MAKING TIMEFRAMES

Short term	Medium	Long term
1 to 3 years	4 to 10 years	10 to 25 years



📷 Meteorological data is captured daily in each division

⁹Specifically ESRS E1 at 18(c)i and 18(b)i.

Transition Risks

Socfindo identified the following climate related transition risks as having the highest potential impact on Socfindo's business.

SOCFINDO TRANSITION RISKS

Risk	Rating	Explanation
Legal and Policy Changes	Medium	Especially in the below 1.5°C scenario resulting in increased costs to monitor policy and legal framework, compliance and reporting costs and increased risk of noncompliance.
Increased carbon tax domestically or imposed on products as adjustment mechanism	Medium to high	Especially in the intermediate below 3°C scenario where policy and regulation is inconsistent between nations, delayed and sporadic implementation and as a result carbon taxes are more widely adopted and imposed.
Technology	Medium	Especially in the below 1.5°C scenario, increased capex costs to implement low emission technology and potential risk of adoption of failing technology.
Market risk increased input cost of energy and raw materials such as fertiliser and diesel, and constrained supply in extreme cases.	Medium	This could occur in the low below 1.5°C scenario as a result of policy changes, or in the high 3°C scenario and above where supply chain disruptions increase due to climate impacted extreme weather.

Mitigation of transition risks

To reduce the impact of these risks, Socfindo relies on a proactive approach to climate action, both in its efforts to manage, reduce and report on its emissions, as well in ensuring that it stays on top of evolving policies and regulation and takes action to ensure it remains ahead of future regulation.

Physical risks

Socfindo analysed both acute and chronic physical climate-related risks. Acute physical risks refer to those that are event-driven, including increased severity of extreme weather events, such as cyclones, hurricanes, or floods. Most relevant to Northern Sumatra and Aceh where Socfindo's plantations are located is the increased severity of storms, in particular torrential rains which cause flooding. Chronic physical risks refer to longer-term shifts in climate patterns, for example higher temperatures, long-term sea-level rise and increased periods of drought or rain. In some cases, there may be overlap between the effects of some risk categories and inter-relationship. For example, both a one-off severe weather event, and long duration of increased rainfall may lead to flooding and both may appear in a single season which exacerbates the effect. In addition, issues with pest and disease are magnified under conditions of both hydric stress from longer dry and hot periods as well as extended rainy periods and less sunshine. Each risk was examined separately, however it is noted that there is often a degree of overlap and interaction between the various physical climate risks including potential compound effects.

Socfindo has currently identified the following Physical risks as having the highest potential impact.

SUMMARIZE OF KEY CLIMATE RELATED PHYSICAL RISKS

Risk	Rating	Explanation
Acute		
Increased extreme severe climate events especially torrential rain causing flooding and infrastructure damage	Medium to high	Especially under higher scenario-warming pathways (>3 °C) increased severe weather events can lead to damage to internal infrastructure and increased costs, as well as reduced revenue due to interruptions in harvesting and processing.
Chronic		
Increased temperature and changing weather patterns	Medium to high	Especially under higher scenario-warming pathways (>3 °C), increased mean temperatures, drought as well as prolonged unseasonal rains can lead to reduced yields, impacting revenue.
Increased Pest and Disease	Medium	Especially under higher scenario-warming pathways (>3 °C), related to prolonged dry or wet conditions creating imbalances in ecosystems and stressed conditions increase risk of pest and disease, which can reduce yield impacting revenue.

Mitigation of Physical Risks

Socfindo is undertaking several initiatives to mitigate these impacts and adapt to the effects of climate change. These include flood prevention infrastructure, water drainage maintenance, agronomic initiatives to reduce the impacts of severe weather, a proactive multi layered IPM strategy to reduce the effects of pest and disease, and development of and adoption of climate resilient and disease resistant Planting Stock. Climate resiliency and preventing pest and disease are both key pillars in Socfindo's ongoing research and development program which is a core aspect of Socfindo's business.

CLIMATE OPPORTUNITIES

Efforts to mitigate and adapt to climate change may also produce opportunities for Socfindo. Socfindo identified three potential opportunities:

1. Improving profitability through greater resource efficiency, in particular reducing inorganic fertiliser and diesel fuel.
2. Increase revenue from exporting energy to the grid if favorable policies were implemented under a low temperature scenario.
3. Increase demand for disease resistant and climate resilient genetic stock under a medium and high temperature scenario, where climate effects are greater.

CLIMATE METRICS

In addition to measuring and tracking its own GHG emissions, Socfindo also tracks specific climate risk metrics that may have a material impact on its business. This provides a method to track and measure specific climate impacts and to understand trends across time. These parameters are tracked and displayed on a specific "climate dashboard" as Socfindo does with its other material sustainability matters. As with Socfindo's other sustainability dashboards, its Climate dashboard is fully integrated into its main database. In addition, Socfindo is in the process of integrating these climate parameters into its Plantation "up keep" field app. The specific climate risk metrics Socfindo tracks are :

1. Meteorological data: Rainfall and temperature data in each of its plantation.
2. Flooding: Days of flooding per estate, as well as lost work / production due to flooding.
3. Fire: Fire events are logged, extent of area and damage.
4. Infrastructure damage: Physical impact / damage on internal infrastructure due to severe weather events.
5. Drought: Hydric stress: How many months in year with water stress / hydric deficit. Measured in mm water deficit per month.

CLIMATE RESILIENCE

Socfindo is undertaking a number of initiatives to improve its climate resilience and to adapt to climate change. A summary of key measures is set out below.

CLIMATE RESILIENCE INITIATIVES

Initiatives	Details
Agronomic	
Biochar	Socfindo works with the local community to take rice agricultural waste from surrounding paddy fields, convert to biochar and apply in plantations with sandier soil and on young palms. Biochar can assist with water retention and nutrient uptake.
Recycling of Biomass	Socfindo recycles 100% of its solid field and mill biomass residues back to the soil ,improving the soil organic carbon. Its Bangun Bandar mill has a co-composting project which creates organic compost from the mill EFB and the liquid palm oil mill effluent (POME) which is then recycled back and applied in the field as an organic fertiliser.
Cover crop planting	Socfindo undertakes establishment of cover crops to ensure there is no exposed soil. Cover crops help in overing the soil, limiting erosion and improving moisture retention and reduce hydric stress, especially in immature plantings.
Climate resilient genetic stock	Socfindo invests significant resources into R&D and is continuing to invest into the development of climate resilient planting stock. Socfindo is also replanting with this improved climate resilient genetic stock. An example of this is its Super male which allows for greater pollination even in wetter seasons. To mitigate against Ganoderma, a disease which is exacerbated in dry soils, Socfindo has also developed Ganoderma resistant genetic stock which is planted in areas susceptible to the disease.
Integrated Pest Management	Socfindo has a proactive multi layered IPM strategy to reduce the effects of pest and disease. A core aspect of Socfindo's business is R&D and Socfindo has significant ongoing investment into R&D. Preventing pest and disease, as well as improving the climate resilience of its crops are key foci of its research program.
Infrastructure	
Upgrading Infrastructure	Socfindo is upgrading and improving drainage infrastructure and also investing in improving its internal roading infrastructure by adding harder stones and more materials to make the road surface harder and more resilient to storm damage.
Flood Protection and water management	Socfindo is building up low lying areas that might be flood prone and tracks the number of stands (ha) built on these elevated areas. Socfindo is also investing into water bunds in plantations around riparian areas to prevent flooding as well as utilising water gates to either carry water away or to store water during times of drought. Socfindo uses water trenches that act as water reservoirs during the dry spells but also allow the excess water to overflow during the rainy seasons.

ENERGY

Breakdown of Energy Use in Socfindo

Oil Palm

Renewable Energy Use

BREAKDOWN OF ENERGY CONSUMPTION TYPE (%)

	2022	2023	2024
Genset power	1.1	0.5	0.4
PLN	9.4	9.7	10.0
Renewable	89.5	89.8	89.6
TOTAL	100	100	100

The majority of energy for Socfindo's palm operations comes from renewable energy (89.6%) with Socfindo optimizing the use of its biomass boilers which consume their own biomass waste as fuel (Fibre and Palm Kernel Shell). During the reporting period, the percentage of energy produced from renewable sources has remained consistent compared to 2022, when 89% of energy produced was from renewable sources. Socfindo has reduced its reliance on diesel gensets which comprise only 0.5% of its energy source and energy from the grid State Electricity Company (PLN-Perusahaan Listrik Negara) has risen to 10% during this reporting period compared to 9% in 2022.

Fossil Fuel Consumption

FOSSIL FUEL USAGE (L)

	2022	2023	2024
TOTAL	2,693,749	2,886,085	3,020,598

FOSSIL FUEL PER PRODUCT (L/t FFB)

	2022	2023	2024
Fossil fuel per product	3.47	3.57	3.79

Unfortunately, diesel use for transportation has increased since 2022, leading to an increase in diesel use in 2024 over 2022. The reason for this is that over the last years, we have increased the proportion of replanting work done with our own equipment rather than contracting it out, leading to a stronger quality

control and cheaper operations. In addition, Socfindo has brought in additional mini tractors to mechanize both some of the spraying activities (in doing so we have also reduced the exposure of the workforce to chemicals) and more heavy equipment. In addition to that, the biodiesel proportion in diesel fuel has now reached 35%, which does affect the firing power and efficiency of engines running on diesel. Fuel consumption of biodiesel is expected to be slightly higher than petroleum as density of the biodiesels is higher than petroleum diesel. Biodiesel is likely to produce less power with high fuel consumption than diesel as the gross calorific value (energy content) of biodiesel is lower than petroleum diesel.

In addition to biodiesel, Socfindo also uses minor amount of natural gas in the production of its palm and rubber products. This reporting period is the first time Socfindo has reported on its natural gas use as it is minor in terms of GHG contribution. However, in the interests of greater transparency, Socfindo will continue to report on its natural gas use.

