

Welcome to your CDP Climate Change Questionnaire 2022

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Wilmar International Limited, founded in 1991 and headquartered in Singapore, is today Asia's leading agribusiness group. Wilmar is ranked amongst the largest listed companies by market capitalisation on the Singapore Exchange.

Wilmar's business activities include oil palm cultivation, oilseed crushing, edible oils refining, sugar milling and refining, manufacturing of consumer products, specialty fats, oleochemicals, biodiesel and fertilisers as well as flour and rice milling. At the core of Wilmar's strategy is an integrated agribusiness model that encompasses the entire value chain of the agricultural commodity business, from cultivation, processing, merchandising to manufacturing of a wide range of branded agricultural products. It has over 500 manufacturing plants and an extensive distribution network covering China, India, Indonesia and some 50 other countries. The Group has a multinational workforce of about 100,000 people.

Wilmar's portfolio of high quality processed agricultural products is the preferred choice of consumers and the food manufacturing industry. Its consumer-packed products have a leading share in many Asian and African countries. Through scale, integration and the logistical advantages of its business model, Wilmar is able to extract margins at every step of the value chain, thereby reaping operational synergies and cost efficiencies. Wilmar is a firm advocate of sustainable growth and is committed to its role as a responsible corporate citizen.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years
Reporting year	January 1, 2021	December 31, 2021	No

C0.3

(C0.3) Select the countries/areas in which you operate.

Australia
China
Ethiopia
Fiji
Ghana
India
Indonesia
Malaysia
Mozambique
Myanmar
Netherlands
New Caledonia
New Zealand
Nigeria
Papua New Guinea
Philippines
South Africa
Sri Lanka
United States of America
Viet Nam

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

USD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C-AC0.6/C-FB0.6/C-PF0.6

(C-AC0.6/C-FB0.6/C-PF0.6) Are emissions from agricultural/forestry, processing/manufacturing, distribution activities or emissions from the consumption of your products – whether in your direct operations or in other parts of your value chain – relevant to your current CDP climate change disclosure?

Relevance

Agriculture/Forestry	Both own land and elsewhere in the value chain [Agriculture/Forestry only]
Processing/Manufacturing	Direct operations only [Processing/manufacturing/Distribution only]
Distribution	Direct operations only [Processing/manufacturing/Distribution only]
Consumption	No

C-AC0.6g/C-FB0.6g/C-PF0.6g

(C-AC0.6g/C-FB0.6g/C-PF0.6g) Why are emissions from the consumption of your products not relevant to your current CDP climate change disclosure?

Row 1

Primary reason

Analysis in progress

Please explain

At this stage, accounting of Scope 3 emissions is in progress and the outcome would provide the overview on the emissions from the consumption of our products based on Category 10 (processing of sold products), 11 (use of sold products) and 12 (end-of-life treatment of sold products).

C-AC0.7/C-FB0.7/C-PF0.7

(C-AC0.7/C-FB0.7/C-PF0.7) Which agricultural commodity(ies) that your organization produces and/or sources are the most significant to your business by revenue? Select up to five.

Agricultural commodity

Palm Oil

% of revenue dependent on this agricultural commodity

20-40%

Produced or sourced

Both

Please explain

The largest percentage of our revenue is derived from palm oil & palm derived products (e.g. palm-based biodiesel & oleochemical products).

Agricultural commodity

Sugar

% of revenue dependent on this agricultural commodity

10-20%

Produced or sourced

Both

Please explain

Sugar constitutes around 10% of our total revenue in previous financial years and this is derived from the revenue generated from all of our sugar milling, merchandising, refining and consumer products.

Agricultural commodity

Other, please specify

Oilseeds and Grains

% of revenue dependent on this agricultural commodity

40-60%

Produced or sourced

Sourced

Please explain

The "Oilseeds and Grains" segment consists of a wide range of agricultural commodities including soy, wheat, rice, rapeseed, sunflower seed etc. and the total revenue is the sum revenues of all commodities within. Contribution from any single commodity would be of a lower range (e.g. soy around 20-40%, rice less than 10%, wheat less than 10%).

C0.8

(C0.8) 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
Yes, an ISIN code	SG1T56930848
Yes, a Ticker symbol	SGX:F34

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Board Chair	<p>Wilmar's Chairman and Chief Executive Officer (CEO) is ultimately responsible for the oversight of the company's sustainability strategy and implementation, including Wilmar's climate agenda. This includes, but are not limited to:</p> <ul style="list-style-type: none"> (1) Oversight over the implementation of the No Deforestation, No Peat, No Exploitation (NDPE) Policy which covers climate-related commitments (e.g. No development on High Carbon Stock (HCS) Forests or High Conservation Value (HCV) Areas, No burning, Progressive reduction of greenhouse gas (GHG) emissions on existing operations, No new development on peatland regardless of depth) (2) Oversight over the management of climate-related risks and opportunities (3) Oversight and approvals over the setting and implementation of climate targets. <p>In 2021, the Wilmar Board, chaired by the Group Chairman & CEO, approved the establishment of a Board Sustainability Committee (BSC) to assist the Chairman & CEO and Board of Directors in fulfilling their oversight responsibility in relation to Wilmar's objectives, policies and practices pertaining to sustainability or ESG matters including climate change. More details on the BSC is explained under the C1.1a 'Board-level committee'.</p> <p>In 2021, the Wilmar Board, chaired by the Group Chairman & CEO, also approved Wilmar's joint statement in COP26, pledging our commitment to a sectoral roadmap for enhanced supply chain action. To align with this commitment, Wilmar has embarked on the following:</p> <ul style="list-style-type: none"> • map the Group's Scope 3 GHG emissions to form a complete inventory of our total GHG emissions for 2020, our baseline year • develop comprehensive targets consistent with a 1.5 degree Celsius pathway and aligned with the SBTi. These targets will also be linked to our energy and water efficiency programmes
Board-level committee	<p>In 2021, the Wilmar Board approved the establishment of a Board Sustainability Committee (BSC) to oversee the Company's sustainability strategy. The BSC assists the Chairman & CEO and Board of Directors in fulfilling their oversight responsibility in relation to Wilmar's objectives, policies and practices pertaining to sustainability or ESG matters including climate change.</p> <p>Starting in 2022, the BSC regularly reviews all ESG matters, including climate change. These reviews cover the overall risk management guidelines, policies and systems to determine the potential financial or strategic impact of the risks identified.</p>

	<p>This is typically done through quarterly BSC meetings, reviews of emerging ESG issues and quarterly reports on sustainability performance from the Sustainability Department. Topics discussed cover the environment, health and safety, equal opportunities, human rights, labour rights, child protection, and food safety.</p> <p>To achieve effective implementation of sustainability throughout the Group, the BSC receives periodic reporting and advisories from the following:</p> <p>(1) Sustainability Management Team (SMT) which is headed by the Chief Sustainability Officer (CSO) who is assisted by the General Manager – Group Sustainability. The SMT is supported by the Sustainability Department and comprises members across all internal Wilmar departments and operations units.</p> <p>(2) Independent Sustainability Advisory Panel (ISAP) comprises independent sustainability experts and eminent individuals. The ISAP works with our SMT to provide on-the-ground support to execute and evaluate the implementation of our ESG policies. The ISAP provides advisories and recommendations related to external stakeholder expectations and global sustainability trends.</p> <p>The BSC also assists the Board of Directors to provide review/oversight over:</p> <p>(1) Review and implementation of policies; such as the No Deforestation, No Peat, No Exploitation (NDPE) Policy which covers climate-related commitments (e.g. No development on High Carbon Stock (HCS) Forests or High Conservation Value (HCV) Areas, No burning, Progressive reduction of greenhouse gas (GHG) emissions on existing operations, No new development on peatland regardless of depth)</p> <p>(2) Management of climate-related risks and opportunities through Wilmar's Enterprise Risk Management processes</p> <p>(3) Climate-related commitments and targets</p>
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C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – all meetings	<p>Reviewing and guiding strategy</p> <p>Reviewing and guiding major plans of action</p> <p>Reviewing and guiding risk management policies</p>	<p>The Chairman and CEO, and the Board of Directors oversee the management of Wilmar's sustainability strategy. They are supported by the Board Sustainability Committee (BSC) which meets quarterly. The BSC assists the Board of Directors in fulfilling its oversight responsibility in relation to Wilmar's objectives, policies and practices pertaining to</p>

	<p>Reviewing and guiding business plans</p> <p>Setting performance objectives</p> <p>Monitoring implementation and performance of objectives</p> <p>Monitoring and overseeing progress against goals and targets for addressing climate-related issues</p>	<p>sustainability or ESG matters including climate change. These include formulating ESG strategies, identifying ESG-related risks, evaluating ESG performance and targets and monitoring the implementation of ESG related policies and practices. To achieve effective implementation of sustainability throughout the Company, the BSC receives periodic reporting and advisories from the following:</p> <p>1. SUSTAINABILITY MANAGEMENT TEAM (SMT) which is headed by the Chief Sustainability Officer (CSO) who is assisted by the General Manager – Group Sustainability. The SMT is supported by the Sustainability Department and comprises members across all internal Wilmar departments and operational units. comprises independent sustainability experts and eminent individuals.</p> <p>2. INDEPENDENT SUSTAINABILITY ADVISORY PANEL (ISAP) works with our SMT to provide on-the-ground support to execute and evaluate the implementation of our ESG policies. The ISAP provides advisories and recommendations related to external stakeholder expectations and global sustainability trends.</p>
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C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues
Row 1	Yes	<p>The Board Sustainability Committee (“BSC”) has been established to provide specific oversight of the Company’s sustainability strategy. Each member that makes up the BSC is distinguished and well respected in their field forming the basis of sustainability competence as required for the oversight and implementation of Wilmar’s sustainability strategy. Areas of competence in the BSC include extensive knowledge and experience in climate-related issues, climate-related developments, and climate-related risks and opportunities, as well as knowledge and experience in business and change management, and business and operational expertise in Wilmar’s core business area of palm and other agri-commodities.</p>

		<p>As veteran diplomat and philosophical provocateur; as Professor in the Lee Kuan Yew School of Public Policy, instructing on leadership and change management; as business magnate, entrepreneur and philanthropist; their commitment to climate action is irrefutable.</p> <p>The members of the BSC are:</p> <ol style="list-style-type: none"> 1. Mr Kishore Mahbubani (Chairman) https://mahbubani.net/ 2. Mr Lim Siong Guan https://lkyspp.nus.edu.sg/our-people/faculty/lim-siong-guan 3. Mr Kwah Thiam Hock https://theorg.com/org/wilmar-international/org-chart/kwah-thiam-hock 4. Mr Kuok Khoon Hong https://en.wikipedia.org/wiki/Kuok_Khoon_Hong <p>Additionally, directors are required to attend ESG trainings by SGX-approved trainers in 2022 (e.g. TCFD reporting), and other trainings, to keep abreast on developments in climate-related issues.</p>
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C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Sustainability Officer (CSO)	Both assessing and managing climate-related risks and opportunities	Quarterly
Other, please specify Group Sustainability General Manager	Both assessing and managing climate-related risks and opportunities	Quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

Wilmar's Chief Sustainability Officer (CSO) reports directly to the CEO as well as Board of Directors and spearheads the overall strategy of the Group's global sustainability agenda. Reporting to CSO is the Group Sustainability General Manager who is responsible for the implementation of these policies and strategies in Wilmar's supply chain, as well as reviewing the progress of execution. The implementation and monitoring of Wilmar's sustainability strategies is delegated to the Sustainability Department which is staffed by more than 70 employees globally, combining a wide range of relevant local and technical expertise across various countries. Through the efforts of the sustainability department, climate-related issues ranging from deforestation risks to emissions reduction programs are actively being monitored on the ground and analyzed accordingly before reporting back up the reporting line for management review.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive	Type of incentive	Activity incentivized	Comment
Process operation manager	Monetary reward	Emissions reduction project Emissions reduction target	For palm oil mills that are equipped with methane capture and utilization plants in Malaysia, the efficiency of operating the plants to a targeted level is incorporated into the evaluation for appraisals of managers and engineers. This will thus impact the bonuses and pay increments of the related personnel with better performances leading to bigger monetary rewards. Ensuring an efficient methane capture system allows us to realize actual savings in emissions by reducing the amount of methane being released to the atmosphere from the palm oil mill effluent treatment system, putting us on track to meet our emission reduction targets. Also, with the captured methane used to generate supplementary electricity for mills & housing uses, this reduces our reliance on diesel fuel which would have otherwise been used as the fuel source.
Process operation manager	Monetary reward	Efficiency target	For our palm oil mills, there are set targets for water consumption efficiency and such requirements are incorporated into the evaluation for appraisals of managers and engineers. With climate change impacting water resources globally, ensuring an efficient water utilization system in our mills allows us to minimise the reliance on scarce water resources and to enable water availability for other stakeholders dependent on the water sources.

Process operation manager	Monetary reward	Emissions reduction target	Air pollution and climate change are closely linked with air pollutants impacting the amount of sunlight that is reflected or absorbed by the atmosphere. After CO ₂ , some of these short-lived climate-forcing pollutants like black carbon and methane have major contributions to global warming. Thus, we have set KPIs for our factories globally to meet such that the stack emissions from our boiler chimneys are lowered to minimise such impacts. These KPIs are also used in the assessments of performance for the managers and engineers during their annual appraisals.
Buyers/purchasers	Monetary reward	Environmental criteria included in purchases	As part of our implementation of Wilmar's No Deforestation, Peat & Exploitation policy, our procurement teams are expected to actively verify and filter out companies involved with deforestation (environmental criteria) from their sourcing volumes. If a company has been flagged out for its deforestation risks but still included in future procurement, the procurement team will be negatively impacted during its annual review of performance.
Corporate executive team	Monetary reward	Emissions reduction target Company performance against a climate-related sustainability index	<p>The corporate executive team works together with our CSO to ensure alignment on sustainability matters including climate-related issues. Performance against targets and market reputation are evaluated every year and the results will be related to the performance review and remuneration for the year.</p> <p>Relevant considerations include both emission-related targets and other climate action targets:</p> <ul style="list-style-type: none"> • Reduce GHG emissions intensity by 15% from all our palm oil mills from our 2016 baseline of 0.82 MT CO₂e/MT CPO by 2023 • Map an energy and GHG emissions reduction pathway towards a low emissions future for our sugar operations • Achieve net-zero GHG

			<p>emissions for Goodman Fielder operations by 2040</p> <ul style="list-style-type: none"> • Establish a GHG emissions baseline for all global operations. Reduction targets will be established in 2022 and linked to the energy and water efficiency programme - No deforestation (ongoing) (i.e. No development on High Carbon Stock (HCS) forests or High Conservation Value (HCV) areas; No burning in the preparation of new planting, re-planting, or any other development) - No new development on peatland regardless of depth (ongoing), as peatland serve as important carbon storage <p>Performing well in key sustainability ratings and rankings have huge reputational benefits to Wilmar. We are regularly invited to participate and share in public events and sharing platforms our sustainability initiatives, achievements and progress. These third-party rankings and ratings are good assessments to help us gauge where we are and identify areas for improvements. We also have a few Sustainability-Linked Loans linking our performance in these external ratings to financing.</p> <p>Therefore, Wilmar participates in several key sustainability ratings and benchmarks across each reporting year (e.g. CDP Forest, CDP Climate Change, CDP Water, DJSI, FTSE4Good, ZSL SPOTT, etc), and good performance in these key sustainability ratings, defined by comprehensive participation, inclusion in listings, good scores and year-on-year improvements, is critical.</p>
Chief Sustainability Officer (CSO)	Monetary reward	Emissions reduction target Company performance against a climate-	Our CSO oversees sustainability matters including climate-related issues. Performance against targets and market reputation are evaluated every year and the results will be related to the performance review and remuneration for the year.

		related sustainability index	<p>Relevant considerations include both emission-related targets and other climate action targets:</p> <ul style="list-style-type: none"> • Reduce GHG emissions intensity by 15% from all our palm oil mills from our 2016 baseline of 0.82 MT CO₂e/MT CPO by 2023 • Map an energy and GHG emissions reduction pathway towards a low emissions future for our sugar operations • Achieve net-zero GHG emissions for Goodman Fielder operations by 2040 • Establish a GHG emissions baseline for all global operations. Reduction targets will be established in 2022 and linked to the energy and water efficiency programme - No deforestation (ongoing) (i.e. No development on High Carbon Stock (HCS) forests or High Conservation Value (HCV) areas; No burning in the preparation of new planting, re-planting, or any other development) - No new development on peatland regardless of depth (ongoing), as peatland serve as important carbon storage <p>Performing well in key sustainability ratings and rankings have huge reputational benefits to Wilmar. We are regularly invited to participate and share in public events and sharing platforms to share on our sustainability initiatives, achievements and progress. These third-party rankings and ratings are good assessments to help us gauge where we are and identify areas for improvements. We also have a few Sustainability Linked Loans linking our performance in these external ratings to financing.</p> <p>Therefore, Wilmar participates in several key sustainability ratings and benchmarks across</p>
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			each reporting year (e.g. CDP Forest, CDP Climate Change, CDP Water, DJSI, FTSE4Good, ZSL SPOTT, etc), and good performance in these key sustainability ratings, defined by comprehensive participation, inclusion in listings, good scores and year-on-year improvements, is critical.
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C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	2	The time horizon categorization is defined based on the likelihood of occurrence and financial impact of the risks and opportunities on our businesses. For short-term time horizon, the risks and opportunities are characterized to have high likelihood of occurrence in 0-2 years and high financial impact (> US\$ 100,000). The material risks and opportunities are identified during Group risk assessment and business specific scenario analysis. The short-term risks included current regulations, legal and market. Any on-going governmental regulations, such as methane capture in palm oil mills in Malaysia, must be fulfilled to reduce the climate impact.
Medium-term	2	10	The time horizon categorization is defined based on the likelihood of occurrence and financial impact of the risks and opportunities on our businesses. For medium-term time horizon, the risks and opportunities are characterized to have high likelihood of occurrence in 2-10 years and high financial impact (> US\$ 100,000). The material risks and opportunities are identified during Group risk assessment and business specific scenario analysis. The medium-term risks included emerging regulations and technological advancements. Climate change advocacy groups are looking to influence policy makers to adopt and impose stricter climate-related regulations such as carbon pricing mechanism. As a result, these emerging risks are closely monitored and communicated with relevant stakeholders to mitigate the impact.

