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Our History





Started the first palm oil refinery in Indonesia

1970



Started oleochemicals plant

2003



1932
Started the Nam Cheong Soap Factory



1988
Started plantation in Rantau Prapat, North Sumatra



2012
Fully integrated palm oil corporation across 13 countries



About Musim Mas

Musim Mas at a Glance













Global Presence GERMANY Marketing Office UNITED KINGDOM **NETHERLANDS** Marketing office Oleochemicals ITALY Marketing office UNITED STATES Biodiesel CHINA Refinery Marketing office INDIA Marketing office • Refinery SPAIN Consumer pack MALAYSIA Specialty fats Marketing office VIETNAM Marketing office • Biodiesel Refinery Marketing office • Refinery Refinery Oleochemicals Consumer pack BRAZIL - Marketing office **INDONESIA** • Marketing office • Derivative products • Innovation and SINGAPORE Refinery Specialty fats applications center Marketing office Plantation Consumer pack

Innovation and

applications center

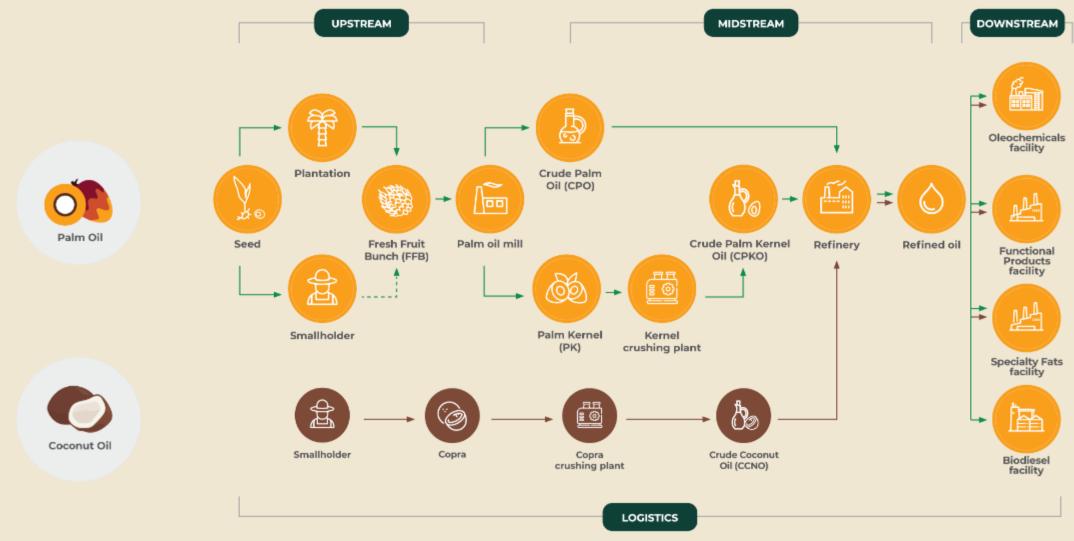
Kernel crushing plant

Copra crushing plant

Oleochemicals

Biodiesel

Integrated Business



Product Applications





Animal Nutrition



Biofuels



Commodities



Consumer Products



Food & Beverage



Healthy & Dietary Supplements



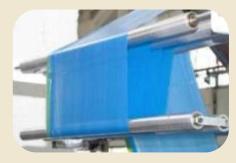
Home Care, Personal Care & Cosmetics



Industrial



Pharmaceutical



Polymers & Plastics



Group Oil Yield per Hectare

* In tonnes per Ha

Musim Mas CPO yield vs. global average 2018-2022

(MT CPO/ha)

6.25	5.53	5.70	5.68	5.86	
3.40	3.34	3.21	3.19	3.25	
2018	2019	2020	2021	2022	







Sustainability Milestones & Highlights

Our Sustainability Milestones



First in Indonesia to join RSPO¹



First smallholder scheme in Indonesia to attain RSPO¹ certification



Published comprehensive sustainability policy extended to third-party suppliers



- Updated Sustainability Policy
- Integrated independent smallholders into the sustainable palm oil supply chain



Signed Agricultural Sector Roadmap to 1.5°C at COP27 to reduce emissions from land use change





First plantation in Indonesia to attain RSPO¹ certification



First plantation in Indonesia to attain ISPO certification



- First Southeast Asian palm oil major to be POIG³-verified
- First palm oil mill in the world to be certified against RSPO¹ Principles and Criteria 2018



- Launched Social Impact Report
- Achieved 100% RSPO¹ Certification for integrated mills



- 100% of PTs ISPO-certified
- Launched Sustainable Sourcing Strategy for coconut operations



