

Welcome to your CDP Water Security Questionnaire 2021

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, 2020	December 31, 2020

W0.3

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

- China
- India
- Indonesia
- Malaysia
- Netherlands
- Spain

W0.4

(W0.4) Select the currency used for all financial information disclosed throughout your response.

- 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	Since water usage in offices is relatively small compared to our total water consumption, 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.

	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Important	Important	<p>While our plantation operations are mostly dependent on rainfall, good freshwater quality is demanded for our mills and downstream operations as well as our suppliers' operations. For example, water usage in boilers, processes, and domestic uses. Since these water usages are demanded for our daily operational, thus, an important rating is set for this water category.</p> <p>With improvement measures such as boosting the efficiency of mills' processes and machines, these will help in minimising our future water dependency.</p>
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Not very important	<p>We use treated sea water in our operation with water recycling implementation. Since our derivative products are manufactured from the refineries, thus, an important rating is set for our direct operations. Additionally, suppliers' usage of the recycled, brackish, and produced water is ranked to be not very important considering these water usages only applicable to our own operations. With improvement measures such as boosting the efficiency of downstream processes and machines, these will help in minimising our future water dependency.</p>

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 our operations. Water withdrawn is recorded regularly using a flowmeter set in respective units.
Water withdrawals – volumes by source	100%	In our operations, water withdrawals data are divided based on its source, namely rainwater, river basin, groundwater or third party. Water withdrawn is recorded regularly using a flowmeter set in respective units.
Water withdrawals quality	100%	In our operations, we performed regular water quality tests of water sources. For instance, the water withdrawn in our mills is stored in a water pond to sediment any unwanted impurities and solid particles. The water stored in the pond is then sent to a water treatment plant where the water quality is improved to achieve the standard to be used for mill processing (e.g. for boiler, cleaning, etc). Water quality parameters such as hardness and pH are regularly monitored.
Water discharges – total volumes	100%	We monitor the water discharged in our operations. Flowmeter is used to record volume of water discharge.
Water discharges – volumes by destination	100%	We measure the volume of water discharged to third party, groundwater, etc. Flowmeter is used to record the volume of water discharge.
Water discharges – volumes by treatment method	100%	We measure the volume of treated water discharges in our operations. Flowmeter is used to monitor volume of the respective water discharges.
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 discharged to municipal treatment plants. Following the applicable regulations, we also conduct a regular test on the wastewater quality to ensure that the BOD and COD levels

		do not exceed the threshold set by the regulation and to avoid any impact on the environment.
Water discharge quality – temperature	Not monitored	This aspect is not relevant to us
Water consumption – total volume	100%	Water consumption is measured for all sites using internal program of the company. The water consumption is the subtraction of water withdrawn minus water discharge.
Water recycled/reused	100%	Wastewater from the palm oil mill namely Palm Oil Mill Effluent (POME) is reused as land irrigation to the plantations. Before being reused as land application, the wastewater is treated. Flowmeter is set to measure the wastewater.
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?

	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Total withdrawals	29,263	Lower	Figure is obtained from water withdrawals from our operations. The lower figure reported is due to the change in data collection methodology. In the future, the figure may fluctuate depending on the upstream activity such as replanting.
Total discharges	8,672	Lower	Figure is obtained from water discharges from our operations. The figure is lower compared to the previous reporting year considering the

			improvement in our data collection for this reporting year.
Total consumption	20,591	Lower	This figure is measured in our operations. The figure is lower compared to the previous reporting year due to the change in data collection methodology in water withdrawals.

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	Identification tool	Please explain
Row 1	No	WRI Aqueduct	All Musim Mas upstream operations are located in Sumatera and Kalimantan regions. Based on the WRI Aqueduct Water Risk Atlas, these regions are free from water stress. Practically, we also conclude the same.

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	2,631.58	This is our first year of measurement	Fresh surface water (from river) is widely used in our operations. Water withdrawals data are divided based on its source in our operations. The figure corresponds to the withdrawal of fresh surface water for our processing units.
Brackish surface water/Seawater	Relevant	7,302.64	This is our first year of measurement	Our operations use treated seawater for the operations. The figure corresponds to the withdrawal of seawater for our processing units.

Groundwater – renewable	Relevant	769.53	This is our first year of measurement	Groundwater is used for our operations. The figure corresponds to withdrawal of groundwater for our processing units.
Groundwater – non-renewable	Not relevant			We do not use non-renewable groundwater for our operations.
Produced/Entrained water	Relevant but volume unknown			The figure is yet to be publicly disclosed.
Third party sources	Relevant	6,278.64	This is our first year of measurement	Our operations also utilise water from a third-party source. The figure corresponds to processing units' third party purchase.