Long-term	10		The time horizon categorization is defined based on the likelihood of occurrence and financial impact of the risks and opportunities on our businesses. For long-term time horizon, the risks and opportunities are characterized to have high likelihood of occurrence after 10 years and high financial impact (> \$US 100,000). The material risks and opportunities are identified during Group risk assessment and business specific scenario analysis. The long-term risks included the acute and chronic events such as temperature rise, drastic change of weather, deterioration of soil fertility and others. Researches suggest the frequency and severity of these events may get even intense if we stay to do business as usual. Wilmar has joined the commitment to the development of a sectoral roadmap for enhanced supply chain action that is consistent with a 1.5 degree Celsius pathway which is expected to be published by COP27. This roadmap would guide us to achieve net zero emissions in our entire value chain by 2050.
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C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

Wilmar's company-wide Enterprise Risk Management (ERM) process assesses climate-related risks on a regular basis. Starting in 2022, the Board Sustainability Committee (BSC) regularly reviews all ESG matters, including climate change. These reviews cover the overall risk management guidelines, policies and systems to determine the potential financial or strategic impact of the risks identified.

To be considered as having substantive financial impact on the business, the potential annual implications (costs/benefits) of such risks or opportunities would have to exceed USD100,000 per issue. Going over this threshold would entail the need for reporting to the Group level so that the material issues can be assessed, reviewed and managed adequately through the Group's Risk Management structure, and mitigative and adaptation measures developed. The classes of risks assessed include both transition climate risks (e.g. current regulations, emerging regulations, technology, legal and market risks) as well as physical climate risks (e.g. acute risks such as extreme weather events, and chronic risks such as increased pressure on fertile soils).

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term

Medium-term

Long-term

Description of process

Wilmar's company-wide Enterprise Risk Management (ERM) process assesses climate-related risks and opportunities on a regular basis. Various risks/opportunities with differing time-frames and importance are identified, assessed and monitored continuously by the sustainability team while major updates on these risks and actions taken are consolidated for the Board Sustainability Committee (BSC) to review on a quarterly basis.

Wilmar has operational teams working on site and at regional levels, a communications team at corporate level, and a Independent Sustainability Advisory Group (ISAP) comprising external sustainability partners (e.g. sustainability collaborators and civil society organisations) that advise on specific issues where broader perspectives are required. These teams are responsible for monitoring their respective risks like unusual weather patterns affecting the plantations on asset level (site operational teams), deforestation risks at suppliers' areas (third party compliance teams), allegations of environmental damages by non-governmental organisations (NGOs) at corporate level (communications team), or regular engagements with various departments on external stakeholders' feedback to identify key issues/concerns. Identified risks are assessed through a risk matrix (five levels each of likelihood and consequence) by the respective management teams before reporting up to the group's sustainability team (where CSO & Group Sustainability General Manager sit) for further deliberation and proposals of risk mitigation. The BSC at Board level will regularly review the overall risk management guidelines/framework, policies & systems to determine the potential financial/strategic impact before recommending risk tolerance limits to ensure effective governance and oversight is achieved.

Specifically on deforestation risk (key risk for climate change), Wilmar works together with Earthqualizer (formerly AidEnvironment Asia) on the Supplier Group Compliance Programme to provide proactive monitoring and surveillance of our supply chain to ensure deforestation risks are identified early so that actions can be taken to resolve issues at an early stage. To ensure more feedback can be garnered from the public to assist with the risk identification process, an effective grievance procedure was established in 2013 to enable any stakeholders to flagged out deforestation risks on our operations or supply chain so that any potential risks can be mitigated in time.

As to how we respond to identified climate-related risks and opportunities, an example is

how our operations manage the physical risk of more unpredictable weather patterns with longer drought periods or heavier rainfall during wet seasons. This has a strong negative impact to our plantations which are reliant on rainfall for majority of the water needs and thus considered a high priority issue to control. As part of the wider strategy to manage the resources for plantations, Wilmar has invested heavily in the Research & Development of palm seedlings which are more resilient to extreme weather patterns to ensure the sustainability of the plantations. These seedlings are also sold to smallholders and smaller plantation companies for a fee to ensure the reliability of future supply sources to our mills.

Furthermore, consumers globally are favoring and moving towards responsibly-produced commodities and as such, the industry must adjust to market needs and expectations if it wants to remain competitive. This transitional risk on reputation and market access has resulted in Wilmar taking a long-term holistic approach to sustainability that is fully integrated into our business model. Since 2005, Wilmar has been an active member of the Roundtable on Sustainable Palm Oil (RSPO), an international multi-stakeholder organisation that promotes the production and use of sustainable palm oil. The Group adopts an environmental management system conforming to the RSPO Principles & Criteria and the United Nations Global Compact, amongst others. In managing oil palm plantations, it upholds stringent policies of zero-burning and no-development on peatland while respecting the rights of communities by adopting the 'free, prior and informed consent' (FPIC) principle.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	<p>To conduct a business in any country, it is crucial for the company to adhere to the rules and regulations set and thus, this indicator (and emerging regulation below) is very relevant for inclusion within Wilmar's risk assessment.</p> <p>Example: At an operational level for palm oil mills in Malaysia, due to the lower limit of discharge emissions allowed for boiler stack monitoring, more investments have to be made to ensure the mills are kept within the acceptable range or run the risk of getting fined by the Department of Environment (or revoke of permit for multiple offences). Similarly, the Indonesian Sustainable Palm Oil (ISPO) requirements which include mitigating environmental issues related to climate change has been made mandatory as per Indonesia President's decree by 2025 so non-compliance of it is a potential risk to our business continuity.</p>

Emerging regulation	Relevant, always included	<p>Emerging regulations to restrict emissions or promote adaptation might lead to increased capital and operational costs, restrictions in expansion of production land, etc.</p> <p>Similarly, with more scrutiny on GHG emissions like carbon tax introduction or requirements to report on GHG emissions, these are important factors included in the overall risk assessment.</p> <p>Examples: Imposing of carbon tax, adoption of sustainable policies for operations (Indonesia Sustainable Palm Oil, Malaysia Sustainable Palm Oil) and mandating of methane capture plants for new or expanded palm oil mills in Malaysia.</p>
Technology	Relevant, sometimes included	<p>With Wilmar's integrated business model encompassing the entire value chain of agricultural commodity processing business, the company has high exposure to the risk of disruptive new technology that can shake up business-as-usual operations and reduce the relevance of the business model.</p> <p>Example: New R&D into creating alternatives for the commodity products would reduce the demand for it, posing a risk to business sustainability.</p>
Legal	Relevant, always included	<p>Litigation claims can be a drain in the company's time and resources so legal risks are factored in our risk assessments of company's dealings.</p> <p>Example: Customer companies are committing to emission reduction targets and some have climate-related terms within procurement contracts to ensure their Scope 3 emissions are managed accordingly. Failure to meet such requirements risk climate-related litigation claims and thus such risk has to be taken into consideration.</p>
Market	Relevant, always included	<p>With increasing consumer awareness on climate change and subsequent expectations from the market to manage sustainability performance including climate-related impacts, there is a risk of reduced supplier pool due to non-compliant suppliers or reduced demand for certain commodities if the sourcing is not aligned with market's expectations.</p> <p>Example: 33 supplier groups have been suspended by Wilmar since 2015 due to deforestation and if non-compliance by suppliers continue, it would adversely impact the overall supply to our business. Also, access to Europe market is driven by strict climate-related requirements (Renewable Energy Directive) so the company risks missing out if our sourcing is not aligned to the requirements.</p>
Reputation	Relevant, always included	<p>With Wilmar being the leader in the palm industry, the company tends to be targeted for campaigns related to industry-wide issues. Increased scrutiny from NGOs and consumers on such campaigns can lead to potential reputational impacts, reduced demand or boycotts, etc. so this risk is very relevant.</p> <p>Example: Reputational risk can lead to boycotts by the wider market</p>

		and potentially lead to actions taken by banks (for financing) or investors (sell off).
Acute physical	Relevant, always included	Temperature risk and increased frequency of extreme weather events (flood, droughts) are major risks for companies like Wilmar which deals with agricultural commodities. Examples: Increasing frequency of severe weather events has increased the volatility of crop production, spreading new diseases and pests which cause disruption to the wider ecosystem.
Chronic physical	Relevant, always included	In terms of long-term sustainability for the company, climate change and the resulting rise in global temperatures has a direct correlation to increasing pressure on fertile soils. This would lead to long-term damage to the crops and impact the feasibility of continual planting for such crops (concerns over food security). This resource scarcity poses risks to agriculture, land use, food production and people and thus has to be factored in the risk assessment. Example: Increase in global temperatures will impact the soil fertility which results in affected yield. Inaction in managing this chronic risk has the potential to impact the wider business continuity of the company.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation

Mandates on and regulation of existing products and services

Primary potential financial impact

Increased indirect (operating) costs

Company-specific description

With countries we operate in having committed to the Paris Agreement and the Intended Nationally Determined Contributions (INDCs/NDCs), the relevant ministries in those countries are planning to distill down these emission reductions commitments to the key industries within their laws & regulations to meet the targets. In Malaysia's example, the government might be looking at the feasibility of mandating methane capture plants in all palm oil mills in the near future. Currently there is already a mandate for new mills or expansion plans for existing mills to include methane capture systems in the designs. For context, the palm oil industry has been regulated by Malaysian Palm Oil Board (MPOB), which is imposing the mandatory installation of biogas trapping or methane avoidance facilities in palm oil mills as a condition for any new mill construction or existing mills applying for throughput expansion in the country. This could potentially affect our mills (9) in Malaysia with respect to any expansion plans, as well as any new mills. Similarly, Indonesia is looking to impose carbon tax on coal-fired power plants and there is potential for it be further rolled out to more industries, including those we operate in.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

970,000,000

Potential financial impact figure – maximum (currency)

1,450,000,000

Explanation of financial impact figure

Depending on how severe an emission reduction is required from our operations, additional investments would have to be put in place to ensure compliance. In worst case scenario, operations that are unable to meet the new requirements could have huge financial implications if business licenses and production approvals are not renewed. Considering 100% output from plantations are processed in our own mills and supplied to our manufacturing operations, the estimated volume of crude palm oil and palm kernel that could be disrupted with closure of own mill operations could be around 4-6% of refineries' supply, which can roughly translate to about US\$ 970-1,450 million potential financial impact (basis of 2021 revenue from Tropical Oils segment).

Cost of response to risk

90,000,000

Description of response and explanation of cost calculation

In order to ensure our operations can meet any potential stricter requirements, the Group has started working towards implementing methane capture plants at our major mills in Malaysia and Indonesia.

With an estimated cost of about USD 2 million for a covered lagoon system to capture and utilise the biogas from Palm Oil Mill Effluent, the total capital cost to implement the system in all mills (45) in Malaysia, Indonesia, Nigeria and Ghana would be estimated to be around US\$ 90 million. Subsequently, the mills will have to incur the operational costs of running the system and expenses related to maintenance and plant upkeep until the end of system lifetime.

Comment

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Chronic physical

Changing precipitation patterns and types (rain, hail, snow/ice)

Primary potential financial impact

Decreased revenues due to reduced production capacity

Company-specific description

Wilmar has a total planted oil palm area of 230,481 ha as at end 2021, of which about 65% are in Indonesia, about 26% are in Malaysia, and 9% are in Africa (Ghana and Nigeria). All are countries with a wet tropical climate necessary to support the cultivation of oil palm, a crop that has a high water requirement.

Therefore, changes in weather pattern affects the production cycle of plantation while extreme changes in precipitation patterns (i.e. heavy rainfall or long drought) pose a significant risk to our operating activities. The resultant flooding from heavy rainfall or drought from longer dry season will cause production stress and landscape instability which leads to lower production rate (through adverse impact on crop growth and oil palm fresh fruit bunches (FFB) yield), higher operational cost as well as supply chain and transport disruption. Other than the company's oil palm plantations in Malaysia, Indonesia and Africa as well as sugar farms at Australia and Myanmar, the supply chain will be susceptible to the above chronic risks as well.

Time horizon

Long-term

Likelihood

More likely than not

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

670,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Erratic weather conditions like heavy rainfall can reduce the yield obtained from the palm oil trees (fruits saturated with water, difficulty to gain access for harvesting, etc.). This can impact the company financially due to the lower yield of crops or reduction in global harvests for our planted oil palm area (230,481 ha as at end 2021), of which about 65% are in Indonesia, about 26% are in Malaysia, and 9% are in Africa (Ghana and Nigeria). Research suggests that estimated 30% of CPO production may be affected by global climate change which amounts to an estimated forecast of US\$ 670 million based on total production and average price in 2021 (Source: Paterson and Lima, 2018, in: Ecology and Evolution, URL: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5756879/>).

Cost of response to risk

31,000,000

Description of response and explanation of cost calculation

Investments into Research & Development (R&D) to develop palm seedlings with better resilience to diseases/pests and drought tolerant. Our Indonesia R&D laboratory focuses on biotechnology research to enhance our competitiveness and sustainability in the oil palm industry. By educating and preparing the staffs to deal with climate related incidents - crisis management preparation, having in place protocols and periodic drills to maintain the capability to handle such emergencies effectively and restore operations promptly, taking into account all necessary safety precautions. Alleviate climate change impacts based on principles of sustainable management & production while improving our infrastructure to make it resistant against negative climate impacts. For suppliers, the company actively engages and shares best management practices to ensure supply chain continuity. The cost of response to this risk was estimated by using average cost of RSPO certification and maintenance (US\$ 18 per MT CPO) and total production in 2021.

Comment

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Downstream

Risk type & Primary climate-related risk driver

Market

Changing customer behavior

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

Consumer market is increasingly becoming more sophisticated in their demands, requesting traceability and no deforestation as well as sustainable production for their goods. Thus, by not adapting and aligning to changing consumer needs, the company stands to lose out in the market against competitors who are updated and kept abreast of such demands.

Time horizon

Short-term

Likelihood

Likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

295,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Lower market share due to reduced demands of goods/services that does not meet the necessary requirements of clients (e.g. segregated supply of certified product with lower emission footprint). This would impact our revenue from the Food Products segment and a 1% estimate would entail a potential financial impact of around USD 295 million.

Cost of response to risk

127,000,000

Description of response and explanation of cost calculation

Alignment of public policy positions with sustainability goals by launching the Integrated Policy on No Deforestation No Peat No Exploitation in December 2013. In addition to the policy, Wilmar is committed to other relevant and globally recognized certifications and standards like International Sustainability & Carbon Certification (ISCC), Roundtable on Sustainable Palm Oil (RSPO) and Bonsucro. These commitments provide the Group with a baseline to benchmark ourselves against other players in the industry with clear goals and targets to be achieved. The cost of response was estimated based on the average % of cost of capital for ESG compliance for high ESG companies (6.16%) and cost of capital (~ US\$ 2 billion).