¹ Roundtable on Sustainable Palm Oil

² Indonesian Sustainable Palm Oil

³ Palm Oil Innovation Group

Achieving Higher Standards Across our Operations



RSPO Certification

- 100% of integrated mills
- 83% of total mills
- 77% of our plantations
- 100% of Kernel Crushers, Refineries, Oleochemical plants & Specialty Fat plants in Indonesia



More than 755,780 MT CSPO* and 188,930 MT CSPK**

*Crude Sustainable Palm Oil

** Crude Sustainable Palm Kernel



PT. Multipersada Gatramegah: first mill in the world to be audited against RSPO Principles & Criteria 2018 standards



First POIG^-verified palm oil major in Southeast Asia

^Palm Oil Innovation Group



NDPE# IRF## profiles for 20 facilities, covering Refineries and Kernel Crushers

NDPE: www.ndpe-irf.net/

**No Deforestation, No Peat, No Exploitation
**Implementation Reporting Framework



100% PTs are ISPO-certified as of July 2023





Musim Mas Sustainability Pillars



Pillar 1



Improve the Lives of Smallholders, Workers, and Communities

Pillar 2



Positive
Environmental
Impacts

Pillar 3



Maintain Responsible and Enduring Relationships with Suppliers, Customers, and Stakeholders

Pillar 4



Drive Innovation in Sustainable Practices

2022 Sustainability Report

- Musim Mas publishes annual Sustainability Reports.
- Affirms the Group's commitment towards sustainable palm oil.
- The current one for calendar year 2022 can be found on our website.







Who Are the Smallholder Farmers?

Smallholders are small-scale farmers who own **up to 20 hectares of planted oil palm**. There are broadly two types in Indonesia.

In Indonesia, oil palm smallholders are classified into **two groups**:

<u>Scheme</u> and <u>Independent Smallholders</u>.



Scheme smallholders operate under a government-initiated program with support from plantation companies. Independent smallholders are selffinanced, self-managed, self-equipped, and not bound to any one mill.

Why Smallholders are Key to Sustainable Palm Oil

Smallholders manage 41% of planted palm, this represents **6.4 million hectares** in Indonesia.

Independent ones particularly face great challenges including:



Limited Expertise



Limited Access to Financing



Lack of Market Access



Poor Yields

As a result, smallholders require support to discourage deforestation and slash-and-burn agriculture.

Scheme Smallholder Initiatives

In 1996, Musim Mas initiated a primary cooperative credit scheme (KKPA) to assist smallholders. This program became mandatory in Indonesia only in 2007.

In 2000, Musim Mas launched a second initiative - the Village Development Program (VDP).



Training for Smallholders Indonesia's Largest Independent Smallholders Program











more than **2** 36,700

Smallholders trained by Musim Mas



78,500

Hectares covered



more than 4,580

Smallholders RSPO certified



more than 1,950

Smallholders ISPO certified







Training for Trainers





Musim Mas trains Village Extension officers (VEOs) who will train even more smallholders.



We support the government with capacity building and create a common platform for all to work with smallholders.





Smallholder Hubs established



460
VEOs trained by Musim Mas



6,700
Smallholders
Trained by VEOs



9,700

* Data as of December 2023

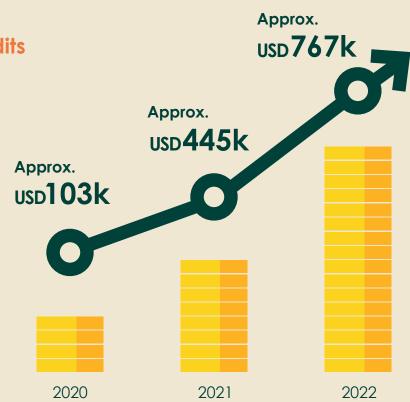


Helping Smallholders Gain Market Access

As a vertically integrated company, Musim Mas has been helping smallholders gain access to the international sustainable palm markets by working with companies using palm oil and helping smallholders achieve sustainability through the RSPO Credits scheme.

Musim Mas has helped independent smallholders achieve RSPO Credits a combined total of approximately USD1.3 million.





* Data as of December 2021





Landscape Projects and Collaborations

Our Collaborations

We believe in collaborating with governments, NGOs, academia, developmental funds and downstream players such as consumer goods companies to achieve palm oil sustainability.

Academia and developmental funds









Downstream Collaborations













Landscape Projects and Collaborations

Collaborations for Livelihoods: General Mills

Collaboration is the key to achieve oil palm sustainability. Not just with governments and NGOs, but with downstream players like General Mills which we began collaborating with in 2020.