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	249.62	This is our first year of measurement	Some water in our operations is discharged back to the river basin. The figure corresponds to the processing units' water destination to fresh surface water.
Brackish surface water/seawater	Relevant	2,585.5	This is our first year of measurement	Some water from our processing units' are returned to the sea. The figure corresponds to the processing units' water destination to seawater.
Groundwater	Relevant but volume unknown			Some water in operation is discharged to groundwater after being treated.

Third-party destinations	Relevant	1,114.64	This is our first year of measurement	Water from our refineries is discharged to third-party destinations for further treatment. The figure corresponds to the refineries' water destination to third-party destinations.
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W1.2j

(W1.2j) Within your direct operations, indicate the highest level(s) to which you treat your discharge.

	Relevance of treatment level to discharge	Please explain
Tertiary treatment	Relevant but volume unknown	N/A
Secondary treatment	Relevant but volume unknown	N/A
Primary treatment only	Relevant but volume unknown	N/A
Discharge to the natural environment without treatment	Relevant but volume unknown	N/A
Discharge to a third party without treatment	Relevant but volume unknown	N/A
Other	Relevant but volume unknown	N/A

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

(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	Since our suppliers are located in tropical regions with plentiful rainwater and other water resources, thus, the 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?

No

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?

More than 6 years

Type of tools and methods used

Tools on the market

Tools and methods used

Water Footprint Network Assessment tool

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?

More than 6 years

Type of tools and methods used

Tools on the market

Tools and methods used

Water Footprint Network Assessment tool

Comment

Water accountability report crafted using Water Footprint Methodology

Other stages of the value chain

Coverage

None

Comment

N/A

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	Since we operate our own plantations and mills, the availability of sufficient water resources is important for us and is always included in risk assessment. To monitor and assess the water availability of our plantations and mills, we produce a water accountability report annually. This report covers a range of topics starting from water balances to water management plans.
Water quality at a basin/catchment level	Relevant, always included	To ensure continual adherence to government water quality standard, water quality is important for our operations and is always included in risk assessment. For instance, we monitor the N & P level in watercourses.
Stakeholder conflicts concerning water resources at a basin/catchment level	Relevant, always included	Water sharing is included in our risk assessments process. Being POIG verified, a water stewardship assessment is undertaken involving relevant stakeholders to address water equity topics.

Implications of water on your key commodities/raw materials	Relevant, always included	We understand that oil palm operation is dependent on water, thus, the implication of water is always included in our risk assessment.
Water-related regulatory frameworks	Relevant, always included	Align with our sustainability policy, we are committed to obeying laws and regulations, thus, changes in water laws or regulations are always included in our risk assessment. For instance, we conduct regular water sampling and testing in accordance with government regulations.
Status of ecosystems and habitats	Relevant, always included	We understand that the riverbed ecosystem plays an important role in the quality of the river. Thus, we are committed to protecting those areas especially HCV 4 on riparian areas. Additionally, we also conduct 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	To maintain the wellbeing of our employees especially during the time of the pandemic, we provide fully functioning and safely managed WASH services for all employees. Additionally, we also install handwashing stations at entrance areas of all plantations and mills.
Other contextual issues, please specify	Not considered	N/A

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 may affect our business. This risk included in our risk assessment. Method of engagement includes but are not limited to one-on-one communications and sustainability report.
Employees	Relevant, always included	Musim Mas is established upon a group of talented staffs and workers who work and collaborate as a team to address the challenges in the palm oil industry making the products to become more economically viable, socially responsible, and environmentally appropriate. Musim Mas mitigate the water-related risks by providing regular training programs and socialisation. Method of engagement includes but are not limited to Musim Mas training programmes.