Comment

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Opp1

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Markets

Primary climate-related opportunity driver

Access to new markets

Primary potential financial impact

Increased revenues through access to new and emerging markets

Company-specific description

The European Union's Renewable Energy Directive (RED) mandates the levels of renewable energy use within the European Union and requires 20 percent of the energy consumed within the region to be renewable. A possible approach is the use of biofuels

to replace existing fossil fuel which can potentially open up new markets for the company to supply sustainable biofuel/biodiesel into Europe market.
For the renewable biofuels supplied, there are requirements of certain GHG emission reduction percentages for various feedstocks to be considered eligible. There is potential for countries to explore encouraging further GHG emission reduction initiatives by seeking for even stricter requirements of supplied biofuel.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

600,000

Potential financial impact figure – maximum (currency)

900,000

Explanation of financial impact figure

The bioenergy market has grown further with the adoption of the Directive and provides the opportunity for company to develop their biofuel portfolio as well as build on the certified sustainable oil supplies (ISCC, RSPO etc.). The range of figures is estimated based on revenues derived from sales to the bioenergy market across multiple years.

Cost to realize opportunity

8,900

Strategy to realize opportunity and explanation of cost calculation

Wilmar operations that supply oil to the EU market to be certified accordingly based on commercial considerations. Examples are our certification efforts for ISCC across various entities in Malaysia and Indonesia that are involved in the supply chain to Europe.

The estimated cost would mainly be directed towards managing the traceability and sustainability of the supply chain for the feedstock in biofuels as well as the annual cost of audit to verify the compliance to certification standards. The average cost of ISCC certification was US\$ 212 and it would translate to the total cost of estimated US\$ 8,900 based on the number of sites that are ISCC-certified (44).

Comment

Identifier

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Energy source

Primary climate-related opportunity driver

Use of lower-emission sources of energy

Primary potential financial impact

Reduced indirect (operating) costs

Company-specific description

With biogas (high proportion of methane) generated from palm oil mill effluent being a free source of energy that is not fully tapped, methane capture and utilization as a fuel source allows palm oil mills to replace diesel for electricity generation at minimal operational fuel cost.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

200,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

With methane captured from palm oil mill effluent (POME) treatment systems and utilized in a biogas engine to generate electricity, this allows the site to replace diesel as fuel for electricity generation as well as biomass (fibre and shell) as fuel for energy generation in boilers. The savings from using less diesel and increased sales of biomass externally are estimated to be around US\$ 200,000 per annum per plant

depending on the diesel price (based on our existing biogas plants' data). With an expected life expectancy for the methane capture plant to be around 25 years, the total potential savings that could be accumulated over the lifespan is USD 5 million.

Cost to realize opportunity

2,000,000

Strategy to realize opportunity and explanation of cost calculation

Depending on the feasibility of building methane capture plants at our palm oil mills, Wilmar is actively looking at building more of the plants to maximize this opportunity. The estimated cost to construct a new methane capture plant with biogas utilization facilities is around USD 2 million.

Comment

Identifier

Opp3

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Development of new products or services through R&D and innovation

Primary potential financial impact

Increased revenues through access to new and emerging markets

Company-specific description

With raising awareness by consumers on climate change and sustainability issues, there is a growing demand for new products or services with reduced negative environmental/social footprint. Wilmar is thus actively investing in research & development efforts to identify environmentally friendly solutions and address the growing demand for sustainable products. Some examples of such focus areas include developing plant-based protein to reduce reliance on beef (which is a key driver of deforestation); and developing soaps and detergents using vegetable-based surfactant which are more consumer, fabric and environmentally friendly.

Time horizon

Long-term

Likelihood

Virtually certain

Magnitude of impact

Medium-low

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 figure

These are new products/services which are still being trialed so the full financial impact has not been quantified completely.

Cost to realize opportunity

15,720,000

Strategy to realize opportunity and explanation of cost calculation

As example, in collaboration with Temasek Life Sciences Laboratory (TLL), a research centre in Singapore, we conducted research on using genetic screening to shorten the palm breeding cycle. We are currently field testing selected genetic markers against fresh fruit bunches (FFB) yields in sampled palms that were supplied by our plantation in Palembang, Indonesia. If found to be successful, this research may enable us to halve the breeding process time compared to conventional methods. The TLL team also found that drought tolerant oil palm trees could be selected at the seedling stage via bioinformatic analysis of RNA sequencing data. They also found a few DNA markers associated with Ganoderma resistance and are currently testing them. R&D centre in China pledged to invest over US\$15.72 million to support scientific research and development by 2030. These included advancing agricultural practices, optimising factory processes, enhancing product quality across different segments and studying food science to understand the health benefits of various ingredients.

Comment

C3. Business Strategy

C3.1

(C3.1) Does your organization's strategy include a transition plan that aligns with a 1.5°C world?

Row 1

Transition plan

No, but our strategy has been influenced by climate-related risks and opportunities, and we are developing a transition plan within two years

Explain why your organization does not have a transition plan that aligns with a 1.5°C world and any plans to develop one in the future

Wilmar's company-wide Enterprise Risk Management (ERM) process assesses climate-related risks on a regular basis. Starting in 2022, the Board Sustainability Committee (BSC) regularly reviews all ESG matters, including climate change. These reviews cover the overall risk management guidelines, policies and systems to determine the potential financial or strategic impact of the risks identified. To be considered as having a substantive financial impact on the business, the risk or opportunity would have to have a potential annual impact (costs/benefits) exceeding US\$100,000. Risks that exceed this threshold are reported to the Group's Sustainability Department for further analysis and the development of mitigation and adaptation measures. We are also in the process of developing short, mid & long term comprehensive targets consistent with a 1.5 degree Celsius pathway and aligned with the Science Based Target initiative (SBTi).

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

	Use of climate-related scenario analysis to inform strategy
Row 1	Yes, qualitative and quantitative

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Transition scenarios IEA 2DS	Business division		Wilmar has conducted a qualitative scenario analysis to identify the various risks that climate change can potentially bring about in different scenarios and the possible impacts on the company. This is mainly focused on the upstream operations and supply chain which are more susceptible to negative impacts in a 2 degrees Celsius scenario within the life cycle of palm (i.e. 25-30 years). Based on the study, there is a potential supply reduction due to stunted growth from the plants (i.e. impact from long droughts or floods). The analysis results have been presented to the Board for their assessment and further recommendations to improve operational readiness in the face of these risks were subsequently put up for the Board's consideration,

			<p>influencing the organization's strategy and financial planning. Apart from risks, we also identified climate-related opportunities, which may have substantial financial or strategic gains for our business. For example, regulations on the use of renewable energy may drive the demand for sustainable biofuels or biodiesels. The use of biogas generated from palm oil mill effluents can also reduce our dependency on diesel for electricity generation, thus cutting our emissions and operational cost.</p>
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C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions

What are the possible physical and transitional risks and opportunities that climate change can have on our upstream operations and supply chain in a 2-degree scenario, and how significant are the impact of these identified risks and opportunities?

Results of the climate-related scenario analysis with respect to the focal questions

Our 2018 analysis, which was presented to the Board, revealed a potential reduction of fresh fruit bunch supply due to prolonged droughts. For illustration, Wilmar has a total planted area of 230,481 ha as at end 2021, of which about 65% are in Indonesia, about 26% are in Malaysia, and 9% are in Africa (Ghana and Nigeria). All are countries with a wet tropical climate necessary to support the cultivation of oil palm, a crop that has a high water requirement. Therefore, climate-related risks such as in changes in precipitation patterns due to climate change in these tropical countries, can have a huge impact on crop growth and oil palm fresh fruit bunches (FFB) yield in all of our planted areas. Moreover, this risk can also impact our suppliers' production of palm in Malaysia, Indonesia and other geographical regions exposed to these risks, thereby disrupting our supply chain of FFB for our mills, along with trickle down effects on the rest of the downstream supply chain.

Recommendations to manage these risks were proposed to the Board for consideration, which influenced strategy and financial planning. Apart from risks, our regular analysis also identifies climate-related opportunities, which may have substantial financial or strategic gains for our business. For example, regulations on the use of renewable energy may drive the demand for sustainable biofuels or biodiesels. The use of biogas generated from palm oil mill effluents can also reduce our dependency on diesel for

electricity generation, thus cutting our emissions and operational cost. We will look to conduct a more in-depth quantitative scenario analysis covering our global operations.

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	With biofuel market access into Europe and demand for more environmentally-friendly products identified as potential climate-related risks/opportunities, these factors have influenced the company's product-related strategy. Wilmar has capitalised on this by pursuing the ISCC standard (certification scheme that demonstrates compliance with EU RED requirements) which are developed for the biomass and bioenergy sectors. 44 sites across the biodiesel supply chain has been certified as of end 2021 and any further certifications would be determined based on commercial considerations. Similarly, investments in products' R&D have been increased in recent years to capitalise on innovative & environmental-friendly products which have the potential for increased consumer demand in future. This can be seen from the multiple innovative developments in 2021 our R&D teams have focused on to meet this potential demand (e.g. plant-based protein, soaps/detergents using vegetable-based surfactant etc.).
Supply chain and/or value chain	Yes	During the early days of oil palm's expansion, forests, peatlands and biodiversity were adversely impacted and coupled with traditional slash-and-burn method for land clearance practiced by communities in Indonesia, these past industry practices have resulted in an increase in carbon emission. With a big part of our commodities sourcing coming from third-party suppliers, the risks relevant within our supply chain in the industry would have a significant influence on our business strategy. The most substantial business decision made on the long term strategy was to implement the No Deforestation, No Peat & No Exploitation policy that covered our full supply chain actors as well. This is to ensure that the drivers for climate change (deforestation & peat) in the wider industry would be mitigated accordingly to ensure long-term sustainability of the industry.

Investment in R&D	Yes	With potential physical risks brought about by adverse climate changes as well as potential shift in customer demands for products, these have been taken into consideration for our strategic approach on R&D. Investments in R&D for both upstream (e.g. drought tolerant and pests/diseases resilient variants) and consumer products (e.g. plant-based protein, soaps/detergents using vegetable-based surfactant etc.) have been increased in recent years to ensure continuity in our supply capacity (to mitigate potential impacts on plantations which could materialise in the long term) while capitalising on innovative products which have the potential for increased consumer demand in future.
Operations	Yes	In order to adapt to increasingly stricter government regulations on climate-related issues, the risk of non-compliance can lead to non-renewal of business licenses and production approvals. The financial implications can be huge considering the loss of income from crude palm oil (CPO) and palm kernel sales for the affected operations. This has been one of the key factors for the company's strategic push to build methane capture plants across our mills to ensure compliance when such requirements become compulsory.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Indirect costs Capital expenditures Access to capital Assets	With the new market access for biofuel, there is potential impact to the projected revenue in the near term. The magnitude of impact depends on how strong the market demand can be sustained for low-emissions biofuel in future. The potential for extreme weather trends or erratic weather patterns can lead to an increase in operating costs and capital expenditures for our plantations as more actions and investments would need to be taken to mitigate the effects of flood/drought and alternative longer delivery routes have to be taken to ensure crops are processed in time. Stricter governmental regulations on emissions from operations would also mean additional capital expenditures to be allocated for more treatment systems or infrastructure upgrades in order to ensure a compliant and resilient system. More banks are now looking into providing loans linked with

		<p>sustainability & climate-related performances so these have influenced the financial planning for the company. As a case study, Wilmar was the first in our industry to participate in a sustainability-linked loan with ING and subsequently has inked a few more with other banks (DBS, OCBC, Mitsubishi UFJ Financial Group, UOB etc.).</p> <p>All of these impacts to our financial planning cover the time horizons from short, medium to long-term.</p>
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C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Intensity target

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number

Int 1

Year target was set

2018

Target coverage

Business activity

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Location-based

Scope 3 category(ies)

Intensity metric

Metric tons CO₂e per metric ton of product

Base year

2016

Intensity figure in base year for Scope 1 (metric tons CO₂e per unit of activity)

0.818

Intensity figure in base year for Scope 2 (metric tons CO₂e per unit of activity)

0.0004

Intensity figure in base year for Scope 3 (metric tons CO₂e per unit of activity)

Intensity figure in base year for all selected Scopes (metric tons CO₂e per unit of activity)

0.8184

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

39.5

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

0.12

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this Scope 3 intensity figure

% of total base year emissions in all selected Scopes covered by this intensity figure

34

Target year

2023

Targeted reduction from base year (%)

15

Intensity figure in target year for all selected Scopes (metric tons CO₂e per unit of activity) [auto-calculated]

0.69564

% change anticipated in absolute Scope 1+2 emissions

5.1

% change anticipated in absolute Scope 3 emissions

0

Intensity figure in reporting year for Scope 1 (metric tons CO₂e per unit of activity)

0.6571

Intensity figure in reporting year for Scope 2 (metric tons CO₂e per unit of activity)

0.0032

Intensity figure in reporting year for Scope 3 (metric tons CO₂e per unit of activity)

Intensity figure in reporting year for all selected Scopes (metric tons CO₂e per unit of activity)

0.6603

% of target achieved relative to base year [auto-calculated]

128.7878787879

Target status in reporting year

Achieved

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

Target ambition

Please explain target coverage and identify any exclusions

With palm oil mill effluent being the largest contributor to our process emissions at mills, the intensity target was set to focus on our group of palm oil mills to achieve material reductions in GHG emissions by installing methane capture projects and operating it at maximum efficiency (major reduction of emissions within a reasonably short time-frame).

Plan for achieving target, and progress made to the end of the reporting year

List the emissions reduction initiatives which contributed most to achieving this target

Construction of methane capture facilities and operating them at maximum efficiency.

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

Target(s) to increase low-carbon energy consumption or production

Target(s) to reduce methane emissions

Net-zero target(s)

C4.2a

(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.

Target reference number

Low 1

Year target was set

2021

Target coverage

Business activity

Target type: energy carrier

Electricity

Target type: activity

Consumption

Target type: energy source

Renewable energy source(s) only

Base year

2018

Consumption or production of selected energy carrier in base year (MWh)

129,762

% share of low-carbon or renewable energy in base year

40

Target year

2025

% share of low-carbon or renewable energy in target year

100

% share of low-carbon or renewable energy in reporting year

51

% of target achieved relative to base year [auto-calculated]

18.3333333333

Target status in reporting year

Underway

Is this target part of an emissions target?

It is not related to emission targets in C4.1.

Is this target part of an overarching initiative?

RE100

Please explain target coverage and identify any exclusions

Due to the wide-ranging types of businesses under the group and the varying levels of maturity in terms of climate change management, the approach to target setting would have to factor in the different needs and expectations from the different subsidiaries within the group. Goodman Fielder (Wilmar's subsidiary) has been managing its climate change strategy for some time and thus is at a good position to set out its own target for their operations. Thus, with the launch of their sustainability strategy in June 2021, it included the goal of achieving 100% renewable electricity use by 2025.

Plan for achieving target, and progress made to the end of the reporting year

We continue to invest in on-site renewable energy generation such as solar and to procure renewable electricity certificates (RECs) for electricity imported from grid. In 2021, Goodman Fielder in Australia and New Zealand achieved 100% renewable electricity through RECs.

List the actions which contributed most to achieving this target

C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

Target reference number

Oth 1

Year target was set

2015

Target coverage

Business activity

Target type: absolute or intensity

Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Methane reduction target

Other, please specify

Number of methane capture facilities in palm oil mills

Target denominator (intensity targets only)

Base year

2015

Figure or percentage in base year

8

Target year

2020

Figure or percentage in target year

25

Figure or percentage in reporting year

25

% of target achieved relative to base year [auto-calculated]

100

Target status in reporting year

Achieved

Is this target part of an emissions target?

Int 1

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain target coverage and identify any exclusions

As part of the emissions target (Int 1), installing methane capture plants at the mills is the first step towards reducing the methane emissions from our operations. Once the plants have been installed, we would strive to operate it at maximum efficiency in order to achieve the required reduction in methane emissions to meet our overall emission intensity target.

Plan for achieving target, and progress made to the end of the reporting year

List the actions which contributed most to achieving this target

Installation of 25 methane capture facilities in our palm oil mills to reduce the methane emissions during treatment of POME. At the same time, we utilize the methane captured to generate green electricity for operational use to reduce reliance on grid electricity.