USE OF NATURAL GAS

	2023	2024
Natural gas (kg)	13,300	13,700
Natural gas per product (kg/t FFB)	0.02	0.02

We note that fossil fuel consumption per MT of FFB produced has continued to increase slightly over the reporting period. We note that this is partially due to the continually increasing ratio of Biodiesel which has a lower calorific content than mineral diesel. Therefore, under increasingly higher percentages of Biodiesel, it will take more litres of diesel to produce the same output due to the lower calorific content.

Rubber

In contrast to palm, Socfindo's rubber operations are reliant on fossil fuel for power, with 100% of its energy use coming from grid connected energy and diesel use for gensets and driers.

Fossil Fuel Consumption

BREAKDOWN OF ENERGY CONSUMPTION TYPE (%)

	2022	2023	2024
Genset power	5.5	2.0	1.5
PLN	94.5	98.0	98.5
Renewable	0.00	0.00	0.00
TOTAL	100	100	100

FOSSIL FUEL USAGE (L)

	2022	2023	2024
TOTAL	167,310	159,697	165,051

FOSSIL FUEL PER PRODUCT (L/t RUBBER)

	2022	2023	2024
Fossil fuel per product	72.61	72.61	72.61

USE OF NATURAL GAS

	2023	2024
Natural gas (kg)	650.0	600.0
Natural gas per product (kg/t dry rubber)	0.1	0.1

Socfindo's grid connected energy use, diesel genset use and fossil fuel per tonne of dry rubber product has remained constant during the reporting period.

🌱 Shells & fibers represent a green source of biofuel



Water

Water is critical to Socfindo's business. Socfindo's palm and rubber crops are not irrigated and are 100% reliant on natural rainfall for water. Consequently, Socfindo is exposed to changes in rainfall patterns as a result of climate change. This is a material impact on Socfindo's operations as changing weather patterns in recent years have resulted in years where rainfall has been less than adequate and this has severely impacted yields and financial performance across the whole North Sumatra and Aceh regions. Unpredictable unusual seasonal variations seem to be the new norm therefore, water conservation, efficient use of water and preserving water quality is materially important to Socfindo.

Water use in Socfindo

Socfindo does not irrigate its palm or rubber crops and the plantation relies on rainwater for its water needs. The main source of Socfindo's water consumption is for industrial uses in its palm and rubber mills. In addition, water is also used in Socfindo's field for spraying activities. This water use is tracked, and for the first time in this reporting period Socfindo is reporting on its water use in the field.

WATER USE PER PRODUCT (t water /t product)

	2022	2023	2024
Oil Palm	0.99	0.99	0.99
Rubber	19.88	20.20	20.05

TOTAL INDUSTRIAL WATER USE (m³)

	2022	2023	2024
Oil Palm	778,907	772,231	760,101
Rubber	137,106	129,201	123,711

TOTAL FIELD WATER USE (m³)

	2023	2024
Oil Palm	5,984	17,547
Rubber	4,979	2,655

In 2024, there was a significant increase in recorded water usage compared to 2023. However, this increase was not due to uncontrolled consumption, but rather the result of improved monitoring and measurement by the unit management. Starting in 2024, the management began measuring water usage more accurately by installing flow meters at several key usage points in the field. This step was part of an effort to improve accountability and efficiency in water resource management.

Socfindo has continued to reduce its water consumption in both its palm and rubber mills compared to 2022, however, its total water use has increased due to Socfindo starting to track its water consumption from its nursery and field since 2023. Thus the increased water consumption overall in 2023 and 2024 vs 2022 reflect these additional sources of water which in previous reporting periods were not tracked.

Water Discharge

All Socfindo's discharges are regulated and monitored by the government. Socfindo's treated POME effluent discharges are required by law to have a BOD lower than 100mg/l for oil palm and lower than 60mg/l for rubber as per Minister of Environment regulation 5/2004. All Socfindo's discharges of treated POME effluent during the reporting period are below the legal requirement.

AVERAGE BOD LEVEL (mg/l)

	Way of Discharge	2023	2024	Std.
Oil Palm	Into water body	86	90	100
Rubber	Into water body	38	37	60



Further aerating the ponds contribute to a better aerobic digestion in our ponds

Waste

The production of solid waste and its responsible disposal is a material issue for Socfindo and for Indonesia where in many areas there does not exist municipal waste collection and disposal of waste by dumping or burning is a common disposal method particularly in rural areas. Even where municipal collections are in place, often infrastructure for upfront separation of classes of waste are lacking resulting in most wastes ending up in landfills. Finally, single plastic use is still common amongst most people, therefore awareness of the consequences of single plastic use needs to be raised to make people aware and to effect behavioral changes to avoid their use.

Reducing Single Plastic Use

To implement its no single plastic use waste policy within Socfindo, the management has continued a series of efforts carried out by the management including outreach of awareness and education to create the habit of no single plastic use waste within Socfindo. In head office, most of the workers now bring water tumblers and food containers from home and guests who come to visit are no longer provided with bottled water but with glasses and water dispensers. In addition, in the mills, the management has also provided locker rooms for workers for personal items, including tumblers and food containers. Provision of tumblers/glasses and water dispensers aims to encourage workers from buying bottled water outside. The effort to reduce single use plastic is a long term initiative, which aims to encourage and get buy in from Socfindo employees by providing the alternatives to single plastic use and to build habit change.

Solid waste in Socfindo

Organic Waste

All solid organic biomass residues from the plantation and from the process of extracting Crude Palm Oil from FFB are recycled to the plantation (e.g. EFB) or used as biomass fuel to create energy in the mill (e.g. Kernel shell and fibre). Socfindo will continue its policy of recycling and utilising 100% of its solid organic biomass.

Home-Based Compost Pit Program : To support sustainable waste management, Socfindo has taken a simple yet impactful step by providing a compost pit behind each employee’s house. This program aims to encourage waste separation at the source and turn household organic waste into useful compost. Through this initiative, employees are encouraged to separate organic waste, such as food scraps, fruit peels, and leaves—from non-organic waste. The organic waste is then placed into the compost pit provided by the Company. Over a few weeks, the organic waste naturally breaks down and turns into nutrient-rich compost, which can be reused to fertilize plants around the house or in the employee’s garden.

ORGANIC WASTE (kg)

	2023	2024
Oil Palm Estate	1,207,696	1,205,407
Rubber Estate	377,333	381,085

Inorganic Waste

All non-organic solid waste from Socfindo’s operations that is not hazardous and which cannot be re-used or recycled are legally disposed of by landfilling. Socfindo has been able to implement a system to track its inorganic waste, and this is the first time Socfindo has reported on its non-hazardous inorganic waste sent to land fill.

INORGANIC WASTE (kg)

	2023	2024
Oil Palm Estate	231,805	270,976
Rubber Estate	57,172	58,202

Hazardous Waste

Hazardous waste is separately disposed of from other non-organic solid waste and is carefully reused, recycled or disposed of according to law.

HAZARDOUS WASTE IN OIL PALM ESTATE (kg)

	2023	2024
Batteries	2,741	2,345
Medical waste	173.23	182
Used engine oil	11,115	10,532
Chemical containers	19,219	24,200
Used filters	2,786	3,081
Other	860	1,714

HAZARDOUS WASTE IN RUBBER ESTATE (kg)

	2023	2024
Batteries	200	271
Medical waste	8	26
Used engine oil	1,026	810
Chemical containers	162	287
Used filters	135	151
Other	81	84

No Disposal of Waste by Open Burning

Burning of solid waste is a common method of disposal in Indonesia, particularly in more rural areas where there is no municipal waste collection. This in turn is a significant source of local air pollution. Socfindo is working on this challenge first through its own strict policy of no disposal of solid waste by burning and second, through development of a wider active

socialisation program across Socfindo's employees, their families and the community in order to prevent burning of domestic waste in landfills.

Socfindo Waste Reduction Initiative

Ecobrick

ECOBRIK (kg)

	2023	2024
Plastic waste	182.8	150.3

Socfindo's ecobrick program has continued during the reporting period. At the PAUD located within Socfindo's plantations, ecobricks are made from waste plastic bottles tightly packed with non-biodegradable plastic waste—to enhance children's learning facilities. Plastic waste from worker housing is collected, compacted, and assembled into tables, chairs, and playground elements. Through collaboration between teachers, parents, and the worker community, ecobricks not only create useful products and help reduce plastic waste around the estate but also raise awareness around recycling for children and the community.

Paving Block initiative

PAVING BLOCK

	2023	2024
Plastic proceed (kg)	10,000	2,500
Paving block (pcs)	833	207

The paving block initiative has continued during the reporting period, which makes paving blocks from household plastic waste. The organisation, called the Waste Bank: Bank Sampah Pemuda Asahan, has continued to engage villagers around Bandar Pulau to separate plastic and organic waste, collect it, then hand it over to the Waste Bank team. Although the innovation of converting plastic waste into paving blocks offers many benefits, the team faces several challenges, including :

- **Sorting and processing of waste:** Despite the abundance of plastic waste, sorting the appropriate types of plastic for the production process remains a significant challenge. Not all plastics can be easily melted or possess sufficient adhesive properties for strong paving blocks.
- **Lack of Public Awareness:** Currently, the community is still not accustomed to sorting household waste, resulting in raw materials that are often mixed with other types of waste. Educating the public on the importance of waste segregation is crucial to ensuring that the paving blocks produced maintain high quality.
- **Technological and Financial Constraints:** Socfindo actively supports the development of plastic-based paving blocks by raising awareness about waste segregation and management, installing waste sorting signboards, providing designated waste bins, and offer consultations to help the Waste Bank Team addresses operational challenges. However, the Bank Sampah Pemuda Asahan requires larger-capacity equipment to accommodate and process plastic waste, access to capital and a cheap source of heat to melt the plastic remain key challenges faced by the team.



📷 Third party routine control of material pollutant at our mill premises

Material Pollutants

In addition to GHG, there are other emissions / pollutants which if not managed carefully can harm or cause disturbance to the local environment and communities. For example, dust, noise, odor, particulate matter (PM), if not carefully and thoughtfully managed, can impact local communities wellbeing and the local environment. These in turn can become the source of social issues. Socfindo has always taken care to ensure compliance with the local environmental regulations and to reduce any adverse impact on the environment and local community. This approach is part of the basic foundation of being a responsible member of the community.