Investors	Relevant, always included	With the stricter policies on environment and wildlife protection, investors and banks are starting to require sustainability assessment as one of their funding criteria. Among many, water-related issues is one key topic that is considered. Method of engagement includes but are not limited to one-on-one communications and sustainability report.
Local communities	Relevant, always included	We understand that the availability and quality of water for our operations also depends on other factors such as local communities. Thus, we conducted the Social and Environmental Impact Assessment which includes water aspect on it to ensure the water availability for surrounding communities where we are operating. To ensure the welfare and wellbeing of the local communities, local communities are always included in our risk assessment. Method of engagement includes but are not limited to consultation with community groups and representatives, and community programmes.
NGOs	Relevant, always included	NGOs play an important role to advance our sustainability progress. Methods of engagement include but are not limited to landscape initiatives (i.e. Sedagho Siak NGO in Siak District conservation project) and sustainability platforms (i.e. HCSA).
Other water users at a basin/catchment level	Relevant, always included	We understand that the availability and quality of water for our operations also depend on other water users in our areas. They are part of our risk assessment. Method of engagement includes but is not limited to a water stewardship assessment involving relevant stakeholders to address water equity topics.
Regulators	Relevant, always included	Musim Mas pledges to fully comply with local, national, and international laws and guidelines. Both regulators and changes in regulation are assigned as a high priority in our risk assessment process. Accordingly, dedicated teams are established to ensure continual adherence to the relevant regulations includes on water topic. Method of engagement includes but is not limited to landscape programme meetings and etcetera.
River basin management authorities	Relevant, always included	Musim Mas pledges to fully comply with local, national, and international laws and guidelines. Management of riparian buffer zone or HCV 4 are done to maintain the water quality of the river and ensuring adequate supply as well as minimizing water conflicts. Accordingly, dedicated teams are established to ensure continual adherence to the relevant sustainability commitments. Method of engagement includes but is not limited to landscape programme, joint management and monitoring with local communities, local government and surrounding companies.

Statutory special interest groups at a local level	Relevant, always included	We understand that the availability of water for our operations also depends on other water users in our areas including the statutory local special interest groups. While not categorised specifically, they are already part of our risk assessment. Method of engagement includes but is not limited to landscape programme, joint management and monitoring with local communities, local government and surrounding companies.
Suppliers	Relevant, not included	The information is yet to be publicly disclosed.
Water utilities at a local level	Relevant, always included	Some of our operations and offices rely on water from local utilities. Since there is a risk of disruption in the supply of water from the utilities, it is included in risk assessment. Method of engagement includes but is not limited to landscape programme meetings and one-on-one meetings.
Other stakeholder, please specify	Not considered	N/A

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 categorising and quantifying our water use and water consumption using the Water Footprint methodology (See: <http://waterfootprint.org/en/>). Following that, we conduct a water balance study by comparing the water consumption with the water available from rainwater. We then thoroughly assess water risks that may have negative impacts on our activities. We formulate management plans to manage and mitigate the risks. The relevant information will then be shared and discussed with the relevant departments to plan and decide on necessary action, projects, and/or recommendations. These action plans/initiatives will be reported to the board level before embarking on the plan. The assessment methodology is used to produce our annual water accountability report.

W4. Risks and opportunities

W4.1

(W4.1) Have you identified any inherent water-related risks with the potential to have a substantive financial or strategic impact on your business?

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 impacts that significantly affect and disrupt our supply chains which in turns 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 affect our production cost as well as production volume.

To address these risks, Musim Mas implements a robust corporate governance and risk management framework to continuously monitor, identify, and manage the arising risks. This framework is aligned and managed in our NDPE and sustainability policies which include no deforestation, waste management, etc.

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
Row 1	Risks exist, but no substantive impact anticipated	Our operations are located in tropical regions with high and well-distributed rainfall and other freshwater resources. While there is a period of drier years caused by the El Nino phenomenon, this occurrence is incidental which impact is of temporary nature and could be mitigated with best management practices such as the construction of water ponds to catch the rainwater and to store water as a source of water during the dry season. The water in this pond will be useful during dry season.

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 1	Risks exist, but no substantive impact anticipated	Our operations are located in tropical regions with high and well-distributed rainfall and other freshwater resources. While there is a period of drier years caused by the El Nino phenomenon, this occurrence is incidental which impact is of temporary nature and could be mitigated with best management practices such as land irrigation of POME.

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?

Yes, we have identified opportunities, and some/all are being realized

W4.3a

(W4.3a) Provide details of opportunities currently being realized that could have a substantive financial or strategic impact on your business.

Type of opportunity

Efficiency

Primary water-related opportunity

Improved water efficiency in operations

Company-specific description & strategy to realize opportunity

All water withdrawn from the water source (river) will be sent to the water treatment plant and the water volume is recorded using flowmeter. Furthermore, the volume of water is then input into the company program system. The verification is conducted by the PIC to check whether the data has been input correctly. Other improvement measures include but are not limited to enhance the efficiency of the unit's processes and machines to maintain the quality of water. With these improvement measures, we are to increase our operations' water efficiency.