C4.2c

(C4.2c) Provide details of your net-zero target(s).

Target reference number

NZ1

Target coverage

Business activity

Absolute/intensity emission target(s) linked to this net-zero target

Not applicable

Target year for achieving net zero

2040

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

Please explain target coverage and identify any exclusions

Due to the wide-ranging types of businesses under the group and the varying levels of maturity in terms of climate change management, the approach to target setting would have to factor in the different needs and expectations from the different subsidiaries within the group. Goodman Fielder (Wilmar's subsidiary) has been managing its climate change strategy for some time and thus is at a good position to set out its own target for their operations. Thus, with the launch of their sustainability strategy in June 2021, it included the goal of achieving net zero emissions by 2040.

Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?

Unsure

Planned milestones and/or near-term investments for neutralization at target year

Planned actions to mitigate emissions beyond your value chain (optional)

To achieve our net zero goal by 2040 we will be working with suppliers, customers, peers and external experts/stakeholders to map and measure our emission profile and develop net zero pathways for key sectors and/or activities. We know there are many opportunities ready for implementation now including energy productivity, low emission vehicles, tackling food waste, supporting regenerative agriculture and optimizing logistics networks. We will also support the development, piloting and adoption of innovative solutions to our net zero challenge.

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	0

To be implemented*	1	76,053
Implementation commenced*	1	91,639
Implemented*	10	438,428
Not to be implemented	0	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Low-carbon energy consumption
Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)

23,007

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

3,582,450

Investment required (unit currency – as specified in C0.4)

178,100

Payback period

<1 year

Estimated lifetime of the initiative

16-20 years

Comment

In 2021, YKA installed 39.3 MWp of rooftop solar panels at 13 factories in China. These solar panels can generate 37,710 MWh of renewable electricity on an annual basis.

Initiative category & Initiative type

Low-carbon energy consumption
Solid biofuels

Estimated annual CO2e savings (metric tonnes CO2e)

48,292

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

1,702,400

Investment required (unit currency – as specified in C0.4)

50,000

Payback period

<1 year

Estimated lifetime of the initiative

3-5 years

Comment

Racecourse Refinery is one of Sugar Australia's two Australian refineries. The refinery has two operating modes throughout the year: (1) crushing mode from June to November and (2) non-crushing mode from December to May. During the crushing period, the refinery would use steam generated from cane fibre (bagasse) which is a renewable resource. Historically the excess bagasse stocks would run out by the end of February leaving two or three months where the refinery would have to operate on steam produced by burning coal. As a result, Mackay Sugar Ltd mill and the Sugar Australia refinery work together to increase excess bagasse stockpiles by upgrading the boilers, expanding the bagasse storage, optimizing the steam usage and adjusting the crushing periods. The solid biofuels are not certified to Sustainable Biomass Program.

Initiative category & Initiative type

Low-carbon energy consumption

Low-carbon electricity mix

Estimated annual CO2e savings (metric tonnes CO2e)

39,686

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

0

Investment required (unit currency – as specified in C0.4)

538,845

Payback period

No payback

Estimated lifetime of the initiative

3-5 years

Comment

Our Australian subsidiary, Goodman Fielder, has a goal to achieve net zero emissions by 2040. As part of this goal, it has set a target to switch to 100% renewable electricity by 2025. This target was achieved four years early in New Zealand (January 2021) and Australia (July 2021) through the purchase of renewable electricity certificates. In pursuit of our net zero goal, this initiative of purchasing 100% renewable electricity has reduced the Scope 2 emissions from Goodman Fielder's operations across Australia and New Zealand by over 50%.

Initiative category & Initiative type

Energy efficiency in production processes

Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

15,211

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

500,000

Investment required (unit currency – as specified in C0.4)

1,000,000

Payback period

1-3 years

Estimated lifetime of the initiative

11-15 years

Comment

Wilmar's oleochemical plants have widely adopted the Steam Ejector Vacuum System in the glycerin distillation section due to its conventional advantages in terms of operational cost and reliability. However, it produces enormous GHG emissions while consuming a large amount of steam. As such, we have implemented upgrades by replacing it with the Chiller Vacuum System, which consumes much less steam with

limited increase in power consumption. Overall, the upgrade substantially drives down the total energy intensity of our oleochemical plants.

Initiative category & Initiative type

Low-carbon energy consumption
Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)

136

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

20,805

Investment required (unit currency – as specified in C0.4)

27,400

Payback period

1-3 years

Estimated lifetime of the initiative

16-20 years

Comment

To continually improve our environmental performance, one of our sugar refineries in India has installed a 50kWh solar system to operate an effluent treatment plant unit. In addition, we installed another 50kWh solar panel later in the year to supply power for the operation of our administration office, stores and canteen.

Initiative category & Initiative type

Energy efficiency in production processes
Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

348

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

82,173

Investment required (unit currency – as specified in C0.4)

20,000

Payback period

<1 year

Estimated lifetime of the initiative

3-5 years

Comment

In our sugarcane farms, a large amount of energy is required for the pumping of water. A number of initiatives are being implemented to lower energy consumption, such as having more focused irrigation scheduling, upgrading electric motors with more efficient ones and utilising Variable Speed Drives (VSD) to adjust pump flows. We also have capital programmes in place to replace the pumping system with more efficient electric motors resulting in significant reductions in power use.

Initiative category & Initiative type

Low-carbon energy consumption
Solid biofuels

Estimated annual CO2e savings (metric tonnes CO2e)

43,113

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

1,564,702

Investment required (unit currency – as specified in C0.4)

28,750

Payback period

<1 year

Estimated lifetime of the initiative

16-20 years

Comment

In order to reduce coal consumption and CO2 emissions, and ensure the supply of electricity and steam required for production, YKA is promoting the construction of rice

husk boilers. Such boilers use rice husks instead of coal to produce steam and electricity for production. Rice husk is not only a waste by-product of rice production, but also a renewable biomass energy source. During the combustion process, rice husk only releases the CO₂ absorbed during the growth process, without increasing the amount of CO₂ in the air. Therefore, the replacement of coal with rice husk can not only reduce energy consumption, but also reduce CO₂ emissions, marking it an effective measure to help achieve the goals of Peak Carbon Emissions and Carbon Neutrality. By November 2021, YKA had built 22 rice husk boilers in operation, 1 under construction and 4 planned for construction. The solid biofuels are not certified to Sustainable Biomass Program.

Initiative category & Initiative type

Low-carbon energy consumption
Biogas

Estimated annual CO₂e savings (metric tonnes CO₂e)

21,544

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

1,095,038

Investment required (unit currency – as specified in C0.4)

2,000,000

Payback period

1-3 years

Estimated lifetime of the initiative

16-20 years

Comment

YKA is committed to establishing biogas collection and processing facilities to continuously reduce CO₂ emissions from biogas produced in the sewage treatment process of factories. The collected biogas is fed into the boiler to produce steam and reduce the consumption of coal or natural gas in the boiler, while the excess biogas is burned through a flare to ensure minimal leakage of methane.

Initiative category & Initiative type

Low-carbon energy consumption
Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)

491

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 3 category 4: Upstream transportation & distribution

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

109,890

Investment required (unit currency – as specified in C0.4)

150,000

Payback period

1-3 years

Estimated lifetime of the initiative

6-10 years

Comment

Promoting the use of PV power generation instead of traditional generators for shipping to meet the electricity needs of monitoring equipment, AIS system, VHF radio telephone, etc., when ships are berthed. Up to now, sixteen ships have been transformed to use PV power generation, saving 43.2 tons of fuel oil per year; YKA also implemented the shaft belt transformation project by using the main engine to drive the ship generator to make full use of the surplus power of the main engine.

Initiative category & Initiative type

Energy efficiency in production processes
Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

246,600

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1
Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

11,783,178

Investment required (unit currency – as specified in C0.4)

45,000,000

Payback period

4-10 years

Estimated lifetime of the initiative

11-15 years

Comment

YKA encourages all factories to continuously carry out energy-saving actions every year to reduce energy consumption and improve energy efficiency. From January to October 2021, 75 factories under YKA had carried out energy-saving actions, accounting for 73.5% of the total number of factories (excluding those newly built, rebuilt and out of service). Through waste heat recovery, changing to high-efficiency equipments, installation of LED lighting fixtures, installation of frequency conversion regulators and other energy-saving methods, a total of 24,741,265 kWh of electricity, 55,989 tons (7,000 kcal/kg) of coal, 6,530,377 Nm³ (8,000 kcal/Nm³) of natural gas and 5,486 tons (10,000 kcal/kg) of fuel had been saved.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	To comply with the European Union Renewable Energy Directive's standard of greenhouse gas emission reduction requirements (market access to EU biofuels market).
Lower return on investment (ROI) specification	As a means to reduce the operational cost from fuel use, it would be possible to generate cost savings from methane capture plant by replacing the diesel fuel for electricity generation with methane-rich biogas (at minimal operational cost as the gas is naturally generated from POME treatment ponds). Also, by replacing a portion of electricity generation from boiler-powered turbine engines, boiler fuels (biomass in the case of palm oil mills) could be saved and sold for a profit.
Dedicated budget for low-carbon product R&D	With the growing demand for low-carbon product, putting in place a budget focusing on research and development into such new opportunities will give added incentives and makes good business sense.

C-AC4.4/C-FB4.4/C-PF4.4

(C-AC4.4/C-FB4.4/C-PF4.4) Do you implement agriculture or forest management practices on your own land with a climate change mitigation and/or adaption benefit?

Yes

C-AC4.4a/C-FB4.4a/C-PF4.4a

(C-AC4.4a/C-FB4.4a/C-PF4.4a) Specify the agricultural or forest management practice(s) implemented on your own land with climate change mitigation and/or adaptation benefits and provide a corresponding emissions figure, if known.

Management practice reference number

MP1

Management practice

Biodiversity considerations

Description of management practice

No developments on High Conservation Value (HCV) areas and avoiding development on high carbon stock forest areas to help conserve ecologically viable areas of natural forests. Also, development on peatlands has been ceased to reduce further emissions from development.

A key component of Wilmar's No Deforestation, No Peat, No Exploitation (NDPE) Policy adopted in December 2013 and updated in 2019 is a 'No Deforestation' commitment to ensure that Wilmar do not develop in High Carbon Stock (HCS) Forests or High Conservation Value (HCV) Areas, or knowingly source from suppliers engaged in the development of HCS or HCV.

The policy scope covers 100% of Wilmar operations worldwide, extending beyond our own mills, plantations and refineries, and including 100% of our subsidiaries, and 100% of our third-party suppliers.

Components of the 'No Deforestation' commitment are as follows:

- No development on High Carbon Stock (HCS) Forests or High Conservation Value (HCV) Areas
- No burning
- Progressively reduce GHG emissions on existing operations:

Wilmar requires the protection of HCS forests and HCV areas in all estates within our global supply chain under the full scope of this policy. HCV areas and HCS forests for protection must first be identified prior to any new planting/development, utilising international best practice guidance from the Roundtable on Sustainable Palm Oil (RSPO) Principles and Criteria, High Conservation Value Resource Network (HCVRN) and the High Carbon Stock (HCS) Approach. In areas where there has been historical degradation on HCV-HCS or any non-compliant land clearing within our concession as per our NDPE cutoff date (31 December 2015), restoration and reforestation activities are undertaken to enhance the conservation values identified and to improve landscape connectivity.

If HCV-HCS are present in our sites, we formulate management plans inc. monitoring to ensure that no illegal activities (i.e. logging, mining and poaching) occur.

As at 2021: Wilmar has 82 palm oil sites that account for 310,779 ha in total area for operational activities and 100% of the sites managing the aforesaid area have been subjected to biodiversity assessments in the last five years. Of these, 32,447 ha (about 10%) has also been set aside for conservation. We have recorded no illegal and/or deforestation cases in our own operations as at end 2021.

Primary climate change-related benefit

Emission reductions (mitigation)

Estimated CO₂e savings (metric tons CO₂e)

25,049,084

Please explain

Based on the land clearing emission factors used in RSPO PalmGHG calculators, the difference between an oil palm and undisturbed forest's standing crop emission intensity is 772 tCO₂e/ha. Assuming all conserved areas managed by Wilmar in palm areas are undisturbed forests (32,447ha), an estimated total emission savings of 25.05 million tCO₂e can be achieved.

Management practice reference number

MP2

Management practice

Composting

Description of management practice

In our palm and sugar upstream operations, Wilmar practices a circular economy approach of reusing waste biomass wherever possible, such as for mulching. Empty Fruit Bunch (EFB) is produced as waste at our palm oil mills. The EFB containing nutrients required by our oil palms is composted and mulched on our estates, allowing for partial mitigation of embedded emissions of new/purchased nitrogen fertilisers used. This practice is implemented company-wide for Wilmar's global palm and sugar plantations and mills where we have operational control, and is carried out with benefits reaped on an ongoing basis.

Primary climate change-related benefit

Reduced demand for fertilizers (adaptation)

Estimated CO₂e savings (metric tons CO₂e)

27,747

Please explain

The emission savings are estimated based on the total EFB mulched (1,541,472 MT in 2021) and production emission factor of Nitrogen nutrient (5.62 MTCO₂e/MT Nitrogen). The Nitrogen content of EFB is estimated to be 0.32%.

Management practice reference number

MP3

Management practice

Integrated pest management

Description of management practice

Management of pest, disease and weed on our plantations is achieved through the combination of cultural, mechanical, biological and chemical strategies within an Integrated Pest Management (IPM) program. Recycled palm fronds and other organic products are also used to increase the fixing capacity of soils. An example of an initiative within the IPM is the mass rearing of barn owls for biological rat control and the use of target-specific rat baits.

Primary climate change-related benefit

Reduced demand for pesticides (adaptation)

Estimated CO2e savings (metric tons CO2e)

414

Please explain

Based on the data collected from the barn owls programme in Central Kalimantan, there is a potential to reduce a maximum of 7,500kg of rat baits use in a year. Calculating with the emission factor for pesticides and assuming the same is applied across other Malaysia and Indonesia estates, a potential of 414 tCO2e of emissions can be saved annually.

Management practice reference number

MP4

Management practice

Reforestation

Description of management practice

As part of Wilmar's "No Deforestation" commitment in the "No Deforestation, No Peat, No Exploitation" (NDPE) policy which covers 100% of Wilmar operations worldwide, Wilmar undertakes enrichment planting of HCV areas, riparian areas, areas along major roads within plantation complexes, and available vacant space not suitable for crops based on a landscape approach.

Initiated by our Plantation Head of Malaysia, the Conservation Recreational Landscape Project (CRLP) seeks to plant trees in spaces outside our designated riparian and conservation areas in Malaysia. This is one of our commitments in our NDPE Policy to promote the "Go Green" approach. Teams from all our operating units, both plantations and mills, are involved in reforestation and greening projects around the housing

complexes, vacant spaces and palm oil mills. Since 2020, a total of 12,091 trees from 79 species have been planted in both Sabah and Sarawak. We are also working closely with government agencies such as Sabah Forest Department and Sarawak Forest Department to support the Greening Malaysia Programme and 100 Million Tree-Planting Campaign. These efforts are expected to support terrestrial carbon sequestration through reforestation, and reduce GHG emissions to the atmosphere.

Primary climate change-related benefit

Increase carbon sink (mitigation)

Estimated CO2e savings (metric tons CO2e)

12,091

Please explain

The carbon sequestered was estimated based on the number of trees planted (12,091) and carbon sequestered per year (25kg) over 40 years of life span (i.e. 1 tonne carbon sequestered per tree).

Management practice reference number

MP5

Management practice

Fire control

Description of management practice

The company has a zero-burning policy throughout our oil palm plantations to ensure that emissions from open burning are avoided. Also, we adopt a zero-burning replanting method through mechanical means in our own operations and assists our smallholders (e.g. lend mechanical excavators for replanting use) whenever help is requested. Wilmar is a founding member of the Free Free Alliance that pursues a broad approach to preventing land and forest fires in Indonesia. Members of the alliance share experiences, tools and approaches with regards to addressing the incidence of fires in the areas where they operate.

Primary climate change-related benefit

Emission reductions (mitigation)

Estimated CO2e savings (metric tons CO2e)

85,153

Please explain

The impact was estimated based on the reduction in affected Wilmar's concessions from 2018-2021 (345.7 Ha) and average emissions from fire per Ha (246.32 MT/ha).

