

F0. Introduction

F0.1

(F0.1) Give a general description of and introduction to your organization.

Headquartered in Singapore, Musim Mas Group is a fully integrated palm oil corporation that delivers the highest quality and innovative palm oil products and derivatives used across multiple industries worldwide.

As one of the most prominent players in the palm oil industry, we aspire to be a responsible leader in the evolution of the industry, driving a new era of sustainability with innovation across the globe. To that aim, our dedicated, global team of professionals across the entire palm oil supply chain work closely with local and international stakeholders, ensuring that our products are economically viable, socially responsible, and environmentally appropriate.

Since 1972, Musim Mas has established deep and long-standing relationships with our customers and stakeholders worldwide. Our multi-cultural and multi-disciplinary workforce, located in 13 countries, brings innovation to meet the growing needs of our customers.

We are proud to be the preferred supply chain partner for palm oil and its derivatives. From our plantations, mills, refineries, kernel crushing plants, oleochemicals, and specialty fats plants, we manufacture palm oil and value-added derivatives before exporting these to customers via our extensive fleet of tankers and barges. Today, Musim Mas is Indonesia's largest palm oil exporter to customers located all around the world.

The steady growth of Musim Mas is underpinned by the quality of our management and supported by professionals dedicated to the highest standards of quality, safety, and efficiency. Our global marketing activities are undertaken by Inter-Continental Oils and Fats (ICOF), a member of Musim Mas Group.

Despite these achievements our business continues to face new challenges. As we have progressed, so have expectations from stakeholders for a responsible supply base. To achieve this, environmental stewardship has been a core pillar of our sustainability measures. Musim Mas strives to minimise and mitigate adverse impacts on the environment, by regularly assessing the impact of our operations through tools or exercises such as RSPO PalmGHG and CDP. We initiated our first Life Cycle Assessment (LCA) in 2019, to evaluate the impact of our operations on the environment, as well as develop holistic mitigation plans to minimize those impacts.

Musim Mas takes the impact of climate change seriously and is strongly committed to minimising GHG emissions within our operations. Our sustainability teams, senior management and the Board, are involved in decision-making pertaining to our climate-related risks and opportunities to ensure emission reductions are adequately managed throughout our operations.

F0.2

(F0.2) State the start and end date of the year for which you are reporting data.

	Start Date	End Date
Reporting year	January 1 2021	December 31 2021

F0.3

(F0.3) Select the currency used for all financial information disclosed throughout your response.

USD

F0.4

(F0.4) Select the forest risk commodity(ies) that you are, or are not, disclosing on (including any that are sources for your processed ingredients or manufactured goods); and for each select the stages of the supply chain that best represents your organization's area of operation.

	Commodity disclosure	Stage of the value chain	Explanation if not disclosing
Timber products	This commodity is not produced, sourced or used by our organization	<Not Applicable>	<Not Applicable>
Palm oil	Disclosing	Production Processing Trading Manufacturing Retailing	<Not Applicable>
Cattle products	This commodity is not produced, sourced or used by our organization	<Not Applicable>	<Not Applicable>
Soy	This commodity is not produced, sourced or used by our organization	<Not Applicable>	<Not Applicable>
Other - Rubber	This commodity is not produced, sourced or used by our organization	<Not Applicable>	<Not Applicable>
Other - Cocoa	This commodity is not produced, sourced or used by our organization	<Not Applicable>	<Not Applicable>
Other - Coffee	This commodity is not produced, sourced or used by our organization	<Not Applicable>	<Not Applicable>

F0.5

(F0.5) Are there any parts of your direct operations or supply chain that are not included in your disclosure?

No

F0.6

(F0.6) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.?)

Indicate whether you are able to provide a unique identifier for your organization

Provide your unique identifier

F1. Current state

F1.1

(F1.1) How does your organization produce, use or sell your disclosed commodity(ies)?

Palm oil

Activity

Growing/production of raw materials
Harvesting
Milling
Crushing
Refining & processing
Refining & fractionation
Exporting/trading
Using as input into manufacturing process for power generation

Form of commodity

Fresh fruit bunches (FFB)
Crude palm oil (CPO)
Crude palm kernel oil (CPKO)
Palm kernel meal (PKM)
Refined palm oil
Palm oil derivatives
Palm kernel oil derivatives
Palm biodiesel

Source

Owned/managed land
Smallholders
Trader/broker/commodity market

Country/Area of origin

Indonesia

% of procurement spend

100%

Comment

Since Musim Mas Group is a fully integrated palm oil corporation, our business activities run the gamut of the palm oil supply chain including:

- o Managing oil palm plantations to produce fresh fruit bunch (FFB)
- o Milling oil palm fruits to produce crude palm oil (CPO) and Palm Kernel (PK)
- o Crushing PK to obtain crude palm kernel oil (PKO)
- o Refining CPO and PKO
- o Further processing to produce value-added products such as specialty fats, oleochemicals, biodiesel, soap, palm wax and functional products such as emulsifiers
- o Manufacturing consumer goods such as cooking oil and personal care products
- o Shipping and merchandising value-added products to global destinations

In line with our Sustainability Policy, Musim Mas is working toward a fully traceable and transparent supply chain. More detailed information on traceability can be accessed via our website <https://www.musimmas.com/sustainability/traceability/>. Additionally, we organized workshops, hands-on training, and collaborates with the Consortium of Resource Experts (CORE) to effectively communicate and help suppliers in understanding our NDPE policy. As a result, we are able to monitor and track our progress in achieving our NDPE commitment across the supply chain.

F1.2

(F1.2) Indicate the percentage of your organization's revenue that was dependent on your disclosed forest risk commodity(ies) in the reporting year.

	% of revenue dependent on commodity	Comment
Timber products	<Not Applicable>	<Not Applicable>
Palm oil	91-99%	Musim Mas Group is a vertically integrated palm oil corporation which derives all of its revenue from oil palm.
Cattle products	<Not Applicable>	<Not Applicable>
Soy	<Not Applicable>	<Not Applicable>
Other - Rubber	<Not Applicable>	<Not Applicable>
Other - Cocoa	<Not Applicable>	<Not Applicable>
Other - Coffee	<Not Applicable>	<Not Applicable>

F1.3

(F1.3) Provide details on the land area you control and/or manage that is used for the production of your disclosed commodity(ies).

Forest risk commodity

Palm oil

Type of control

Concession/lease

Country/Area

Indonesia

Land type

<Not Applicable>

Area (Hectares)

192702

% Area certified

76

Certification scheme

RSPO producer/grower certification

International Sustainability and Carbon Certification (ISCC)

Other, please specify (Indonesian Sustainability Palm Oil (ISPO), Palm Oil Innovation Group Charter (POIG))

Conversion of natural ecosystems monitored during the reporting year, the last 5 years and/or since specified cutoff date

We have monitored conversion of natural ecosystems since specified cutoff date, please specify year (2007)

Area of natural ecosystems converted during the reporting year (hectares)

<Not Applicable>

Area of natural ecosystems converted since specified cutoff date (hectares)

0

Area of natural ecosystems converted during the last 5 years (hectares)

<Not Applicable>

Please explain

In accordance with our Sustainability Policy, Musim Mas pledges to No Deforestation of High Carbon Stock (HCS) forests, No Conversion of High Conservation Value (HCV) areas, and No New Developments on Peatlands. Musim Mas conducts HCV and HCS assessments prior to all new land development following the requirements and definitions set out by the HCS Approach (HCSA) and the HCV Resource Network Assessor Licensing Scheme (ALS). We engage with HCV ALS accredited assessors for HCV assessments and have engaged with approved external assessors such as HCS Approach Registered Practitioner Organizations to lead our HCS evaluations, further ensuring the credibility of our HCV and HCS assessments. The list of our companies that have completed the HCV/HCS assessments can be found on these websites <https://hcvnetwork.org/find-report/> and <http://highcarbonstock.org/registered-hcsa-and-hcv-hcsa-assessments/>.

Forest risk commodity

Palm oil

Type of control

Scheme/Plasma smallholders

Country/Area

Indonesia

Land type

<Not Applicable>

Area (Hectares)

6656

% Area certified

89

Certification scheme

RSPO producer/grower certification

International Sustainability and Carbon Certification (ISCC)

Other, please specify (Palm Oil Innovation Group Charter (POIG))

Conversion of natural ecosystems monitored during the reporting year, the last 5 years and/or since specified cutoff date

We have monitored conversion of natural ecosystems since specified cutoff date, please specify year (2007)

Area of natural ecosystems converted during the reporting year (hectares)

<Not Applicable>

Area of natural ecosystems converted since specified cutoff date (hectares)

0

Area of natural ecosystems converted during the last 5 years (hectares)

<Not Applicable>

Please explain

In accordance with our Sustainability Policy, Musim Mas pledges to No Deforestation of High Carbon Stock (HCS) forests, No Conversion of High Conservation Value (HCV) areas, and No New Developments on Peatlands along its supply chain. Musim Mas conducts HCV and HCS assessments prior to all new land development following the requirements and definitions set out by the HCS Approach (HCSA) and the HCV Resource Network Assessor Licensing Scheme (ALS). We engage with HCV ALS accredited assessors for HCV assessments and have engaged with approved external assessors such as HCS Approach Registered Practitioner Organizations to lead our HCS evaluations, further ensuring the credibility of our HCV and HCS assessments. The list of our companies that have completed the HCV/HCS assessments can be found on these websites <https://hcvnetwork.org/find-report/> and <http://highcarbonstock.org/registered-hcsa-and-hcv-hcsa-assessments/>.

F1.4

(F1.4) Provide details on the land you control and/or manage that was not used for the production of your disclosed commodity(ies) in the reporting year.

Forest risk commodity

Palm oil

Country/Area

Indonesia

Type of control

Concession/lease

Land type

Set-aside land

Area (hectares)

28000

% covered by natural forests

0

Please explain

In accordance with our Sustainability Policy, Musim Mas pledges to No Deforestation of High Carbon Stock (HCS) forests, No Conversion of High Conservation Value (HCV) areas, and No New Developments on Peatlands. Musim Mas conducts HCV and HCS assessments prior to all new land development following the requirements and definitions set out by the HCS Approach (HCSA) and the HCV Resource Network Assessor Licensing Scheme (ALS). We engage with HCV ALS accredited assessors for HCV assessments and have engaged with approved external assessors such as HCS Approach Registered Practitioner Organizations to lead our HCS evaluations, further ensuring the credibility of our HCV and HCS assessments. The list of our companies that have completed the HCV/HCS assessments can be found on these websites <https://hcvnetwork.org/find-report/> and <http://highcarbonstock.org/registered-hcsa-and-hcv-hcsa-assessments/>. Further information on conservation can be found at <https://www.musimmas.com/sustainability/environmental-protection/>.

F1.5

(F1.5) Does your organization collect production and/or consumption data for your disclosed commodity(ies)?

	Data availability/Disclosure
Timber products	<Not Applicable>
Palm oil	Production data available, disclosing
Cattle products	<Not Applicable>
Soy	<Not Applicable>
Other - Rubber	<Not Applicable>
Other - Cocoa	<Not Applicable>
Other - Coffee	<Not Applicable>

F1.5a

(F1.5a) Disclose your production and/or consumption figure, and the percentage of commodity volumes verified as deforestation- and/or conversion-free.

Forest risk commodity

Palm oil

Data type

Production data

Commodity production/ consumption volume

843293

Metric for commodity production/ consumption volume

Metric tons

Data coverage

Full commodity production/consumption

Have any of your reported commodity volumes been verified as deforestation- and/or conversion-free?

Yes

% of reported volume verified as deforestation- and/or conversion-free

86

Please explain

The verified volume corresponds to RSPO-certified CPO volumes of our own operations, ensuring the credibility and transparency of our sustainability practices and sourcing areas.

F1.5b

(F1.5b) For your disclosed commodity(ies), indicate the percentage of the production/consumption volume sourced by national and/or sub-national jurisdiction of origin.

Forest risk commodity

Palm oil

Country/Area of origin

Indonesia

State or equivalent jurisdiction

Specify state/equivalent jurisdiction (Riau Province)

% of total production/consumption volume

33.03

Please explain

Percentage of palm oil produced in Riau Province compared to total Musim Mas production.

Forest risk commodity

Palm oil

Country/Area of origin

Indonesia

State or equivalent jurisdiction

Specify state/equivalent jurisdiction (North Sumatra Province)

% of total production/consumption volume

6.77

Please explain

Percentage of palm oil produced in North Sumatra Province compared to total Musim Mas production.

