PT Musim Mas - Water Security 2020



W0. Introduction

W0.1

(W0.1) 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.

W0.2

(W0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date
Reporting year	January 1 2019	December 31 2019

W0.3

(W0.3) Select the countries/areas for which you will be supplying data.

China

India

Indonesia

Malaysia Netherlands

Spain

W0.4

CDP Page 1 of 13

USD

W0.5

(W0.5) Select the option that best describes the reporting boundary for companies, entities, or groups for which water impacts on your business are being reported.

Companies, entities or groups over which operational control is exercised

W0.6

(W0.6) Within this boundary, are there any geographies, facilities, water aspects, or other exclusions from your disclosure?

Yes

W0.6a

(W0.6a) Please report the exclusions.

Exclusion	Please explain
Water usage in offices	Water usage in offices is relatively small so it is negligible.

W1. Current state

W1.1

(W1.1) Rate the importance (current and future) of water quality and water quantity to the success of your business.

		Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Important	Important	Good quality freshwater is required for our operations as well as our suppliers operations such as for use in boilers, processes and domestic uses.
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Have not evaluated	We use treated sea water for our refineries' operation. Brackish or produced water use is not evaluated for our suppliers.

W1.2

(W1.2) Across all your operations, what proportion of the following water aspects are regularly measured and monitored?

	% of sites/facilities/operations	Please explain
Water withdrawals – total volumes	100%	Water withdrawals, including its volume, source and quality, are annually monitored for all plantations, mills and refineries.
Water withdrawals – volumes by source	100%	Water withdrawals data is divided based on its source, namely rainwater, river basin, ground water or third party, for all plantations, mills and refineries.
Entrained water associated with your metals & mining sector activities - total volumes [only metals and mining sector]	<not applicable=""></not>	<not applicable=""></not>
Produced water associated with your oil & gas sector activities - total volumes [only oil and gas sector]	<not applicable=""></not>	<not applicable=""></not>
Water withdrawals quality	100%	In our plantations, mills, and refineries, we performed regular water quality test of water sources such as rivers or ground water.
Water discharges – total volumes	100%	We monitor the water discharged in all plantations, mills and refineries.
Water discharges – volumes by destination	100%	We measure the amount volume of water discharged to third party, ground water, or as land application for our own plantations
Water discharges – volumes by treatment method	100%	We measure the amount of the volume of waste water treated in all plantations, mills and refineries
Water discharge quality – by standard effluent parameters	100%	Our production facilities are required by law to measure the quality of the effluent except for offices which discharges to municipal treatment plants.
Water discharge quality – temperature	Not monitored	
Water consumption – total volume	100%	Water consumption is monitored for all sites.
Water recycled/reused	100%	Waste water from the palm oil mill is recycled as irrigation to the plantations
The provision of fully-functioning, safely managed WASH services to all workers	100%	All of our facilities are equipped with fully-functioning WASH services for all workers. For facilities located in the cities, WASH services are supplied by the municipality while in our plantation estates, it is provided by the company. WASH services provided by Musim Mas in the estates included: Access to good quality potable water (with water treatments plant provided in every housing estate), proper sanitation and proper hygiene.

W1.2b

(W1.2b) What are the total volumes of water withdrawn, discharged, and consumed across all your operations, and how do these volumes compare to the previous reporting year?

		Comparison with previous reporting	Please explain
		year	
Total withdrawals	1595875.27	Higher	Figure is obtained from water withdrawals from all plantations, mills, refineries, oleochemical plants and biodiesel plants. This figure includes withdrawal from rainwater, where in previous year, rainwater withdrawal was excluded.
Total discharges	11595.09	Higher	Figure is obtained from water discharges from all plantations, mills, refineries, oleochemical plants and biodiesel plants. The figure is higher compared to previous reporting year since we start monitoring water discharged in refineries, oleochemical plants and biodiesel plants in 2019.
Total consumption	1584280.18	Lower	Data were compiled using Water Footprint methodology, thus include green, blue and grey water consumption.

W1.2d

(W1.2d) Indicate whether water is withdrawn from areas with water stress and provide the proportion.