PARAMETER (AVERAGE SOCFINDO OIL PALM AND RUBBER)

		2023	2024	Compliance Standard	Unit
Boiler	Nitrogen dioxides	159.7	194.4	800	µg/m ³
	Sulfur dioxide	46.3	28.0	600	µg/m ³
	Particles	114.0	119.5	300	µg/m ³
Drier	Nitrogen dioxides	30.6	63.8	1,000	µg/m ³
	Sulfur Dioxide	2.8	6.2	800	µg/m ³
	Particles	23.8	37.9	350	µg/m ³
Genset	Nitrogen dioxides	265	140.1	1,850	mg/Nm ³
	Particles	54.3	52.5	95	mg/Nm ³
	CO	56.2	74.4	77	mg/Nm ³
Ambient Air	Dust (TSP)	65.1	63.6	230	µg/Nm ³
	Nitrogen dioxides	55.2	54.3	200	µg/Nm ³
	Sulfur dioxide	39	38.2	150	µg/Nm ³
	Noise	60.6	60.9	70	db
Odor	Amonia	0.2	0.1	2	ppm
	Hidrogen sulfida	0.01	0.01	0	ppm



📷 Elementary school students walk home happily from school

PEOPLE



Socfindo Family

Socfindo prides itself on being a great place to work at, in taking care of its employees and in hiring people locally when possible for the long-term. At the heart of Socfindo's long standing success are good people and their families, and without their continued dedication and support, Socfindo could not continue to exist. Socfindo's foundation is built on its people and their families, the "Socfindo family." Looking after employees, ensuring their hard work is rewarded and that Socfindo is a healthy, positive and engaging place to work, is Socfindo's most important priority.

An Intergenerational Workplace

Socfindo continues its proud tradition of being an intergenerational workplace. Within Socfindo, there are a large amount of intergenerational employees, where family members belonging to an older generation also work or used to work at Socfindo. Socfindo has a staggering 3,126 employees who are second generation employees (i.e. a family member from their parents' generation worked at Socfindo), 542 employees who

are third generation (i.e. a family member from their grandparents generation worked at Socfindo) and 14 employees that are fourth generation employees (i.e. they had a family member from their great grandparents working at Socfindo). This is something that Socfindo is incredibly proud of and it indicates that parents are considering Socfindo as being a decent place for their children to work in.

NUMBER OF INTER-GENERATIONAL EMPLOYEES IN 2024

2nd Generation	3,126
3rd Generation	542
4th Generation	14



📷 Intergenerational employees at Halimbe Plantation

Making Socfindo a Decent Place to Work at

Socfindo has always worked hard to make itself a decent place to work at for employees and their families, through its remuneration and benefits and also through the many additional actions and activities that Socfindo does to enhance the “Socfindo Family”. These programs and facilities are ever changing with people’s needs but represent a snapshot of what is currently going on for employees and their families as set out below.

SUPPORT FOR EDUCATION

Provide Reading Corner for Early Childhood Education (PAUD)

Understanding the critical role of early childhood in cognitive development and the importance of reading in fostering symbolic thinking, Socfindo has taken the initiative to provide reading corners at PAUD pre-school facilities located in the plantations area. By donating these corners with book cabinets and annually supplying new reading materials, Socfindo aims to sustain regular weekly reading programs for young pre school readers.



📷 Enthusiastic children enjoying a reading session



📷 One of the newly appointed reading corners

RELIGIOUS CELEBRATIONS

Religion significantly shapes Indonesian values, influencing its moral, ethical, and social fabric. Celebrations of major religious holidays are integral to the nation's cultural heritage. At Socfindo, where the workforce predominantly identifies as Muslim or Christian, the Company's annual Maulid and Christmas celebrations are key moments for fostering community, reinforcing spiritual principles, and promoting interfaith harmony. Additional religious events are occasionally organized locally at the estate.



📷 The local women’s community took part in commemorating the 2023 event for the birth of Prophet Muhammad



📷 Socfindo employees took part in celebrating the Company’s Christmas event

HEALTH AWARENESS

Promote Health Awareness

In addition to its normal medical and health program which is run by dedicated staff through each estate clinic, each year a senior team from Socfindo's head office led by its doctor, senior human resources representatives as well as the spouses of Socfindo's senior management visit the plantations with a focus on health and welfare of the families of employees and the wider communities they belong to. This team will visit every village in the plantation and around the plantations, engaging with the families of employees and their villages. It provides a unique opportunity for direct connection between the spouses of employees, their families and communities to interact and discuss issues directly with the team, with the focus on issues related to the health and wellbeing in the wider family and the communities they belong to. The program will also include targeted education on specific health prevention and wellness issues for schools and families.



📷 A health awareness session focusing on healthy meals and the prevention of degenerative diseases

SUPPORT FOR YOUNG WOMEN AND STAY AT HOME MUMS

Sewing course has empowered women to open home-based sewing businesses

Since 2020, the sewing course at Rumah Kepompong has been empowering women to launch their own home-based sewing businesses. Presently, 6 mothers and 10 young women are engaged in these home-based entrepreneurial activities, contributing significantly to their families' economic stability, enabling them to better provide for their children's education and basic needs. Furthermore, the course has fostered a sense of community and mutual support among the participants, creating a network where skills and experiences are shared.



📷 One of the home-based sewing business

Course of healthy noodle production

To further empower local women, Socfindo, in collaboration with KISS, organized a healthy noodle-making workshop at Rumah Kepompong, specifically targeting mothers and young women in the community. These healthy noodles are organic, made from flour and vegetables, free of preservatives, and processed by baking rather than frying. Driven by the increasing trend of healthy living education on social media, these organic noodles are well-positioned to reach a broad market segment. The success of this program culminated in the opening of a noodle house as a BUMDES in Martebing in 2024.



Workshop of healthy noodle production

PLAYING SPORTS AT SOCFINDO

In the current digital age, the use of smartphones for daily activities has significantly reduced physical activity levels. Consequently, engaging in sports has become increasingly vital for maintaining a balanced lifestyle, fostering both face-to-face community interaction and ensuring physical fitness and overall health. Our company remains consistently committed to support sports initiatives that promote healthy lifestyles.

Workers on the estate regularly participate in football, volleyball, and badminton with some also participating in rhythmic gymnastics classes. Football teams have been formed in several estates, and these teams

compete in various tournaments, both at the estate level and against external clubs. To such an extent, a U-17 (age group 17) football team in Tanah Besih estate, comprised of workers' children, has excelled in recent inter-club tournaments, securing three times first-place and one time third-place finish over the past two years. In addition, a female volleyball team was formed at the Tanah Gambus estate, bringing together the spirit of female workers and worker's wives. Their continued participation in the district tournaments for the past two years, despite not securing a win, highlights a crucial effort in empowering women through sport engagement.



Female volley ball team in Tanah Gambus estate

Our Workforce

Ensuring a Decent Place to Work

Socfindo is committed to building a workplace where every member feels safe, respected and valued, are treated equally and have an equal opportunity to advance and progress to reach their inherent potential regardless of their ethnicity, religion, gender, age, disability, marital status or sexual orientation.

Snapshot of Socfindo Workforce

Below is a summary of our employees as at December 2024

BREAKDOWN EMPLOYEE BY GENDER IN 2024

Female	893
Male	7845
TOTAL	8,738

DETAILED BREAKDOWN OF GENDER

Per Governance Bodies	Male	Female	18-29	30-50	>50	Total
Head of department and groups	16	1	0	3	14	17
Rest of organisation	7,829	892	1,282	6,286	1,153	8,721
TOTAL	7,845	893	1,282	6,289	1,167	8,738

Women in Management

While the total number of female employees has reduced slightly in 2024 vs 2022, compared to the last reporting period, there are more women in management positions. In addition to continuing to have 1 IT Advisor, there have been more women in strategic positions within the estate structure such as Mandor (Field Supervisor), Technician, and Administrative Head. A summary is provided below :

WOMEN IN MANAGEMENT

Position	2022	2023	2024
Head of Warehouse	1	1	1
Head of Laboratory	4	4	6
Head of Clinic	1	1	3
Head of Accounting	6	6	7
Supervisor	32	32	33
TOTAL	44	44	49

Instances of Discrimination

There have been no incidents of discrimination and corrective actions taken for the Reporting Period.

Equal Opportunity

Socfindo have and will continue to recruit, employ and promote employees solely based on merit. Socfindo is committed to diversity which is formally expressed in its Anti-discrimination and Equal Opportunity Policy <https://www.socfindo.co.id/documents/eng/Policy-Non-Discrimination-Equal-Opportunity.pdf>. In addition within Socfindo, the pay ratios for men and women are the same – there is no differentiation in remuneration based on gender.

Gender Equality

Socfindo is committed to ensure that Socfindo's female employees are given an equal opportunity to succeed, develop and progress so they reach their inherent potential. Given the nature of the work involved, the palm and rubber industry has been traditionally a male dominated industry, and Socfindo today still has a male dominated workforce. Whilst we promote the employment of women at Socfindo, we also recognize that some work on our estates remains male dominated due to the heavy physical nature of the tasks such as manual harvesting of fresh fruit bunches, crop collection and some physical jobs in the mills. Socfindo has recruited female workers for other roles such as finance and accounting, marketing, sustainability and lab analyst. In order to assist women in the workforce, Socfindo has implemented dedicated places for breast feeding in each of its plantations and Head Office. Socfindo also provides day care and kindergarten facilities for more than 800 young children of employees and of the local communities who are under school age to ensure young children have a safe place to go whilst their parents are working, and to allow female employees with young children the opportunity to continue to work if they wish. Socfindo

has also implemented a program for employees who are new mothers. The program provides targeted education relevant for new mothers such child and family health, parenting as well as assistance in the estate through the provision of breast feeding places, day care and kindergarten. These requirements are enshrined and recognised in Socfindo's Reproductive Rights Policy, a copy of which is available here <https://www.socfindo.co.id/documents/eng/Policy-Reproductive-Rights.pdf>.