Management practice reference number

MP6

Management practice

Replacing fossil fuels by renewable energy sources

Description of management practice

At palm oil mills and sugar mills that have readily available sources of renewable energy (biomass waste like shell/fibre for palm and bagasse for sugar), these are maximised as boiler fuel to generate and meet the electricity consumption requirements of the mill while any excess is sold to the grid.

Primary climate change-related benefit

Reduced demand for fossil fuel (adaptation)

Estimated CO2e savings (metric tons CO2e)

9,525,280

Please explain

The emission savings due to replacement of fossil fuel with biomass fuel have been quantified using the GHG Protocol's "Stationary combustion tool" with the assumption that if the biomass fuels were not used, the baseline would be diesel fuels to cover the energy demand. Using the same energy demand and switching the fuel used in calculation, the emission savings can be estimated (excluding biogenic emissions).

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.

Level of aggregation

Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon

Low-Carbon Investment (LCI) Registry Taxonomy

Type of product(s) or service(s)

Power

Other, please specify

Biomass

Description of product(s) or service(s)

Wilmar's Australian sugar mills have the capacity to generate 202 megawatts of electricity. All the mills are cogeneration plants that generate electricity and produce

heat for consumption simultaneously. While all mills generate and export electricity, some are designed specifically to maximise generation or maximise the export of biomass (bagasse). At some mills, surplus bagasse is stockpiled on specially designed pads to ensure ready source of renewable energy outside the traditional crushing season. In 2021, we exported a total of 295,344 MWh to national grids from the eight mills in Australia, equal to the average energy use of approximately 64,000 Australian homes each year. In India, we exported a total of 184,495 MWh from five mills. This equates to the annual energy use of almost 15,530 homes for one year.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Yes

Methodology used to calculate avoided emissions

Estimating and Reporting the Comparative Emissions Impacts of Products (WRI)

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Use stage

Functional unit used

1 kWh electricity usage from grid versus from biomass (i.e. bagasse)

Reference product/service or baseline scenario used

Local grid electricity

Life cycle stage(s) covered for the reference product/service or baseline scenario

Use stage

Estimated avoided emissions (metric tons CO₂e per functional unit) compared to reference product/service or baseline scenario

422,100

Explain your calculation of avoided emissions, including any assumptions

We followed an attributional approach to our calculation and measured the difference in emissions during usage stage between the renewable electricity generated using bagasse and grid electricity. Rationale of allocating only for usage stage is because it could simplify the calculation by excluding the uncertainties such as the potential emissions due to land use and wide mix of fuels used in grid.

We used the following Global Warming Potential 100 (GWP100) factors from the IPCC 5th assessment report:

Carbon Dioxide (CO₂): 1

Methane (CH₄): 28

Nitrous Oxide (N₂O): 265

We estimated and compared the GHG emission per kWh electricity from bagasse and grid. To estimate emissions from combustion of bagasse, we applied the total electricity

generated into the GHG Protocol's calculator under "Other primary solid biomass fuels". At the same time, we used the grid emission factors from local governmental data and Institute for Global Environmental Strategies (IGES) to estimate the GHG emission from grid at the same amount of electricity sourced. It resulted in avoided emissions of 422,100 metric tons CO₂e by using 479,839 MWh electricity from bagasse versus from local grid. The calculation does not account for the biogenic emissions from combustion of bagasse.

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

0.07

Level of aggregation

Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon

Low-Carbon Investment (LCI) Registry Taxonomy

Type of product(s) or service(s)

Biofuels

Bioethanol

Description of product(s) or service(s)

In Australia, we are the largest manufacturer of sugar-based ethanol with a capacity of 60 million litres of bioethanol a year at our Sarina Distillery. About two-thirds of this ethanol is sold into the Australian market for use in E10 and E85 blends of petrol. Bioethanol is the most widely used alternative fuel in the world. It is a renewable derived from natural ingredients, making it a sustainable fuel option for motorists. Our bioethanol is produced from molasses – a by-product of the sugar manufacturing process. In India, we are also one of the largest suppliers of bioethanol to oil marketing companies (potential capacity of 120 million litres of bioethanol for fuel blending).

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Yes

Methodology used to calculate avoided emissions

Estimating and Reporting the Comparative Emissions Impacts of Products (WRI)

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Use stage

Functional unit used

1 litre motor fuel usage derived from petroleum vs from biomass (i.e. sugar)

Reference product/service or baseline scenario used

Motor gasoline

Life cycle stage(s) covered for the reference product/service or baseline scenario

Use stage

Estimated avoided emissions (metric tons CO₂e per functional unit) compared to reference product/service or baseline scenario

346,392

Explain your calculation of avoided emissions, including any assumptions

We followed an attributional approach to our calculation and measured the difference in emissions during usage stage between the bioethanol and motor gasoline. Rationale of allocating only for usage stage is because it could simplify the calculation by excluding the upstream production emissions which require further evaluation and assessment.

We used the following Global Warming Potential 100 (GWP100) factors from the IPCC 5th assessment report:

Carbon Dioxide (CO₂): 1

Methane (CH₄): 28

Nitrous Oxide (N₂O): 265

We estimated and compared the GHG emission per litre bioethanol vs litre petroleum-based gasoline. To estimate emissions from bioethanol, we applied the total quantity of bioethanol produced into the GHG Protocol Transport Tool under "Ethanol". At the same time, we used the same calculator to input the same quantity for "Gasoline/Petrol". It resulted in avoided emissions of 346,392 metric tons CO₂e by using 152 million litres of bioethanol vs petroleum-based gasoline. The calculation does not account for the biogenic emissions from combustion of bioethanol.

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

0.18

Level of aggregation

Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon

Low-Carbon Investment (LCI) Registry Taxonomy

Type of product(s) or service(s)

Biofuels

Fatty acid methyl ester (FAME)

Description of product(s) or service(s)

We are the world's largest producer of palm biodiesel. We produce palm oil methyl ester and palm olein methyl ester. Our biodiesel plants are located in Malaysia and Indonesia. Palm-based biofuels are used in a variety of applications ranging from cogeneration of

heat/electricity to transport fuel. The palm oil supplied by Wilmar meets the minimum GHG emission savings of 35% as stipulated in the Renewable Energy Directive (RED) and usually ranges from 40-60%. Therefore, the use of our palm oil enables avoided GHG emissions as compared to diesel from crude oil. Wilmar is a member of the International Sustainability and Carbon Certification (ISCC) association and has been an active user of the system since 2011 to facilitate trade to the renewable energy market in the European Union. The ISCC is an international certification system covering all kinds of biobased feedstocks and renewables catering to energy, food, feed and chemicals sectors. It incorporates sustainability criteria such as reduction of greenhouse gas emissions, sustainable use of land, protection of natural biospheres and social sustainability. Achieving ISCC certification enables delivery of products compliant with the sustainability criteria laid down by the EU's RED.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Yes

Methodology used to calculate avoided emissions

Estimating and Reporting the Comparative Emissions Impacts of Products (WRI)

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Cradle-to-grave

Functional unit used

1 litre diesel usage from petroleum vs from biomass (i.e. palm oil)

Reference product/service or baseline scenario used

Petroleum-based diesel

Life cycle stage(s) covered for the reference product/service or baseline scenario

Cradle-to-grave

Estimated avoided emissions (metric tons CO₂e per functional unit) compared to reference product/service or baseline scenario

4,845,254

Explain your calculation of avoided emissions, including any assumptions

We followed an attributional approach to our calculation and measured the difference in cradle-to-grave emissions between the palm-based biofuels and diesel. Based on the EU RED's requirement, the biofuels are required to be able to reduce the GHG emissions by 35%. Wilmar's biofuels are able to reduce the emissions by 40-60% as compared to the fossil fuel comparators.

We used the following Global Warming Potential 100 (GWP100) factors from the IPCC 5th assessment report:

Carbon Dioxide (CO₂): 1

Methane (CH₄): 28

Nitrous Oxide (N₂O): 265

Based on the baseline fossil fuel's life cycle emission which is 83.8 gCO₂e / MJ, we assume 50% (middle of 40-60%) lower GHG emission using our biofuels to calculate the avoided emissions. In 2021, we sold estimated 3 million MT biofuels. Based on the lower heating value of 0.037 MJ/MT, the quantity would be converted to total energy content in order to calculate the avoided emissions. It resulted in avoided emissions of 4,845,254 metric tons CO₂e.

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

4.32

Level of aggregation

Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon

Low-Carbon Investment (LCI) Registry Taxonomy

Type of product(s) or service(s)

Other

Other, please specify

Organic fertilizers

Description of product(s) or service(s)

In India, the press mud/filter cake obtained as waste is mixed with effluents from our distillery operations to manufacture organic fertilizers, which is eco-friendly as well as cost-effective than chemical fertilizers. It is a 100% natural product that enriches the soil fertility and useful for all soil types and crops. It help to avoid the emissions from the upstream production as compared to the chemical fertilizers.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Yes

Methodology used to calculate avoided emissions

Estimating and Reporting the Comparative Emissions Impacts of Products (WRI)

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Cradle-to-cradle/closed loop production

Functional unit used

1 tonne fertilizer that is chemically-produced vs derived 100% from biomass.

Reference product/service or baseline scenario used

Chemical fertilizers

Life cycle stage(s) covered for the reference product/service or baseline scenario

Cradle-to-cradle/closed loop production

Estimated avoided emissions (metric tons CO₂e per functional unit) compared to reference product/service or baseline scenario

13,752

Explain your calculation of avoided emissions, including any assumptions

We followed an attributional approach to our calculation and measured the difference in emissions during upstream production stage between the organic and chemical fertilizers. Most of the avoided emissions occur where the organic fertilizers are produced as waste from our distillery operations and require no specific upstream production processes where input such as materials, energy and logistic is required.

We used the following Global Warming Potential 100 (GWP100) factors from the IPCC 5th assessment report:

Carbon Dioxide (CO₂): 1

Methane (CH₄): 28

Nitrous Oxide (N₂O): 265

The Nitrogen (N), Phosphorus (P) and Potassium (K) content of the organic fertilizers are estimated in mass unit. Each nutrient type (N, P and K) would be multiplied with the respective production emission factor from BioGrace standard values. Summation of these emissions, which is estimated to be 13,752 metric tons CO₂e, would be the potential avoided emissions by replacing chemical fertilizers with the organic ones.

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

0.01

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?

No

C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?

No

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	Yes, a change in boundary	For GHG emission 2021, we included Shipping segment and few additional sites in our inventory scope.

C5.1c

(C5.1c) Have your organization's base year emissions been recalculated as result of the changes or errors reported in C5.1a and C5.1b?

	Base year recalculation	Base year emissions recalculation policy, including significance threshold
Row 1	Yes	Recalculation will be triggered when the fluctuation driven by structural changes such as acquisitions, divestures or mergers of businesses or facilities, change of operational scope and update of calculation methodology is more than 5%. In 2021, we included the shipping segment and few additional sites which resulted in approximately 10% of overall emissions. As a result, the base year emissions were recalculated accordingly.

C5.2

(C5.2) Provide your base year and base year emissions.

Scope 1

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO₂e)

7,837,098

Comment

The base year emission 2020 was updated by including shipping segment and additional sites to ensure 100% coverage at Wilmar Group.

Scope 2 (location-based)

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

4,672,205

Comment

The base year emission 2020 was updated by including shipping segment and additional sites to ensure 100% coverage at Wilmar Group.

Scope 2 (market-based)

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

0

Comment

In most of the countries where we operate, there is limited access to energy contractual instruments to specify the attributes of the electricity supply. As a result, we are currently not able to report Scope 2 (market-based).

Scope 3 category 1: Purchased goods and services

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

Comment

We are in progress of mapping and calculating our Scope 3 emissions by category for baseline 2020. Target to release the results by end of 2022.

Scope 3 category 2: Capital goods

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO₂e)

Comment

We are in progress of mapping and calculating our Scope 3 emissions by category for baseline 2020. Target to release the results by end of 2022.

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO₂e)

Comment

We are in progress of mapping and calculating our Scope 3 emissions by category for baseline 2020. Target to release the results by end of 2022.

Scope 3 category 4: Upstream transportation and distribution

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO₂e)

Comment

We are in progress of mapping and calculating our Scope 3 emissions by category for baseline 2020. Target to release the results by end of 2022.

Scope 3 category 5: Waste generated in operations

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO₂e)

Comment

We are in progress of mapping and calculating our Scope 3 emissions by category for baseline 2020. Target to release the results by end of 2022.

Scope 3 category 6: Business travel

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

Comment

We are in progress of mapping and calculating our Scope 3 emissions by category for baseline 2020. Target to release the results by end of 2022.

Scope 3 category 7: Employee commuting

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

Comment

We are in progress of mapping and calculating our Scope 3 emissions by category for baseline 2020. Target to release the results by end of 2022.

Scope 3 category 8: Upstream leased assets

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

Comment

We are in progress of mapping and calculating our Scope 3 emissions by category for baseline 2020. Target to release the results by end of 2022.

Scope 3 category 9: Downstream transportation and distribution

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO₂e)

Comment

We are in progress of mapping and calculating our Scope 3 emissions by category for baseline 2020. Target to release the results by end of 2022.

Scope 3 category 10: Processing of sold products

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO₂e)

Comment

We are in progress of mapping and calculating our Scope 3 emissions by category for baseline 2020. Target to release the results by end of 2022.

Scope 3 category 11: Use of sold products

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO₂e)

Comment

We are in progress of mapping and calculating our Scope 3 emissions by category for baseline 2020. Target to release the results by end of 2022.

Scope 3 category 12: End of life treatment of sold products

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO₂e)

Comment

We are in progress of mapping and calculating our Scope 3 emissions by category for baseline 2020. Target to release the results by end of 2022.

Scope 3 category 13: Downstream leased assets

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

Comment

We are in progress of mapping and calculating our Scope 3 emissions by category for baseline 2020. Target to release the results by end of 2022.

Scope 3 category 14: Franchises

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

0

Comment

We do not operate any franchising business.

Scope 3 category 15: Investments

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

Comment

We are in progress of mapping and calculating our Scope 3 emissions by category for baseline 2020. Target to release the results by end of 2022.

Scope 3: Other (upstream)

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO₂e)

Comment

We are in progress of mapping and calculating our Scope 3 emissions by category for baseline 2020. Target to release the results by end of 2022.

Scope 3: Other (downstream)

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO₂e)

Comment

We are in progress of mapping and calculating our Scope 3 emissions by category for baseline 2020. Target to release the results by end of 2022.

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

IPCC Guidelines for National Greenhouse Gas Inventories, 2006

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

The Greenhouse Gas Protocol Agricultural Guidance: Interpreting the Corporate Accounting and Reporting Standard for the Agricultural Sector

The Greenhouse Gas Protocol: Scope 2 Guidance

Other, please specify

The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Standard, Biograce & RSPO
PalmGHG Calculator

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO₂e?

Reporting year

Gross global Scope 1 emissions (metric tons CO₂e)

7,882,101

Comment

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We have no operations where we are able to access electricity supplier emission factors or residual emissions factors and are unable to report a Scope 2, market-based figure

Comment

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO₂e?

Reporting year

Scope 2, location-based

4,273,390

Comment

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

Yes

C6.4a

(C6.4a) Provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure.

Source

Emissions from non-manufacturing sites such as regional headquarters and offices.

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source (if applicable)

Emissions are not relevant

Explain why this source is excluded

The emissions from this sources are excluded as they are insignificant in comparison (0.1%) to the total emissions from the production/manufacturing components within our operations (i.e. plantations, mills, refineries, etc.). The emissions which do not significantly impact the overall emissions are considered not relevant.

Estimated percentage of total Scope 1+2 emissions this excluded source represents

1

Explain how you estimated the percentage of emissions this excluded source represents

We do not collect fuel and electricity consumed by all the standalone offices. The percentage of excluded emissions was estimated based on the emissions from some of these offices available in the system and extrapolated based on the number of offices. It was estimated to be 0.1%.

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, not yet calculated

Please explain

We are in progress to develop our Scope 3 framework and baseline using 2020 data by end of 2022. Once it is established and internally verified, we would roll out and to calculate the Scope 3 emissions per category in the years forward.

Capital goods

Evaluation status

Relevant, not yet calculated

Please explain

We are in progress to develop our Scope 3 framework and baseline using 2020 data by end of 2022. Once it is established and internally verified, we would roll out and to calculate the Scope 3 emissions per category in the years forward.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Relevant, not yet calculated

Please explain

We are in progress to develop our Scope 3 framework and baseline using 2020 data by end of 2022. Once it is established and internally verified, we would roll out and to calculate the Scope 3 emissions per category in the years forward.