Forest risk commodity

Palm oil

Country/Area of origin

Indonesia

State or equivalent jurisdiction

Specify state/equivalent jurisdiction (West Sumatra Province)

% of total production/consumption volume

5.14

Please explain

Percentage of palm oil produced in West Sumatra Province compared to total Musim Mas production.

Forest risk commodity

Palm oil

Country/Area of origin

Indonesia

State or equivalent jurisdiction

Specify state/equivalent jurisdiction (South Sumatra Province)

% of total production/consumption volume

8.43

Please explain

Percentage of palm oil produced in South Sumatra Province compared to total Musim Mas production.

Forest risk commodity

Palm oil

Country/Area of origin

Indonesia

State or equivalent jurisdiction

Specify state/equivalent jurisdiction (Central Kalimantan Province)

% of total production/consumption volume

38.84

Please explain

Percentage of palm oil produced in Central Kalimantan Province compared to total Musim Mas production.

Forest risk commodity

Palm oil

Country/Area of origin

Indonesia

State or equivalent jurisdiction

Specify state/equivalent jurisdiction (West Kalimantan Province)

% of total production/consumption volume

7.79

Please explain

Percentage of palm oil produced in West Kalimantan Province compared to total Musim Mas production.

F1.5e

(F1.5e) How does your organization produce or consume biofuel derived from palm oil?

Does your organization produce or consume biofuel derived from palm oil?

Yes

Data type

Consumption

Volume produced/consumed

9809011

Metric

Liters

Country/Area of origin

Indonesia

State or equivalent jurisdiction

Specify state/equivalent jurisdiction (Sumatera and Kalimantan)

% of total production/consumption volume

100%

Does the source of your organization's biofuel material come from smallholders?

Yes

Comment

Since 2020, our mills have used biofuel as our fuel option.

F1.6

(F1.6) Has your organization experienced any detrimental forests-related impacts?

Yes

F1.6a

(F1.6a) Describe the forests-related detrimental impacts experienced by your organization, your response, and the total financial impact.

Forest risk commodity

Palm oil

Impact driver type

Reputational and markets

Primary impact driver

Shifts in consumer preference

Primary impact

Increased compliance costs

Description of impact

With the growing international agreements concerning deforestation and climate change, the implementation of stricter International and/or national regulations become inevitable. For example, the decision of the International market to pose stricter guidelines on the import of palm oil has impacted the market. Consequently, more customers have now preferred sustainably certified palm oil products and derivatives. With the variability of international regulations and decisions imposed on the palm oil sector, the financial impact on our business varies accordingly. Failure to comply may result in fines and/or loss of market. Hence, this poses a risk to Musim Mas operations.

Primary response

Implementation of environmental best practices in direct operations

Total financial impact

67000

Description of response

To mitigate the associated risk, Musim Mas initiates some measures such as:

- Achieve and maintain 100% sustainability certifications schemes such as RSPO, ISCC throughout our operations. Audited annually, these will serve as one of our sustainability benchmarks to keep track of our sustainability progress. As of 2021, all 15 integrated mills have been RSPO certified. Additionally, Musim Mas is actively collaborating with certification bodies through working groups to not only boost our sustainability practices but also ensure sustainability compliance at the highest level. For example, took part in the ISCC working group to contribute to the current principles and standards
- Conduct HCV/HCS assessments for all our plantation units to ensure compliance with our NDPE, relevant regulations, and certifications schemes such as no conversion of the natural ecosystem
- Promote traceability tools such as the Self-Assessment (SAT) Tool to engage with suppliers and assess NDPE risks at the mill level. As of December 2021, 77% have completed the SAT
- Participates in several public assessments including CDP, SPOTT, Ecovadis, etc. In SPOTT 2021, through continuous improvement in our sustainability practice, we ranked 3rd out of 100 palm oil companies globally
- Annually published our sustainability progress through Sustainability Report

The financial impact corresponds to the HCV and HCS assessments cost per unit. To date, all our plantations have valid assessments.

F1.7

(F1.7) Indicate whether you have assessed the deforestation or conversion footprint for your disclosed commodities over the past 5 years, or since a specified cutoff date, and provide details.

Forest risk commodity

Palm oil

Have you monitored or estimated your deforestation/conversion footprint?

Yes, we estimate deforestation/conversion footprint based on sourcing area

Coverage

Full consumption volume

Reporting deforestation/conversion since a specified cutoff date or during the last five years?

Since a specified cutoff date, please specify year (2007)

Known or estimated deforestation/ conversion footprint (hectares)

0

Describe methods and data sources used to monitor or estimate deforestation/ conversion footprint

In the NDPE policy, Musim Mas has publicly committed to No Deforestation of High Carbon Stock (HCS) forests, no conversion of High Conservation Value (HCV) areas, and no new developments on peatlands (regardless of depth) after 31 December 2015 (no development on peat since 2014 for our own operations). Musim Mas conducted HCS and HCV assessments through verified external parties to identify the HCV and HCS areas. To monitor deforestation, Musim Mas also uses tools such as RADD, Earthqualizer platform, Satellite Images as well as on-site observation such as daily patrol. Monthly reports from both Citra Satellite and onsite patrol are available to ensure proper documentation and no deforestation. Moreover, Earthqualizer also provides bi-weekly reports. For more information, please refer to <https://www.musimmas.com/sustainability/environmental-protection/>.

F2. Procedures

F2.1

(F2.1) Does your organization undertake a forests-related risk assessment?

Yes, forests-related risks are assessed

F2.1a

(F2.1a) Select the options that best describe your procedures for identifying and assessing forests-related risks.

Palm oil

Value chain stage

Direct operations
Supply chain

Coverage

Full

Risk assessment procedure

Assessed as part of other company-wide risk assessment system

Frequency of assessment

More than once a year

How far into the future are risks considered?

> 6 years

Tools and methods used

Internal company methods
External consultants
Global Forest Watch Pro
Sustainability Policy Transparency Toolkit (SPOTT)
National specific tools and databases
Jurisdictional/landscape assessment
Other, please specify (Controlled Purchase Protocol (CPP), Musim Mas Self - Assessment Tool (SAT), High Conservation Value Assessment (HCV), High Carbon Stock Assessment (HCSA))

Issues considered

Availability of forest risk commodities
Quality of forests risk commodities
Impact of activity on the status of ecosystems and habitats
Regulation
Climate change
Loss of markets
Brand damage related to forests risk commodities
Social impacts

Stakeholders considered

Customers
Employees
Investors
Local communities
NGOs
Regulators
Suppliers

Please explain

Following the COP26 climate summit, one of the key goals is to protect communities and natural habitats leading to key issues such as deforestation. Musim Mas adheres to various certification schemes such as RSPO and ISPO, allowing us to track our sustainability practices such as NDPE. Since palm oil is the primary commodity of Musim Mas, this poses risks to our operations as failure to comply may result in loss of markets, fines, etc. For this, Musim Mas applies the followings:

- We have dedicated teams to ensure adherence to certification schemes such as RSPO PnCs where annual audits are conducted. As of 2021, all 15 of our integrated mills have been RSPO certified. Additionally, to communicate our sustainability progress to customers, Musim Mas participates in several public assessments including SPOTT, Ecovadis, etc. In SPOTT 2021, we ranked 3rd out of 100 palm oil companies globally.
- To ensure top-down NDPE compliance, suppliers are to complete Self-Assessment Tool (SAT) which is an exhaustive set of questions against our NDPE requirements. This evaluation enables suppliers to self-declare information about their operations which allows Musim Mas to identify potential risk areas at the mill level. As of December 2021, 77% of our suppliers have completed their assessments
- In case of complaints, Grievance Channels and Controlled Purchase Protocol (CPP) are available to resolve issues, secure remedy and remediation, and exclude errant suppliers as the last resort. If there is an allegation of NDPE violation across our supply chain, we will study the allegation through internal tools as well as publicly available tools such as satellite monitoring (GRASS, GFW). If a breach of the NDPE policy is confirmed, we will engage with the relevant suppliers in question. Moreover, Musim Mas collaborates with Earthqualizer to monitor deforestation in all of our suppliers and own concessions with bi-weekly reports available. In 2021, no supplier was excluded due to NDPE commitment breaches
- Together with IFC, we developed and implemented the program in North Sumatra and Riau. As of 2021, we have trained 36,681 ISH with 2,295 achieved RSPO certification. Moreover, we involve in various landscape approaches such as Aceh
- Annually, we publicly communicate our sustainability progress through the Sustainability report (<https://www.musimmas.com/sustainability-report/>)

F2.2

(F2.2) For each of your disclosed commodity(ies), has your organization mapped its value chains?

	Value chain mapping	Primary reason for not mapping your value chain	Explain why your organization does not map its value chain and outline any plans to introduce it
Timber products	<Not Applicable>	<Not Applicable>	<Not Applicable>
Palm oil	Yes, we have mapped the entire value chain	<Not Applicable>	<Not Applicable>
Cattle products	<Not Applicable>	<Not Applicable>	<Not Applicable>
Soy	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Rubber	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Cocoa	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Coffee	<Not Applicable>	<Not Applicable>	<Not Applicable>

F2.2a

(F2.2a) Provide details of your organization’s value chain mapping for its disclosed commodity(ies).

Forest risk commodity

Palm oil

Scope of value chain mapping

- Own operations
- Tier 1 suppliers
- Tier 2 suppliers
- Smallholders

% of total suppliers covered within selected tier(s)

100

Description of mapping process and coverage

We are working with our direct suppliers in various aspects including engagement to our NDPE policy. In 2019, we began trialling NDPE Implementation Reporting Framework (IRF) to track progress on deforestation/peat commitments of suppliers. Moreover, we also conduct workshops on NDPE commitments along with Musim Mas Self-Assessment Tool (SAT). We are also working with the Consortium of Resource Experts (CORE) – Proforest and Daemeter – on implementing NDPE commitments, the Extension Services Programme and landscape collaborations. As of 2021, 93% of suppliers have either an NDPE policy or adopted the Musim Mas Sustainability Policy. More on NDPE engagement can be found at <https://www.musimmas.com/sustainability/third-party-suppliers/> and a list of our suppliers can be found at <https://www.musimmas.com/sustainability/traceability/>.

Your own production and primary processing sites: attach a list of facility names and locations (optional)

Your suppliers’ production and primary processing sites: attach a list of names and locations (optional)

F3. Risks and opportunities

F3.1

(F3.1) Have you identified any inherent forests-related risks with the potential to have a substantive financial or strategic impact on your business?

	Risk identified?
Timber products	<Not Applicable>
Palm oil	Yes
Cattle products	<Not Applicable>
Soy	<Not Applicable>
Other - Rubber	<Not Applicable>
Other - Cocoa	<Not Applicable>
Other - Coffee	<Not Applicable>

F3.1a

(F3.1a) How does your organization define substantive financial or strategic impact on your business?

Musim Mas defines substantive financial impact as impacts that significantly affect and disrupt our supply chains which in turn affect the financial performance of the company. Its definition is further detailed as follows:

- Any impact that could potentially inflict financial loss around 10 percent or higher of current EBITDA estimates.
- Any climatic event that will drastically affect the yield and productivity of oil palm crop as well as palm oil supply.
- Any drastic drop in supply (of raw materials) of 20 percent or more, which affects our production cost as well as production volume.

Recognising the forest-related risks, Musim Mas implements a robust corporate governance and risk management framework to continuously monitor, identify, and manage the arising risks. This framework is managed and aligned with our NDPE and sustainability policies which include no deforestation, no peatland development regardless of its depth, waste management, traceability to plantations, etc.

F3.1b

(F3.1b) For your disclosed forest risk commodity(ies), provide details of risks identified with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Forest risk commodity

Palm oil

Type of risk

Acute physical

Geographical scale

Country

Where in your value chain does the risk driver occur?

Direct operation

Supply chain

Primary risk driver

Drought

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

The occurrence of extreme weather such as drought and flood can lower the productivity of our operations and disrupt our palm oil sales, which in turn, affects the performance of the company. In 2015, Indonesia experienced the climatic phenomenon of El Nino. The El Nino phenomenon has led to lower rainfalls and higher temperatures contributing to drought stress for crops including oil palm crops. Our data suggested that a prolonged drought can lower the FFB yield by approximately 15%. Moreover, prolonged drought may also increase the risk of fire. Other extreme weather occurrences such as floods can affect the fertilizer application schedule, leading to a lower yield. Thus, this poses risks to Musim Mas.