	Withdrawals are from areas with water stress	% withdrawn from areas with water stress	Comparison with previous reporting year	Identification tool	Please explain
Row 1	No	<not applicable=""></not>	<not applicable=""></not>	WRI Aqueduct	

W1.2h

(W1.2h) Provide total water withdrawal data by source.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant but volume unknown	<not applicable=""></not>	<not applicable=""></not>	Water withdrawals data are only divided based on its source in plantations and mills. Water is sourced from rivers for all of our plantations, mills and refineries. In addition, our plantations also received water from rains.
Brackish surface water/Seawater	Not relevant	<not applicable=""></not>	<not applicable=""></not>	We do not use brackish water for our operations.
Groundwater – renewable	Relevant but volume unknown	<not applicable=""></not>	<not applicable=""></not>	Groundwater is used for all our plantations, mills and refineries.
Groundwater – non-renewable	Not relevant	<not applicable=""></not>	<not applicable=""></not>	We do not use non-renewable groundwater for our operations.
Produced/Entrained water	Relevant but volume unknown	<not applicable=""></not>	<not applicable=""></not>	Our refineries use treated sea water for the operations.
Third party sources	Relevant but volume unknown	<not applicable=""></not>	<not applicable=""></not>	Our plantations, mills and refineries utilise water sourced from third party.

W1.2i

(W1.2i) Provide total water discharge data by destination.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water	Relevant but volume unknown	<not applicable=""></not>	<not applicable=""></not>	All the water in plantations and mills is discharged back to river basin
Brackish surface water/seawater	Relevant but volume unknown	<not applicable=""></not>	<not applicable=""></not>	Some water from our refineries' waste treatment plants is returned to the sea
Groundwater	Relevant but volume unknown	<not applicable=""></not>	<not applicable=""></not>	Most of water use in plantations operation is discharged to groundwater
Third-party destinations	Relevant but volume unknown	<not applicable=""></not>	<not applicable=""></not>	Some water from our refineries is discharged to third-party destinations

W1.4

(W1.4) Do you engage with your value chain on water-related issues?

No, we do not engage on water with our value chain

(W1.4d) Why do you not engage with any stages of your value chain on water-related issues and what are your plans?

	Primary reason	Please explain
Row 1	Judged to be unimportant	Our suppliers are located in tropical regions with plentiful rain and other water resources. Water risk is judged to be low.

W2. Business impacts

W2.1

(W2.1) Has your organization experienced any detrimental water-related impacts?

No

W2.2

(W2.2) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for water-related regulatory violations?

W3. Procedures

W3.3

(W3.3) Does your organization undertake a water-related risk assessment?

Yes, water-related risks are assessed

W3.3a

(W3.3a) Select the options that best describe your procedures for identifying and assessing water-related risks.

Direct operations

Coverage

Partial

Risk assessment procedure

Water risks are assessed as part of other company-wide risk assessment system

Frequency of assessment

Annually

How far into the future are risks considered?

3 to 6 years

Type of tools and methods used

International methodologies

Tools and methods used

Life Cycle Assessment

Alliance for Water Stewardship Standard

Comment

Water accountability report crafted using Water Footprint Methodology

Supply chain

Coverage

Partial

Risk assessment procedure

Water risks are assessed as part of other company-wide risk assessment system

Frequency of assessment

Annually

How far into the future are risks considered?

3 to 6 years

Type of tools and methods used

International methodologies

Tools and methods used

Life Cycle Assessment

Alliance for Water Stewardship Standard

Commen

Water accountability report crafted using Water Footprint Methodology

Other stages of the value chain

Coverage

None

Risk assessment procedure

<Not Applicable>

Frequency of assessment

<Not Applicable>

How far into the future are risks considered?

<Not Applicable>

Type of tools and methods used

<Not Applicable>

Tools and methods used

<Not Applicable>

Comment

W3.3b

(W3.3b) Which of the following contextual issues are considered in your organization's water-related risk assessments?