Gender Committees

Socfindo continues its Gender Committees which as one of its roles, is tasked with assessing the needs of its employees. Socfindo has gender committees in each estate, consisting of 15 to 30 members and representing each work division. To support the committees in implementing gender awareness in the field, Socfindo provides procedures of social grievance management and organises implementation socialisation campaigns on policies related with gender equality. An observed result since the establishment of the Gender Committee and its activities is an increased engagement from female employees with the Committee with a greater number of suggestions and concerns being raised which demonstrates a growing trust and confidence in the system and its effectiveness to protect and address the concerns of Socfindo's female employees. The Gender Committee will hold meetings on various topics for members, for example education on the procedure to file a complaint, socialisation on their rights and obligations, female health issues, investigation into new mother's needs, or update of new policies. In addition to these activities, Gender Committees are also involved in investigating, adjudicating and resolving any instances of harassment. For more details on this aspect, please see harassment part of **Labour Rights** section.

Training and Gender Equality Awareness Campaigns

The Gender Committee regularly conducts training sessions for both male and female employees on the importance of gender equality in the workplace. These training programs cover workers' rights, awareness of discrimination, and capacity-building for women in the professional environment.

Additionally, the Gender Committee carries out awareness campaigns through various internal communication channels, such as group discussions and posters. The Committee actively works to raise employees' awareness of the importance of respecting gender differences and fostering a fair and conducive work environment for all.



Female workers in head office



Field assistant briefing the spraying team



Our engineer checking the lifting equipment



The Tissue Culture laboratory team



The seed collection team at SSPL



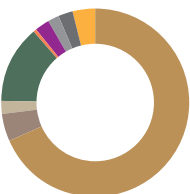
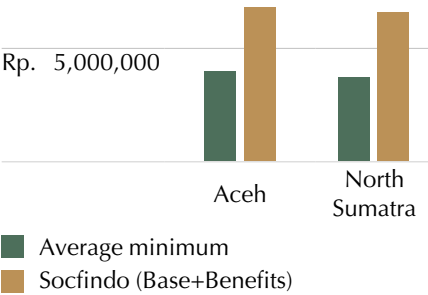
Our dedicated nurse team at Bangun Bandar estate

Remuneration & Benefits

As part of its Decent Living Wage Policy, <https://www.socfindo.co.id/documents/eng/Policy-Decent-Living-Wage.pdf>, Socfindo is committed to payment of a decent living wage either meeting or exceeding national wage standards. Employees at Socfindo receive on top of their salary, a number of in-kind benefits. This approach is in line with the 2019 RSPO Guidance for Implementing a Decent Living Wage <https://rspo.org/resources/archive/907>. All salaries and employment conditions of our workers, including temporary workers, meet legal minimum wage standards in their respective regions. All men and women are paid equally, irrespective of gender, across all employee categories. Below provides a comparison of Socfindo's remuneration vs the national monthly minimum and provides a breakdown of additional in-kind benefits.

SOCFINDO WORKERS WAGES & BENEFITS IN 2024

Rp. 10,000,000



SOCFINDO WAGES & BENEFITS

- Wage including bonus
- Festival allowance
- Health security
- Housing
- Medical care
- Rice ration
- Social activity
- Social security
- Provision of clean water

PARENTAL LEAVE IN 2024

	Male	Female
Employees entitled to parental leave	335	21
Employees that took parental leave	335	21
Employees that returned to work after parental leave	335	20
Employees that returned to work after parental leave ended, that were still employed until Dec 2024	328	20

Other Benefits for Socfindo Employees

In addition to the direct in-kind benefits to employee payments provided to every worker, Socfindo invests significant resources to enhance the wellbeing and welfare of its employees, their families and their communities. Some of these commitments are shown below :

- Day care and kindergarten facilities for children of employees.
- Education, welfare and scholarships.
- School transport.
- Additional medical related expenses.
- Noncontributory and non-funded retirement plan.
- Employee housing maintenance and refurbishment.
- Infrastructure projects, buildings, community halls, places of worships.

Training

Training and development of human resources continues to be ranked as a priority matter by internal stakeholders and the community, and is a core material parameter for Socfindo. This demonstrates the desire amongst people to better themselves and realise their potential. Socfindo and its community recognises that developing human potential will benefit all. Investing in training and personal development is a win-win for individuals, the organisation and the wider community. Investing into its employees through training and providing opportunities for growth within the Company are a key method by which Socfindo develops and retains talent.

Socfindo Training Program

Socfindo consistently invests into Training for its employees. Socfindo provides regular and relevant training to ensure employees are trained for their assigned roles. We also invest in capacity building and technical skills programs and offer development opportunities that help employees achieve their career goals while also contributing to the Company's goals. Socfindo has in place a documented training program managed through its human resources department. Each department selects its training and which is then assessed for its effectiveness. The program is reviewed each year to ensure training is kept relevant and meets the needs of employees and the organisation. The program is made up of both internally and externally run training.

Throughout 2023 and 2024, the Company initiated the implementation of mobile applications for various operational activities across its plantations. This initiative represents a critical modernization effort designed to significantly enhance efficiency and effectiveness in work processes. To ensure seamless integration and optimal utilisation of the application, comprehensive training sessions were conducted repeatedly. The implementation involved key personnel from field operations, mills, and warehouses within the plantation, as well as departments of purchasing, agriculture, engineering, technical and technology at the head office.

TRAINING	STAFF			NON STAFF		
	2022	2023	2024	2022	2023	2024
Average number of trainings hours/employee/year	34.6	13.28	34.76	1.4	1.92	2.95
Number of employees who received trainings	181	140	180	1,837	3521	3355
Number of trainings hours provided	6,298	2,430	6,396	11,804	16,090	24,651
Number of external trainings received	47	41	82	26	33	39

There has been a continued trend in the number of trainings during the Reporting Period compared to 2022, both in the number of participants and the number of external trainings.

- Finance, audit and admin: Updated tax regulation, Knowledge of Foreign Currency exchange,
- Best management practices in agronomy: Oil Palm Yield Intensification Workshop & Implementation of mobile application in the field,
- Research, laboratories and breeding: Workshop on AI Applications in Oil Palm Breeding, Developing Varieties for the Future of Indonesian Palm Oil,
- Emergency and fire drills: Various regular training related to emergency situations and fire fighting,
- Gender: Seminar on the Protection of Female Workers in Oil Palm Plantations in the Context of Gender Mainstreaming,
- Medical and health awareness: Aligned with the government initiatives – Preventing Stunting in North Sumatra,
- Technical and technology processes: Various training related to transport unit and maintenance by vendors,
- Human resources: 7 habits to improve employee productivity,
- Supply chain management: Implementation of new store application (BARAGUD-Barang Gudang),
- IT: Various training of application usage,
- OSH: Occupational Fire Safety Specialist and various training/socialisation of safety in workplaces,
- Training on standards and certifications: beside the regular certification such as: ISO, ISPO, RSPO, Waste treatment specialist, etc; latest certification is IFCC,
- Water and environmental management: Company Performance Rating Assessment Program in Environmental Management.



📷 Socialization for supporting implementation of Socfindo applications

Performance Review

100% of Socfindo’s staff (both male and female) receive a regular performance and career development review.

PERCENTAGE OF STAFF PERFORMANCE APPRAISAL BY GENDER (%)

	2022	2023	2024
Female	100	100	100
Male	100	100	100

New Employees & Employee Turnover

PERCENTAGE OF NEW EMPLOYEE (%)

	Male	Female	18-29	30-50	>50	Total
Staff	9	9	33	5	0	9
Workers	7	3	34	2	1	6

PERCENTAGE OF NEW EMPLOYEE (%)

	Male	Female	18-29	30-50	>50	Total
Staff turnover	8	18	9	2	28	9
Workers turnover	7	6	3	4	26	7



📷 Good communications are key to team success

Occupational Health & Safety

Protecting the health and safety of its employees is Socfindo's top priority. It ranks as a priority materiality parameters reflecting its importance to Socfindo employees, families and the wider community. Socfindo is committed to providing a safe and healthy workplace for all its employees and its OHS at all times complies with all national laws and regulations as well as ILO guidelines.

Keeping a Safe Workplace

Socfindo ensures employee health and safety by careful management, strict and thorough safety processes and protocols and continual training of workers to instill a safety culture, so habits like wearing the required protective equipment at all times and following standard safety regimes become second nature and are the status quo. This is a constant and ongoing process.

Occupational Health and Safety Plan

In order to achieve Socfindo's commitment to provide a safe and healthy workplace for all of its employees and to decrease work accident and illness, Socfindo has in place an occupational health and safety plan which follows Socfindo's normative management approach: Framework, Implementation and Review. The continuous improvement loop is ensured by regular and systematic reviews of this plan. Socfindo's occupational health and safety's framework is in full compliance with the national regulation PP No.50/2012. In addition, Socfindo's oil palm and rubber businesses have implemented and follow either ISO 45001 or PP 50/2012 safety standard certification. The safety management plan has been defined by head of General Department, and each estate has a dedicated safety officer who is responsible for the safety management system. Socfindo's implementation programme includes:

- Raising awareness through communication, consultation and participation (both internal and external parties);
- Hazard identification and risk assessment; and
- Incident investigation every time a work accident and emergency condition occurs. Results of this investigation are included back into hazard identification and control in order to prevent or minimise the risk of reoccurrence.

In addition, Socfindo has an annual audit program conducted by internal and external auditors. Audit programs are carried out as part of a process to maintain consistency in the system, implementation and to inform management to ensure continual improvement.



📷 Providing safety equipment is a responsibility we take seriously

Safety Committee

Socfindo also has a dedicated Health and Safety committee known in the national regulation as Health and Safety Committee (P2K3-Panitia Pembina Keselamatan dan Kesehatan Kerja) in each estate. The safety committee helps management to identify safety issues and find solutions. The safety committee routinely conducts meetings to facilitate dialogue between management and workers about safety. The existence of a safety committee in Socfindo is legally stipulated by the manpower agency so that safety committee regularly submit their reports to the government agency. Socfindo always involves the safety committee to provide input to management in formulating safety policy and guidelines in order to improve work safety, company hygiene, occupational health, ergonomics and workforce nutrition.