Highlights of General Mills' support:

- Three years of funding
- Experienced in Regenerative Agriculture Experience
- **Sustainable** sourcing innovations





75 VEOs Trained



* Data as of June 2023



Addressing Deforestation: Nestle and AAK







Aceh is a priority landscape as 87% of the Leuser Ecosystem lies within the province. As of 2021, Musim Mas is **leading a five-year program to train village extension officers (VEOs)** on sustainability.

- 5-year project on VEO training
- 2 years of funding from Nestle and AAK
- Nestle and AAK to buy RSPO Smallholder Credits
- To engage approximately 1,000 smallholders

Improving Smallholders' Market Access: Unilever, PepsiCo, Nestle









To help smallholders gain international market access through RSPO credits, in 2021, Musim Mas launched a partnership with downstream consumer goods companies.

- Deals for smallholders worth USD 445,000 were made in 2021
- Benefited smallholders across four farmers' associations





Supply Chain Sustainability: ETHZ

ETH zürich

Launched in 2021, this collaboration aims to investigate the conditions under which supply chain sustainability initiatives can lead to reduced deforestation, while maintaining livelihoods.

- An unprecedented 5-year longitudinal study
- FTH7 7 urich will measure how Musim Mas' Smallholders Hubs approach can contribute to sustainability goals
- Up to 1,600 non-industrial palm producers will be surveyed over a 5-year timeframe







Supply Chain Sustainability: Livelihoods Funds, SNV, Danone, L'Oréal, Mars, Incorporated









To improve smallholder livelihoods and explore innovations such as regenerative agriculture, Musim Mas in 2021 launched a collaboration with Livelihoods Funds, SNV and downstream players.

- A 10-year in-depth project to improve smallholders yield and livelihoods
- First major agroforestry/intercropping project in Indonesia
- Over 8,000 hectares of degraded land to be regenerated
- 2,500 smallholder farmers to benefit
- The **findings** will benefit the industry at large



Landscape Projects and Collaborations

Improving Biodiversity: SEARRP



In 2021, we partnered with a research facility SEARRP and University of Oxford scientists, to determine the effectiveness of our conservation efforts.

- A study on up to 12 years' worth of HCV monitoring data
- SEARRP assessed the effectiveness of Musim Mas' conservation efforts
- SEARRP provided recommendations that will support in the improvement of our conservation practices
- We shared our findings with the RSPO





Landscape Projects and Collaborations

Aceh Leuser Landscape

Aceh is a priority landscape as **87% of the Leuser Ecosystem lies in the Aceh province**.

The Leuser Ecosystem is **one of the largest rainforests** in the world-renowned for its high biodiversity.

Despite only making up 5 to 10% of our supply base, we **contribute our NDPE expertise** to the local mills and smallholders.

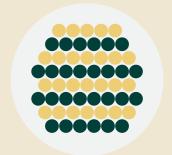
Since 2019, we began publishing our **annual Aceh Progress Report** to communicate our progress in the Aceh Province.

- Landscape-based approach across different stakeholders including government, NGOs and smallholders
- Established supply chain for sustainable sourcing through collaborations





Zero-Waste Mills: Our Sustainable Production



Solid

- Press cake fiber, empty fruit bunch fiber and kernel shells used as fuel
- Decanter solid from Palm
 Oil Mill Effluent (POME) used
 as fertilizer



Liquid

- POME undergoes anaerobic digestion to produce methane gas
- Treated POME use as organic fertilizer in plantation



Gaseous

- Methane gas produced by anaerobic digestion of POME is captured as biogas to power the palm oil mill and housing complex
- Boiler chimney discharge to the atmosphere is smoke-free

These features are not commonly found in the industry

Reduction of Emissions





Plantation

- No development on primary forest, HCV and HCS forest
- No new development on peatland
- Zero burning



Mill

- Use biomass as energy feedstock
- Capture methane gas and produce electricity
- Net positive energy balance



Refinery

Use biomass as energy feedstock



Processing Plant

- Use biomass as energy feedstock
- Some of the processing plants are 100% powered by biomass

Targets

55% reduction (by 2025, 2006 baseline)