Timeframe

>6 years

Magnitude of potential impact

Medium-high

Likelihood

About as likely as not

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact (currency)

<Not Applicable>

Potential financial impact figure - minimum (currency)

2975

Potential financial impact figure - maximum (currency)

3570

Explanation of financial

Adverse weather conditions can have significant impacts on the productivity of our operations, specifically, prolonged drought or floods that occur over several weeks. Our average CPO yield is estimated to be in the range of 5-6 MTCPO/ha. Hence, taking a reduction of yield by 15% due to extreme weather (i.e. prolonged drought), CPO production can drop to 4.25 - 5.1 MTCPO/ha (or lowered by 0.75 - 0.9 MTCPO/ha). Consequently, taking an average CPO price (2019-2021) of USD 700/MTCPO, the potential financial impact varies between USD 2975 - USD 3570 per hectare.

Primary response to risk

Implementation of environmental best practices in direct operations

Description of response

Best management practices and operating procedures are carried out to alleviate the impacts of extreme weather scenarios, these practices include:

- Improvement of soil management through the implementation of best agri-practices. For example, stems and leaves from our plantations are mulched and applied as organic fertilizer. Dried decanter solids and boiler ash from our mills are repurposed as organic fertilizer at our plantations. This is to improve the soil nutrition and soil moisture retention capability and to ameliorate the drought effects
- Utilising POME as an irrigant and organic fertilizer to help alleviate the impacts of water scarcity during extreme weather phenomena such as El Nino
- Construction of water pond in our upstream operations areas as water reserves to mitigate the risk of a long drought
- Satellite monitoring such as MODIS, NOAA, and GRASS is used to monitor for hotspots at and around our concessions. We also provide training and equip firefighting teams at our plantations to take action at the first sign of an outbreak. In 2021, we conducted 161 fire trainings in 74 villages covered by the FFVP and rewarded 42 villages for remaining fire-free. Moreover, zero burning policy and fire management practices are socialised and implemented in Musim Mas. For example, we installed fire breaks to slow the spread, should a fire occur

To ensure transparency, we annually communicate our sustainability practices and progress through the Sustainability Report.

Cost of response

200000

Explanation of cost of response

The construction of a water pond with a volume of approximately 1200m3 is estimated to cost around \$700. The financial impact figure corresponds to the construction of water ponds in our MMG operations. The cost of construction can vary depending on the location, soil type, and the size of the water pond.

F3.2

(F3.2) Have you identified any forests-related opportunities with the potential to have a substantive financial or strategic impact on your business?

	Have you identified opportunities?
Timber products	<Not Applicable>
Palm oil	Yes
Cattle products	<Not Applicable>
Soy	<Not Applicable>
Other - Rubber	<Not Applicable>
Other - Cocoa	<Not Applicable>
Other - Coffee	<Not Applicable>

F3.2a

(F3.2a) For your selected forest risk commodity(ies), provide details of the identified opportunities with the potential to have a substantive financial or strategic impact on your business.

Forest risk commodity

Palm oil

Type of opportunity

Products & services

Where in your value chain does the opportunity occur?

Direct operation

Supply chain

Primary forests-related opportunity

Increased brand value

Company-specific description & strategy to realize opportunity

Increasing brand value through sustainability certifications and environmental disclosure is beneficial for our business performance. Musim Mas participates in many public assessments and benchmarking programs including CDP, Ecovadis, SPOTT, and PROPER to rate our sustainability commitments and progress at the highest level. Furthermore, third-party certifications such as RSPO, ISCC, POIG, etc verify that audits have been conducted independently, thus, ensuring proper implementation and compliance with the principles and criteria of the respective sustainability certification schemes. Our operations are audited and benchmarked annually against the principles and guidelines of respective certifications. Considering the vastly dynamic principles and guidelines of the sustainability certifications, dedicated teams are established to ensure continual adherence to the respective schemes. Regular training and workshops are also conducted to ensure adherence to the latest schemes. As of 2021, All 15 integrated mills have been RSPO certified and POIG verified. Moreover, our mills are also fully in compliance with the ISPO, ISCC, and ITSNC certification schemes, proving our commitment to implementing our NDPE and sustainability practices into our operations. Through improvement in our sustainability practices, we ranked 3rd out of 100 global palm oil companies in SPOTT 2021, rising from the 6th in the previous year. To ensure transparency, we annually communicate our sustainability progress, milestones, and targets through the Sustainability report (<https://www.musimmas.com/sustainability-report/>).

Estimated timeframe for realization

1-3 years

Magnitude of potential impact

Medium

Likelihood

Likely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

9000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

As customers are becoming more aware of the importance of sustainability practices, the preferences in the market toward sustainably labelled products have increased. It is assumed that the increase in brand value is in line with the potential increase in sales of certified palm oil. The potential financial impact figure is then derived from (A) the estimated year-to-year increase in sales of certified palm oil by 2% and (B) the estimated revenue from sales of certified palm oil. In 2021, the sales of certified palm are estimated to represent around 450 million USD. Hence, the potential financial impact figure is estimated to be $A \times B = \text{USD } 9 \text{ million}$.

Forest risk commodity

Palm oil

Type of opportunity

Resilience

Where in your value chain does the opportunity occur?

Direct operation

Supply chain

Primary forests-related opportunity

Ensuring supply chain resilience

Company-specific description & strategy to realize opportunity

Stakeholders such as customers and investors are becoming more conscious of deforestation, climate change, and other sustainability topics. Therefore, transparency is

important to increase reputation which will lead to an increase in sales and revenue. To effectively communicate and ensure sustainability transparency, we produce a Sustainability Report annually which contained a comprehensive, detailed, and transparent overview of our business and ongoing sustainability efforts, including a materiality matrix (<https://www.musimmas.com/sustainability-report/>).

Conducting traceability exercises enables us to understand where and how oil palm fruits or fresh fruit bunches (FFB) are produced and thus increase our supply chain transparency. Musim Mas carries out due diligence on all new suppliers before being accepted as our suppliers to check whether it complies with our sustainability and NDPE policies. In the due diligence process, we also assess the commitment and implementation of emissions in the supplier's operation. Our suppliers are enrolled in our engagement process. Recognizing the importance of traceability in our operations, since 2015, we have achieved 100% traceability to mill with 94% of the total supply to plantation being traceable in 2021. We are on track and gearing toward 100% traceability to plantation by 2025. Moreover, we engage and work closely with both our third-party supplier groups and independent smallholders. For example, besides training and workshops, suppliers are to complete the Musim Mas Self-Assessment Tool (SAT) which is an exhaustive set of questions against our NDPE requirements. This evaluation enables suppliers to self-declare information about their operations which allows Musim Mas to identify potential risk areas at the mill level. As of December 2021, 77% of our suppliers have completed their assessments. Through these initiatives, we can work towards eliminating all deforestation and ensuring traceability within our supply chains, thus ensuring compliance with our strict sourcing policies. Our traceability progress can be found on <https://www.musimmas.com/sustainability/traceability/>.

Estimated timeframe for realization

1-3 years

Magnitude of potential impact

Medium

Likelihood

Likely

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

As Musim Mas is a private company, the financial impact is yet to be publicly disclosed.

F4. Governance

F4.1

(F4.1) Is there board-level oversight of forests-related issues within your organization?

Yes

F4.1a

(F4.1a) Identify the position(s) of the individual(s) (do not include any names) on the board with responsibility for forests-related issues.

Position of individual	Please explain
Director on board	The director on board, senior management, and relevant sustainability teams meet quarterly to assess and review key ESG issues including overseeing and monitoring forest-related risks and opportunities such as deforestation, landscape restoration, conservation, and wildlife protection. In 2020, the board approved the collaboration with the South East Asia Rainforest Research Partnership (SEARRP), a Borneo-based scientific research facility, to quantify our conservation efforts and review our management and monitoring plans. For more information on the collaboration, please refer to https://www.musimmas.com/how-can-we-support-biodiversity-in-oil-palm-landscapes/ .

F4.1b

(F4.1b) Provide further details on the board's oversight of forests-related issues.

	Frequency that forests-related issues are a scheduled agenda item	Governance mechanisms into which forests-related issues are integrated	Please explain
Row 1	Scheduled - all meetings	Monitoring implementation and performance Overseeing acquisitions and divestiture Overseeing major capital expenditures Providing employee incentives Reviewing and guiding annual budgets Reviewing and guiding business plans Reviewing and guiding corporate responsibility strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding strategy Reviewing innovation / R&D priorities Setting performance objectives	During the quarterly meeting, the sustainability committees will brief the board on the current state of sustainability of the industry and the progress of Musim Mas sustainability initiatives such as RSPO, ISPO, ISCC certification schemes, POIG verification, supply chain traceability, landscape approach progress, etc. The committee will also bring up any complaints or grievances that the company has received regarding sustainability to discuss the potential paths to resolution. The board will also discuss potential new sustainability initiatives that can be undertaken with other stakeholders.

F4.1d

(F4.1d) Does your organization have at least one board member with competence on forests-related issues?

Row 1

Board member(s) have competence on forests-related issues

Yes

Criteria used to assess competence on forests-related issues

Musim Mas is fully committed to implementing sustainability practices at the highest level across our operations. Our board member is extensively involved with the latest forest-related issues and standards. As such, he co-chaired the Standing Committee for Standards and has been actively involved in the RSPO over the years, co-chaired the Biodiversity and HCV working group, the Compensation task force, and previously represented Growers from the Pacific at the Board. Moreover, he is a member of the High Carbon Stock Approach Executive Committee. Accordingly, sustainability achievements such as full and beyond compliance with international certification schemes including RSPO, ISCC, POIG, ISPO, and ITSNC principles and guidelines are continuously maintained and recently ranked 3rd out of 100 global palm oil companies in SPOTT 2021.

Primary reason for no board-level competence on forests-related issues

<Not Applicable>

Explain why your organization does not have at least one board member with competence on forests-related issues and any plans to address board-level competence in the future

<Not Applicable>

F4.2

(F4.2) Provide the highest management-level position(s) or committee(s) with responsibility for forests-related issues (do not include the names of individuals).

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on forests-related issues	Please explain
Other C-Suite Officer, please specify (Director of Sustainability)	Both assessing and managing forests-related risks and opportunities	More frequently than quarterly	In the sustainability governance structure, the Director of Sustainability is reporting to the Board of Directors. The Director of Sustainability delegates and oversees the implementation and execution of our sustainability policy commitments, and an external senior strategic advisor supports their work. The forest-related issues reported include but are not limited to standards and certifications, impact and monitoring, and assurance and compliance. In all, the objectives are to address climate-related issues including forest-related ones and manage environmental strategies into the core of our business.

F4.3

(F4.3) Do you provide incentives to C-suite employees or board members for the management of forests-related issues?

	Provide incentives for management of forests-related issues	Comment
Row 1	Yes	Yes, we do provide incentives for the board members.

F4.3a

(F4.3a) What incentives are provided to C-Suite employees or board members for the management of forests-related issues (do not include the names of individuals)?

	Role(s) entitled to incentive?	Performance indicator	Please explain
Monetary reward	Director on board	Achievement of commitments and targets Supply chain engagement	Our Director on board oversees and resolves any sustainability matter including forest-related issues such as conservation of biodiversity, High Conservation Value (HCV), High Carbon Stock (HCS), traceability, NDPE risk management framework, smallholders engagement, landscape approaches, grievances as well as supply chain engagement. Additionally, Director on board develops forest management programs and action plans related to conservation initiatives at the group level. Our Director on Board works and is evaluated annually based on the Key Performance Indicator (KPI) where compensation and benefits are awarded accordingly. Examples of performance indicators include but are not limited to full compliance with NDPE, HCV, and HCS guidelines as well as RSPO NPP. Others include awards and recognitions related to sustainability such as the SPOTT ranking, CDP scorecard, and Ecovadis scorecard. Among many, these indicators were selected as they are aligned with the company's vision and they allow Musim Mas to objectively quantify the progress of the company in the field of sustainability including forest management. Musim Mas uses progress toward its sustainability targets as the threshold of success. For example, full traceability coverage of all third-party mills with augmented village-based risk traceability methodology by 2025. Therefore, incentives are provided if progress is either linear to the overall target or exceeds a linear trend.
Non-monetary reward	Director on board	Achievement of commitments and targets Supply chain engagement	Our Director on board oversees and resolves any sustainability matter including forest-related issues such as conservation of biodiversity, High Conservation Value (HCV), High Carbon Stock (HCS), traceability, NDPE risk management framework, smallholders engagement, landscape approaches, grievances as well as supply chain engagement. Additionally, Director on board develops forest management programs and action plans related to conservation initiatives at the group level. Our Director on Board works and is evaluated annually based on the Key Performance Indicator (KPI) where compensation and benefits are awarded accordingly. These indicators were selected as they are aligned with the company's vision and they allow Musim Mas to objectively quantify the progress of the company in the field of sustainability including forest management. In complement to the monetary reward, non-monetary reward such as special assignment is also given to those who perform. They are given the authority to form, develop, and budget projects/teams/action plans to improve the key performance indicators. Musim Mas uses progress toward its sustainability targets as the threshold of success, therefore incentives are provided if progress is either linear to the overall target or exceeds a linear trend. Examples of performance indicators include but are not limited to full compliance with HCV and HCS guidelines as well as RSPO NPP. Others include awards and recognitions related to sustainability such as the SPOTT ranking, CDP scorecard, and Ecovadis scorecard.