Work Related Injuries

Socfindo is pleased to report that there have been no fatalities or high consequence work injuries during the Reporting Period. However, during the same period, there has been an increase in the accident frequency and severity rate during the reporting period compared to 2022. Despite the avoidance of serious injury and fatality, the increase of any accident and injury is a cause of serious concern.

Socfindo takes any safety incidents or accidents very seriously. Each accident is thoroughly investigated and the necessary actions such as increasing safety procedure awareness are taken to prevent recurring situations. Every 6 months, Socfindo undertakes Hazard Identification, Risk Assessment and Determination Control (HIRADC) and Safety and Risk Education to all workers. We also routinely conduct safety talk and briefing to all workers and training programs are also carried out regularly to our workers.

WORK RELATED INJURIES

	2022	2023	2024
Total manhours	17,925,837	17,959,671	18,190,747
Work related injury	39	54	47
High consequence work injury	4	-	-
Fatality	-	-	-
Lost days	1,806	2,067	2,775
Accident frequency rate (Lost time accident based on 200,000 hours worked, also known as injury rate)	0.44	0.6	0.52
Accident severity rate (based on 200,000 hours worked)	20.15	23.02	30.51
Rate of high consequence work related injury (based on 200,000 hours worked)	0.04	0	0
Fatality rate (based on 200,000 hours worked)	0	0	0
Work related ill health	0	0	0
Work related ill health fatality	0	0	0



📷 OSH officer conducting training on the implementation of the LOTO (Lockout/Tagout) system at the mill

Reducing Workplace Accidents

Despite the implementation of safety awareness programs, training, and the provision of protective equipment, non fatal, non severe workplace accidents have shown a material increase in 2023 over 2022 (38 to 54 cases), although there was a slight decline in 2024 (47 cases). Digging into the causes of these workplace accidents, the types of incidents which have been persistent or increasing are as follows :

THE TYPES OF INCIDENTS

Type of Accident	Trend	Factors
Cuts and Lacerations	↑ Material increase	- Inconsistent supervision of procedure implementation - Lack of worker awareness of the dangers of sharp objects, making PPE use feel uncomfortable and leading workers to avoid wearing it.
Traffic Accidents	↑ Material increase	- Increased vehicle activity in the work area or poorly managed traffic routes. - Workers' awareness of traffic regulations within the workplace remains low.
Struck by Object	Slight increase	Possible mishandling of tools or materials
Skin Burns	↑ Increase in 2024	Lack of awareness regarding the risks associated with chemicals or hot equipment
Eye Contact with Hazardous Materials	Still high despite a decrease in 2024	
Slip, Trip, and Fall on the Same Level	Decreased in 2024 but still requires attention	
Fall from Height	Remains low but continues to pose a high risk	
Contact with Industrial Machinery	A sharp increase in 2023, followed by a decline in 2024	Reduction in 2024 due to improvements in SOP/ Log Out Tag Out (LOTO) implementation

Other recorded incidents were prick or spike injuries & insect stings/bites remain low and insignificant.

Although avoiding serious injury and fatality during the reporting period, Socfindo takes safety very seriously, and is working hard to reduce all work place accidents regardless of severity. This includes working hard to shift safety compliance from “rule” to “value” based so workers comply not just when being supervised and perceive safety as a personal value. In addition, raising risk awareness, particularly in persistent accident areas, such as the use of sharp tools, vehicles and hazardous work areas.

To facilitate this, Socfindo’s training and awareness programs is also evolving from traditional awareness campaigns to include behavior based safety training such as:

- Real-Life Simulations & Safety Storytelling: Using real case studies or testimonies from workers who have experienced accidents to create a stronger impact.
- Employee Involvement: Engage workers in identifying key obstacles to effective safety implementation in the field.

Work Related Ill Health

In an effort to ensure workers health, the Company provides annual medical checkups to all workers. The type of examination performed is adjusted to the type of work, with workers who are exposed to more potentially “at risk” environments (such as pesticide spraying, working with machinery etc) having additional medical testing to ensure that there are no effects from the specific risks they may be exposed to in addition to the general medical check up.

Socfindo is pleased to report that in 2023 and 2024, there were no work related ill health cases or fatalities.

Safe Pesticide Handling

Specific focus is given to the safe handling of chemicals and pesticides and as part of its Pesticide Policy, all workers, permanent or not involved with pesticides are trained and equipped adequately and their health is monitored. All workers who handle pesticides must first go through a strict and rigorous training in safe pesticide use and receive pesticide handling and use certification. PPE must be used at all times and workers who work with pesticides receive regular free medical checkups to carefully monitor for unforeseen effects on their health. Finally, pregnant women and new mothers that are breastfeeding are not allowed to handle chemicals and will be reassigned to more suitable work for these periods. There have been no instances of accidents or illnesses due to the handling of chemicals and pesticides during the reporting period.

Occupational Health Services

Socfindo operates a clinic headed by a medical doctor. It serves as a health service center and has a license to conduct occupational analysis. In remote divisions on the estates, our nurses can deliver basic health care, while in case of specific needs, Socfindo facilitates transport or evacuates to its central clinic or nearest hospital.

Labour & Human Rights

Labour Rights

Socfindo prides itself on being a decent place to work, respecting all workers’ rights and strictly complying with all labour laws and national legal requirements in relation to the workplace. Socfindo also fully supports and adheres to the principles of the ILO Declaration of Fundamental Principles & Rights at Work.

Unlike many organisations, Socfindo does not have “guest” workers from outside provinces or other countries. All workers in Socfindo are from Indonesia and are locally recruited in the provinces of North Sumatra or Aceh where Socfindo’s operations exist. Socfindo does not use third party agencies in the recruitment of workers. Socfindo does not retain identify documents of workers or of any employees. As part of its No Forced Work Policy <https://www.socfindo.co.id/documents/eng/Policy-No-Forced-Work.pdf>, Socfindo strictly prohibits the retention of identity documents, payment of recruitment fees, contract substitution, debt bondage and forced labour.

Freedom of Association and Collective Bargaining

Socfindo is committed to allowing Freedom of Association and collective bargaining, and has a publicly available Freedom of Association Policy <https://www.socfindo.co.id/documents/eng/Policy-Freedom-of-Association.pdf> which has been socialised and made available to all employees within the organisation. In Socfindo, workers are free to join unions or collective groups of their choice. All Socfindo workers belong to a union or collective group, and collective agreements exist between workers and the Company.

WORKERS THAT ARE AFFILIATED TO A LABOUR UNION

	2022	2023	2024
Percentage	100%	100%	100%



📷 Bipartite discussion between Company and worker's union at Seunagan estate

No Forced Work

As part of its No Forced Work Policy <https://www.socfindo.co.id/documents/eng/Policy-No-Forced-Work.pdf>, Socfindo has a strict policy of no forced work. This applies both within its own organisation and with its suppliers and contractors. In addition, this policy guarantees employees' rights to resign and prohibits penalties for the termination of employment and the with-holding of wages.

No Involuntary Overtime

Socfindo strictly complies with all national regulations relating to the working of overtime and prohibits involuntary overtime. All overtime is voluntary at Socfindo, with all workers consenting in writing before working overtime.

Preventing Harassment & Violence

Socfindo has zero tolerance for harassment in any shape or form as expressed its Anti-discrimination and Equal Opportunity and Prevention of Violence and Harassment Policies <https://www.socfindo.co.id/documents/eng/Policy-Prevention-of-Violence-Harassment.pdf>. These policies are publicly available and have been socialized and implemented throughout the entire Socfindo organisation.

During the reporting period, socialisation refresher training was undertaken for all workers to understand the kinds of harassment that may potentially occur in the plantations and to understand how to submit a complaint and the channels available in the situation that harassment is experienced.

Procedure for Reporting Harassment

As set out in its Prevention of Violence and Harassment Policy Socfindo has implemented a specific grievance procedure where any employee may report an instance of harassment which includes sexual harassment, intimidation or violence of any kind. This procedure includes special measures to protect the confidentiality of the victim and a specific channel which involves both the Gender Committee and Senior Management in investigation, adjudication and resolution as required. Please see our **Grievance** section for more details.

Instances of Harassment

During this reporting period, there have been no reported instances of harassment, intimidation or violence within Socfindo.

Protecting Children

NO CHILD LABOUR

Socfindo has a zero tolerance for Child Labour. To protect children, Socfindo does not employ nor allow any work to be undertaken by any individual under the age of 18. This strict No Child Labour Policy is enforced both internally and in all its contracts with suppliers.

PROCEDURES TO VERIFY AGE PRIOR TO HIRING

Socfindo employs careful screening procedures prior to hiring to verify the identity and age of an individual to ensure Socfindo does not unwittingly employ minors under the age of 18. This includes confirmation of an individual with their original National Photo Identification Documents (Indonesian Personal Residency ID) as well as checking degrees and family card. Copies of these documents are made and kept on the Company's register file and records.

DAY CARE FOR YOUNG CHILDREN

To ensure young children have a safe place to go to whilst their parents are working, Socfindo provides day care and kindergarten facilities for children of employees who are under school age. Socfindo's Reproductive Rights Policy commits Socfindo to providing adequate childcare facilities.



📷 Learning basic hygiene at one of our daycare facilities

Socfindo Human Rights Policy

Socfindo recognises that human rights are universal and is committed to respecting and upholding human rights in the communities in which it belongs. In addition to strictly complying with all national regulations relating to human rights, as a formal recognition of its commitment to Human Rights, Socfindo has in place a documented Human Rights Policy. This policy commits Socfindo to upholding the fundamental internationally recognised human rights as expressed in the International Bill of Human Rights and the principles concerning fundamental rights set out in the ILO Declaration on Fundamental Principles and Rights at Work. This Policy has also been extended to suppliers who are required to uphold these human rights as part of their contractual obligations. Socfindo also has a specific Reproductive Rights Policy which has been in place since June 2019, a copy of which is available in <https://www.socfindo.co.id/documents/eng/Policy-Reproductive-Rights.pdf>.