Upstream transportation and distribution

Evaluation status

Relevant, not yet calculated

Please explain

We are in progress to develop our Scope 3 framework and baseline using 2020 data by end of 2022. Once it is established and internally verified, we would roll out and to calculate the Scope 3 emissions per category in the years forward.

Waste generated in operations

Evaluation status

Relevant, not yet calculated

Please explain

We are in progress to develop our Scope 3 framework and baseline using 2020 data by end of 2022. Once it is established and internally verified, we would roll out and to calculate the Scope 3 emissions per category in the years forward.

Business travel

Evaluation status

Relevant, not yet calculated

Please explain

We are in progress to develop our Scope 3 framework and baseline using 2020 data by end of 2022. Once it is established and internally verified, we would roll out and to calculate the Scope 3 emissions per category in the years forward.

Employee commuting

Evaluation status

Relevant, not yet calculated

Please explain

We are in progress to develop our Scope 3 framework and baseline using 2020 data by end of 2022. Once it is established and internally verified, we would roll out and to calculate the Scope 3 emissions per category in the years forward.

Upstream leased assets

Evaluation status

Relevant, not yet calculated

Please explain

We are in progress to develop our Scope 3 framework and baseline using 2020 data by end of 2022. Once it is established and internally verified, we would roll out and to calculate the Scope 3 emissions per category in the years forward.

Downstream transportation and distribution

Evaluation status

Relevant, not yet calculated

Please explain

We are in progress to develop our Scope 3 framework and baseline using 2020 data by end of 2022. Once it is established and internally verified, we would roll out and to calculate the Scope 3 emissions per category in the years forward.

Processing of sold products

Evaluation status

Relevant, not yet calculated

Please explain

We are in progress to develop our Scope 3 framework and baseline using 2020 data by end of 2022. Once it is established and internally verified, we would roll out and to calculate the Scope 3 emissions per category in the years forward.

Use of sold products

Evaluation status

Relevant, not yet calculated

Please explain

We are in progress to develop our Scope 3 framework and baseline using 2020 data by end of 2022. Once it is established and internally verified, we would roll out and to calculate the Scope 3 emissions per category in the years forward.

End of life treatment of sold products

Evaluation status

Relevant, not yet calculated

Please explain

We are in progress to develop our Scope 3 framework and baseline using 2020 data by end of 2022. Once it is established and internally verified, we would roll out and to calculate the Scope 3 emissions per category in the years forward.

Downstream leased assets

Evaluation status

Relevant, not yet calculated

Please explain

We are in progress to develop our Scope 3 framework and baseline using 2020 data by end of 2022. Once it is established and internally verified, we would roll out and to calculate the Scope 3 emissions per category in the years forward.

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

Wilmar does not own any franchise business.

Investments

Evaluation status

Relevant, not yet calculated

Please explain

We are in progress to develop our Scope 3 framework and baseline using 2020 data by end of 2022. Once it is established and internally verified, we would roll out and to calculate the Scope 3 emissions per category in the years forward.

Other (upstream)

Evaluation status

Not relevant, explanation provided

Please explain

As a Food and Beverage (F&B) company, more than 90% of total Scope 3 emissions is expected to be from purchased goods. As we also take into account other 14 categories as listed under GHG Protocol in our mapping, we do not consider other source(s) of Scope 3 emissions relevant.

Other (downstream)

Evaluation status

Not relevant, explanation provided

Please explain

As a Food and Beverage (F&B) company, more than 90% of total Scope 3 emissions is expected to be from purchased goods. As we also take into account other 14 categories as listed under GHG Protocol in our mapping, we do not consider other source(s) of Scope 3 emissions relevant.

C-AC6.8/C-FB6.8/C-PF6.8

(C-AC6.8/C-FB6.8/C-PF6.8) Is biogenic carbon pertaining to your direct operations relevant to your current CDP climate change disclosure?

Yes

C-AC6.8a/C-FB6.8a/C-PF6.8a

(C-AC6.8a/C-FB6.8a/C-PF6.8a) Account for biogenic carbon data pertaining to your direct operations and identify any exclusions.

CO2 emissions from land use management

Emissions (metric tons CO2)

2,321,079

Methodology

Default emissions factors

Please explain

The CO2 emissions due to land use change and peat oxidation were calculated using RSPO PalmGHG Calculator. In future, this emissions will be integrated as part of our Scope 1 to be aligned with GHG Protocol Agricultural Guidance.

CO2 removals from land use management

Emissions (metric tons CO2)

2,340,752

Methodology

Default emissions factors

Please explain

The CO2 removal due to sequestration from crop and conserved forests was calculated using RSPO PalmGHG Calculator.

Sequestration during land use change

Emissions (metric tons CO2)

12,091

Methodology

Default emissions factors

Please explain

Since 2020, a total of 12,091 trees from 79 species have been planted in both Sabah and Sarawak. We are also working closely with government agencies such as Sabah Forest Department and Sarawak Forest Department to support the Greening Malaysia Programme and 100 Million Tree-Planting Campaign. The carbon sequestered was estimated based on the number of trees planted and carbon sequestered per year (25kg) over 40 years of life span.

CO2 emissions from biofuel combustion (land machinery)

Emissions (metric tons CO2)

7,092

Methodology

Default emissions factors

Please explain

The emissions due to combustion of bio-diesel were included and estimated based on GHG Protocol.

CO2 emissions from biofuel combustion (processing/manufacturing machinery)

Emissions (metric tons CO2)

10,979,621

Methodology

Default emissions factors

Please explain

The emissions due to combustion of bio-diesel and bio-ethanol were included and estimated based on GHG Protocol.

CO2 emissions from biofuel combustion (other)

Emissions (metric tons CO2)

0

Methodology

Default emissions factors

Please explain

The fuels that we are using for our shipping business are mineral-based.

C-AC6.9/C-FB6.9/C-PF6.9

(C-AC6.9/C-FB6.9/C-PF6.9) Do you collect or calculate greenhouse gas emissions for each commodity reported as significant to your business in C-AC0.7/FB0.7/PF0.7?

Agricultural commodities

Palm Oil

Do you collect or calculate GHG emissions for this commodity?

Yes

Please explain

For palm operations, the reporting boundary covers company-wide plantations, mills, refineries and other palm-only processing plants (e.g. crushing plant, oleochemical, biodiesel) but does not include third-party emissions from our supply chain (Scope 3).

Agricultural commodities

Sugar

Do you collect or calculate GHG emissions for this commodity?

Yes

Please explain

For sugar operations, the reporting boundary covers company-wide sugar farms, mills and refineries but does not include third-party emissions from our supply chain (Scope 3).

Agricultural commodities

Other

Oilseeds and Grains

Do you collect or calculate GHG emissions for this commodity?

Yes

Please explain

For oilseeds and grains, the reporting boundary covers company-wide mills, refineries and processing plants (e.g. crushing plant, noodles plant) but does not include third-party emissions from our supply chain (Scope 3).

C-AC6.9a/C-FB6.9a/C-PF6.9a

(C-AC6.9a/C-FB6.9a/C-PF6.9a) Report your greenhouse gas emissions figure(s) for your disclosing commodity(ies), explain your methodology, and include any exclusions.

Palm Oil

Reporting emissions by

Total

Emissions (metric tons CO₂e)

7,134,490

Change from last reporting year

Lower

Please explain

The emissions are calculated using the GHG Protocol tools and include all activities ranging from plantations, mills, refineries to downstream processing operations within the reporting scope. However, due to the nature of refineries being able to process various feedstocks ranging from palm oil to soybean oil throughout the year, the emissions split might not be as clean between palm and oilseeds & grains and the current calculation is based on the sites having majority of palm-based feedstock (i.e. it could have a small portion running oilseeds & grains).

Sugar

Reporting emissions by

Total

Emissions (metric tons CO₂e)

893,726

Change from last reporting year

Lower

Please explain

The emissions are calculated using the GHG Protocol tools and include all activities ranging from plantations, mills & refineries within the reporting scope. Wherever the relevant emission factors are available for the region we operate in Australia, we have used those to calculate the emissions.

Other

Reporting emissions by

Total

Emissions (metric tons CO₂e)

3,040,466

Change from last reporting year

Higher

Please explain

We have included within our scope the emissions data for the oilseeds and grains processing operations this year. However, due to the nature of refineries being able to process various feedstocks ranging from palm oil to soybean oil throughout the year, the emissions split might not be as clean between palm and oilseeds & grains and the current calculation is based on the sites having majority of non palm-based feedstock

(i.e. it could have a small portion running on palm products).

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO₂e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.00018

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO₂e)

12,155,535

Metric denominator

unit total revenue

Metric denominator: Unit total

65,794,000,000

Scope 2 figure used

Location-based

% change from previous year

18

Direction of change

Decreased

Reason for change

The main drivers of reducing this intensity indicator were the substantial growth of revenue and emission reduction initiatives such as process optimization, utilization of biomass for energy generation and procurement of renewable energy certificates (RECs).

Intensity figure

123.68

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO₂e)

12,155,535

Metric denominator

metric ton of product

Metric denominator: Unit total

89,492,335

Scope 2 figure used

Location-based

% change from previous year

3

Direction of change

Decreased

Reason for change

The slight reduction of emission intensity was due to the increased utilization of biomass for energy generation and procurement of renewable energy certificates (RECs).

Intensity figure

0.66

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO₂e)

1,144,628

Metric denominator

unit of production

Metric denominator: Unit total

1,733,500

Scope 2 figure used

Location-based

% change from previous year

6

Direction of change

Increased

Reason for change

The 6% increase in this intensity indicator was attributable to the reduced productivity in the palm oil mills

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO ₂ e)	GWP Reference
CO ₂	6,397,135	IPCC Fifth Assessment Report (AR5 – 100 year)
CH ₄	1,370,673	IPCC Fifth Assessment Report (AR5 – 100 year)
N ₂ O	114,293	IPCC Fifth Assessment Report (AR5 – 100 year)

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO ₂ e)
Malaysia	404,590
Indonesia	3,534,509
Australia	183,906
Myanmar	7,499
India	313,269
China	2,126,471
United States of America	4,384
Netherlands	15
Viet Nam	33,875
Philippines	21,652
Sri Lanka	5,357
Fiji	5,002
New Caledonia	85
Papua New Guinea	5,607

New Zealand	51,857
Singapore	1,086,854
Ghana	21,764
Nigeria	38,370
Ethiopia	2,000
Mozambique	388
South Africa	34,647

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO ₂ e)
Oil Palm Plantations	297,519
Palm Oil Mills	1,139,137
Sugarcane Plantations	14,415
Sugar Mills	188,726
Factories (Food, Feed & Others)	5,155,451
Shipping	1,086,854

C-AC7.4/C-FB7.4/C-PF7.4

(C-AC7.4/C-FB7.4/C-PF7.4) Do you include emissions pertaining to your business activity(ies) in your direct operations as part of your global gross Scope 1 figure?

Yes

C-AC7.4a/C-FB7.4a/C-PF7.4a

(C-AC7.4a/C-FB7.4a/C-PF7.4a) Select the form(s) in which you are reporting your agricultural/forestry emissions.

Total emissions

C-AC7.4b/C-FB7.4b/C-PF7.4b

(C-AC7.4b/C-FB7.4b/C-PF7.4b) Report the Scope 1 emissions pertaining to your business activity(ies) and explain any exclusions. If applicable, disaggregate your agricultural/forestry by GHG emissions category.

Activity

Agriculture/Forestry

Emissions (metric tons CO₂e)

311,934

Methodology

Default emissions factor

Please explain

The Agriculture/Forestry emissions were derived from our oil palm and sugarcane plantations. The emissions due to stationary and mobile fuels, purchased energy, fertilizers and herbicides were calculated based on GHG Protocol, IPCC and Biograce. The emissions derived from land use change and sequestration were estimated based on RSPO PalmGHG Calculator but were not included as part of Agriculture/Forestry emissions until the official protocol and guidance are released.

Activity

Processing/Manufacturing

Emissions (metric tons CO₂e)

6,483,314

Methodology

Default emissions factor

Please explain

The Processing/Manufacturing emissions were derived from our mills, refineries and downstream processors. The emissions due to stationary and mobile fuels, purchased energy and chemicals were calculated based on GHG Protocol, IPCC and Biograce.

Activity

Distribution

Emissions (metric tons CO₂e)

1,086,854

Methodology

Default emissions factor

Please explain

The emissions from combustion of fuel oils from our Shipping business were calculated based on ISO8217.

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Malaysia	177,375	0
Indonesia	753,311	0
Australia	69,248	0
Myanmar	3,926	0
India	13,915	0
China	3,124,018	0
United States of America	1,792	0
Netherlands	59,224	0
Viet Nam	37,845	0
Philippines	4,099	0
Sri Lanka	3,383	0
Fiji	8,406	0
New Caledonia	302	0
Papua New Guinea	2,922	0
New Zealand	413	0
Ghana	7,986	0
Mozambique	41	0
South Africa	5,183	0

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By business division

C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Oil Palm Plantations	2,590	0
Palm Oil Mills	5,491	0

Sugarcane Plantations	961	0
Sugar Mills	33,554	0
Factories (Food, Feed & Others)	4,230,793	0

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Increased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO ₂ e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	307,795	Decreased	3	The change was attributable to the continued efforts to phase out non-renewable fuels and energy in our operations. We continue to invest in technology which combusts biomass to generate the energy required and at the same time, to further optimize the biomass stockpile to ensure steady energy supply to our operations. In both Australia and New Zealand, the electricity imported was 100% renewable with Renewable Energy Certificate (REC) in place in 2021. These initiatives contributed to ~3% reduction (307,795/11,234,191*100%).
Other emissions reduction activities	20,681	Decreased	0	The overall emissions were slightly reduced due to optimization of fertilizer application and running methane capture plants to the maximum capacity in our upstream operations. The reduction was 0.2% (20,681/11,234,191*100%).
Divestment	0	No change	0	Not applicable.
Acquisitions	0	No change	0	Not applicable.
Mergers	0	No change	0	Not applicable.

Change in output	0	No change	0	Not applicable.
Change in methodology	125,354	Increased	1	Amendments had been made to reflect the accurate fuel and energy sourcing in certain sites. Therefore, after the amendments, the overall emission increased by ~1%(125,354/11,234,191*100%).
Change in boundary	1,124,465	Increased	10	In 2021, we expanded the scope by including Shipping segment and few additional sites. As a result, the overall emissions increased by 10% (1,124,465/11,234,191*100%) from previous reported data.
Change in physical operating conditions	0	No change	0	Not applicable.
Unidentified	0	No change	0	Not applicable.
Other	0	No change	0	Not applicable.

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes

Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	Yes
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	Yes
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	30,092,282	17,349,556	47,441,838
Consumption of purchased or acquired electricity		210,710	4,474,359	4,685,069
Consumption of purchased or acquired heat		0	5,877	5,877
Consumption of purchased or acquired steam		185,780	1,552,109	1,737,889
Consumption of purchased or acquired cooling		0	33,856	33,856
Consumption of self-generated non-fuel renewable energy		11,696		11,696
Total energy consumption		30,500,468	23,415,757	53,916,225

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	Yes

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Sustainable biomass

Heating value

LHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self- cogeneration or self-trigeneration

0

Comment

Majority of biomass and biofuels were produced as residue and used as fuels directly without being certified to a biomass-certification programme. Although majority of our palm biomass used is from RSPO-certified mills, we have not accounted these biomass as certified for now but will consider the split calculation in future reporting.

Other biomass

Heating value

LHV

Total fuel MWh consumed by the organization

29,880,906

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self- cogeneration or self-trigeneration

29,880,906

Comment

The biomass included wood/timber, charcoal, empty fruit bunch, rice husk, shell, fibre, bagasse and others. Do note that much of our biomass from palm oil mills (empty fruit bunch, shell, fibre) are generated from RSPO-certified mills but it has not been accounted as certified biomass yet in our calculations (will split the calculation in future).

Other renewable fuels (e.g. renewable hydrogen)

Heating value

LHV

Total fuel MWh consumed by the organization

211,376

MWh fuel consumed for self-generation of electricity

28,149

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self- cogeneration or self-trigeneration

183,227

Comment

Biogas, biodiesel and bioethanol which are biofuel derived from the biomass were included under this category.

Coal

Heating value

LHV

Total fuel MWh consumed by the organization

9,906,644

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self- cogeneration or self-trigeneration

9,906,644

Comment

Examples of coals used were lignite, sub-bituminous, other-bituminous, anthracite and coking coal.