	Relevance & inclusion	Please explain
Water availability at a basin/catchment level	Relevant, always included	We operate our own plantations so the availability of sufficient water resources is important for us and is always included in risk assessment. We have created a water accountability report to analyse water availability and quality in our plantations
Water quality at a basin/catchment level	Relevant, always included	Water quality is important for our operations and is always included in risk assessment. We have even quantified water quality using "grey water" concept of Water Footprint methodology.
Stakeholder conflicts concerning water resources at a basin/catchment level	Relevant, always included	Water sharing is included in our risk assessments process. We have included water topics in the periodical stakeholder consultations.
Implications of water on your key commodities/raw materials	Relevant, always included	Implication of water is always included in our risk assessment. We understood that oil palm is dependent on water and prolonged drought can greatly reduce the productivity of our crops.
Water-related regulatory frameworks	Relevant, always included	We are committed to obey laws and regulations so update in water laws or regulations is always included in our risk assessment. We conducted regular water sampling and testing in accordance with government regulations.
Status of ecosystems and habitats	Relevant, always included	We understood that river bed ecosystem is important to the quality of the river. We committed to protect HCV areas especially HCV 4 on riparian areas. We also conducted risks assessments of the HCV areas as well as monitoring and management of the HCV areas.
Access to fully-functioning, safely managed WASH services for all employees	Relevant, always included	We committed to provide fully-functioning and safely managed WASH services for all employees. We have
Other contextual issues, please specify	Please select	

W3.3c

(W3.3c) Which of the following stakeholders are considered in your organization's water-related risk assessments?

	Relevance & inclusion	Please explain
Customers	Relevant, always included	Changes in consumer demands regarding water footprint of a product will affect our business. This is a risk included in our risk assessment.
Employees	Relevant, always included	There is a risk that employees due to lack of training inadvertently committed water pollution (for example: mixing pesticides not in the designated mixing area etc). This is a risk that we try to mitigate by providing regular training programs.
Investors	Relevant, always included	Recently, some banks are starting to require sustainability assessment before they provide funding. Water-related issues are one of the topic considered.
Local communities	Relevant, always included	We understood that the availability and quality of water available to us is dependent on other actors in our area. This included the local communities, which is why local communities are always included in our risk assessment.
NGOs	Relevant, always included	NGOs are a wild card. They can provide expertise to help us in managing water resources, they can also run a campaign attacking our water practices. This is included in our risk assessment.
Other water users at a basin/catchment level	Relevant, always included	We understood that the availability and quality of water available to us is dependent on other actors or water users in our area. They are always included in our risk assessment.
Regulators	Relevant, always included	Musim Mas commit to fully comply with local, national and international laws. Accordingly regulators and changes in regulation is assigned a high priority in our risk assessment process.
River basin management authorities	Not considered	
Statutory special interest groups at a local level	Not considered	
Suppliers	Relevant, always included	Our suppliers water related risk is always considered in our risk assessment.
Water utilities at a local level	Relevant, always included	Some of our refineries and offices rely on water from local utilities. There is risk of disruption in the supply of water from the utilities. This is included in risk assessment.
Other stakeholder, please specify	Please select	

W3.3d

(W3.3d) Describe your organization's process for identifying, assessing, and responding to water-related risks within your direct operations and other stages of your value chain.

We start by quantifying our water use and water consumption using the Water Footprint methodology (See: http://waterfootprint.org/en/). After that we conducted water balance study by comparing the water consumption with the water available from rain as well as runoff water. The next step is to assess water risks that may have negative impacts on our activities. Lastly we formulate management plans to manage and mitigate the risks.

W4. Risks and opportunities

W4.1

No

W4.1a

(W4.1a) How does your organization define substantive financial or strategic impact on your business?

Musim Mas defines substantive financial impact as:

- Any impact which 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 affect our production cost as well as production volume.

W4.2b

(W4.2b) Why does your organization not consider itself exposed to water risks in its direct operations with the potential to have a substantive financial or strategic impact?

Primary reason	Please explain
i i	Most of our operations are located in the tropics with high and well distributed rainfall and other freshwater resources. There are periodic drier years caused by El Nino phenomenon but this occurrence is incidental and the impact is of temporary nature which could be mitigated with best management practices.
anticipated	

W4.2c

(W4.2c) Why does your organization not consider itself exposed to water risks in its value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact?

	Primary reason	Please explain
Row	Risks exist, but no	Most of our supply chain operations are located in the tropics with high and well distributed rainfall and other freshwater resources. There are periodic drier years caused by El Nino
1 substantive impact phenomenon but this occurrence is incidental and the impact is of temporary nature which could be mitigated with best mana		phenomenon but this occurrence is incidental and the impact is of temporary nature which could be mitigated with best management practices.
anticipated		

W4.3

(W4.3) Have you identified any water-related opportunities with the potential to have a substantive financial or strategic impact on your business?