Socfindo manages Human Rights through compliance with all national laws and regulations, through implementing and enforcing its Human Rights Policy, its grievance procedures and processes, and through meeting its obligations under the RSPO which also includes following the RSPO Human Rights Working Group guidance.

Protection of Human Rights Defenders and Whistle Blowers

Socfindo will not tolerate violence or intimidation of any kind against any individual including Human Rights Defenders and whistle blowers. As part of its comprehensive Human Rights Policy, Socfindo has in place a formal Human Rights Defenders Policy <https://www.socfindo.co.id/documents/eng/Policy-Human-Rights-Defenders.pdf> which has also been implemented and communicated throughout the entire organisation as well as all key stakeholders including suppliers. This Policy includes a strict prohibition on any retaliation against Human Rights Defenders and whistle blowers. In addition, Socfindo has in place special grievance procedures to protect Human Rights Defenders and whistle blowers in the situation where they have laid a complaint or grievance with the Company. For more details, please visit our **Grievance** section.

Human Rights Training

Socfindo undertakes regular human rights training within its entire organisation (staff and non staff) as well as with external suppliers. This is an important method by which human rights are implemented into Socfindo as an organisation.

HUMAN RIGHTS TRAINING

	INTERNAL			EXTERNAL		
	2022	2023	2024	2022	2023	2024
Participants	925	327	461	220	222	247
Hours	2787	981	1407	440	666	741

Free, Prior & Informed Consent

Free Prior and Informed Consent (FPIC) is an important process in a multicultural country like Indonesia where land ownership is complex and there can be competing land titles and overlapping customary rights over land from different indigenous and local communities. Socfindo’s Human Rights Policy commits Socfindo to respect the rights of indigenous populations and local communities’ FPIC. This recognizes indigenous peoples’ inherent and prior rights to their lands and resources and respects their legitimate authority to require that third parties enter into an equal and respectful relationship with them, based on the principle of informed consent. Socfindo’s current plantations most often have preceded the development of the communities around them, making them an integral part of their environment. Socfindo is therefore fortunate to not have any land or customary rights issues in the land the plantations they occupy.

Any future expansion of plantations by Socfindo shall follow a comprehensive FPIC process, as per Indonesian law, and its ISPO and RSPO commitment, which ensures full respect for all local communities and indigenous peoples’ legal and customary rights to their territories and lands in accordance with Indonesian law, and best practice, ISPO and RSPO FPIC practices.

Grievance

Socfindo has established and published internal and external grievance procedures to ensure that in the event there is a complaint, an issue between parties, or a suspected noncompliance with established norms, these may be reported, investigated and resolved through pre-determined processes which are fair, transparent and can provide an effective resolution. All grievance procedures are regularly socialised to both internal and external stakeholders and are understood by all potentially affected parties. During the reporting period, Socfindo's grievance procedures have remained the same with the exception of an additional channel has been added to report a grievance. Details on this are set out below.

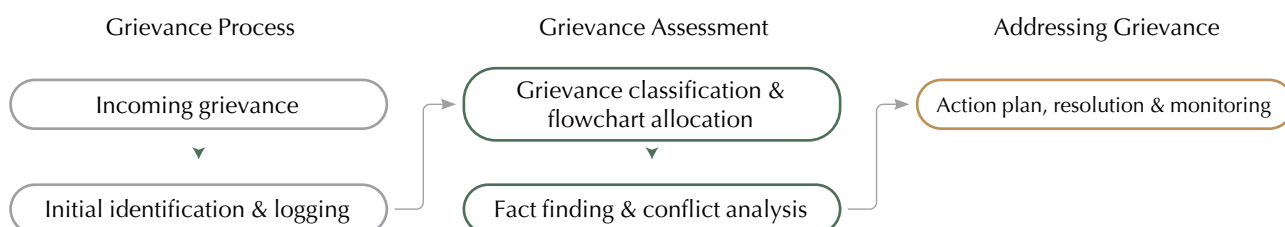
Grievance Process in Socfindo

SUBMITTING A GRIEVANCE

The first step in the grievance procedure pathway is submission of a grievance. In accordance with natural justice principles, Socfindo requires a grievance to be submitted in writing, however there are multiple points where a grievance may be submitted, depending on the nature of the grievance and the stakeholder concerned. All pathways allow for both online or in person submissions to convenient well known pre-defined

locations or persons. There is also assistance available for any stakeholder who may require support in filling out a written grievance. Grievance form is standardised and thus the same regardless of the method and location of submission. Once the grievance form has been submitted, the grievance automatically enters Socfindo's grievance procedure system.

Simplified Grievance Procedure Flow Chart



GRIEVANCE- SPECIAL PROTECTION CATEGORIES

Socfindo has in place systems to screen submitted grievances, to classify the nature of the grievance and determine if it is of a type that will trigger special protections. This is a crucial step as there are certain kinds of grievance which require special protections for the complainants. These include specifically:

- Complaint involving Human Rights Defenders and / or Whistle Blowers.
- Complaint involving any allegation of sexual harassment, harassment of any kind, or violence or intimidation.

In the case that a grievance is classified in one of the above categories, in addition to having their own special grievance procedure pathway, automatic protections are triggered for the complainant including:

- Measures to protect and ensure the confidentiality of the complainant; and
- In the case of any potential violence and or retaliation, protections for the complainant and all measures possible taken to reduce tensions and to ensure safe nonviolent resolution.

In addition, in the event that any complaint could potentially rise to a violation of any National laws or regulations, Socfindo shall contact the relevant authorities as per its legal obligations.

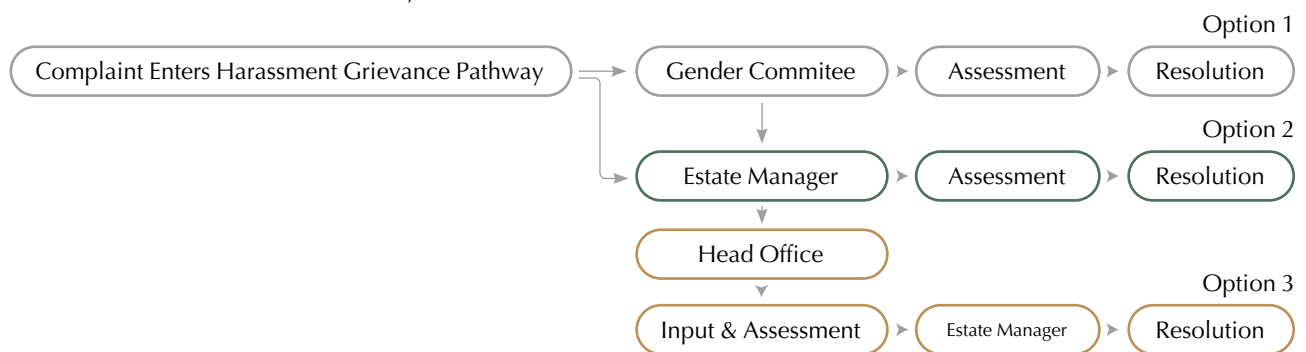
GRIEVANCE PROCEDURE PROCESSES

After initial classification and assessment, a grievance will enter into one of the grievance procedure pathways as summarised below.

Pathway for Sexual Harassment, Intimidation and Violence

Option 1 is favoured when possible, allowing for an efficient resolution. However, the system also allows for an escalation of process (in case the issue cannot be solved locally by the Gender Committee (see second and third option). Confidentiality protection applies in all cases involving sexual harassment, intimidation and violence, triggered during assessment phase.

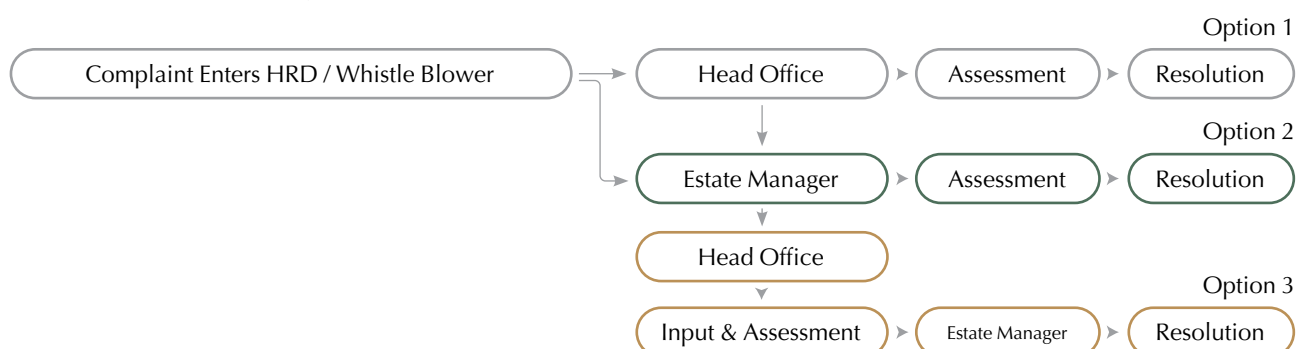
Flow Chart for Sexual Harassment, Intimidation and Violence



Pathway for Human Right Defenders and Whistle Blowers

The system allows for an escalation or transfer of process (in case the issue cannot be solved locally or in the case of conflict of interest, and/or for protection of confidentiality). Protection measures are taken in case of potential violence threat or harm, triggered in the assessment phase. Confidentiality protection applies in all cases involving human rights defender or whistle blowers, triggered during assessment phase.