Oil

Heating value

LHV

Total fuel MWh consumed by the organization

4,698,869

MWh fuel consumed for self-generation of electricity

4,698,869

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self- cogeneration or self-trigeneration

0

Comment

Examples of oils were motor gasoline, diesel and heavy fuel oils.

Gas

Heating value

LHV

Total fuel MWh consumed by the organization

2,744,043

MWh fuel consumed for self-generation of electricity

59,818

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self- cogeneration or self-trigeneration

2,684,225

Comment

Examples of gases were natural gas, acetylene and Liquified Petroleum Gas (LPG).

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value

LHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self- cogeneration or self-trigeneration

0

Comment

All the fuels were well covered in the categories above.

Total fuel

Heating value

LHV

Total fuel MWh consumed by the organization

47,441,838

MWh fuel consumed for self-generation of electricity

4,786,836

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self- cogeneration or self-trigeneration

42,655,002

Comment

The aggregation of the fuels consumed above was calculated here and was matched with that provided under C8.2a.

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	1,702,723	1,119,869	1,163,655	678,622
Heat	624,390	624,390	24,734	24,734
Steam	16,117,409	16,117,409	9,028,527	9,028,527
Cooling	0	0	0	0

C8.2g

(C8.2g) Provide a breakdown of your non-fuel energy consumption by country.

Country/area

Australia

Consumption of electricity (MWh)

366,960

Consumption of heat, steam, and cooling (MWh)

8,357,478

Total non-fuel energy consumption (MWh) [Auto-calculated]

8,724,438

Country/area

China

Consumption of electricity (MWh)

3,220,696

Consumption of heat, steam, and cooling (MWh)

5,517,904

Total non-fuel energy consumption (MWh) [Auto-calculated]

8,738,600

Country/area

Fiji

Consumption of electricity (MWh)

26,982

Consumption of heat, steam, and cooling (MWh)

6,438

Total non-fuel energy consumption (MWh) [Auto-calculated]

33,420

Country/area

India

Consumption of electricity (MWh)

322,464

Consumption of heat, steam, and cooling (MWh)

822,141

Total non-fuel energy consumption (MWh) [Auto-calculated]

1,144,605

Country/area

Indonesia

Consumption of electricity (MWh)

1,241,528

Consumption of heat, steam, and cooling (MWh)

2,789,196

Total non-fuel energy consumption (MWh) [Auto-calculated]

4,030,724

Country/area

Malaysia

Consumption of electricity (MWh)

304,588

Consumption of heat, steam, and cooling (MWh)

503,025

Total non-fuel energy consumption (MWh) [Auto-calculated]

807,613

Country/area

Myanmar

Consumption of electricity (MWh)

45,056

Consumption of heat, steam, and cooling (MWh)

8,344

Total non-fuel energy consumption (MWh) [Auto-calculated]

53,400

Country/area

New Caledonia

Consumption of electricity (MWh)

959

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

959

Country/area

Netherlands

Consumption of electricity (MWh)

19,291

Consumption of heat, steam, and cooling (MWh)

143,577

Total non-fuel energy consumption (MWh) [Auto-calculated]

162,868

Country/area

New Zealand

Consumption of electricity (MWh)

61,552

Consumption of heat, steam, and cooling (MWh)

91,951

Total non-fuel energy consumption (MWh) [Auto-calculated]

153,503

Country/area

Philippines

Consumption of electricity (MWh)

11,142

Consumption of heat, steam, and cooling (MWh)

44

Total non-fuel energy consumption (MWh) [Auto-calculated]

11,186

Country/area

Papua New Guinea

Consumption of electricity (MWh)

9,890

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

9,890

Country/area

Sri Lanka

Consumption of electricity (MWh)

6,320

Consumption of heat, steam, and cooling (MWh)

33

Total non-fuel energy consumption (MWh) [Auto-calculated]

6,353

Country/area

United States of America

Consumption of electricity (MWh)

6,467

Consumption of heat, steam, and cooling (MWh)

13,792

Total non-fuel energy consumption (MWh) [Auto-calculated]

20,259

Country/area

Viet Nam

Consumption of electricity (MWh)

107,788

Consumption of heat, steam, and cooling (MWh)

46,136

Total non-fuel energy consumption (MWh) [Auto-calculated]

153,924

Country/area

Ghana

Consumption of electricity (MWh)

34,993

Consumption of heat, steam, and cooling (MWh)

119,093

Total non-fuel energy consumption (MWh) [Auto-calculated]

154,086

Country/area

Nigeria

Consumption of electricity (MWh)

6,751

Consumption of heat, steam, and cooling (MWh)

26

Total non-fuel energy consumption (MWh) [Auto-calculated]

6,777

Country/area

Ethiopia

Consumption of electricity (MWh)

1,833

Consumption of heat, steam, and cooling (MWh)

1

Total non-fuel energy consumption (MWh) [Auto-calculated]

1,834

Country/area

South Africa

Consumption of electricity (MWh)

20,778

Consumption of heat, steam, and cooling (MWh)

101,489

Total non-fuel energy consumption (MWh) [Auto-calculated]

122,267

Country/area

Mozambique

Consumption of electricity (MWh)

232

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

232

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

Description

Energy usage

Metric value

602.47

Metric numerator

Energy consumption in MWh

Metric denominator (intensity metric only)

Production volume in MT

% change from previous year

8

Direction of change

Increased

Please explain

The energy consumption is closely correlated with GHG emissions and monitoring of energy consumption provides insights and values to form our GHG emission reduction strategy.

Description

Waste

Metric value

0.07

Metric numerator

Waste generation in MT

Metric denominator (intensity metric only)

Production volume in MT

% change from previous year

0

Direction of change

No change

Please explain

As one of the key environmental pillars, we monitor the waste generated and how they are being treated at Group level.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	No third-party verification or assurance
Scope 2 (location-based or market-based)	No third-party verification or assurance
Scope 3	No third-party verification or assurance




C10.2


(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C2. Risks and opportunities	Other, please specify Climate risks & opportunities	International Standard for Assurance Engagements Other Than Audits or Reviews of Historical Financial Information ('ISAE 3000')	Climate risks assessment covering our plantations, mills and factories in the countries where we operate for 2021 was conducted and verified. It is our first year to verify this dataset. Refer to the Sustainability Report, Pages 214-216.  1
C12. Engagement	Emissions reduction activities	AA1000AS v3	Supplier Reporting Tool (SRT) assess our suppliers' progress and their implementation of our NDPE policy. The SRT is an annual programme conducted with all (100%) of Wilmar's direct supplying mills (including Wilmar mills) and their associated estates. Refer to the Sustainability Report, Pages 217-219.  1
C4. Targets and performance	Emissions reduction activities	International Standard for Assurance Engagements Other Than Audits or Reviews of Historical Financial Information ('ISAE 3000')	We have a Supplier Group Compliance Programme which detects deforestation (if any) and extent of such deforestation for us to monitor supplier's compliance to our No Deforestation commitments. Refer to the Sustainability Report, Pages 217-219.  1
C4. Targets and performance	Product footprint verification	Verification under the EU Renewable Energy Directive (EU RED) and EU RED related national implementation laws	For low-carbon products sold as ISCC biofuel and other biofuel programmes under national jurisdictions in EU, third-party verification audits were conducted to check the biofuel product footprint/pathway and the related emissions against the required standards.

 1Wilmar-SR-2021.pdf

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

No, but we anticipate being regulated in the next three years

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

China's scheme is based on a cap-and-trade model, in which emitters — initially just coal- and gas-fired energy plants — are allocated a certain number of emissions allowances up to a set limit, or cap, and then either trade or buy allowances if they remain below or exceed this.

Although our current entities in China do not fall within the industries covered by China's National Cap & Trade Programme this year, there is likelihood that the scope would be expanded in the near future (3 years) to cover more entities provided it exceeded the emissions threshold. With this in mind, our strategy for complying with the China Cap & Trade Programme includes switching to cleaner fuels (e.g. from coal to natural gas), investing in renewable sources (e.g. recycling wastewater to generate biogas as replacement fuel and rolling out photovoltaic power plants in all factories) and improving energy efficiency. In the scenario where certain sites are still unable to meet the future required compliance threshold, we would then look into purchasing carbon credits as offsets. We have publicly committed to develop long-term energy and water reduction targets in the Group's factories through our Industrial Sustainability Programme to drive energy efficiency and GHG reduction across Wilmar, in addition to our existing targets.

Since the start of 2021, we have undertaken many actions to reduce our GHG environmental impacts in our China operations:

- Invested RMB 265 million and launched 258 projects. Currently, 153 projects have been completed.
- Shifted away from coal to natural gas. Turn rice husk into energy (biomass).
- Rooftops of factories using solar panels – target to install 200GW by 2030. Currently installed 39.3MWp with 23,007 tonnes reduction in CO₂. Another 62.9MWp is being installed or planned.
- Reduce methane emissions

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

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

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

Yes, other partners in the value chain

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Engagement & incentivization (changing supplier behavior)

Details of engagement

Run an engagement campaign to educate suppliers about climate change

% of suppliers by number

100

% total procurement spend (direct and indirect)

100

% of supplier-related Scope 3 emissions as reported in C6.5

40

Rationale for the coverage of your engagement

Adopted in 2013, Wilmar's No Deforestation, No Peat, No Exploitation (NDPE) Policy contains climate-related commitments such as zero deforestation and zero development on peat regardless of depth, and extends in scope beyond all of Wilmar's global operations, subsidiaries and JVs, regardless stake, to also include 100% of our suppliers at Group-level. Therefore, Wilmar's engagement approach applies to 100% of our suppliers which are required by Wilmar to also be compliant with our NDPE commitments.

With more than 900 direct mills in our supply shed, we have adopted a risk-based approach to engagements focusing on areas with commercial importance, as well as areas with higher risks in terms of environmental and social impact. To ensure our suppliers are compliant to our NDPE policy (which includes key tenets on no deforestation and peat development), we assess potential new suppliers through a due

diligence process while existing suppliers are assessed across several programs (e.g. Supplier Reporting Tool, Grievance Mechanism, Supplier Group Compliance Programme) on a continuous basis to ensure full compliance to our requirements. The thorough due diligence process is undertaken prior to entering our supply chain and covers various environmental and social criteria; allowing collation of information on various aspects (e.g. location & proximity to forest and peat landscape risks through concession maps or supply chain sourcing info, legal compliance, traceability data, HCV/HCS assessments etc.) which helps to mitigate the risk of potential breaches to our policy. For existing suppliers, we assess them annually through the Supplier Reporting Tool (SRT) to screen for environmental and social risks, including climate-related indicators such as environmental impact management (i.e. HCV, HCS, fire and peat management, no burning). The overall mill-based risk scores are then integrated with the SRT results to determine an overall risk level. For mills that are categorised with higher levels of risk or 'high-priority' mills, they undergo site assessments and direct engagement as part of our NDPE policy implementation programmes. Although our Scope 3 emissions mapping has not yet been completed, it is likely that the coverage of our engagement will cover more than 40% of our Scope 3 emissions.

Impact of engagement, including measures of success

Wilmar sets a continuous target to engage 100% of our supplying mills in our Supplier Reporting Tool (SRT) annually, to assess their NDPE risks, including climate risks e.g. deforestation, peat development & burning. In 2021, we achieved this target (919 mills). We further assessed suppliers' risk profiles based on SRT data, mill certification status, grievances and the Global Forest Watch (GFW) commodity risk geospatial analysis, to identify high priority mills for closer on-ground assessments and engagement. In 2021, 71 suppliers (7.7%) were identified as high priority and as at end-2021, 48 have been engaged (67.6%), illustrating that progress is underway.

In December 2018, Wilmar became the first company to impose a "suspend first" approach for suppliers involved in verified deforestation and/or new development on peatland. This "suspend first" approach for suppliers is aligned with and in support of Indonesian and Malaysian government policies and moratoriums on oil palm expansion. To curb suspensions from contributing to a growing "leakage market" or negatively impacting smallholders, post-suspension engagement is crucial to support suppliers to align their operations with NDPE commitments. Through time-bound corrective measures and action plans, suspended suppliers can re-enter our supply chain. Since 2015, we have suspended 33 parent companies (managing 2.5 million ha of oil palm plantations) from our supply chain, majority due to deforestation. Through post-suspension engagement, 16 of them (managing 0.9 million ha) have managed to meet our supply chain re-entry criteria, including adoption of climate actions/commitments, e.g. group-wide NDPE commitment, moratorium on land clearing and peatland development, habitat recovery plan, commitment to identify High Carbon Stock (HSC) and High Conservation Value (HCV) areas for protection prior to any new development, etc. The suspend-first approach exemplifies our commitment to help drive sustainable supply chain transformation in the palm oil industry in our regions of operation.

To ensure suppliers can continue to demonstrate their commitments in accordance with our NDPE policy, we regularly provide capacity building training programmes and access to relevant facilities.

Comment

These engagement programmes also aim to drive more sustainable practices among our suppliers, including in parameters relating to climate action, such as zero deforestation. As at end 2021, 88.3% of palm oil and lauric volumes to Wilmar's origin refineries in Malaysia and Indonesia and 83.5% across Wilmar's global supply chain are from suppliers that have at least company group level commitments and/or action plans in place to address the No Deforestation requirements. Suppliers who are unable to meet our NDPE requirements after continuous engagements for improvement will be escalated to Wilmar's Grievance team for further action, following our Grievance Procedure and No Exploitation Protocol. We commit to transparency for grievance cases, by publishing and updating case details on an ongoing basis on our sustainability website. In 2021, we have managed to hit our annual continuous target of 100% response rate for all grievances raised via Wilmar's Grievance Procedure.

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

100

% total procurement spend (direct and indirect)

100

% of supplier-related Scope 3 emissions as reported in C6.5

40

Rationale for the coverage of your engagement

To enable better assessment of our suppliers' progress and their implementation of the NDPE policy, we have developed and launched the Supplier Reporting Tool (SRT) in 2017. The SRT is an online self-reporting tool which allows suppliers to report their current compliance to environmental (climate-related questions are included) and social risk-related issues within our supply chain and is an annual program required for 100% of our direct supplying mills and their associated estates. Once the SRT is completed online, an individualized action plan report will be generated to highlight gaps and potential improvement areas for suppliers to take note of.

Although our Scope 3 emissions mapping has not yet been completed, it is likely that the coverage of our engagement will cover more than 40% of our Scope 3 emissions.

Impact of engagement, including measures of success

Since its launch in 2017, the SRT has been rolled out to our suppliers in Indonesia, Malaysia, Honduras, Guatemala, and Colombia. As of December 2021, 65% of the supply base had completed and returned the questionnaire for assessment. It represented 2.5% increase as compared to that as of 2020. Once completed, the suppliers receive a report with action plans based on the gaps identified from the questionnaire. Individual action plans for all direct supplying mills are generated using the "Action Plan" feature within the OnConnect system. The Supplier Compliance Team continuously follows-up with suppliers to ensure action plans are completed, ensuring this process helps to improve overall sustainability performance.

Comment

C12.1d

(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.

In December 2013, Wilmar announced its integrated No Deforestation, No Peat, No Exploitation Policy that aims to advance an environmentally and socially responsible palm oil industry. The commitments and plans set out in the Policy were developed as a result of several years' engagement with critical stakeholders, and was crafted in close collaboration with sustainability experts and advisors like The Forest Trust (now known as Earthworm) and Climate Advisors. We also collaborate with other growers, traders, processors, NGOs, end-user companies, financial institutions and other industry stakeholders to guide the effective implementation of the Policy. An example was in December 2018 when Wilmar released a Joint Statement with Aidenvironment and supporting consumer goods companies (e.g. Unilever, Mondelez) that details Wilmar's new supplier monitoring and engagement programme that will accelerate its efforts towards a deforestation-free palm oil industry. The programme was developed to step up the effectiveness of its current NDPE policy while also intending to provide remediation for past deforestation by its third-party suppliers. We encourage our third-party suppliers to join the RSPO and pursue certification if possible. This is also in line with the RSPO code of conduct that requires members to promote and communicate this commitment to its customers, suppliers, and the wider value chain where necessary. We have hosted workshops on RSPO and responsible sourcing for our suppliers. We have invested in substantial resources to help associated and independent smallholders pursue sustainable practices, improve yield and productivity, including supporting them to attain RSPO certification. In Malaysia, we are working with Wild Asia, a Malaysia social enterprise, to help independent smallholder suppliers in Sabah attain RSPO certification. In conjunction with this initiative, Wilmar started a fertiliser scheme to help these smallholder suppliers gain access to fertilisers, at wholesale prices, with application advice and monitoring. In Indonesia, our focus has been on setting up groups of independent smallholders to enable better management. We also work together with government bodies to improve and accelerate the adoption of renewable energy in certain regions. For example, four of our Goodman Fielder (Wilmar's subsidiaries) sites are participating in the Energy Transition Accelerator programme by the Energy Efficiency & Conservation Authority (EECA). These sites will develop a roadmap towards zero emissions.