W4.3b

(W4.3b) Why does your organization not consider itself to have water-related opportunities?

	Primary reason	Please explain	
Row	Opportunities exist, but none with potential to have a substantive	Our operations and those of our competitors are mostly in the tropics where there is no severe limitation on water supply to our	
1	financial or strategic impact on business	operation. Furthermore, the market for low water products has not emerged yet.	

W6. Governance

W6.1

(W6.1) Does your organization have a water policy?

No, but we plan to develop one within the next 2 years

W6.2

Yes

W6.2a

(W6.2a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for water-related issues.

Position	Please explain
of	
individual	
Director on board	The Musim Mas Board of Directors ('Board') considers sustainability a core component of our corporate integrity, ensuring that material environmental, social and governance (ESG) factors are embedded into business strategies and decisions. The Board is led by our Executive Chairman and Chief Executive Officer. Our sustainability teams, senior management and the Board, are involved in decision-making pertaining to our climate-related risks and opportunities.

W6.2b

(W6.2b) Provide further details on the board's oversight of water-related issues.

Frequency that water-related issues are a scheduled age item	Governance mechanisms into which water-related ida issues are integrated	Please explain
Row Scheduled - sor meetings	e Monitoring implementation and performance Overseeing acquisitions and divestiture Overseeing major capital expenditures Reviewing and guiding annual budgets Reviewing and guiding business plans Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding corporate responsibility strategy Reviewing innovation/R&D priorities Setting performance objectives	During the meeting, the sustainability committee will brief the board on the state of sustainability including water issues and the progress of Musim Mas sustainability initiative such as RSPO, ISPO, ISCC certification, POIG verification and supply chain traceability. The committee will also bring up any complaints that the company has received regarding sustainability to discuss the potential paths to resolution. The committee also discussed potential new sustainability initiative that can be undertaken with other stakeholders.

W6.3

(W6.3) Provide the highest management-level position(s) or committee(s) with responsibility for water-related issues (do not include the names of individuals).

Name of the position(s) and/or committee(s)

Sustainability committee

Responsibility

Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

A lower level sustainability committee comprising of middle and lower management are tasked to assess and manage water-related risks. This committee reports to the board's sustainability committee and Director on Board.

W6.4

(W6.4) Do you provide incentives to C-suite employees or board members for the management of water-related issues?

	Provide incentives for management of water-related issues	
Row 1	No, not currently but we plan to introduce them in the next two years	

W6.5

(W6.5) Do you engage in activities that could either directly or indirectly influence public policy on water through any of the following?

W6.6

(W6.6) Did your organization include information about its response to water-related risks in its most recent mainstream financial report?

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

Sustainability Report 2018.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 2018, water-related discussion can be found in page 34-36.

W7. Business strategy

W7.1

(W7.1) Are water-related issues integrated into any aspects of your long-term strategic business plan, and if so how?

	Are water-related issues integrated?	Long- term time horizon (years)	Please explain
Long-term business objectives	No, water-related issues were reviewed but not considered as strategically relevant/significant	5-10	Most of our operations as well as our suppliers are located in the tropics with high and well distributed rainfall and other freshwater resources. There are periodic drier years caused by El Nino phenomenon but this occurrence is incidental and the impact is of temporary nature which could be mitigated with best management practices. This is why while water related-issues have been included in our risk assessment and general planning, it is not deemed significant enough to be integrated into long-term objectives.
Strategy for achieving long-term objectives	No, water-related issues were reviewed but not considered as strategically relevant/significant	5-10	Most of our operations as well as our suppliers are located in the tropics with high and well distributed rainfall and other freshwater resources. There are periodic drier years caused by El Nino phenomenon but this occurrence is incidental and the impact is of temporary nature which could be mitigated with best management practices. This is why while water related-issues have been included in our risk assessment and general planning, it is not deemed significant enough to be integrated into long-term objectives.
Financial planning	No, water-related issues were reviewed but not considered as strategically relevant/significant	5-10	Most of our operations as well as our suppliers are located in the tropics with high and well distributed rainfall and other freshwater resources. There are periodic drier years caused by El Nino phenomenon but this occurrence is incidental and the impact is of temporary nature which could be mitigated with best management practices. This is why while water related-issues have been included in our risk assessment and general planning, it is not deemed significant enough to be integrated into long-term objectives.