F4.4

(F4.4) Did your organization include information about its response to forests-related risks in its most recent mainstream financial report?

Yes (you may attach the report – this is optional)

Musim-Mas-Sustainability-Report-2020.pdf

Musim Mas is a private company, and we do not publish financial report. However, we do include information about our response to forest-related risks in our Sustainability Report. We attached our Sustainability Report for 2020, forest-related discussion can be found in page 34-42.

F4.5

(F4.5) Does your organization have a policy that includes forests-related issues?

Yes, we have a documented forests policy that is publicly available

F4.5a

(F4.5a) Select the options to describe the scope and content of your policy.

	Scope	Content	Please explain
Row 1	Company-wide	Commitment to eliminate conversion of natural ecosystems Commitment to no land clearance by burning or clearcutting Commitment to eliminate deforestation Commitment to no deforestation, to no planting on peatlands and to no exploitation (NDPE) Commitment to	Our Sustainability Policy covers our entire global operations, including that of our third-party suppliers. First launched in 2014, the Policy established the framework for our no deforestation, no peat, and no exploitation (NDPE) commitments. To ensure continuous compliance with local, national, and international laws, we actively review our policies with the scheduled substantial revisions occurring on a 5-year cycle. Dedicated teams are established to regularly review and update the current sustainability policy. In September 2020, Musim Mas updated the Policy, which lays out a renewed and deepened commitment to improving the livelihoods of smallholders, workers, and communities; while maintaining a strict stance on NDPE. The new Policy focuses primarily on our suppliers and aims to strengthen the sustainability of small and mid-sized supplier groups and smallholders. We will continue to track our progress against the Supplier NDPE Roadmap and report these through public platforms such as the Sustainability Reports. The following are the key pillars of our Policy, which rest on the core components of sustainability – people, planet, and profit. They are: 1. Improve the lives of smallholders, workers, and communities 2. Deliver positive environmental impact, including but not limited to No deforestation of the High Conservation Value (HCV) area and High Carbon Stock (HCS) forest, No development of peatland regardless of depth 3. Maintain responsible and enduring relationships with suppliers, customers, and stakeholders 4. Driving innovation in sustainable practices These pillars are incorporated into our daily operations through standard operating procedures (SOPs), due diligence, and verification procedures or subsidiary policies. Immediate actions will be undertaken to address any non-conformances to our policy. To communicate and ensure consistency with our sustainability policy, we report our annual sustainability progress through the Sustainability report in alignment with the GRI reporting standard. This report contains our sustainability milestones, targets, action plans, and other objectives, such as landscape strategies and jurisdictional approaches. For more information, please refer to https://www.musimmas.com/sustainability-report/ . and http://www.musimmas.com/sustainability/sustainability-policy .

Scope	Content	Please explain
	<p>restoration and/or compensation of past harms</p> <p>Commitment to best management practices for soils and peat</p> <p>Commitment to take action beyond own supply chain to tackle environmental issues</p> <p>Commitment to resolving both social and environmental issues in own operations and supply chain</p> <p>Commitment to protect rights and livelihoods of local communities</p> <p>Commitments beyond regulatory compliance</p> <p>Commitment to transparency</p> <p>Commitment to stakeholder awareness and engagement</p> <p>Commitment to align with the SDGs</p> <p>Recognition of the overall importance of forests and other natural ecosystems</p> <p>Description of business dependency on forests</p> <p>Recognition of potential business impact on forests and other natural ecosystems</p> <p>Description of forest risk commodities, parts of the business, and stages of value-chain covered by the policy</p> <p>List of timebound milestones and targets</p> <p>Description of forests-related performance standards for direct operations</p> <p>Description of forests-related standards for procurement</p>	

Scope	Content	Please explain
NDPE-Risk-Management-Framework-Report-2021.pdf Musim-Mas-Controlled-Purchase-Protocol.pdf Musim-Mas-2020-Sustainability-Policy-1.pdf Musim-Mas-Sustainability-Report-2020.pdf		

F4.5b

(F4.5b) Do you have commodity specific sustainability policy(ies)? If yes, select the options that best describe their scope and content.

	Do you have a commodity specific sustainability policy?	Scope	Content	Please explain
Timber products	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Palm oil	Yes	Company-wide	<p>Commitment to eliminate conversion of natural ecosystems</p> <p>Commitment to no land clearance by burning or clearcutting</p> <p>Commitment to eliminate deforestation</p> <p>Commitment to no deforestation, to no planting on peatlands and to no exploitation (NDPE)</p> <p>Commitment to remediation, restoration and/or compensation of past harms</p> <p>Commitment to protect rights and livelihoods of local communities</p> <p>Commitments beyond regulatory compliance</p> <p>Commitment to transparency</p> <p>Commitment to best management practices for soils and peat</p> <p>Commitment to take action beyond own supply chain to tackle environmental issues</p> <p>Commitment to resolving both social and environmental</p>	<p>Our Sustainability Policy covers our entire global operations, including that of our third-party suppliers. First launched in 2014, the Policy established the framework for our no deforestation, no peat, and no exploitation (NDPE) commitments. To ensure continual compliance with local, national, and international laws, we actively review our policies with the scheduled substantial revisions occurring on a 5-year cycle. Dedicated teams are established to regularly review and update the current sustainability policy. In September 2020, Musim Mas updated the Policy, which lays out a renewed and deepened commitment to improving the livelihoods of smallholders, workers, and communities; while maintaining a strict stance on NDPE. The new Policy focuses primarily on our suppliers and aims to strengthen the sustainability of small and mid-sized supplier groups and smallholders. We will continue to track our progress against the Supplier NDPE Roadmap and report these through public platforms such as the Sustainability Reports. The following are the key pillars of our Policy, which rest on the core components of sustainability – people, planet, and profit. They are:</p> <ol style="list-style-type: none"> 1. Improve the lives of smallholders, workers, and communities 2. Deliver positive environmental impact, including but not limited to No deforestation of the High Conservation Value (HCV) area and High Carbon Stock (HCS) forest, No development of peatland regardless of depth 3. Maintain responsible and enduring relationships with suppliers, customers, and stakeholders 4. Driving innovation in sustainable practices <p>These pillars are incorporated into our daily operations through standard operating procedures (SOPs), due diligence, and verification procedures or subsidiary policies. Immediate actions will be undertaken to address any non-conformances to our policy. To communicate and ensure consistency with our sustainability policy, we report our annual sustainability progress through the Sustainability report in alignment with the GRI reporting standard. This report contains our sustainability milestones, targets, action plans, and other objectives, such as landscape strategies and jurisdictional approaches. For more information, please refer to https://www.musimmas.com/sustainability-report/. and http://www.musimmas.com/sustainability/sustainability-policy.</p>

	Do you have a commodity specific sustainability policy?	Scope	Content of own operations and supply chain Commitment to	Please explain
			stakeholder awareness and engagement Commitment to align with the SDGs Recognition of the overall importance of forests and other natural ecosystems Description of business dependency on forests Recognition of potential business impact on forests and other natural ecosystems Description of forest risk commodities, parts of the business, and stages of value-chain covered by the policy List of timebound commitments and targets Description of forests-related performance standards for direct operations Description of forests-related standards for procurement	
Cattle products	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Soy	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Rubber	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Cocoa	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Coffee	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>

NDPE-Risk-
 Management-
 Framework-
 Report-
 2021.pdf
 Musim-Mas-
 Controlled-
 Purchase-
 Protocol.pdf
 Musim-Mas-
 2020-
 Sustainability-
 Policy-1.pdf
 Musim-Mas-
 Sustainability-
 Report-
 2020.pdf

(F4.6) Has your organization made a public commitment to reduce or remove deforestation and/or forest degradation from its direct operations and/or supply chain?

Yes

NDPE-Risk-Management-Framework-Report-2021.pdf

Musim-Mas-Controlled-Purchase-Protocol.pdf

Musim-Mas-2020-Sustainability-Policy-1.pdf

Musim-Mas-Sustainability-Report-2020.pdf

F4.6a

(F4.6a) Has your organization endorsed any of the following initiatives as part of its public commitment to reduce or remove deforestation and/or forest degradation?

New York Declaration on Forests

Tropical Forest Alliance

Other, please specify (Palm Oil Innovation Group (POIG), Roundtable on Sustainability Palm Oil (RSPO), International Sustainability Carbon Certification (ISCC), Italian National Sustainability Certification System (ITNSC))

F4.6b

(F4.6b) Provide details on your public commitment(s), including the description of specific criteria, coverage, and actions.

Forest risk commodity

Palm oil

Criteria

No conversion of natural ecosystems
Zero gross deforestation/ no deforestation
No new development on peat regardless of depth
Best management practices for existing cultivation on peat
Restoration and compensation to address past deforestation and conversion
Avoidance of negative impacts on threatened and protected species and habitats
No trade of CITES listed species
No land clearance by burning or clearcutting
No conversion of High Conservation Value areas
No conversion of High Carbon Stock forests
Collaborate in landscapes/jurisdictions to progress shared sustainable land use goals
Implementation of Nature-based Solutions that support landscape restoration and long-term protection of natural ecosystems
Secure Free, Prior and Informed Consent (FPIC) of indigenous people and local communities
Operations are in accordance with the UN Declaration on the Rights of Indigenous Peoples
Promotion of gender equality and women's empowerment
Remediate any adverse impacts on indigenous people and local communities
Adoption of the UN International Labour Organization principles
Resolution of complaints and conflicts through an open, transparent and consultative process
Facilitate the inclusion of smallholders into the supply chain
Build community capacity and incentivize engagement in multi-stakeholder processes
No sourcing of illegally produced and/or traded forest risk commodities
No sourcing of forest risk commodities from unknown/controversial sources
Restricting the sourcing and/or trade of forest risk commodities to credible certified sources
Recognition of legal and customary land tenure rights

Operational coverage

Direct operations and supply chain

% of total production/ consumption covered by commitment

100%

Cutoff date

2014

Commitment target date

2021-25

Please explain

Following our sustainability policy, Musim Mas pledges to No Deforestation of High Carbon Stock (HCS) forests, No Conversion of High Conservation Value (HCV) areas, No Developments on Peatlands regardless of depth, and Zero Burning policy.

Following our Sustainability Policy of Pillar 1 and RSPO guidelines, Musim Mas respects the rights of smallholders' prerogative to grant or withhold Free, Prior and Informed Consent (FPIC) for all new developments or conservation areas which may affect indigenous peoples' and local communities' rights, land, resources, territories, livelihoods, and food security, and providing a remedy in cases where existing operations have caused harm. Prior to any new development, we carry out rigorous assessments and follow the process outlined in the RSPO New Planting Procedure (NPP), including observing FPIC through consultation and negotiation with all affected communities. In 2021, we submitted an RSPO NPP implementation plan for 1,467 hectares that were designated for future planting. In case of complaints, Grievance Channels and Controlled Purchase Protocol (CPP) are available to resolve issues in a methodological and transparent manner. In addition to local communities and smallholders, Musim Mas is also committed to improve the livelihood of our workers. In 2021, Musim Mas collaborated with Verité to conduct an independent labour compliance assessment to identify risks of non-conformance to POIG's Charter, RSPO PnC, Verité Best Practice Standards and other international norms on worker protection and OSH.