Opportunities identified through this initiative will be rolled out across the organisation as well as with the wider industry.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?

Yes, climate-related requirements are included in our supplier contracts

C12.2a

(C12.2a) Provide details of the climate-related requirements that suppliers have to meet as part of your organization's purchasing process and the compliance mechanisms in place.

Climate-related requirement

Climate-related disclosure through a non-public platform

Description of this climate related requirement

In assessing our direct mill suppliers with associated estates, we require our suppliers to disclose climate-related information through our Supplier Reporting Tool platform to allow us to check their compliance against our NDPE policy. Our primary climate-related concerns are focused on the implementation of the No Deforestation and No Peat requirements for plantations; and methane capture and utilization of biogas captured for mills. The overall questionnaire is designed to track and monitor the suppliers' annual progress in complying with our No Deforestation, No Peat, No Exploitation (NDPE) policy. Deforestation and peat destruction would pose very detrimental impact on our continued efforts to tackle the climate change. As for palm oil mills, methane emission from the treatment of palm oil mill effluent (POME) is the biggest source of emissions for them.

% suppliers by procurement spend that have to comply with this climate-related requirement

100

% suppliers by procurement spend in compliance with this climate-related requirement

100

Mechanisms for monitoring compliance with this climate-related requirement

Certification
Supplier self-assessment
Second-party verification
Grievance mechanism/Whistleblowing hotline
Supplier scorecard or rating

Response to supplier non-compliance with this climate-related requirement

Suspend and engage

Climate-related requirement

Complying with regulatory requirements

Description of this climate related requirement

Compliance with environmental regulations where applicable is one of the key elements in our Supplier Reporting Tool. They are required to report any significant violations and penalties occurred in our annual questionnaire.

% suppliers by procurement spend that have to comply with this climate-related requirement

100

% suppliers by procurement spend in compliance with this climate-related requirement

100

Mechanisms for monitoring compliance with this climate-related requirement

Certification
Supplier self-assessment
Second-party verification
Grievance mechanism/Whistleblowing hotline
Supplier scorecard or rating

Response to supplier non-compliance with this climate-related requirement

Suspend and engage

C-AC12.2/C-FB12.2/C-PF12.2

(C-AC12.2/C-FB12.2/C-PF12.2) Do you encourage your suppliers to undertake any agricultural or forest management practices with climate change mitigation and/or adaptation benefits?

Yes

C-AC12.2a/C-FB12.2a/C-PF12.2a

(C-AC12.2a/C-FB12.2a/C-PF12.2a) Specify which agricultural or forest management practices with climate change mitigation and/or adaptation benefits you encourage your suppliers to undertake and describe your role in the implementation of each practice.

Management practice reference number

MP1

Management practice

Biodiversity considerations

Description of management practice

To share our experience from managing and monitoring our conservation area, Wilmar developed two documents in 2021. The first is aimed at plantation managers and titled “Best Management Practices Manual for Growers on Forest Conservation and Community Collaboration”. This document was developed together with Proforest and contains four chapters:

1. biodiversity protection and forest monitoring;
2. balancing community needs and forest protection;
3. management and restoration of riparian areas; and
4. fire and peat management.

The second document provides guidance to support our suppliers who need to establish monitoring systems to manage identified conservation areas. It is titled “A Practical Guide to Conservation Area Monitoring” and is available in both Bahasa Indonesia and Bahasa Malaysia. This guidance aims to equip suppliers with an understanding of how to monitor and patrol conservation areas. It also provides easy to follow step-by-step actions for practitioners and plantation operation teams on how to respond to any encroachment.

Your role in the implementation

Knowledge sharing

Explanation of how you encourage implementation

These guidelines are a first for the industry and have been designed to be practical and easy to understand, recognizing that estate management teams may not have experts on the ground. In November and December 2021, both documents were presented to 131 of our suppliers in Indonesia and Malaysia, via online training sessions.

Climate change related benefit

Increasing resilience to climate change (adaptation)

Comment

C-AC12.2b/C-FB12.2b/C-PF12.2b

(C-AC12.2b/C-FB12.2b/C-PF12.2b) Do you collect information from your suppliers about the outcomes of any implemented agricultural/forest management practices you have encouraged?

Yes

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

Direct or indirect engagement that could influence policy, law, or regulation that may impact the climate

Yes, we engage indirectly through trade associations

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

Yes

Attach commitment or position statement(s)

From the UNCCC UK2021 (COP26) Joint Statement - Agricultural Commodity Companies Corporate Statement of Purpose:

“ Recognising the important role of agricultural commodities to address climate change as well as achieve the Sustainable Development Goals, notably promoting economic development, reducing poverty, underpinning food security and improving the livelihoods of billions of people;

...


By COP 27 we will lay out a shared roadmap for enhanced supply chain action consistent with a 1.5 degrees Celsius pathway, that supports achievement of our goals, and increases collaboration and implementation in areas including: enabling policy environments, transparency on scope 3 emissions and indirect supply chains, and improving livelihoods for farmers.”

Please refer to attachments for more details on COP26 and the Joint Statement:


(1) UNCCC UK2021 (COP26) Joint Statement - Agricultural Commodity Companies Corporate Statement of Purpose

(2) Wilmar Media Release: Ten Biggest Global Agricultural Trading and Processing Companies Commit to a Sectoral Roadmap for 1.5°C Pathway

(3) COP26 Media Release: Keeping 1.5 Alive and Finalising Paris Agreement

 COP26 Media - Keeping 1.5 Alive and Finalises Paris Agreement.pdf

 COP26 Joint Statement Agricultural-Commodity-Companies-Corporate-Statement-of-Purpose_final-v2.docx.pdf

 COP26 Joint Statement - Wilmar Media Release.pdf

Describe the process(es) your organization has in place to ensure that your engagement activities are consistent with your overall climate change strategy

By registering as a member and signatory to various sustainability standards such as Roundtable on Sustainable Palm Oil (RSPO), International Sustainability and Carbon Certification (ISCC), United Nations Global Compact (UNGC), Wilmar has committed itself to the principles and criteria laid down by these standards. Aligning our business practices with these universally acceptable social and environmental standards forms the basis on which we seek to achieve sustainability. To ensure all our activities that influence policy are consistent with our overall climate change strategy, the sustainability team works internally with all relevant parties through briefings/trainings to educate them on our policy and provides support where necessary. Also, by publicly committing to the COP26 Agricultural Commodity Companies Corporate Statement of Purpose, this public endorsement and support of the climate roadmap work for the industry is to motivate and encourage our suppliers, peers and customers that we are committed to our climate change strategy and to move them towards the same direction.

C12.3b

(C12.3b) Provide details of the trade associations your organization engages with which are likely to take a position on any policy, law or regulation that may impact the climate.

Trade association

Tropical Forest Alliance

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

The Tropical Forest Alliance (TFA) is a multi-stakeholder partnership initiative to support private-sector companies to remove deforestation from palm oil, beef, soy and pulp/paper supply chains. Wilmar's Chief Sustainability Office, Jeremy Goon, is a member of the TFA 2020 Steering Committee, together with the Heads of Sustainability of various consumer business companies, as well as government officials from forest countries. Wilmar is also an active participant in TFA working groups, such as the Finance working group, to catalyze financial sector involvement in deforestation-free commodity supply chains. The TFA, together with the World Business Council for Sustainable Development (WBCSD), is supporting ten of the world's largest agricultural

trading and processing companies, including Wilmar, to pledge its commitment to a sectoral roadmap for enhanced supply chain action that is consistent with a 1.5 degrees Celsius pathway to be achieved by COP27.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify

Fire-Free Alliance (FFA)

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

Established in February 2016, the FFA focuses on fire prevention through community engagement. By March 2016, FFA has expanded fire prevention outreach to 218 villages in various parts of Indonesia. Of these, 77 villages signed up with FFA members for intensive fire-free programmes in 2016. FFA members have reported reductions in fire incidences of between 50% and 90% from 2015 to 2016. Since joining the FFA, Wilmar has completed a fire risk map for our concessions, which helps us to plan for the monitoring activities especially in high risk areas. We have also expanded our monitoring to areas outside our boundary up to 5 km. This is in part to ensure that any fires are quickly detected and extinguished before it reaches our plantations. We have also socialised the 'Fire-Free Community' programme to 61 villages in South Sumatra and Central Kalimantan in 2016. 1.39 ha of planted area and 67.15 ha of unplanted area were burnt in 2016, representing an improvement of approximately 90% on previous years. Our 2017 goal is to halve the mean average incidence of fires from 2011-2015 in Indonesia plantations and reduce fires in the buffer areas 5km beyond plantation boundaries.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify

Roundtable on Sustainable Palm Oil (RSPO)

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

Established in 2004, the RSPO aims to develop and implement global standards for sustainable palm oil through multi-stakeholder governance from oil palm producers, processors or traders, consumer goods manufacturers, retailers, banks/investors, and environmental and social non-governmental organisations (NGOs). A set of environmental and social criteria has been developed and socialised for the companies to comply in order to produce Certified Sustainable Palm Oil (CSPO). Meeting these criteria can significantly minimize the negative impact of palm oil cultivation on the environment and communities. Wilmar have been an active participant in various RSPO working groups over the years. We have representations within the RSPO, which include the Board of Governors, the Fresh Fruit Bunch (FFB) Legality and Traceability Taskforce, the Shared Responsibility Working Group, the Biodiversity and High Conservation Values (BHCV) Working Group, the Compensation Task Force (CTF) and the Human Rights Working Group, which includes the related Taskforce on Labour and the Taskforce on Decent Living Wage. Within these working groups, we will be pushing for improvements and better clarity in the implementation of key components of the RSPO Principles and Criteria and RSPO Supply Chain Certification Standard.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In mainstream reports, incorporating the TCFD recommendations

Status

Complete

Attach the document

 Wilmar-SR-2021.pdf

Page/Section reference

Pages 46-54 (Climate Change), 56-61 (Energy) and 225-227 (TCFD).

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

C13. Other land management impacts

C-AC13.1/C-FB13.1/C-PF13.1

(C-AC13.1/C-FB13.1/C-PF13.1) Do you know if any of the management practices implemented on your own land disclosed in C-AC4.4a/C-FB4.4a/C-PF4.4a have other impacts besides climate change mitigation/adaptation?

Yes

C-AC13.1a/C-FB13.1a/C-PF13.1a

(C-AC13.1a/C-FB13.1a/C-PF13.1a) Provide details on those management practices that have other impacts besides climate change mitigation/adaptation and on your management response.

Management practice reference number

MP1

Overall effect

Positive

Which of the following has been impacted?

Biodiversity

Description of impact

Conservation of forest increases the carbon sink capability while allowing the biodiversity of flora and fauna to thrive in the conserved forests.

Have you implemented any response(s) to these impacts?

No

Description of the response(s)

We have not implemented any responses as we did not identify any negative impacts caused by this management practice.

Management practice reference number

MP2

Overall effect

Positive

Which of the following has been impacted?

Soil

Yield

Description of impact

The Empty Fruit Bunch (EFB), containing nutrients required by the oil palm, is returned to the soil to conserve the moisture underneath the soil in order to maintain the yield.

Have you implemented any response(s) to these impacts?

No

Description of the response(s)

We have not implemented any responses as we did not identify any negative impacts caused by this management practice.

Management practice reference number

MP3

Overall effect

Positive

Which of the following has been impacted?

Soil

Yield

Description of impact

The soil quality of crops has benefited from better pest, disease and weed management through good pesticides control which prevents excessive toxicity leaking into the soil.

The targeted application of the right dosage/method of pesticides can also ensure beneficial plants are not killed off and as an overall impact, this can help with our crop yield in the long-term.

Have you implemented any response(s) to these impacts?

No

Description of the response(s)

We have not implemented any responses as we did not identify any negative impacts caused by this management practice.

Management practice reference number

MP4

Overall effect

Positive

Which of the following has been impacted?

Biodiversity

Soil

Description of impact

Reforestation of certain mix of plantings can help to reverse the biodiversity loss by re-establishing and regrowing the forest canopy as habitat for the terrestrial biodiversity.

The planted trees also prevent from soil erosion through the deep roots.

Have you implemented any response(s) to these impacts?

No

Description of the response(s)

We have not implemented any responses as we did not identify any negative impacts caused by this management practice.

Management practice reference number

MP5

Overall effect

Positive

Which of the following has been impacted?

Biodiversity

Description of impact

Land clearing with fires can have destructive effects on the biodiversity via the loss of vegetation, refuge habitat, and food sources.

Have you implemented any response(s) to these impacts?

No

Description of the response(s)

We have not implemented any responses as we did not identify any negative impacts caused by this management practice.

C-AC13.2/C-FB13.2/C-PF13.2

(C-AC13.2/C-FB13.2/C-PF13.2) Do you know if any of the management practices mentioned in C-AC12.2a/C-FB12.2a/C-PF12.2a that were implemented by your suppliers have other impacts besides climate change mitigation/adaptation?

Yes

C-AC13.2a/C-FB13.2a/C-PF13.2a

(C-AC13.2a/C-FB13.2a/C-PF13.2a) Provide details of those management practices implemented by your suppliers that have other impacts besides climate change mitigation/adaptation.

Management practice reference number

MP1

Overall effect

Positive

Which of the following has been impacted?

Biodiversity

Description of impacts

Through engagement and training, it will create awareness and provide necessary tools for the suppliers on technical know-how to better conserve the biodiversity.

Have any response to these impacts been implemented?

No

Description of the response(s)

We have not implemented any responses as we did not identify any negative impacts caused by this management practice.

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity
Row 1	Yes, both board-level oversight and executive management-level responsibility	<p>Wilmar is committed to biodiversity conservation in our operations and our supply chain, which extends from our overarching No Deforestation, No Peat, No Exploitation (NDPE) Policy. We became the first in the industry to commit to a NDPE policy on 5 December 2013 which extended to our entire supply chain. Any risk of breaching this public commitment may cause detrimental impact to our businesses and reputation. As a result, it is included and monitored as one of the key sustainability agenda at Board level. It is assisted by Chief Sustainability Officer (CSO) and General Manager – Group Sustainability to implement NDPE-related strategy and initiatives.</p> <p>This commitment is guided by two main objectives:</p> <ol style="list-style-type: none"> 1. to manage, maintain and sustain biodiversity and ecological functions existing within conservation areas in Wilmar-owned operation areas and across the wider landscapes where we operate in; and 2. to provide technical guidance and support to our stakeholders, including our suppliers, to enable the mainstreaming of biodiversity conservation in the plantation landscape.

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	Yes, we have made public commitments and publicly endorsed initiatives related to biodiversity	Adoption of the mitigation hierarchy approach Commitment to not explore or develop in legally designated protected areas Commitment to respect legally designated protected areas Commitment to avoidance of negative impacts on threatened and protected species Commitment to no conversion of High Conservation Value areas Commitment to secure Free, Prior and Informed Consent (FPIC) of Indigenous Peoples	SDG Other, please specify RSPO Principles and Criteria (P&C)

C15.3

(C15.3) Does your organization assess the impact of its value chain on biodiversity?

	Does your organization assess the impact of its value chain on biodiversity?
Row 1	Yes, we assess impacts on biodiversity in our upstream value chain only

C15.4

(C15.4) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity-related commitments
Row 1	Yes, we are taking actions to progress our biodiversity-related commitments	Land/water protection Land/water management Species management Education & awareness


C15.5


(C15.5) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	Yes, we use indicators	Pressure indicators

C15.6

(C15.6) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In voluntary sustainability report or other voluntary communications	Content of biodiversity-related policies or commitments Impacts on biodiversity Details on biodiversity indicators Biodiversity strategy	Pages 30-45  ^{1, 2}

 ¹Wilmar-SR-2021.pdf

 ²Wilmar-SR-2021.pdf

C16. Signoff

C-FI

(C-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.

-

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Chief Sustainability Officer (CSO)	Chief Sustainability Officer (CSO)

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