Contents

01 About Us
02 Sustainable Milestones & Highlights
03 Musim Mas Sustainability Policy
04 Smallholder Initiatives
05 Landscape Projects & Collaborations
06 Environmental Efforts
07 CSR Efforts
About Us
About Musim Mas

Our History

1932
Started the Nam Cheong Soap Factory

1970
Started the first palm oil refinery in Indonesia

1988
Started plantation in Rantau Prapat, North Sumatra

2003
Started oleochemicals plant

2012
Fully integrated palm oil corporation across 13 countries
Musim Mas at a Glance

Singapore
Headquarters

>38,000
Worldwide Employees

13 Countries
Operational presence

Products sold globally

USD 10.8 billion
Total sales (FY2022)
About Musim Mas

Global Presence
About Musim Mas

Integrated Business

UPSTREAM

- Plantation
- Seed
- Fresh Fruit Bunch (FFB)
- Palm oil mill
- Palm Kernel (PK)
- Kernel crushing plant

MIDSTREAM

- Crude Palm Oil (CPO)
- Crude Palm Kernel Oil (CPKO)
- Refinery

DOWNSTREAM

- Refined oil
- Oleochemicals facility
- Functional Products facility
- Specialty Fats facility
- Biodiesel facility

LOGISTICS

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About Musim Mas

Product Applications

Animal Nutrition  Biofuels  Commodities  Consumer Products  Food & Beverage

Healthy & Dietary Supplements  Home Care, Personal Care & Cosmetics  Industrial  Pharmaceutical  Polymers & Plastics
 Musim Mas CPO yield vs. global average 2018-2022

<table>
<thead>
<tr>
<th>Year</th>
<th>Musim Mas</th>
<th>Global</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>6.25</td>
<td>3.40</td>
</tr>
<tr>
<td>2019</td>
<td>5.53</td>
<td>3.34</td>
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<tr>
<td>2020</td>
<td>5.70</td>
<td>3.21</td>
</tr>
<tr>
<td>2021</td>
<td>5.68</td>
<td>3.19</td>
</tr>
<tr>
<td>2022</td>
<td>5.86</td>
<td>3.25</td>
</tr>
</tbody>
</table>
02

Sustainability Milestones & Highlights
Our Sustainability Milestones

- **2004**: First in Indonesia to join RSPO\(^1\)
- **2009**: First plantation in Indonesia to attain RSPO\(^1\) certification
- **2010**: First smallholder scheme in Indonesia to attain RSPO\(^1\) certification
- **2012**: Published comprehensive sustainability policy extended to third-party suppliers
- **2014**: First Southeast Asian palm oil major to be POIG\(^2\)-verified
- **2018**: First palm oil mill in the world to be certified against RSPO\(^1\) Principles and Criteria 2018
- **2019**: Updated Sustainability Policy
- **2020**: Integrated independent smallholders into the sustainable palm oil supply chain
- **2021**: Launched Social Impact Report

\(^1\) Roundtable on Sustainable Palm Oil
\(^2\) Indonesian Sustainable Palm Oil
\(^3\) Palm Oil Innovation Group
Sustainability Milestones & Highlights

Achieving Higher Standards Across our Operations

100% RSPO Certified
All mills with plantations
All Kernel Crushers, Refineries, Oleochemical plants and 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

NDPE# IRF## profiles for 20 facilities, covering Refineries and Kernel Crushers
NDPE: www.ndpe-irf.net/

100% PTs are ISPO-certified as of July 2023

^Palm Oil Innovation Group

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

© 2023 Musim Mas Holdings Pte. Ltd.
Musim Mas Sustainability Policy
Musim Mas Sustainability Policy

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.
The 2020 Sustainability Policy

Expanding our scope:

- Extended to copra and coconut oil
- Paper and cardboard packaging
- Transference of innovation

Continuity:

- NDPE supply chain
- Improving livelihoods
- Policy applicable to our suppliers and contractors
Musim Mas Sustainability Policy

Musim Mas Sustainability Pillars

Pillar 1
Improve the Lives of Smallholders, Workers, and Communities

Pillar 2
Deliver Positive Environmental Impacts

Pillar 3
Maintain Responsible and Enduring Relationships with Suppliers, Customers, and Stakeholders

Pillar 4
Drive Innovation in Sustainable Practices
Smallholder Initiatives
Smallholder Initiatives

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: Scheme and Independent Smallholders.

<table>
<thead>
<tr>
<th>Scheme Smallholders</th>
<th>Independent Smallholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scheme smallholders operate under a government-initiated program with support from plantation companies.</td>
<td>Independent smallholders are self-financed, self-managed, self-equipped, and not bound to any one mill.</td>
</tr>
</tbody>
</table>
Smallholder Initiatives

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.
Smallholder Initiatives

**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).

**Smallholders Oil Palm Development Programs (KKPA)**

4,144 Smallholders
6,783 Hectares

**Village Oil Palm Development Program (KKD/VDP)**

31 Villages
232 Hectares

* Data as of December 2022
Smallholder Initiatives

Training for Smallholders
Indonesia’s Largest Independent Smallholders Program

Training on Good Agricultural Practices
Improving Farm Productivity
Preventing Deforestation
Gaining Market Access Through Certification

Smallholders trained by Musim Mas

more than 36,400

Hectares covered

more than 78,300

Smallholders RSPO certified

more than 3,530

Worth of RSPO Credits for Smallholders

approximately USD 1.3 mil

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Smallholder Initiatives

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.

6 Smallholder Hubs established

428 VEOs trained by Musim Mas

more than 5,500 Smallholders Trained by VEOs

more than 8,200 Hectares

* Data as of June 2023
Smallholder Initiatives

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.
Landscape Projects & 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
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

*Data as of June 2023*
Landscape Projects and Collaborations

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.

Highlights:
- **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
Landscape Projects and Collaborations

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.

**Highlights:**
- Deals for smallholders **worth USD 445,000** were made in 2021
- Benefited smallholders across **four farmers’ associations**
Launched in 2021, this collaboration aims to investigate the conditions under which supply chain sustainability initiatives can lead to reduced deforestation, while maintaining livelihoods.

**Highlights:**
- An unprecedented 5-year longitudinal study
- ETHZ Zurich 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
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.

**Highlights:**
- 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.

**Highlights:**
- 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.

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

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Environmental Efforts
Environmental Efforts

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*
Environmental Initiatives

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
- Capture methane gas and produce electricity
- Net positive energy balance

**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

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Environmental Efforts

Zero-Waste Mills: Methane Capture Projects

Musim Mas is the first 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.
Environmental Efforts

Supply Chain Transformation

- **100%** Traceable to mills since 2015
- **97%** Traceable to Plantation
- **93%** Suppliers have attended NDPE workshops
- **84%** Supplying Mills have completed Self-Assessment Tools
- **100%** Suppliers monitored for deforestation and peat (Mills with Concessions)
- **>9.8** Million Ha
- **97%** Suppliers committed to NDPE principles

* Data as of December 2023

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Environmental Efforts

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

* Data as of December 2023
Environmental Efforts

Commitment to transparency

**PROPER**
Received 1 Blue award

**SPOTT**
90.7%, ranked 6th out of 100 palm oil companies

**ASD**
Score >80 (2021)

**ecovadis**
Gold Medal (2022)

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

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CSR Efforts
Social Initiatives

Providing free Primary Education

**Free education** for children of plantations workers.

10 primary schools and 3 secondary schools have been established.
Social Initiatives

Support for Tertiary Education

Library
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 schools

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

October 2023