Once we have assessed and identified our HCV and HCS areas through verified external parties, we then use dedicated conservation management and monitoring plans to safeguard our conservation areas. In 2021, our conservation area is now amounting to approximately 28,000 hectares. Conservation and protection measures include restoring areas that are degraded and managing riparian buffer zones, regularly conducting biodiversity surveys by our conservation teams, patrolling grounds and monitoring for encroachment through satellite surveillance to prevent illegal development and hunting. We strictly prohibit the hunting of rare, threatened and endangered species and educate workers, families and communities on the importance of conservation. Surrounding communities are also involved in designating these areas and play a part in developing and executing conservation management plans. In 2020, we collaborated with the South East Asia Rainforest Research Partnership (SEARRP), a Borneo-based scientific research facility that has expertise in habitat restoration and sustainable plantation management. Through this partnership, we aim to quantify our conservation efforts and review our management and monitoring plans across Central Kalimantan, West Kalimantan, and Sumatra

Through various monitoring methods such as Earthqualizer and the RADD satellite monitoring platform, as of 2021, we monitor more than nine million hectares across Indonesia and Malaysia covering all of our suppliers for deforestation and peat development. If our supplier is found to be noncompliant with the NDPE policy, we will engage with the supplier in question and exclude them if necessary. In case of complaints, Grievance Channels and Controlled Purchase Protocol (CPP) are available to resolve issues in a methodological and transparent manner. Presently, we have achieved 100% traceability to mill since 2015 and 94% traceability to plantation in 2021. We are on track to achieve 100% full traceability to plantation by December 2025. Moreover, suppliers are to complete the Self-Assessment Tool (SAT) which is an exhaustive set of questions against our NDPE requirements. As of December 2021, 77% of our suppliers have completed their assessments. In Q4 2021, we published our No Deforestation, No Peat (NDP) Risk Management Framework to address the risks of deforestation and peat development on our operations and those of our suppliers.

F5. Business strategy

F5.1

(F5.1) Are forests-related issues integrated into any aspects of your long-term strategic business plan, and if so how?

	Are forests-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, forests-related issues are integrated	11-15	<p>Recognising the impact of forest-related issues, Musim Mas announced its sustainability policy in 2014 with the latest update in 2020 covering our global operations including suppliers. As a member of the POIG, RSPO, ISPO, ISCC, and HCSA, Musim Mas pledges to No Deforestation of High Carbon Stock (HCS) forests, No Conversion of High Conservation Value (HCV) areas, No Development on Peatlands regardless of depth, and Zero Burning policy.</p> <p>To ensure NDPE commitments, our operations are certified by various third-party certification schemes such as RSPO and ISCC. These certifications ensure that audits have been conducted independently, thus, ensuring proper implementation and compliance to the principles of the respective schemes including no peatland development and deforestation. As of 2021, all 15 of our integrated mills have been RSPO and POIG certified. Moreover, in 2021, we launched our No Deforestation, No Peat (NDP), Risk Management Framework report to address the risks of deforestation and peat development on our operations and those of our suppliers. We aim to develop action plans for 100% of mills classified as high-risk by 2025.</p> <p>Additionally, we use dedicated conservation management and monitoring plans to safeguard our conservation areas. Conservation and protection measures include restoring areas that are degraded and managing riparian buffer zones, regularly conducting biodiversity surveys, patrolling grounds and monitoring for encroachment through satellite surveillance to prevent illegal development. We strictly prohibit the hunting of rare, threatened and endangered species and educate workers, families and communities on the importance of conservation. Surrounding communities are also involved in designating these areas and play a part in developing and executing conservation management plans. In 2021, approximately 28,000 hectares have been set aside for conservation areas.</p> <p>Moreover, Musim Mas also showcases leadership through the landscape/jurisdictional approach and our commitment to our roadmap towards a responsible supply chain including setting targets for supplier engagement and independent smallholders. Some of our landscape priorities include Aceh, Riau, South Sumatra, and West Kalimantan (https://www.musimmas.com/sustainability/landscape/).</p> <p>Annually, we report our sustainability progress through the Sustainability Report.</p>
Strategy for long-term objectives	Yes, forests-related issues are integrated	11-15	<p>Forests-related issues have induced Musim Mas to alter its approach to growing our business. With sustainability policy becoming our core value in our operations, as of 2021, Musim Mas has implemented the following practices:</p> <ul style="list-style-type: none"> - Maintain and achieve full and beyond regulatory compliance of international certification schemes such as RSPO, POIG, ISCC, ISPO, and PROPER. For example, all 15 of our integrated mills have been RSPO and POIG certified - Completed group-level supplier profiles for all supplier groups - Ensured that all primary supplier groups are covered by roadmaps leading to the implementation of milestones towards No Deforestation, No Peat, No Exploitation (NDPE) commitments - Equip 16 mills with methane capture with another methane capture scheduled to commission in 2022. - Engage with suppliers to complete the Self-Assessment Tool to assess NDPE risks at the mill level. In 2021, 77% have completed the form. - Ensure that 100% of supply base/ suppliers' mill with concession (more than 9 million ha) is monitored via satellite imagery for deforestation and peatland development such as Earthqualizer, RADD. - Impose traceability to plantation commitment. As of 2021, we have achieved 94% traceability to the total supply base (plantation). - As of 2021, We have socialised and trained more than 36,500 independent smallholders with 2295 smallholders achieving RSPO certification. - Work closely with relevant stakeholders. For example, landscape approaches in Aceh Tamiang, Aceh Singkil, Siak, Pelalawan, Musi Banyuasin and Sambas with stakeholders including downstream actors, CORE (Daemeter and Proforest), Earthqualizer, Earthworm Foundation, Fire Free Alliance, IDH, Rainforest Alliance, TFA, LTKL, district governments, local NGOs and CSOs, peers and suppliers (https://www.musimmas.com/sustainability/landscape/). - Board quarterly meeting to oversee and address forest-related issues such as deforestation - Collaborate with the South East Asia Rainforest Research Partnership (SEARRP), a Borneo-based scientific research facility that has expertise in habitat restoration and sustainable plantation management, to quantify our conservation efforts and review our management and monitoring plans. - Annually communicate our sustainability progress, milestones, and targets through Sustainability Report (https://www.musimmas.com/sustainability-report/).
Financial planning	Yes, forests-related issues are integrated	11-15	<p>The vision in our long-term business objectives and strategy has altered the way we budget and finance our operations. For example, investors and some banks are starting to require sustainability disclosure. In light of this, we plan our finances accordingly. For example, we invest in new technology such as methane capture plants to further reduce our GHG emissions and align with our 2050 target. As such, one methane capture is under construction and scheduled for commission in 2022. We will continue to invest in new technologies and resources to ensure best practices in our operations. Additionally, dedicated teams are established to ensure continual compliance and implementation of the respective certification's sustainable criteria into our supply chain including RSPO, ISCC, ITSNC, etc. In 2021, all 18 mills including independent mills have been ISCC certified. Understanding that Musim Mas is not a public company, thus, internal figures relating to budget, sales, and profits are not shared externally. Nevertheless, we report our sustainability action plans and targets through our annual Sustainability Report (https://www.musimmas.com/sustainability-report/).</p>

F6. Implementation

F6.1

(F6.1) Did you have any timebound and quantifiable targets for increasing sustainable production and/or consumption of your disclosed commodity(ies) that were active during the reporting year?

Yes

F6.1a

(F6.1a) Provide details of your timebound and quantifiable target(s) for increasing sustainable production and/or consumption of the disclosed commodity(ies), and progress made.

Target reference number

Target 1

Forest risk commodity

Palm oil

Type of target

Third-party certification

Description of target

Recognizing that the palm oil industry has a reputation for deforestation, it is essential that the management of oil palm plantations does not come at the expense of forests, peatlands and local populations. For this, Musim Mas is committed to achieve 100% RSPO certification for our integrated mills. To ensure our goal is achieved, Musim Mas launched its sustainability policy in 2014 and later updated in 2020 covering deepened NDPE policy for our global operations including suppliers. In 2021, we have

achieved 100% RSPO certification for all our integrated mills.

Linked commitment

Zero net/gross deforestation

Traceability point

<Not Applicable>

Third-party certification scheme

RSPO (any type)

Start year

2009

Target year

2021

Quantitative metric

<Not Applicable>

Target (number)

<Not Applicable>

Target (%)

100

% of target achieved

100

Please explain

Following our sustainable policy, Musim Mas pledges to No Deforestation of High Carbon Stock (HCS) forests, No Conversion of High Conservation Value (HCV) areas, No Developments on Peatlands regardless of depth, and Zero Burning policy. To ensure alignment with these commitments, Musim Mas is set to achieve 100% RSPO certification for all our integrated mills. In 2021, we achieved the target with all of our 15 integrated mills have been RSPO-certified. In addition to the RSPO certification, Musim Mas is also certified against various sustainability certifications such as POIG, ISCC, ISPO, and ITSNC. These independent certifications ensure that Musim Mas's supply chain is in full and beyond compliance with the highest sustainability standards. As of 2021, all 15 of our integrated mills have been POIG verified and 23 units including scheme smallholders are certified against ISCC. Moreover, 34 units of our downstream operations are also certified against the RSPO Supply Chain Certification Standard (SCCS). In addition to maintaining certifications, Musim Mas also actively monitors approximately 9 million hectares covering supply base/suppliers' mill with concessions for deforestation and peat development. If our supplier is found to be noncompliant with the NDPE policy, we will engage with the supplier in question and exclude them if necessary. In case of complaints and grievances, Grievance Channels and Controlled Purchase Protocol (CPP) are available to resolve issues in a methodological and transparent manner. To see our sustainability certifications status, please refer to <https://www.musimmas.com/sustainability/certifications/>.

Target reference number

Target 2

Forest risk commodity

Palm oil

Type of target

Engagement with smallholders

Description of target

In September 2020, Musim Mas updated our sustainability policy, laying out a renewed and deepened commitment to improving the livelihoods of smallholders, workers, and communities while maintaining a strict stance on NDPE. To ensure transparency and credibility, Musim Mas engages with smallholders to assist them in obtaining independent certifications. Thus, Musim Mas aims to achieve 100% RSPO certification for our existing smallholders by 2024.

Linked commitment

No conversion of natural ecosystems

Traceability point

<Not Applicable>

Third-party certification scheme

<Not Applicable>

Start year

2021

Target year

2024

Quantitative metric

<Not Applicable>

Target (number)

9500

Target (%)

<Not Applicable>

% of target achieved

65

Please explain

Engagement with smallholders can lead to an increase in yields (i.e. socialisation on good agricultural practices), better access to national and international markets, improvement in livelihoods, and a reduction in the risk of land conversion. To ensure credibility that Musim Mas's supply chain is in full and beyond compliance with the highest sustainability standards, Musim Mas aims to achieve 100% RSPO certification for our existing smallholders by 2024. As of 2021, approximately 65% of smallholders have obtained RSPO certification. Musim Mas will continue to engage and socialise the importance of sustainability certification to relevant smallholders. Furthermore, as a member of the Fire Free Alliance, we also launched our Fire Free Village Programme (FFVP) to engage and educate local communities including smallholders in protecting forests from fire. As of December 2021, our FFVP covered 74 villages spanning 450,769 hectares and has conducted 161 trainings in the

Target reference number

Target 3

Forest risk commodity

Palm oil

Type of target

Traceability

Description of target

Musim Mas mills are fully NDPE compliant through POIG and/or RSPO assurance procedures and adherence to HCSA requirements. However, Musim Mas also operates several independent mills, which are supplied by uncertified independent smallholders and/or outgrowers. Hence, to assess deforestation and peat risk, Musim Mas is highly reliant on knowing the exact FFB supply sheds (traceability to plantation) of both independent mills owned by Musim Mas and those of our suppliers. Recognizing that traceability across the supply chain is crucial to ensure that suppliers are complying with our NDPE commitment, Musim Mas set to achieve 100% traceability of the total supply traceable to plantation from refineries. In Q4 2021, we published our No Deforestation, No Peat (NDP) Risk Management Framework report highlighting the risks of deforestation and peat development on existing concession areas of our operations and those of our suppliers.

Linked commitment

Zero net/gross deforestation

Traceability point

Plantation

Third-party certification scheme

<Not Applicable>

Start year

2015

Target year

2025

Quantitative metric

<Not Applicable>

Target (number)

<Not Applicable>

Target (%)

100

% of target achieved

94

Please explain

To fully address deforestation and peat development risks, we require detailed knowledge of the supply sheds of our independent mills and third-party suppliers in addition to our own mills. Therefore, we have focused our efforts on achieving traceability to plantation (TTP) or place of production as part of our NDPE Roadmap and have arrived at full visibility across our plantations. In 2021, we achieved 100% TTP to our supply base of independent smallholders supplying our own mills and % TTP to third-party supplier mills. This means our overall traceability to plantation is 94% in 2021, up from 83% in 2020. In all, We are on track to reach 100% by 2025. Additionally, to ensure top-down NDPE compliance, suppliers are to complete Musim Mas Self Assessment Tool (SAT) which is an exhaustive set of questions against our NDPE requirements. This evaluation enables suppliers to self-declare information about their operations, thus, allowing us to identify potential risk areas at the mill level. As of December 2021, 77% of our suppliers have completed the assessment. Moreover, we also conduct workshops to engage with suppliers, and thus, able to track their progress towards making and achieving NDPE commitments. In 2021, we have engaged 94% of direct suppliers. For more information, please refer to: <https://www.musimmas.com/sustainability/traceability/>.