Estimated timeframe for realization

1 to 3 years

Magnitude of potential financial impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

The financial impact is yet to be publicly disclosed.

W6. Governance


W6.1

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


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

W6.1a

(W6.1a) Select the options that best describe the scope and content of your water policy.

	Scope	Content	Please explain
Row 1	Company-wide	Description of water-related performance standards for direct operations Company water targets and goals Commitment to align with public policy initiatives, such as the SDGs Commitments beyond regulatory compliance Commitment to water-related innovation Commitment to stakeholder awareness and education Commitment to water stewardship and/or collective action Commitment to safely managed Water, Sanitation and Hygiene (WASH) in the workplace Commitment to safely managed Water, Sanitation and Hygiene (WASH) in local communities Acknowledgement of the human right to water and sanitation	For more information on our sustainability policy, please refer to: https://www.musimmas.com/wp-content/uploads/2020/09/Musim-Mas-Sustainability-Policy-2020-2025.pdf  1, 2

 ¹Musim-Mas-Sustainability-Report-2019.pdf

 ²Musim-Mas-Sustainability-Policy-2020-2025.pdf

W6.2

(W6.2) Is there board level oversight of water-related issues within your organization?

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 of individual	Please explain
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 meet quarterly to review key ESG issues and are involved in decision-making pertaining to our water-related risks and opportunities. Monthly reports are also provided to the Board. For example, approaching the dry season, the management would plan and decide to construct more water ponds for some units in preparation for source of water during the dry season.

W6.2b

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

	Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain
Row 1	Scheduled - some meetings	<ul style="list-style-type: none"> Monitoring implementation and performance Overseeing major capital expenditures Reviewing and guiding annual budgets Reviewing and guiding business plans Reviewing and guiding major plans of action 	During the meeting, the sustainability committee will brief the board on the state of sustainability of the industry including water issues and the progress of Musim Mas sustainability initiatives such as RSPO, ISPO, ISCC certification, POIG verification and supply chain traceability. The committee will also bring up any complaints and grievances concerning sustainability to discuss potential paths to resolution. Additionally, the committee discusses potential new sustainability initiative(s) that can be undertaken with other stakeholders.

		Reviewing and guiding risk management policies Reviewing and guiding strategy Reviewing and guiding corporate responsibility strategy Reviewing innovation/R&D priorities Setting performance objectives	
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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)

Chief Executive Officer (CEO)

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

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 meet quarterly to review key ESG issues and are involved in decision-making pertaining to our forest-related risks and opportunities. Monthly reports are also provided to the Board. The reported water-related issues including but are not limited to the annual water accountability report that covers a range of topics starting from water balances to water management plans.

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	Comment
Row 1	Yes	Yes, we do provide incentives for the board members.

W6.4a

(W6.4a) What incentives are provided to C-suite employees or board members for the management of water-related issues (do not include the names of individuals)?

	Role(s) entitled to incentive	Performance indicator	Please explain
Monetary reward	Director on board	Improvements in efficiency - direct operations Other, please specify Standards and Compliance	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 reduction of water intensity and/or full compliance to regulations and certifications schemes such as POIG where water-related issues are discussed.
Non-monetary reward	Director on board	Improvements in efficiency - direct operations	Our Director on Board works and is evaluated annually based on the Key Performance Indicator (KPI). Examples of performance indicators include but are not limited to reduction of water intensity and/or full compliance to regulations and certifications schemes such as POIG where water-related issues are discussed. 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 on the performance indicators.

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?

No


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)

 Musim-Mas-Sustainability-Report-2019.pdf

 Musim-Mas-Sustainability-Policy-2020-2025.pdf

 Our Sustainability report for year 2020 is yet to be published at the time of this CDP submission, thus, we have attached SR2019 for your reference (pg 43-44). The updated data however will be disclosed this year in the SR2020.