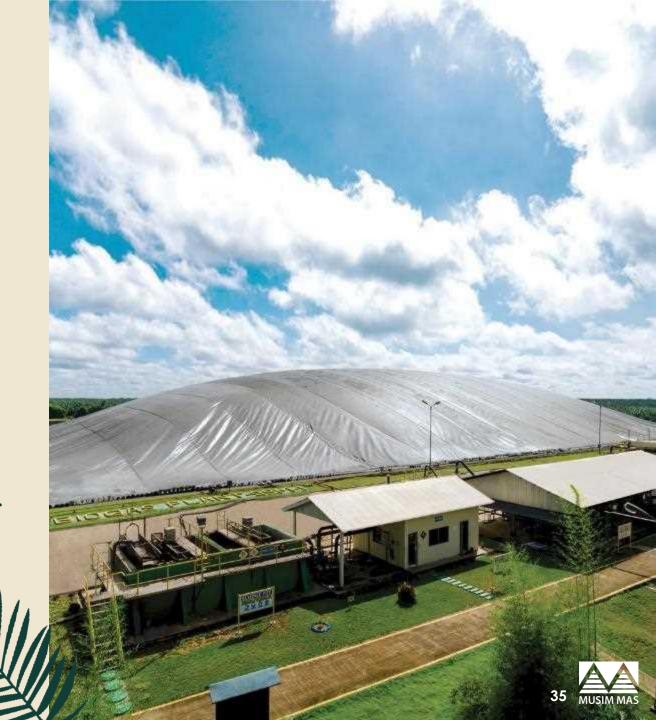
Develop Group-level emissions reduction targets in line with the Science Based Target initiative (SBTi) by 2024

Environmental Efforts

Zero-Waste Mills: Methane Capture Projects

Musim Mas is the <u>first</u> major plantation group to install the facility for all its mills

- Effluent account for 99% of mill operation's emission.
- Methane capture can reduce significantly the total emission of Estate and Mill operation but requires substantial capital expenditure.
- Musim Mas has invested USD 60 million to equip all its mills with methane capture system.



Supply Chain Transformation



Traceable to mills since 2015



Traceable to Plantation



Suppliers have attended NDPE workshops



Supplying Mills have completed Self-Assessment Tools



Suppliers monitored for deforestation and peat (Mills with Concessions) >9.8

Million Ha

Being monitored across Indonesia, Malaysia and Thailand



Suppliers committed to NDPE principles



Leading Supplier Engagement

As over 80% of Musim Mas CPO comes from external suppliers, we factor in and engage suppliers on sustainability



Extension Services Program for Smallholders from 3rd Party Mills



97% Suppliers Submitted NDPE Commitments



97% Traceability to Plantation for Supply Chain



Deforestation monitoring: Satellite-based with Earthqualizer



Deforestation monitoring: Radar-based with RADD

Commitment to transparency



Received 1 Blue award



91.8%, ranked 7th out of 100 palm oil companies



Score >80 (2021)



PT. Musim Mas – Gold Medal (2022)



Forests 2022 (A-)
Climate change 2022 (B)
Water security 2022 (B)



8.7 of 10, ranked 2ndIn the Agricultural Products industry

MUSIM MAS

07

CSR Efforts

Providing free Primary Education



Free education for children of plantations workers.

10 primary schools and 3 secondary schools have been established.











Support for Tertiary Education



Tanri Abeng University (TAU) South Jakarta



Auditorium

Bogor Agricultural University, Bogor, West Java Province



Multi-purpose building

Faculty of Economics, University of North Sumatra, Medan, North Sumatra



Musim Mas Professorship in Sustainability Program

National University of Singapore, Singapore



CSR Efforts

Donations

Musim Mas operates a long-standing outreach initiative through The Anwar Karim Foundation, or Yayasan Anwar Karim (YAK), which runs programs that address needs like economic development, community facilities, education, and infrastructure.

In 2022, our CSR contributions through the Foundation amounted to IDR 30,243 million, of which 58% was allocated to our YAK schools.



IDR 30,243 million*

2022 CSR Contributions

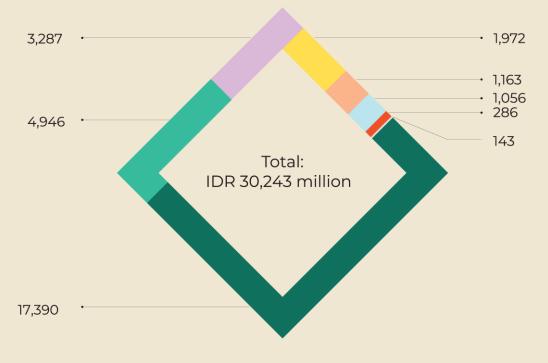
*Approx. USD 1.9 million



58% Allocated to YAK scho

Note: Musim Mas operates 10 primary schools and 3 secondary schools

CSR contributions 2022 (IDR million (%))



- ◆ YAK schools
- ◆ Infrastructure
- Religion, social, cultural
- Other
- Environment
- Education
- ◆ Economic development
- Community health facilities



Conclusion

Musim Mas will continue to engage stakeholders to incorporate their feedback into the sustainability strategy.

Musim Mas firmly believes that palm oil industry should keep moving ahead, balancing the needs of social development and environment protection.

Musim Mas will continue its sustainability journey to produce palm oil in an environmentally friendly, socially acceptable and economically viable manner.







Thank You!

January 2024