F6.2

(F6.2) Do you have traceability system(s) in place to track and monitor the origin of your disclosed commodity(ies)?

	Do you have system(s) in place?	Description of traceability system	Exclusions	Description of exclusion
Timber products	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Palm oil	Yes	Our traceability systems include traceability to the Group's plantations, Group's direct supply base of independent smallholders, third-party supply to plantations, and suppliers independent smallholders supply base using risk-based traceability. We currently use three approaches, depending upon the availability of TTP data and mapping of oil palm-planted areas. (1) village-based risk traceability approach, village boundaries are overlaid with the conservation area and peat moratorium maps. Villages that have overlapping boundaries are considered high risk. If detailed mapping indicates that FFB is produced within no-go areas, the respective supplier must exclude these sources of FFB from the supply chain. (2) augmented village-based risk traceability approach, similar to the village-based approach, the village boundary data is overlaid with previous data sources on peat and conservation areas and then augmented with maps of palm-planted areas derived from official or open access sources, as well as national forest cover maps of MoEF. Moreover, we will integrate recognized HCV/HCS maps into our risk screening. This approach is very precise but requires the development of dedicated maps of planted palms. (3) fixed radius approach, this approach is used if (1) and (2) are not applicable. We map overlap between conservation and peat areas within a 50-km radius of the mill. Depending upon the extent of overlaps, mills are classified as low, medium or high risk. This approach is very coarse and only serves as a proxy for potential risk. Once we obtain TTP data, we re-classify risks based on the other two methodologies. Additionally, we use various methods and tools to continuously monitor our supply chain including satellite monitoring, ground-truthing, RADD partnership, NDPE Implementation Reporting Framework (IRF), and Musim Mas's SAT. In 2021, 77% of suppliers have completed the SAT. Through these various approaches, we can then track the progress of suppliers on NDPE commitments and detect (or verify) any non-compliance suppliers. Since 2015, we have achieved 100% traceability to mill with 94% of the total supply to plantation is traceable in 2021. We are on track to achieving 100% traceability to plantation by 2025.	Not applicable	<Not Applicable>
Cattle products	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Soy	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Rubber	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Cocoa	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Coffee	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>

F6.2a

(F6.2a) Provide details on the level of traceability your organization has for its disclosed commodity(ies).

Forest risk commodity	Point to which commodity is traceable	% of total production/consumption volume traceable
Palm oil	Plantation	100

F6.3

(F6.3) Have you adopted any third-party certification scheme(s) for your disclosed commodity(ies)?

	Third-party certification scheme adopted?	% of total production and/or consumption volume certified
Timber products	<Not Applicable>	<Not Applicable>
Palm oil	Yes	99
Cattle products	<Not Applicable>	<Not Applicable>
Soy	<Not Applicable>	<Not Applicable>
Other - Rubber	<Not Applicable>	<Not Applicable>
Other - Cocoa	<Not Applicable>	<Not Applicable>
Other - Coffee	<Not Applicable>	<Not Applicable>

F6.3a

(F6.3a) Provide a detailed breakdown of the volume and percentage of your production and/or consumption by certification scheme.

Forest risk commodity

Palm oil

Third-party certification scheme

RSPO producer/grower certification

Chain-of-custody model used

<Not Applicable>

% of total production/consumption volume certified

99

Form of commodity

Crude palm oil (CPO)

Volume of production/ consumption certified

727662

Metric for volume

Metric tons

Is this certified by more than one scheme?

No

Please explain

Following our sustainability policy, Musim Mas pledges to No Deforestation of High Carbon Stock (HCS) forests, No Conversion of High Conservation Value (HCV) areas, No Developments on Peatlands regardless of depth, and Zero Burning policy. One of the important aspects of sustainability is certification. Third-party certifications ensure that audits have been conducted independently, thus, ensuring proper implementation and compliance with the strict principles and criteria of the respective sustainability certification schemes. As of 2021, all 15 of our integrated mills have been RSPO certified. To improve and maintain certifications, we annually conduct internal audits against principles and guidances of relevant certification schemes such as RSPO for all our units. Moreover, Musim Mas actively monitors more than nine million hectares across Indonesia and Malaysia covering 100% of suppliers' mills with concession for deforestation and peat development. If our supplier is found to be noncompliant with the NDPE policy, we will engage with the supplier in question and exclude them if necessary. In case of complaints and grievances, Grievance Channels and Controlled Purchase Protocol (CPP) are available to resolve issues. For more details, please refer to <https://www.musimmas.com/sustainability/certifications/>.

F6.4

(F6.4) For your disclosed commodity(ies), do you have a system to control, monitor, or verify compliance with no conversion and/or no deforestation commitments?

	A system to control, monitor or verify compliance	Comment
Timber products	<Not Applicable>	<Not Applicable>
Palm oil	Yes, we have a system in place for our no conversion and/or deforestation commitments	<Not Applicable>
Cattle products	<Not Applicable>	<Not Applicable>
Soy	<Not Applicable>	<Not Applicable>
Other - Rubber	<Not Applicable>	<Not Applicable>
Other - Cocoa	<Not Applicable>	<Not Applicable>
Other - Coffee	<Not Applicable>	<Not Applicable>

F6.4a

(F6.4a) Provide details on the system, the approaches used to monitor compliance, the quantitative progress, and the non-compliance protocols, to implement your no conversion and/or deforestation commitment(s).

Forest risk commodity

Palm oil

Operational coverage

Direct operations
Supply chain

Description of control systems

Musim Mas has its own NDPE policy to ensure there are No Deforestation, No Peat and No Exploitation in our operations. Internally, we conduct a risk assessment in accordance with our No Deforestation, No Peat (NDP) Risk Management Framework as well as monitoring using remote sensing methods and site patrol with monthly reports available. We also have daily hotspot monitoring covering our own and supplier concessions. Moreover, suppliers are to complete Self Assessment Tool to self-declare information, allowing Musim Mas to identify potential risk areas at the mill level. If there is an allegation of NDPE violation across our supply chain, we will extensively study the allegation through tools such as RADD and Earthqualizer. If a breach of NDPE policy is confirmed, we will engage with the relevant suppliers in question. Our Grievance Channels and Controlled Purchase Protocol are available to resolve issues, secure remedy and remediation, and exclude errant suppliers as the last resort.

Monitoring and verification approach

Geospatial monitoring tool
Ground-based monitoring system
Community-based monitoring
First-party verification
Third-party verification

% of total volume in compliance

100%

% of total suppliers in compliance

100%

Response to supplier non-compliance

Retain & engage
Exclude

Procedures to address and resolve non-compliance with suppliers

Developing time-bound targets and milestones to bring suppliers back into compliance
Providing information on appropriate actions that can be taken to address non-compliance
Re-integrating suppliers back into supply chain based on the successful and verifiable completion of activities
Other, please specify (Assessing the efficacy and efforts of non-compliant supplier actions through quantified metrics)
Musim-Mas-Controlled-Purchase-Protocol.pdf

Please explain

Initially established in 2015, the Controlled Purchase Protocol (CPP) is a comprehensive process supporting the resolution of grievances by linking business and grievance resolutions. For any grievance, we expect our suppliers to adhere to the three fundamental principles outlined below.

- (1)Supplier engagement: continuous monitoring of suppliers is essential for ensuring overall group-level progress towards our NDPE policy compliance and that violations are not taking place within our supply chains. Musim Mas uses various methods including deforestation monitoring platforms, supplier roadmaps for monitoring progress with our priority suppliers, and data collected through self-assessment tools. For example, Musim Mas collaborates with Earthqualizer to monitor deforestation with bi-weekly reports available.
- (2)Grievance management: our grievance procedure outlines our process for receiving, logging and verifying all grievances raised against us or our suppliers. Once a grievance is verified as factual, the supplier will undergo our CPP process while the grievance is being addressed. For a specific critical grievance such as new deforestation and peat development, the supplier is directly engaged and subject to a cessation of business until they meet defined milestones. Other non-critical grievances will undergo the CPP procedure.
- (3)CPP: grievance resolution milestones are agreed upon and closely monitored. Suppliers will exit the CPP once all conditions and actions are met.

F6.6

(F6.6) For your disclosed commodity(ies), indicate if you assess your own compliance and/or the compliance of your suppliers with forest regulations and/or mandatory standards.

	Assess legal compliance with forest regulations	Comment
Timber products	<Not Applicable>	<Not Applicable>
Palm oil	Yes, from both suppliers and owned/managed land	<Not Applicable>
Cattle products	<Not Applicable>	<Not Applicable>
Soy	<Not Applicable>	<Not Applicable>
Other - Rubber	<Not Applicable>	<Not Applicable>
Other - Cocoa	<Not Applicable>	<Not Applicable>
Other - Coffee	<Not Applicable>	<Not Applicable>

F6.6a

(F6.6a) For your disclosed commodity(ies), indicate how you ensure legal compliance with forest regulations and/or mandatory standards.

Palm oil

Procedure to ensure legal compliance

The corporate affairs team constantly monitors our compliance with the relevant local and national regulations. In support, the Sustainability team constantly monitors our compliance with our NDPE policy including maintaining recognised third-party certifications schemes including RSPO, ISCC, POIG, and ISPO in our operations. Since annual audits are conducted to achieve these certification schemes, they are used to track and monitor legal adherence to our sustainability practices and standards of the highest level. In complementary, our GIS and biodiversity teams perform monitoring of deforestation and peat development in our own and supplier's concessions using remote sensing methods and site patrol.

Additionally, we also maintain POIG verification as POIG guidelines and standards are considered to exceed those of RSPO standards and country-specific mandatory standards of ISPO. As of 2021, all 15 of our integrated mills are POIG verified. Moreover, in 2021, 11 of our mills were awarded the GREEN label of the PROPER award which signifies full and beyond compliance status. In line with our 2020 NDPE policy vision, we also conduct quarterly checks on suppliers' RSPO certification status, which is renewed annually, to ensure that they continue to be compliant with legal requirements set out in the RSPO framework.

Country/Area of origin

Indonesia

Law and/or mandatory standard(s)

ISPO

Comment

We maintain ISPO certification for our operational units.

F6.7

(F6.7) Are you working with smallholders to support good agricultural practices and reduce deforestation and/or conversion of natural ecosystems?

	Are you working with smallholders?	Type of smallholder engagement approach	Smallholder engagement approach	Number of smallholders engaged	Please explain
Timber products	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Palm oil	Yes, working with smallholders	Supply chain mapping Capacity building Financial and commercial incentives	Supplier questionnaires on environmental and social indicators Developing or distributing supply chain mapping tool Offering on-site technical assistance and extension services Providing agricultural inputs Disseminating technical materials Organizing capacity building events Investing in pilot projects Supporting smallholders to clarify and secure land tenure Prioritizing support for smallholders in high-risk deforestation regions	37000	Musim Mas works closely with smallholders in various programs, for example: 1. Scheme Smallholder Program. The curriculum modules within components of the smallholder program are designed such that smallholders work towards NDPE policy compliance. The modules and components are geared towards improving the livelihoods of smallholders. It covers good agricultural practices, financial literacy, and personal nutrition. 2. Musim Mas - IFC (International Finance Corporation) Smallholder Program. Together with IFC, we developed and implemented the pilot programs in North Sumatra (Rantauprapat) and Riau (Pelalawan, Rokan Hilir, and Rokan Hulu), Indonesia. Our modules mirror the RSPO's Principles and Criteria (P&C) as we prepare them for RSPO certification. The program modules focus on four pillars: Environment (i.e. No burning); Business management (i.e. Market access, Good Agricultural Practices); Social (i.e. food security); and Other issues that smallholders may face in their journey towards sustainable palm oil (i.e. administration process). As of 2021, 2295 smallholders have been RSPO certified. 3. Musim Mas is working on the implementation of an Extension Service Platform for their landscape areas to extend services to independent smallholders in the third-party supply chain. This is to be piloted and based on the principles involving all stakeholders of the respective landscape. 4. As a founding member of Fire Free Alliance (FFA), Musim Mas initiates Fire Free Village Program (FFVP) called Masyarakat Bebas Api to engage local communities in protecting forests from fire. As of December 2021, our FFVP covered 74 villages spanning 450,769 hectares and has conducted 161 trainings in the communities. Under this initiative, we raise awareness, provide agricultural equipment, and incentivize communities that remain fire-free with infrastructure improvements and services. 5. Joint monitoring of conservation area 6. CSR program for smallholders For more information on our smallholders, please refer to https://www.musimmas.com/smallholders/ , https://www.musimmas.com/sustainability-report/ , and https://www.musimmas.com/wp-content/uploads/2021/03/MM-IFC-Smallholders-Program-Report.pdf
Cattle products	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Soy	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Rubber	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Cocoa	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Coffee	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>

F6.8

(F6.8) Are you working with your direct suppliers to support and improve their capacity to comply with your forests-related policies, commitments, and other requirements?