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	Yes, water-related issues are integrated	5-10	<p>Recognising the importance of sustainability in our operations, Musim Mas announced its sustainability policy in December 2014. Our upstream operations are located in tropical regions with high and well-distributed rainfall and other freshwater resources. While there is a period of drier years caused by the El Nino phenomenon, this occurrence is incidental which impact is of temporary nature and could be mitigated with best management practices such as land irrigation of POME. Musim Mas continuously improve our water management practices such as maintaining positive water balances across our operations, reduction in water intensity, regular water quality monitoring, and conduct HCV and EIA assessments which involves water-related issues.</p> <p>Water-related issues are included in our risk assessment and planning.</p>
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	5-10	<p>Recognising the importance of sustainability in our operations, Musim Mas announced its sustainability policy in December 2014. Our upstream operations are located in tropical regions with high and well-distributed rainfall and other freshwater resources. While there is a period of drier years caused by the El Nino phenomenon, this occurrence is incidental which impact is of temporary nature and could be mitigated with best management practices such as land irrigation of POME.</p>

			<p>Musim Mas continuously improve our water management practices such as maintaining positive water balances across our operations, reduction in water intensity, regular water quality monitoring, and conduct HCV and EIA assessments which involves water-related issues.</p> <p>Water-related issues are included in our risk assessment and planning.</p>
Financial planning	Yes, water-related issues are integrated	5-10	<p>Recognising the importance of sustainability in our operations, Musim Mas announced its sustainability policy in December 2014. Our upstream operations are located in tropical regions with high and well-distributed rainfall and other freshwater resources. While there is a period of drier years caused by the El Nino phenomenon, this occurrence is incidental which impact is of temporary nature and could be mitigated with best management practices such as land irrigation of POME. Musim Mas continuously improve our water management practices such as maintaining positive water balances across our operations, reduction in water intensity, regular water quality monitoring, and conduct HCV and EIA assessments which involves water-related issues.</p> <p>As for financial planning, the management would budget and decide to construct more water ponds for some units in preparation for source of water during the dry season. Water-related issues are included in our risk assessment and planning.</p>

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)

0

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

0

Water-related OPEX (+/- % change)

0

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

0

Please explain

n/a

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 1	Yes	While Musim Mas has yet to implement models for climate-related scenario analysis, our sustainability teams, senior management, and the Board are all involved in decision-making relating to our climate-related risks and opportunities to ensure water usage and consumption are well managed throughout our operations. During the meeting, related data such as rainfall, yield per hectare, water consumption, etc are all recorded and presented to the management as the discussion materials. For instance, the annual water accountability report. These materials are then served as the quantitative basis for our operational target and decision making. Additionally, in 2019, we introduced our Life Cycle Assessment (LCA) into our operations. This comprehensive assessment enables us to identify water hotspots in our operations. Since we are only at the initial stages of assessment, we are hoped to implement this tool in reducing our water intensity as soon as possible.

W7.3a

(W7.3a) Has your organization identified any water-related outcomes from your climate-related scenario analysis?

No

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

n/a

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 Business level specific targets and/or goals	Targets are monitored at the corporate level	Musim Mas actively monitor and analyse our historical usage patterns to appropriately set our target for water use intensity. The overall reduction target of water use intensity in the mill is based on internal assessment.

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 water usage intensity in all of our mills. We targeted that our water usage intensity in 2020 is below 1.25 m³/MT FFB processed and 1.2 m³/MT FFB by 2021.

Quantitative metric

% reduction per product

Baseline year

2020

Start year

2020

Target year

2020

% of target achieved

100

Please explain

Our water usage intensity has decreased from 1.23 m³/MT FFB in 2019 to approximately 1.17 m³/MT FFB in 2020

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 water usage intensity in all of our mills. We targeted that our water usage intensity in 2020 is below 1.25 m³/MT FFB processed and 1.2 m³/MT FFB by 2021.

Quantitative metric

% reduction per product

Baseline year

2019

Start year

2019

Target year

2021

% of target achieved

100

Please explain

Our water usage intensity has decreased from 1.23 m³/MT FFB in 2019 to approximately 1.17 m³/MT FFB in 2020. Looking at these trends, we are well on track for maintaining our water usage intensity target by 2021.

W9. Verification

W9.1

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

Yes

W9.1a

(W9.1a) Which data points within your CDP disclosure have been verified, and which standards were used?

Disclosure module	Data verified	Verification standard	Please explain
W8 Targets	Water usage intensity target in our processing unit.	Other, please specify Palm Oil Innovation Group (POIG)	Our target covers water usage intensity in processing unit. We targeted that our water usage intensity in 2020 is below 1.25 m3/MT FFB processed and 1.2 m3/MT FFB by 2021. This is part of POIG Verification assessment.

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.

N/A

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 sustainable Supply Chain	Other, please specify Director of sustainable Supply Chain

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)].

No

SW. Supply chain module

SW0.1

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

	Annual revenue
Row 1	0

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	N/A

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

1.17

Numerator: Water aspect

Water withdrawn

Denominator

Amount of FFB processed

Comment

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

Please confirm below

I have read and accept the applicable Terms