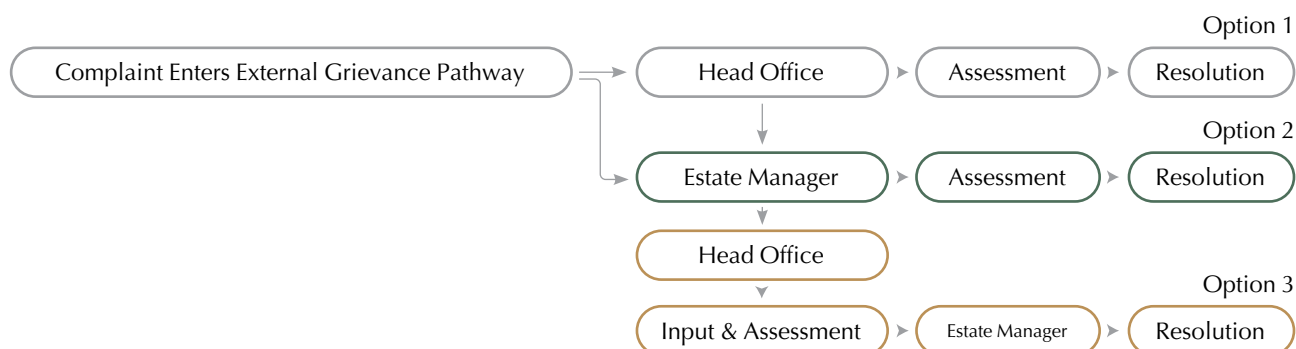
Flow Chart for Human Right Defenders and Whistle Blowers



Pathway for Community and Other Third Party Stakeholders

The system allows for an escalation or transfer of process (in case the issue cannot be solved locally or in the case of conflict of interest).

Flow Chart for Community and Other Third Party Stakeholders



TRACKING GRIEVANCE

All complaints upon being received are entered into Socfindo's system and tracked at all stages until effective resolution. Historical records of grievances are stored.

There have been 22 grievances reported during the reporting period; 13 in 2023 and 9 in 2024 all of which have been satisfactorily resolved. The increase in the number of grievances compared to 2022 is due to more intensive efforts to raise awareness about grievance handling among internal and external stakeholders. All 22 grievances were external and are classified within three categories:

- **Environmental (11):** Related to communities' concern about water discharge quality and riparian areas. Although Socfindo conforms with the Indonesian regulation, we still regularly have to socialize what falls under the Company responsibilities and make sure the public understands the factors linked to water quality. In addition, other Environmental complaints received concerned road infrastructure or road access. All grievances were all addressed and closed with success.
- **Land (5):** These are generally linked to the process of renewing our existing Land Use Rights (HGU-Hak Guna USaha). In these instances, communities are lobbying companies to have land planted under commercial plantations to be allocated to communal land. These requests are always analyzed diligently and studied in the context of the law and in conjunction with stakeholders such as local governments until the solutions are found
- **Social (5):** Include a range of social topics, but concern mainly communities who want to be re-assured of the support they receive or will receive from Socfindo during the HGU renewal process. It is expected to receive a number of grievances similar to these when we are renewing our HGUs as the process is designed to be inclusive and conducted in coordination with a number of stakeholders. Communities want to make sure their point of view is being heard and acknowledged.

Socfindo welcomes open communications and we are pleased to report that all of the grievances received during the reporting period were successfully closed, finding a satisfactory ending for all parties involved.

Smallholders

Socfindo’s Smallholder Initiatives

Most of the smallholders in the area where Socfindo operate sell their fruits to independent mills, which have sprouted in North Sumatra, to a point where there is now an abundance of mills with a processing capacity that is yet to be filled. Socfindo mills on the other hand being small in capacity per industry standard, were designed long ago based on the initial land base and are therefore operating at full capacity. Despite this, Socfindo recognizes the importance of assisting Smallholders to increase their yield, improve practices and gain access to premium prices through sustainability certification like RSPO, thereby improving incomes and livelihood for Indonesian rural communities.

Socfindo’s Smallholder Program

Socfindo’s Smallholder Program was launched to improve the standard of living of independent smallholders through increased productivity by applying good and sustainable agricultural cultivation practices so as to increase the production of FFB and social and environmental protection. Seminars and field sessions are organised, where Socfindo invites smallholders from local districts to visit its estates to get a better understanding of good agricultural practices, sustainability initiatives and environmental protection. The smallholders are given training sessions in safe handling of pesticides with appropriate PPE.

Socfindo also maintains nurseries with specific advanced material selling three months seedling specifically aiming for the smallholder market. The goal of this program is to assist local farmers to obtain sustainability system certification such as RSPO and ISPO and work towards gaining premiums from selling

certified palm oil. Socfindo has provided a number of trainings and assistance to these smallholders during the reporting period, a snapshot of is set out below :

SMALLHOLDER PARTNERSHIP KEMITRAAN (OUTSIDE OF THE RSPO INITIATIVE OF SEI LIPUT AND AEK LOBA)

	2023	2024
Numbers of farmers	5,854	5,854
Numbers of farmers training	26	21

We note that the number of training sessions decreased because, throughout the year, the Socfindo team focused on managing the legal aspects of farmers' land, as agreed upon in the MoU. This is a key part of the assistance Socfindo provides to these smallholders in assisting them obtaining the proper legal documentation for their land, which provides more secure land rights, as well as the ability to obtain loans should they wish using their land as security.



Socfindo provides training on Best Management Practices for oil palm cultivation through its smallholder program

Sei Liput & Aek Loba Smallholder Association RSPO Certification Program

In addition to the Smallholder activities set out above, Socfindo continues to run its mentoring program for independent smallholder associations to obtain their RSPO Certificate. This program is currently at Socfindo's Sei Liput and Aek Loba estate. The smallholder assistance program for RSPO certification is part of the Socfindo program to assist and contribute to the development of the region where our estates are located and is a way of acknowledging our mutual beneficial relationship. RSPO certification provides many tangible economic and environmental benefits. As RSPO certified members, smallholders can improve their yield, gain access to broader markets, sell their palm oil at a premium as well as ensure that their agricultural practices are more environmentally and socially responsible. In addition, during the RSPO process, smallholders will undertake the required process and obtain their formal legal land title from the Ministry of Agriculture which confers a more secure land title as well as the ability to use their title for security should they wish.

During the reporting period, 528 farmers in Sei Liput were RSPO certified, while 368 farmers in Aek Loba have been proposed for RSPO membership registration and are planned to be certified in the second half of 2025.

SMALLHOLDER CERTIFICATION PROGRAM (SEI LIPUT AND AEK LOBA)

	SEI LIPUT	AEK LOBA
Certification objective	RSPO & ISPO	-
RSPO Number	1-0446-23-000-00	-
Numbers of associations	1	1
Numbers of farmers represented by the associations	528	368
Numbers of hectares covered	700.8	322.3
Average ha per farmer	1.3	0.9

SEI LIPUT

Currently Socfindo is assisting the RSPO certified Sei Liput smallholders to prepare for their first audit. Socfindo is assisting them with training and implementing the RSPO best land management practices and will also assist with conducting pre-audits to ensure that the smallholders are ready for their first audit.

AEK LOBA

Currently, Socfindo is assisting the smallholders in Aek Loba with the RSPO certification process which is still in progress. As well as the implementation of best management practices training, Socfindo is also assisting the smallholders to undertake the required HCV assessments to identify and protect areas of high conservation importance and carry out Land Use Change Analysis (LUCA) to evaluate the impact of estate activities on the environment. These are key components of the RSPO process that assist farmers to understand how land use changes over time and ensure that their estates are not established in restricted areas as per sustainability standards.



RSPO CREDITS

After achieving RSPO Certification, Smallholders in Sei Liput receive a RSPO license with a FFB quota which is based on an estimation of their projected production for a certain period. With this, they also receive RSPO credits which are provided in advance based on future production projections. These credits can be sold, providing a valuable source of premium revenue for these smallholders, which is paid in addition to the money paid for their palm products. Thus far, RSPO Sei Liput smallholders have received the following RSPO credits, 100% of their certified products to Unilever and Pepsico. The proceeds from the sale of these

certified products have been distributed proportionally to each farmer within the association. The RSPO credits received by Sei Liput smallholders during the reporting period, are:

RSPO CREDIT SOLD

	CREDIT
CPO	2,585
PKO	290
PKE	355



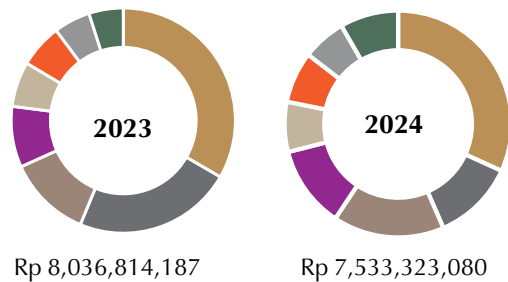
Our partner farmers at Sei Liput receiving their formal RSPO certificate at the RSPO RT 2023

Community Development

Socfindo has always invested into and supported the sustainable development of its communities. Below are some of the initiatives recently undertaken to support community development.

Community Support Program

Socfindo has a long standing and well established process whereby each year individuals in the community and their representatives can submit proposals for community development and initiatives for the benefit of the community and or its individuals. Socfindo has a specific budget for these projects each year and together with the community will select the projects which will deliver the most benefits. Through its estate management, Socfindo has an ongoing informal dialogue with community representatives and leaders. As an important part of their role, estate managers are in regular contact with community representatives and leaders and are regarded as important leaders in the communities themselves, often joining local celebrations, events and assisting to resolve disputes in the community. Through this informal channel and its more formal community consultations, Socfindo is able to tailor its community development program to meet the actual needs of the local communities it is a part of. It is important to note that each estate's program may be different depending on the needs of the community.



SUMMARY OF COMMUNITY PROGRAMS

ACTIVITY

- | | |
|-----------------------|-------------------------|
| Community development | Infrastructure |
| Economic | Religion |
| Education | Smallholder partnership |
| Health Care | Sports |



📷 Digital marketing training session with local communities



📷 Provision of fish seedlings to our fish farmer partner

Community Impact

SUPPORTING LOCAL ENTREPRENEURS

Digital Marketing Training for Micro, Small, and Medium Enterprises

With the growth in online business, digital marketing is no longer an option but necessity to achieve business success. Socfindo contributes to Micro, Small, and Medium Enterprises by providing digital marketing training to local entrepreneurs. With more in-depth understanding, business owners can better focus on their product sales strategies, with the expectation of boosting the community's economy.