W7.2

(W7.2) What is the trend in your organization's water-related capital expenditure (CAPEX) and operating expenditure (OPEX) for the reporting year, and the anticipated trend for the next reporting year?

Row 1

Water-related CAPEX (+/- % change)

Anticipated forward trend for CAPEX (+/- % change)

Water-related OPEX (+/- % change)

Anticipated forward trend for OPEX (+/- % change)

Please explain

W7.3

(W7.3) Does your organization use climate-related scenario analysis to inform its business strategy?

	Use of climate-related scenario analysis	Comment
Row	No, but we anticipate doing so within the next two years	We are not familiar with climate-related scenario analysis. Once we have studied it and other available options, we may implement one in the future.
1		

W7.4

(W7.4) Does your company use an internal price on water?

Row 1

Does your company use an internal price on water?

No, and we do not anticipate doing so within the next two years

Please explain

We and our supply bases operate in the tropics with plentiful rains and water resources. Internal price on water is not necessary

W8. Targets

W8.1

(W8.1) Describe your approach to setting and monitoring water-related targets and/or goals.

	Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
Row 1	Company-wide targets and goals	Targets are monitored at the corporate level	

W8.1a

(W8.1a) Provide details of your water targets that are monitored at the corporate level, and the progress made.

Target reference number

Target 1

Category of target

Product water intensity

Level

Business activity

Primary motivation

Reduced environmental impact

Description of target

Our target covers the water usage in all of our mills. We targeted that our water usage in 2019 is below 1.25 m3/MT FFB processed and by 2025, it is targeted that our mills' operations achieve water usage below 1.20 m3/MT FFB processed.

Quantitative metric

% reduction per product

Baseline year

2019

Start year

2019

Target year

2019

% of target achieved

100

Please explain

Target reference number

Target 2

Category of target

Product water intensity

Level

Business activity

Primary motivation

Reduced environmental impact

Description of target

Our target covers the water usage in all of our mills. We targeted that our water usage in 2019 is below 1.25 m3/MT FFB processed and by 2025, it is targeted that our mills' operations achieve water usage below 1.20 m3/MT FFB processed.

Quantitative metric

% reduction per product

Baseline year

2019

Start year

2019

Target year

2025

% of target achieved

97.5

Please explain

W9. Verification

W9.1

(W9.1) Do you verify any other water information reported in your CDP disclosure (not already covered by W5.1a)?

No, we are waiting for more mature verification standards and/or processes

W10. Sign off

W-FI

(W-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.

W10.1

(W10.1) Provide details for the person that has signed off (approved) your CDP water response.

	Job title	Corresponding job category
Row 1	Director of Sustainability	Other, please specify (Head of Department)

W10.2

(W10.2) Please indicate whether your organization agrees for CDP to transfer your publicly disclosed data on your impact and risk response strategies to the CEO Water Mandate's Water Action Hub [applies only to W2.1a (response to impacts), W4.2 and W4.2a (response to risks)].

Please select

SW. Supply chain module

SW0.1

(SW0.1) What is your organization's annual revenue for the reporting period?

	Annual revenue
Row 1	

SW0.2

(SW0.2) Do you have an ISIN for your organization that you are willing to share with CDP?

No

SW1.1

(SW1.1) Could any of your facilities reported in W5.1 have an impact on a requesting CDP supply chain member?

This is confidential

SW1.2

(SW1.2) Are you able to provide geolocation data for your facilities?

	Are you able to provide geolocation data for your facilities?	Comment
Row 1	No, this is confidential data	

SW2.1

(SW2.1) Please propose any mutually beneficial water-related projects you could collaborate on with specific CDP supply chain members.

SW2.2

(SW2.2) Have any water projects been implemented due to CDP supply chain member engagement?

No

SW3.1

(SW3.1) Provide any available water intensity values for your organization's products or services.

Product name

Crude Palm Oil (CPO)

Water intensity value

1.23

Numerator: Water aspect

Water withdrawn

Denominator

Amount of FFB processed

Comment

The boundary of calculation is all water withdrawn for processes in our mills.

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission	Are you ready to submit the additional Supply Chain Questions?
I am submitting my response	Investors	Public	Yes, submit Supply Chain Questions now
	Customers		

Please confirm below

I have read and accept the applicable Terms