	Are you working with direct suppliers?	Type of direct supplier engagement approach	Direct supplier engagement approach	% of suppliers engaged	Please explain
Timber products	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Palm oil	Yes, working with direct suppliers	Supply chain mapping Capacity building	Supplier questionnaires on environmental and social indicators Developing or distributing supply chain mapping tool Offering on-site training and technical assistance Disseminating technical materials Organizing capacity building events Investing in pilot projects Support suppliers to set their own no deforestation/conversion commitments across their entire commodity operation Other, please specify (Support suppliers to design their own roadmap to achieve NDPE compliance)	91-99%	We are working with our direct suppliers in various aspects including an engagement to support our suppliers in adhering to our Sustainability Policy. In 2019, we began trialing NDPE Implementation Reporting Framework (IRF) as a tool to track progress on deforestation/peat commitments in our supply chains. In 2021, our NDPE IRF reporting for all our refineries in Indonesia has been independently verified by Control Union (CU) (https://www.musimmas.com/ndpe-implementation-reporting-framework-musim-mas-kim-i/). Moreover, we also actively conduct socialization and workshops on NDPE commitments to assist them in completing Musim Mas Self-Assessment Tool (SAT). This evaluation enables suppliers to self-declare information about their operations which allows Musim Mas to identify potential risk areas at the mill level. As of 2021, 445 suppliers (77%) have completed their SAT. Moreover, we are also working with the Consortium of Resource Experts (CORE), Proforest and Daemeter, on implementing NDPE commitments, the Extension Services Programme and landscape collaborations. As of 2021, 93% of suppliers have either an NDPE policy or adopted the Musim Mas Sustainability Policy. More on NDPE engagement can be found at https://www.musimmas.com/sustainability/third-party-suppliers/ .
Cattle products	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Soy	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Rubber	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Cocoa	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Coffee	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>

F6.9

(F6.9) Are you working beyond your first-tier supplier(s) to manage and mitigate deforestation risks?

	Are you working beyond first tier?	Type of engagement approach with indirect suppliers	Indirect supplier engagement approach	Please explain
Timber products	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Palm oil	Yes, working beyond first tier	Supply chain mapping Capacity building	Developing or distributing supply chain mapping tools On-site meetings with indirect suppliers Offering on-site training and technical assistance	Our sustainability policy encompasses all our operations and business units including direct suppliers, their supplier groups & their third-party supply chains. We have mapped our indirect suppliers and held socialization to promote sustainability in accordance with our Sustainability and NDPE policies. For example, in 2021, we have engaged our 33 suppliers in Aceh to conduct socialization on Musim Mas NDPE with their respective FFB suppliers. We established Smallholders Hubs in Aceh Tamiang, Aceh Timur and Aceh Singkil. We have developed a curriculum for the village extension officers and Independent Smallholders that consist of: (1) Good Agriculture Practices (GAP) training; (2) Financial literacy; (3) NDPE training. For further details please refer to: https://www.musimmas.com/wp-content/uploads/2021/11/Projects-in-Aceh-Landscape-2021-FINAL.pdf
Cattle products	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Soy	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Rubber	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Cocoa	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Coffee	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>

F6.10

(F6.10) Do you engage in landscape (including jurisdictional) approaches to progress shared sustainable land use goals?

	Do you engage in landscape/jurisdictional approaches?	Primary reason for not engaging in landscape and/or jurisdictional approaches	Please explain why your organization does not engage in landscape/jurisdictional approaches, and describe plans to engage in the future
Row 1	Yes, we engage in landscape/jurisdictional approaches	<Not Applicable>	<Not Applicable>

F6.10a

(F6.10a) Indicate the criteria you consider when prioritizing landscapes and jurisdictions for engagement in collaborative approaches to sustainable land use and provide an explanation.

	Criteria for prioritizing landscapes/jurisdictions for engagement	Please explain
Row 1	High levels of production by independent smallholders Opportunity for smallholder inclusion Opportunity for increased human well-being in area Opportunity to implement Nature-based Solutions Opportunity to protect natural ecosystems Opportunity to restore natural ecosystems Risk of deforestation/conversion Risk of forest/land degradation Risk of land conflict	Since our policy was established in 2014, we recognize that sustainability issues such as the well-being of forests, food security, biodiversity, and livelihoods are interconnected. The best chance for maximizing impact is to integrate these themes in the same communities or geographical areas. As we aspire to be the leading sustainable palm oil company, we want to show leadership through the landscape approach and our commitment to our roadmap towards a responsible supply chain, including setting targets for supplier engagement and independent smallholders. For more information, please visit https://www.musimmas.com/sustainability/landscape/ .

F6.10b

(F6.10b) Provide details of your engagement with landscape/jurisdictional approaches to sustainable land use during the reporting year.

Country/Area

Indonesia

Name of jurisdiction or landscape area

Siak & Pelalawan

Is the landscape defined by administrative boundaries of sub-national governments and does the approach have active government involvement?

Yes, the landscape is defined by administrative boundaries and the approach has active government involvement

Brief description of landscape/ jurisdictional approach

A coalition of eight palm oil buyers and processors, including Cargill, Danone, GAR, Musim Mas, Neste, PepsiCo, Unilever and L'Oreal, and the consultants being CORE (Proforest and Daemeter) agreed to join efforts to collaboratively develop a landscape programme in Siak and Pelalawan districts. The programme supports and builds on existing government-led initiatives including the Green Siak Green Growth District plan and the Pelalawan District Action Plan for Sustainable Palm Oil, and has 4 long-term goals: 1) Protect and enhance forests, peatlands and natural ecosystems, 2) Empower palm oil smallholders to achieve improved livelihoods, 3) Respect labour and community rights within the palm oil sector, and 4) Pursue sustainable palm oil production.

Forest risk commodities relevant to this landscape/jurisdictional approach

Palm oil

Type of engagement

Partner: Shared responsibility in the implementation of multiple goals

Supporter: Implement activities to support at least one goal

Funder: Provides full or partial financial support

Description of engagement

Siak and Pelalawan districts are long-established palm oil production areas with significant numbers of independent smallholder producers. For this, Musim Mas involves in village engagement programme to support peat and forest conservation and focusing on fire prevention as this landscape is prone to fires in its peatland. The plan of action includes but is not limited to conserving plots of land and preventing deforestation by training independent smallholders and supporting suppliers on traceability and NDPE commitments.

Goals supported by engagement

Avoided deforestation/conversion of other natural ecosystems

Forest fires monitored and prevented

Increased commodity traceability in landscape/jurisdiction

Smallholders mapped in landscape/jurisdiction

Land tenure rights for indigenous peoples and local communities secured

Increased protected areas

Systems in place to protect workers' rights

Implementation of livelihood activities/practices that reduce pressure on forests

Improved business models that enable inclusion

Improved capacity for community engagement in multi-stakeholder processes

Increased adoption of sustainable production practices

Improved productivity

Uptake of regenerative agriculture practices

Increased adoption of sustainable production practices

Company actions supporting approach

Collaborate on land use change monitoring in the landscape/jurisdiction

Share spatial data and land management plans with other stakeholders in the landscape/jurisdiction

Support land use planning in the landscape/jurisdiction

Share information on supplier non-compliance, supply chain mapping and traceability with other stakeholders in the landscape/jurisdiction

Support local government in policy development

Provide information and training on best agricultural management practices

Support landscape restoration and long-term protection

Support producers, producer groups, and primary processors to improve agricultural practices and technologies

Support smallholders to clarify and secure land tenure rights

Collaborate on commodity traceability

Implementation partner(s)

Musim Mas collaborates with District government heads, plantation and planning departments, consultants (Daemeter and Proforest), downstream actors (i.e. Cargill, Unilever, Neste, PepsiCo, Danone, L'Oréal Peers: Sinar Mas Agribusiness and Food (GAR)) and Local NGOs (Sedagho Siak).

Engagement start year

2019

Engagement end year

Please specify (2024)

Total investment over the project period (currency)

0

Details of your investment

N/A

Type of assessment framework

Specific initiative defined framework

Is progress monitored and publicly reported on?

Yes, progress is monitored and publicly reported on

State the achievements of your engagement so far, and how progress is monitored

In 2021, 628 people consisting of multi-stakeholders such as smallholders, government and village representatives, and facilitators with 51 mills engaged on the importance to conserve, restore and/or rehabilitate high priority areas. 450 people were trained on Good Agricultural Practices (GAP) including agroforestry, water management, IPM, harvesting, etc. Moreover, 15 villages committed to participating in conservation activities and supported to get access to incentives (e.g. support achieving certification, getting land title, packaging access to loans, preferential sourcing etc.). Additionally, 35,044 ha of priority areas were mapped which equals 76% of the total area. Priority areas are defined as areas that communities are aware of that cannot be converted, including remaining forest and peatlands. Priority areas consist of 32,420 ha peatland and 2,624 ha forest. Additionally, in 2021, the Pelalawan district government made a commitment to no deforestation through Pelalawan Sejuk and NDPE. The

commitment is in the early stages. 930 individuals consisting of oil palm smallholders, government, mills, village representatives, and facilitators have trained and received capacity building on the protection and monitoring of forests and natural ecosystems. Progress is monitored through monthly coordination meetings with the field team. Annually, we publicly disclosed our sustainability progress, milestones, and targets including landscape and jurisdictional approaches through our Sustainability Report (<https://www.musimmas.com/sustainability-report/>).

F6.11

(F6.11) Do you participate in any other external activities and/or initiatives to promote the implementation of your forests-related policies and commitments?

Forest risk commodity

Palm oil

Do you participate in activities/initiatives?

Yes

Activities

Involved in multi-partnership or stakeholder initiatives

Country/Area

Indonesia

Subnational area

Please specify (Aceh)

Initiatives

Global Reporting Initiative (GRI) Community Member

High Conservation Value (HCV) Resource Network

Roundtable on Sustainable Palm Oil (RSPO)

Palm Oil Innovation Group (POIG)

High Carbon Stock Approach Steering Group

International Sustainability & Carbon Certification (ISCC)

Fire Free Alliance (FFA)

Chinese Sustainable Palm Oil Alliance (CSPOA)

Other, please specify (Indonesian Sustainable Palm Oil (ISPO))

Please explain

The Aceh landscape covers 142 villages with 42,644 oil palm farmers in Aceh Singkil, Aceh Selatan, Subulussalam and Aceh Tamiang. Align with our sustainability policy in improving the Lives of Smallholders, Workers, and Communities, Musim Mas engages closely with third-party suppliers, independent smallholders and stakeholders in three priority areas — Aceh Tamiang, Subulussalam and Aceh Singkil — to address risks of encroachment into the Leuser Ecosystem, specifically in Aceh Tamiang and the South Aceh region. Musim Mas collaborates with IDH (the Sustainable Trade Initiative), the Government of Aceh, Forum Konservasi Leuser (FKL), Pusat Unggulan Perkebunan Lestari (PUPL), downstream actors (Unilever, PepsiCo, etc), local civil society organisations (Earthqualizer & Earthworm Foundation) and suppliers, including those outside our supply chain to have Aceh Tamiang verified as a deforestation-free and traceable commodities producer.

Musim Mas's Aceh strategy comprises of three main objectives. Firstly, the engagement objective entails outreach to smallholders and mills to convey NDPE requirements and the possible consequences of non-compliance through Suppliers Workshops and our Smallholders Hub Program. Topics such as NDPE Policy, Traceability to Plantation (TTP), Self-Assessment Tool (SAT), capacity building, Good Agricultural Practices (GAP), financial literacy and certification requirements are covered. Secondly, the Assurance objective has components to ensure that the mills supplying crude palm oil and palm kernels to Musim Mas are NDPE compliant. We will use the NDP Risk management framework to build on the Assurance component laid out in our Aceh Strategy. Finally, the Monitoring and Response objective contains proactive elements to detect and verify deforestation at the landscape or jurisdictional level. Methods used include deforestation monitoring platforms (i.e. RADD, EQs) and outreach programs to external stakeholders to collaborate and tackle issues on the ground. All three objectives have a stated set of measurable targets to indicate progress. For example, in 2021, all Aceh suppliers have participated in Musim Mas' supplier workshops with 100% of our suppliers in Aceh have since committed to our Musim Mas NDPE policy. Moreover, We trained 176 village extension officers and 895 independent smallholders across our three Smallholders Hubs.