Fish Farming

Socfindo has continued its fish farming program during the reporting period. In Seunagan estate; 10,000 tilapia fish fry were provided to be released in the brackish waters of the 'Kolam Bebek' beach. This initiative aims to enhance the tilapia population, providing the community with a sustainable resource for generating income through fishing. Socfindo also provided catfish fry to the communities at Aek Loba, Seumanyam, and Seunagan estates to support the economic improvement of the surrounding community through fish farming.

Procurement of Noodle Maker Set

In 2024, Socfindo provided 2 noodle maker sets for Rumah Kepompong and the BUMDes noodle house. This provision was supported with comprehensive training on organic vegetable-based noodle production, covering all aspects from ingredient preparation to packaging, ensuring the creation of visually appealing, high-quality noodles. The goal is to assist the community in developing their small scale noodle businesses.

Creation of a Herbal Village

As part of the Socfindo Conservation program, Socfindo is working with local villagers to assist them to grow their own medicinal plants for personal use, as well to provide a supplementary income. The program includes providing training on developing a garden, propagation, harvesting, and their uses. Under this program; 95,030 seedlings have been distributed to the community. For more details, see **Socfindo Conservation Zero hunger** section.



📷 Provision of noodle making machine for the BUMDes Noodle House



📷 Socfindo Conservation purchasing the product harvested from previously donated seedlings.

Procurement of Tents & Carts for Street Business

One of the common businesses in rural communities is selling affordable goods and street foods. This business has a broad market segment, ranging from children to the elderly. Socfindo in Bangun Bandar, Tanah Besih, and Mata Pao estate, provided 3 tents and 4 carts for these vending businesses.

EDUCATION

Renovation of School Building

During the reporting period, Socfindo provided school renovation assistance around its estates. This support included classroom renovations, sanitation facility improvements, and school building repainting. In Aek Loba estate, Socfindo assisted in renovating the classroom by ceramic tile installation. The enhanced learning environment will contribute to a more effective teaching and learning process.

Scholarship

Socfindo supports education by providing scholarships to the children of employees who excel, which sponsored by Socfindo's major shareholder. This program supports high school and university students. In 2023, the Scholarship program benefited 207 students whilst in 2024, this support increased and reached a total of 351 students, who were able to access further education through the scholarship.

Preschool facilities - PAUD

In support of early childhood education, the Company has developed preschool PAUD facilities by renovating buildings, adding playground equipment in Aek Pamienke estate, and providing lockers to all preschools - PAUD in Socfindo. To cultivate children's reading habits, a reading corner has been created and the availability of reading books has been increased.

RELIGIOUS

Recognizing the importance of places of worship as centres for community religious and social activities, the Company extends support by providing building materials for the renovation and construction of these facilities. With proper places of worship, the community can carry out religious activities and establish harmonious social relationships in daily life. All estates contributed in renovation of places of worship around the estates.



📷 Donated cart to show potential of street food business



📷 Provision of playground equipment

ART AND CULTURE

Traditional dance is an activity that combines art and culture and fitness. Socfindo supports traditional and has introduced to children having a positive impact on flexibility and motor coordination as well as creativity and memory skills in children. Through Rumah Kepompong, Socfindo organizes traditional dance training for village children to perform during local rural events.

INFRASTRUCTURE

Being a member of the local community that uses public infrastructure, the Company contributes to the improvement of community facilities by enhancing road and bridge access in the surrounding areas. By facilitating better access, the economic mobility of both the community and the company's operations can be maximized. Each estate contributes to road infrastructure improvement/enhancement, with each estate providing diverse forms of assistance such as in Tanah Besih estate, we use excavator for ditch cleaning and dredging in anticipation of the rainy season to reduce potential flooding risk. In Aek Loba, Socfindo undertakes road improvement works.



Keeping local tradition alive by sponsoring the local dance team



Improvement of local village infrastructure



Upgrade of places of worship



Upgrade of places of worship

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GLOSSARY

Bio Diversity

The diversity (number and variety of species) of plant and animal life.

Biological Oxygen Demand (BOD)

The amount of oxygen used when organic matter undergoes decomposition by micro-organisms. Testing for BOD is done to assess the amount of organic matter in water.

Certified Emission Reductions (CERs)

A unit issued for GHG emission reductions from CDM project activities or PoAs (non-A/R) in accordance with the CDM rules and requirements, which is equal to one metric tonne of carbon dioxide equivalent, calculated using global warming potentials defined by decision 2/CP.3 or as subsequently revised in accordance with Article 5 of the Kyoto Protocol.

Clean Development Mechanism (CDM)

A mechanism under the Kyoto Protocol, the purpose of which, in accordance with Article 12 of the Kyoto Protocol, is to assist non Annex I Parties in achieving sustainable development and in contributing to the ultimate objective of the Convention and to assist Annex I Parties in achieving compliance with their quantified emission limitation and reduction commitments under Article 3 of the Kyoto Protocol.

Coordinating Entity

An entity authorised by all participating host country DNAs involved in a particular Programme of Activities and nominated in the Modalities of Communication statement as the entity that communicates with the Board and the secretariat, including on matters relating to the distribution of Certified Emission Reductions (CERs), temporary Certified Emission Reductions (tCERs) or longterm Certified Emission Reductions (ICERs), as applicable.

Certified Sustainable Palm Oil (CSPO)

The term is commonly associated with palm oil that has been certified by the Roundtable on Sustainable Palm Oil (RSPO).

CDM Programme of Activities (PoA)

A voluntary coordinated action by a private or public entity which coordinates and implements any policy/measure or stated goal (i.e. incentive schemes and voluntary programs) that leads to GHG emission reductions or net anthropogenic GHG removals by sinks that are additional to any that would occur in the absence of the PoA, via an unlimited number of CPAs.

Co-composting

In the context of this report, Co-composting refers to environmentally sound aerobic co-composting of a portion or all of a Palm Oils Mill's solid biomass waste, in particular empty fruit bunches (EFB) together with the liquid Palm Oil Mill Effluent (POME) to produce organic compost which can be recycled and reapplied to the plantation.

Empty Fruit Bunches (EFB)

The bunch that has been emptied of its fruits, a by-product of the milling process.

Fresh Fruit Bunches (FFB)

Bunch harvested from the oil palm tree. The weight of the fruit bunch in Socfindo varieties usually ranges between 4kg to 20kg depending on the age.

Free Prior and Informed Consent (FPIC)

FPIC is the principle that a community has the right to give or withhold its consent to proposed projects that may affect the lands they customarily own, occupy or otherwise use.

High Conservation Value (HCV)

The HCV concept was originally developed by the Forest Stewardship Council (FSC) with the aim to standardise the definitions and evaluation approaches for natural forest that should be set aside for conservation.

High Carbon Stock (HCS)

The HCS approach is a methodology to avoid deforestation in land development. The approach stratifies the vegetation into different classes using analyses of satellite images and field plot measurements. Each vegetation class is validated through calibrating it with carbon stock estimates in the above-ground tree biomass. The methodology distinguishes HCS forest areas for protection from degraded lands with low carbon and biodiversity values that may be considered for development.

Ganoderma Disease

Ganoderma boninense is a fungus responsible for basal stem rot, which is the most worrying disease in the oil palm plantations of Southeast Asia, where it can cause over 80% mortality.

Greenhouse Gas (GHGs)

A greenhouse gas listed in Annex A to the Kyoto Protocol.

Global Platform for Sustainable Natural Rubber (GPSNR)

The Global Platform for Sustainable Natural Rubber is an international, multistakeholder, voluntary membership organisation, with a mission to lead improvements in the socioeconomic and environmental performance of natural rubber value chain.

Indonesia Forestry Certification Cooperative (IFCC)

The standardising and governing body for the Indonesian Forest Certification Scheme. It promotes sustainable forest management through forest certification and labeling of forest-based products that originate from certified forests.

Indonesian Sustainable Palm Oil Organisation (ISPO)

The Indonesian Government under the Ministry of Agriculture established a mandatory certification scheme in 2011, namely the Indonesian Sustainable Palm Oil Principles & Criteria (ISPO) to ensure that all producers live up to specific environmental, economic and social standards when operating in Indonesia. For more information on ISPO, please visit: <https://ditjenbun.pertanian.go.id/informasi-ispo/>.

Integrated Pest Management (IPM)

A pest management system that in context of the associated environment and the population dynamics of the pest species utilises all suitable techniques and methods in as compatible a manner as possible and maintains the pest population at levels below those causing economically unacceptable damage and loss.

International Labour Organisation (ILO)

Is a tripartite world body representative of labour, management and government and is an agency of the United Nations. It disseminates labour information and sets minimum international labour standards called “conventions”, offered to member nations for adoption.

Palm Kernel (PK)

Seed of the oil palm fruit, which is processed to extract palm kernel oil and other by-product.

Palm Oil Mill Effluent (POME)

A by-product of processed fresh fruit bunch (FFB).

Program for the Endorsement Forest Certification (PEFC)

The Programme for the Endorsement of Forest Certification is an international, non-profit, non-governmental organisation which promotes sustainable forest management through independent third party certification.

Roundtable on Sustainable Palm Oil (RSPO)

The RSPO is a not-for-profit that unites stakeholders from the 7 sectors of the palm oil industry: oil palm producers, processors or traders, consumer goods manufacturers, retailers, banks/ investors and environmental and social non-governmental organisations (NGOs), to develop and implement global standards for sustainable palm oil. For more details on the RSPO, please visit: www.rspo.org/about.

Smallholder

Smallholders are “farmers growing oil palm, sometimes along with subsistence production of other crops, where the family provides the majority of labour. The farm provides the principal source of income and where the planted area of oil palm is below 50 hectares in size.”

United National Framework Convention on Climate Change (UNFCCC)

The United Nations Framework Convention on Climate Change (UNFCCC) is an international environmental treaty adopted on 9 May 1992 and opened for signature at the Earth Summit in Rio de Janeiro from 3 to 14 June 1992. It then entered into force on 21 March 1994, after a sufficient number of countries had ratified it. It develops a global response to stabilising greenhouse gas concentrations in the atmosphere.

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