F6.12

(F6.12) Is your organization supporting or implementing project(s) focused on ecosystem restoration and protection?

Yes

F6.12a

(F6.12a) Provide details on your project(s), including the extent, duration, and monitoring frequency. Please specify any measured outcome(s).

Project reference

Project 1

Project type

Other, please specify (Forest Ecosystem Conservation)

Primary motivation

Voluntary

Description of project

Siak district is home to vulnerable communities and ecosystems that have been adversely affected by agricultural expansion in the past. The district is also home to protected areas such as the Giam Siak Kecil Biosphere Reserve and Zamrud National Park, which would benefit from enhanced, long-term protection. As for Pelalawan, it makes up 10% of the oil palm plantation land in Riau, with approximately more than a third of the land area owned by smallholders who need counselling and assistance with various agricultural challenges. Moreover, 55% of the oil palm hectareage is carbon-dense peatlands. In all, Siak and Pelalawan districts are long-established palm oil production areas with significant numbers of independent smallholder producers. For this, Musim Mas involves in village engagement programme to support peat and

forest conservation and focusing on fire prevention as this landscape is prone to fires in its peatland. The plan of action includes but is not limited to conserving plots of land and preventing deforestation by training independent smallholders and supporting suppliers on traceability and NDPE commitments. Annually, we publicly disclosed our sustainability progress, milestones, and targets including landscape and jurisdictional approaches through our sustainability report (<https://www.musimmas.com/sustainability-report/>).

Start year

2019

Target year

2024

Project area to date (Hectares)

45498

Project area in the target year (Hectares)

45000

Country/Area

Indonesia

Latitude

10.275

Longitude

0.346944

Monitoring frequency

Six-monthly or more frequently

Measured outcomes to date

Biodiversity

Please explain

Musim Mas collaborates with District government heads, plantation and planning departments, consultants (Daemeter and Proforest), downstream actors (i.e. Cargill, Unilever, Neste, PepsiCo, Danone, L'Oréal Peers: Sinar Mas Agribusiness and Food (GAR)) and Local NGOs (Sedagho Siak).

The coalition has an overlapping third-party supply base and shared objectives that include advancing all palm oil producers in Siak and Pelalawan towards deforestation and exploitation of free palm oil production. The Coalition of companies has agreed on 4 long-term goals, including:

1. Protect and enhance forests, peatlands and natural ecosystems
2. Empower oil palm smallholders and surrounding communities to achieve improved livelihoods
3. Respect labour and community rights within the palm oil sector
4. Pursue sustainable palm oil production goals through improved district policies and plans

In 2021, 628 people consisting of multi-stakeholders such as smallholders, government and village representatives, and facilitators with 51 mills engaged on the importance to conserve, restore and/or rehabilitate high priority areas. 450 people were trained on Good Agricultural Practices (GAP) including agroforestry, water management, IPM, harvesting, etc. Moreover, 15 villages committed to participating in conservation activities and supported to get access to incentives (e.g. support achieving certification, getting land title, packaging access to loans, preferential sourcing etc.). Additionally, 35,044 ha of priority areas were mapped which equals 76% of the total area mapped (45,958 ha) mapped. Priority areas are defined as areas that communities are aware of that cannot be converted, including remaining forest and peatlands. Priority areas consist of 32,420 ha peatland and 2,624 ha forest. Additionally, in 2021, the Pelalawan district government made a commitment to no deforestation through Pelalawan Sejuk and NDPE. The commitment is in the early stages. 930 individuals consisting of oil palm smallholders, government, mills, village representatives, and facilitators have trained and received capacity building on the protection and monitoring of forests and natural ecosystems. Progress is monitored through monthly coordination meetings with the field team.

Project reference

Project 2

Project type

Other, please specify (Deforestation Free Sourcing Area- VSA (Verified Sourcing Area) jurisdiction)

Primary motivation

Voluntary

Description of project

The Aceh landscape covers 142 villages with 42,644 oil palm farmers in Aceh Singkil, Aceh Selatan, Subulussalam and Aceh Tamiang. Align with our sustainability policy, Musim Mas engages closely with third-party suppliers, independent smallholders and stakeholders in three priority areas — Aceh Tamiang, Subulussalam and Aceh Singkil — to address risks of encroachment into the Leuser Ecosystem, specifically in Aceh Tamiang and the South Aceh region. For this, Musim Mas collaborates with IDH (the Sustainable Trade Initiative), the Government of Aceh, Forum Konservasi Leuser (FKL), Pusat Unggulan Perkebunan Lestari (PUPL), downstream actors (Unilever, PepsiCo, General Mills, Nestle, AAK), local civil society organisations (Earthqualizer & Earthworm Foundation) and suppliers, including those outside our supply chain to have Aceh Tamiang verified as a deforestation-free and traceable commodities producer. As a part of the program, Smallholder Hub was established to help village extension officers to build the capacity to deliver training to independent smallholders in their area. Moreover, the initiative assists villages in developing land use plans via a participatory planning approach and assists in the planning and drafting of village policy in Aceh Singkil and the South Aceh district. Annually, we publicly disclosed our sustainability progress, milestones, and targets including landscape and jurisdictional approaches through our sustainability report <https://www.musimmas.com/sustainability-report/> and Aceh report <https://www.musimmas.com/aceh-report/>.

Start year

2019

Target year

2023

Project area to date (Hectares)

300

Project area in the target year (Hectares)

800

Country/Area

Indonesia

Latitude

0

Longitude

0

Monitoring frequency

Six-monthly or more frequently

Measured outcomes to date

Biodiversity

Please explain

Musim Mas's Aceh strategy comprises of three main objectives. Firstly, the engagement objective entails outreach to smallholders and mills to convey NDPE requirements and the possible consequences of non-compliance through Suppliers Workshops and our Smallholders Hub Program. Topics such as NDPE Policy, Traceability to Plantation (TTP), Self-Assessment Tool (SAT) requirements, capacity building, Good Agricultural Practices (GAP), financial literacy and certification requirements are covered. Secondly, the Assurance objective has components to ensure that the mills supplying crude palm oil and palm kernels to Musim Mas are NDPE compliant. We will use the NDP Risk management framework to build on the Assurance component laid out in our Aceh Strategy. Finally, the Monitoring and Response objective contains proactive elements to detect and verify deforestation at the landscape or jurisdictional level. Methods used include deforestation monitoring platforms (i.e. RADD, EQs) and outreach programs to external stakeholders to collaborate and tackle issues on the ground.

Key expected outcomes include mapping of the two Mopoli Plantations & 500 independent smallholders (location, legality status and risk identification, HCV - HCS and production figures), at least 300 hectares of forest and land were rehabilitated using an agroforestry approach. The two plantations and 500 independent smallholders also receive training on GAP & NDPE delivered by Musim Mas, PURL, and FKL. Moreover, a front-running group of smallholders (Pesatri) is supported towards ISPO & improving the governments' land conflict resolution schemes. In collaboration with FKL supported by the VSA program and other donors, 28,040 agroforestry trees have been distributed and planted in the conservation area by Karya Bersama, Mudah Sepakat, Subur Lestari, Sungai Rambe, Tukul Lestari and Indah Maju farmer groups. As measured outcomes, in 2021, all Aceh suppliers have participated in Musim Mas' supplier workshops with 100% of our suppliers in Aceh have since committed to our Musim Mas NDPE policy. Moreover, We have trained 176 village extension officers and 895 independent smallholders across our three Smallholders Hubs in Aceh Tamiang, Aceh Singkil, and Subulussalam. Following our NDP Risk Management Framework, 77.42% risk-based traceability was conducted for Aceh.

F7. Verification

F7.1

(F7.1) Do you verify any forests information reported in your CDP disclosure?

Yes

F7.1a

(F7.1a) Which data points within your CDP disclosure have been verified, and which standards were used?

Disclosure module

F6. Implementation

Data points verified

The production volume of palm oil in F6.3a

Verification standard

The figure in F6.3a is verified through the RSPO PnC and POIG audits performed by the external audit of the Control Union and Preferred by Nature respectively.

Please explain

Certifications are an excellent way to demonstrate Musim Mas' progress to every actor along the supply chain. Certifications assure our customers and consumers that we honor our sustainability commitments and add value to the products that end up in consumers' hands. The leading certifying bodies in the palm oil sector are the RSPO and Palm Oil Innovation Group (POIG). Each of these certification schemes contributes to assuring our stakeholders that we are delivering on our sustainability commitments. To communicate our certification progress, we publish our Sustainability report annually.

F8. Barriers and challenges

F8.1

(F8.1) Describe the key barriers or challenges to eliminating deforestation and/or conversion of other natural ecosystems from your direct operations or from other parts of your value chain.

Forest risk commodity

Palm oil

Coverage

Supply chain

Primary barrier/challenge type

Value chain complexity

Comment

Third-party suppliers such as outgrowers, small-growers, independent smallholders have little knowledge of the HCV and/or HCS area. Thus, we are conducting socialization, training, and knowledge sharing to educate them on conservation areas such as HCV, HCS and the importance to maintain the conservation area and pursuing certification schemes.

F8.2

(F8.2) Describe the main measures that would improve your organization's ability to manage its exposure to deforestation and/or conversion of other natural ecosystems.

Forest risk commodity

Palm oil

Coverage

Supply chain

Main measure

Investment in monitoring tools and traceability systems

Comment

In accordance with our sustainability policy, we are committed to achieve a fully traceable supply chain and implementing NDPE practices across our operations. For this, we actively engage with suppliers through training and workshops as well as Musim Mas Self-Assessment Tool. Through a combination of monitoring methods such as Earthqualizer and the RADD satellite monitoring platform, as of 2021, we monitor more than nine million hectares across Indonesia and Malaysia covering all of our suppliers for deforestation and peat development. If our supplier is found to be non-compliant with the NDPE policy, we will engage with the supplier in question and exclude them if necessary. Presently, we have achieved 100% traceability to mill since 2015 and 94% traceability to plantation as of December 2021. We are on track and gearing toward 100% full traceability to plantation by December 2025. Moreover, suppliers are to complete the Musim Mas Self-Assessment Tool (SAT) which is an exhaustive set of questions against our NDPE requirements. As of December 2021, 77% of our suppliers have completed their assessments. In Q4 2021, we published our No Deforestation, No Peat (NDP) Risk Management Framework to address the risks of deforestation and peat development on our operations and those of our suppliers.

F17 Signoff

F-FI

(F-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

n/a

F17.1

(F17.1) Provide the following information for the person that has signed off (approved) your CDP forests response.

	Job Title	Corresponding job category
Row 1	Director of Sustainability	Director on board

SF. Supply chain module

SF0.1

(SF0.1) What is your organization's annual revenue for the reporting period?

	Annual revenue
Row 1	10000000000

SF1.1

(SF1.1) In F6.3 you were asked "Have you adopted any third-party certification scheme(s) for your disclosed commodity(ies)? Indicate the volume and percentage of your certified production and/or consumption". Can you also indicate, for each of your disclosed commodity(ies), the percentage of certified volume sold to each requesting CDP supply chain member?

Partially

SF1.1a

(SF1.1a) For each of your requesting CDP supply chain members, indicate the percentage of certified volume sold per disclosed commodity(ies).

SF1.1b

(SF1.1b) Why can you not indicate the percentage of certified volume sold to each of your requesting CDP supply chain members? Describe any future plans for adopting and communicating levels of certification to requesting members.

SF2.1

(SF2.1) Please propose any mutually beneficial forests-related projects you could collaborate on with specific CDP supply chain members.

SF2.2

(SF2.2) Have requests or initiatives by CDP supply chain members prompted your organization to take organizational-level action to reduce or remove deforestation/forest degradation from your operations or your supply chain?

No

SF3.1

(SF3.1) For your disclosed commodity(ies), do you estimate the GHG emission reductions and/or removals from land use and land use change that have occurred in your direct operations and/or supply chain?

Palm oil

Estimate GHG emissions and removals from land use and land use change

Yes, but not willing to share details

Please explain

n/a

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms