Wilmar International Limited - Climate Change 2021

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	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2020	December 31 2020	No	<Not Applicable>

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

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.

Financial 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	Own land only [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

Not evaluated due to insufficient data on operations

Please explain

Our operations have yet to conduct a complete data collection on information related to the consumption of our products and thus would not be able to evaluate the relevant emissions for CDP disclosure.

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 11% of our total revenue in the past financial year 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%).

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	Wilmar's Chairman and Chief Executive Officer (CEO) is responsible for the oversight of the company's Integrated Policy which covers climate-related issues.
Board-level committee	Climate-related risk management is incorporated into the Group's risk management structure under the purview of the Risk Management Committee at the Board level, which reviews general sustainability issues (including climate-related items) on a quarterly basis.

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	Scope of board-level oversight	Please explain
Scheduled – all meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding business plans Monitoring implementation and performance of objectives Monitoring and overseeing progress against goals and targets for addressing climate-related issues	<Not Applicable>	On a quarterly basis, a sustainability paper, signed off by the General Manager (GM) of Group Sustainability and Chief Sustainability Officer (CSO), is presented by the CSO to the Board's Risk Management Committee (RMC) for review before the finalized issues and recommendations are discussed with the Board of Directors for their approval. Included within the paper are the updates on the overall approach to managing climate-related risks as well as implementation progress against set goals. These issues are taken into consideration as the Board reviews and guides the company's strategy and financial planning.

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)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Chief Sustainability Officer (CSO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Quarterly
Other, please specify (Group Sustainability General Manager)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	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 inventivized	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 CO2, 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.

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	1	
Medium-term	1	3	
Long-term	3		

C2.1b

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

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 reviewed and managed adequately through the Group's Risk Management structure.

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 Risk Management Committee 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 Technical Advisory Group 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 Risk Management Committee 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 AidEnvironment 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	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. 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.
Emerging regulation	Relevant, always included	Emerging regulations to restrict emissions or promote adaptation might lead to increased capital and operational costs, restrictions in expansion of production land, etc. 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. 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.
Technology	Relevant, sometimes included	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. Example: New R&D into creating alternatives for the commodity products would reduce the demand for it, posing a risk to business sustainability.
Legal	Relevant, always included	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. 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.
Market	Relevant, always included	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. Example: 30 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.
Reputation	Relevant, always included	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. Example: Reputational risk can lead to boycotts by the wider market 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

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

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.

Time horizon
Medium-term

Likelihood
Very likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
620000000

Potential financial impact figure – maximum (currency)
930000000

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$ 620-930 million potential financial impact (basis of 2019 revenue from Tropical Oils segment).

Cost of response to risk
90000000

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 and Indonesia 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	Changes in precipitation patterns and extreme variability in weather patterns

Primary potential financial impact
Decreased revenues due to reduced production capacity

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
Changes in weather pattern affects the production cycle of plantation while extreme trends of precipitation (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, 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)
5000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

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 harvests. The potential financial impact would hit the revenue from the plantation segment (assuming about 10% of 2018 revenue figure).

Cost of response to risk
5000000

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. As the above actions pertain to our daily operations and managing of our supply chain (excluding R&D), it is therefore considered part of our overall operational costs (already integrated in our operations) and not quantified separately.

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

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
Consumer market is increasingly becoming more sophisticated in their demands, requesting or 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
Medium-term

Likelihood
Likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
200000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

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 200 million.

Cost of response to risk

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 recognised 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. As the above actions pertain to our daily operations and managing of our supply chain, it is therefore considered part of our overall operational costs (already integrated in our operations) and not quantified separately.

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)
<Not Applicable>

Potential financial impact figure – minimum (currency)
600000

Potential financial impact figure – maximum (currency)
900000

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

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. However, as the efforts on traceability and managing the supply chain portion have already been integrated into our operations, the actual costs cannot be quantified separately.

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)
200000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

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
2000000

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
Short-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)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

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

Strategy to realize opportunity and explanation of cost calculation
Wilmar is investing and expanding our Research & Development capacity (as well as Business Development) to ensure we are kept abreast of latest innovations and to have the 'first-mover' advantage when it comes to such new 'disruptive' products/technologies. As these costs have already been integrated into our operations, it cannot be quantified separately but it will be an increasing year-on-year trend for investments into R&D.

Comment

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?
Yes

C3.1b

(C3.1b) Does your organization intend to publish a low-carbon transition plan in the next two years?

	Intention to publish a low-carbon transition plan	Intention to include the transition plan as a scheduled resolution item at Annual General Meetings (AGMs)	Comment
Row 1	No, we do not intend to publish a low-carbon transition plan in the next two years	<Not Applicable>	

C3.2

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

C3.2a

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

Climate-related scenarios and models applied	Details
2DS	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 Risk Management Committee 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, 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.

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. 42 sites across the biodiesel supply chain has been certified as of end 2020 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 2020 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 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.). All of these impacts to our financial planning covers the time horizons of medium to long-term.

C3.4a

(C3.4a) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

Having seen the changes in global climate, deterioration in the environment in many countries and through many constructive dialogue with different stakeholders, there is no denying that climate change is taking place and impacting lives. We felt it was imperative that big corporates must take the lead in mitigating climate change and work together as never before.

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 (need for adaptation).

The aforementioned information was aggregated and analyzed from the various operations globally throughout the years and this resulted in Wilmar taking a long-term holistic approach to sustainability that is fully integrated into our business model (long term strategy). 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.

With all the initiatives taken above, it culminated in Wilmar announcing its No Deforestation, No Peat, No Exploitation Policy in December 2013 that aims to advance an environmentally and socially responsible palm oil industry (most substantial business decision made for long term strategy influenced by the need for adaptation). Among the commitments is the effort to map out our supply chain which will help in identifying challenges ahead and develop solutions that are workable and realistic. Also, the policy outlines a clear mandate for transparency which has resulted in the launch of the Wilmar Sustainability Dashboard in January 2015, a microsite dedicated to reporting on Wilmar's sustainability endeavour, in particular, the implementation progress of its policy. The commitment, a first in the palm oil industry, provided a boost to the company's reputation and in turn, has led to almost all our industry peers announcing similar sustainability policy over the last few years. Wilmar's headway in sustainability and transparency is widely regarded as one of our key differentiating competencies that put us in a better position to cater to the needs of our customers, who are also on a tight timeline to meet their sustainable sourcing policies.

After meeting our original emission reduction target before the 2020 timeline, we have focused the emission reduction target on our palm oil mills as a short term strategy since we are able to directly reduce a major portion of emissions within a reasonable time period by construction of methane capture plants. Nonetheless, the company is working on setting future targets that cover a wider scope including our downstream operations as well.

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) (or Scope 3 category)
Scope 1+2 (location-based)

Intensity metric
Metric tons CO2e per metric ton of product

Base year
2016

Intensity figure in base year (metric tons CO2e per unit of activity)
0.818

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure
34

Target year
2023

Targeted reduction from base year (%)
15

Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]
0.6953

% change anticipated in absolute Scope 1+2 emissions
5.1

% change anticipated in absolute Scope 3 emissions
0

Intensity figure in reporting year (metric tons CO2e per unit of activity)
0.62

% of target achieved [auto-calculated]
161.369193154034

Target status in reporting year
Achieved

Is this a science-based target?
No, and we do not anticipate setting one in the next 2 years

Target ambition
<Not Applicable>

Please explain (including target coverage)
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).

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
Other, please specify (Subsidiary company level)

Target type: absolute or intensity
Absolute

Target type: energy carrier
Electricity

Target type: activity
Consumption

Target type: energy source
Renewable energy source(s) only

Metric (target numerator if reporting an intensity target)
Percentage

Target denominator (intensity targets only)
<Not Applicable>

Base year
2018

Figure or percentage in base year
40

Target year
2025

Figure or percentage in target year
100

Figure or percentage in reporting year
60

% of target achieved [auto-calculated]
33.3333333333333

Target status in reporting year
New

Is this target part of an emissions target?
No.

Is this target part of an overarching initiative?
RE100

Please explain (including target coverage)
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.

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)

Target denominator (intensity targets only)
<Not Applicable>

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 [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 (including target coverage)
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.

C4.2c

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

Target reference number
NZ1

Target coverage
Other, please specify (Subsidiary company level)

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, and we do not anticipate setting one in the next 2 years

Please explain (including target coverage)
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.

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*	0	0
Implementation commenced*	1	93825
Implemented*	8	1523645
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

Fugitive emissions reductions	Agricultural methane capture

Estimated annual CO2e savings (metric tonnes CO2e)
598435

Scope(s)
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
5000000

Investment required (unit currency – as specified in C0.4)
50000000

Payback period
4-10 years

Estimated lifetime of the initiative
16-20 years

Comment
With the commissioning of our 25th methane capture plant in 2020, this completes the overall methane capture programme for the group's palm oil mills while we continue to explore any new potential projects.

Initiative category & Initiative type

Fugitive emissions reductions	Other, please specify (Methane capture at anaerobic effluent treatment plants)

Estimated annual CO2e savings (metric tonnes CO2e)
200900

Scope(s)
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
2446240

Investment required (unit currency – as specified in C0.4)
2974250

Payback period
1-3 years

Estimated lifetime of the initiative
11-15 years

Comment
Our subsidiary YKA in China has installed methane capture plants for their effluent treatment plants at eight factories. The captured biogas is used to replace coal to produce energy. Three more of such plants are in the pipeline to be completed in the near future.

Initiative category & Initiative type

Low-carbon energy consumption	Solid biofuels

Estimated annual CO2e savings (metric tonnes CO2e)
379668

Scope(s)
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
11200000

Investment required (unit currency – as specified in C0.4)
36500000

Payback period
4-10 years

Estimated lifetime of the initiative
11-15 years

Comment
The use of rice husks boilers to replace existing fossil fuel-based (coal or MFO) sources can help reduce the carbon footprint of operations while minimizing improper management of the waste product from paddy fields. This program covers our operations in China and Vietnam.

Initiative category & Initiative type

Low-carbon energy consumption	Liquid biofuels

Estimated annual CO2e savings (metric tonnes CO2e)
33596

Scope(s)
Scope 1

Voluntary/Mandatory
Mandatory

Annual monetary savings (unit currency – as specified in C0.4)
92952

Investment required (unit currency – as specified in C0.4)
0

Payback period
<1 year

Estimated lifetime of the initiative
6-10 years

Comment
With both Indonesia and Malaysia mandating biodiesel blends in their fuel use, this has helped replace the consumption of diesel with biodiesel blends across our operations in these two countries. Also, there could be a possibility for the price of biodiesel blend to be lower than that of diesel which adds to extra monetary savings.

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
2698

Scope(s)
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
58804

Investment required (unit currency – as specified in C0.4)
100000

Payback period
1-3 years

Estimated lifetime of the initiative
6-10 years

Comment
Our subsidiary, Goodman Fielder's operations in New Zealand and Australia have multiple initiatives in process optimization such as upgrading to LED lighting, installation of occupancy sensors in lights, CIP optimisation, pipework insulations, air leak repair, replace old air compressors, upgrade boiler burner, upgrade refrigeration system and

power factor corrections.

Initiative category & Initiative type

Company policy or behavioral change	Other, please specify (Implementation of the No Deforestation, No Peat and No Exploitation policy which covers both our own operations and those within our supply chain.)

Estimated annual CO2e savings (metric tonnes CO2e)
276666

Scope(s)
Scope 1
Scope 3

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
0

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

Payback period
No payback

Estimated lifetime of the initiative
Ongoing

Comment
With the implementation of Wilmar's NDPE policy, the focus of our climate change mitigation & adaptation initiatives includes the elimination of peatland deforestation and development. We are also committed to best management practice for soils and peat while we reduce resource use and GHG emissions at own plantations by converting waste to renewable energy for fuel and composting as organic fertiliser. We use sugar mill by-products to increase farm productivity; re-use wastewater throughout the production process; have installed solar panels at plants and methane captures at palm oil mills; and employ other best practices. We also monitor land use change and hotspots; educate community members on fire risk; equip them with agronomy techniques; and invest in R&D for high-resistant and high-yield seeds to adapt to extreme weather. We expect our suppliers to adopt climate change mitigation and adaptation practices in accordance with our efforts to ensure NDPE compliance at group level. The estimated annual emission reductions do not cover the full scope here but limited to only conservation areas that are forested within our operations. GHG emissions are monitored for RSPO certified sites (mill & supply base) and thus can estimate reductions for FY2020 using historical land use change emissions less both crop sequestration and sequestration in conservation areas.

Initiative category & Initiative type

Energy efficiency in production processes	Waste heat recovery

Estimated annual CO2e savings (metric tonnes CO2e)
8675

Scope(s)
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
445806

Investment required (unit currency – as specified in C0.4)
77397

Payback period
<1 year

Estimated lifetime of the initiative
11-15 years

Comment
YKA's heat energy recovery initiative at one of our power plants in Qin Huang Dao, China.

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
23007

Scope(s)
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
3660520

Investment required (unit currency – as specified in C0.4)
9112385

Payback period
1-3 years

Estimated lifetime of the initiative
11-15 years

Comment
YKA's initiatives in process optimization including replacing refineries' tubular heat exchangers to the stacked heat exchangers, modify processors to increase efficiency (such as increased capacity, adding heat insulations, etc), replacing old processors with new processors, reusing condensate and etc.

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.

Primary climate change-related benefit
Emission reductions (mitigation)

Estimated CO2e savings (metric tons CO2e)
24426000

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 (31640ha), an estimated total emission savings of 24.42 million tCO2e can be achieved.

Management practice reference number
MP2

Management practice
Fertilizer management

Description of management practice
Management of nutrients and fertilizer use (e.g. organic fertilizers etc.) on plantations to ensure correct dosage for optimum yield as well as the right application method to ensure minimum leakage.

Primary climate change-related benefit
Reduced demand for fertilizers (adaptation)

Estimated CO2e savings (metric tons CO2e)

Please explain
The estimated emission savings through this management practice have been included within the calculation of Scope 1 emissions for our plantations and other than

prevention of deforestation & peatland developments, this forms another main driver for GHG reduction efforts at our plantations.

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
Waste management

Description of management practice
For land clearing of existing plantations that are due for replanting, only mechanical methods are used with no burning allowed to manage the waste generated from cleared palm trees. The tree fronds and trunks are chopped to smaller pieces for natural aerobic decomposition on site (to minimize anaerobic break-down which leads to methane release) and recycled back to soil as natural fertilizers.

Primary climate change-related benefit
Emission reductions (mitigation)

Estimated CO2e savings (metric tons CO2e)

Please explain
The estimated emission savings through this management practice have not been quantified.

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. Also, 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)

Please explain
The estimated emission savings through this management practice have not been quantified.

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)
9525280

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 or do they enable a third party to avoid GHG emissions?
Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation
Group of products

Description of product/Group of products
Palm-based biofuels (low carbon product) are supplied to multiple markets for use in a variety of applications ranging from co-generation of heat/electricity to transport fuel usage; as such, the avoided emissions can be represented by Scope 1 & 2 (internal heat/power generation and transport fuel respectively) for such users. The palm oil supplied by our company meets the minimum greenhouse gas (GHG) savings of 35% as stipulated in the Renewable Energy Directive and usually ranges around 50%. Therefore, the use of our palm oil biofuels directly enable GHG emissions to be avoided by a third party through reduced use of diesel (replacing it with biofuel of a lower emission value). For our sugar mills in Australia and India, we generate renewable electricity based on bagasse (biomass) fuel source and sell it into the national grid as part of our contribution for reduction of country's electricity emission factor. On top of that, we also produce bioethanol fuel for blending as well.

Are these low-carbon product(s) or do they enable avoided emissions?
Low-carbon product and avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions
Low-Carbon Investment (LCI) Registry Taxonomy

% revenue from low carbon product(s) in the reporting year
0.86

% of total portfolio value
<Not Applicable>

Asset classes/ product types
<Not Applicable>

Comment
The % revenue is calculated based on the revenue derived from sales of biodiesel fuel, bioethanol fuel and renewable electricity against the total revenue of the group as reported in Annual Report 2020. For emissions avoided, this is estimated based on 50% reduction of emissions from the default diesel emission factor (83.8 gCO2e/MJ) for biofuels while that for renewable electricity is estimated from the baseline emissions due to the country's grid emission factor against emissions due to utilizing our renewable electricity.

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
6711069

Comment
With our reporting scope for FY2020 emissions being expanded to cover all of our global operations, the base year emission would be updated to this moving forward for comparison purpose.

Scope 2 (location-based)

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
4523122

Comment
With our reporting scope for FY2020 emissions being expanded to cover all of our global operations, the base year emission would be updated to this moving forward for comparison purpose.

Scope 2 (market-based)

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
0

Comment

C5.2

(C5.2) 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 (Biograce and RSPO PalmGHG Calculator)

C5.2a

(C5.2a) Provide details of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

The main parameters are calculated based on the GHG Protocol: A Corporate Accounting and Reporting Standard (Revised Edition) and 2006 IPCC Guidelines for National Greenhouse Gas Inventories (for methane emissions calculation from effluent treatment plant). For emission factors of other parameters that are not available in the GHG Protocol, those are obtained from Biograce list of standard values and RSPO default values used in the RSPO PalmGHG Calculator Ver.4.

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)
6711069

Start date
<Not Applicable>

End date
<Not Applicable>

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
4523122

Scope 2, market-based (if applicable)
<Not Applicable>

Start date
<Not Applicable>

End date
<Not Applicable>

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/offices in Malaysia, Indonesia, Australia, India, Nigeria, Ghana, China, New Zealand, Netherland, Sri Lanka, Philippines, USA, Vietnam or corporate head office in Singapore are excluded.

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

(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

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain

Capital goods

Evaluation status
Not evaluated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain

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

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain

Upstream transportation and distribution

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain

Waste generated in operations

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Waste generated from our operations are generally managed and treated within our own facilities. Only certain scheduled wastes that require specific treatment are sent out for third-party management; however, the amount of scheduled waste is insignificant as compared to the main waste generated and treated within our own facilities.

Business travel

Evaluation status
Not evaluated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain

Employee commuting

Evaluation status
Not evaluated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain

Upstream leased assets

Evaluation status
Not evaluated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain

Downstream transportation and distribution

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain

Processing of sold products

Evaluation status
Not evaluated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain

Use of sold products

Evaluation status
Not evaluated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain

End of life treatment of sold products

Evaluation status
Not evaluated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain

Downstream leased assets

Evaluation status
Not evaluated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain

Franchises

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Our operations do not include franchising business.

Investments

Evaluation status
Not evaluated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain

Other (upstream)

Evaluation status
Not evaluated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain

Other (downstream)

Evaluation status
Not evaluated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain

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)
0

Methodology
Default emissions factors

Please explain

CO2 removals from land use management

Emissions (metric tons CO2)
0

Methodology
Default emissions factors

Please explain

Sequestration during land use change

Emissions (metric tons CO2)
0

Methodology
Default emissions factors

Please explain

CO2 emissions from biofuel combustion (land machinery)

Emissions (metric tons CO2)
0

Methodology
Default emissions factors

Please explain

CO2 emissions from biofuel combustion (processing/manufacturing machinery)

Emissions (metric tons CO2)
10866823

Methodology
Default emissions factors

Please explain
The emissions due to biofuel combustion are mainly from the burning of biomass at our palm oil mills/refineries and sugar mills (palm fibre and shells; and bagasse respectively) to generate energy.

CO2 emissions from biofuel combustion (other)

Emissions (metric tons CO2)
0

Methodology
Default emissions factors

Please explain

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)
7686587

Denominator: unit of production
<Not Applicable>

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)
987510

Denominator: unit of production
<Not Applicable>

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)
2560094

Denominator: unit of production
<Not Applicable>

Change from last reporting year
This is our first year of measurement

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
0.00022

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
11234191

Metric denominator
unit total revenue

Metric denominator: Unit total
50526794000

Scope 2 figure used
Location-based

% change from previous year
20.6

Direction of change
Decreased

Reason for change
The significant change (20.6%) in FY2020 intensity compared to FY2019 was due to the expansion of coverage to 100% of our business operations (& thus incorporating total revenue), including Plantations and Sugar Milling, Feed and Industrial Products and Food Products business segments.

Intensity figure
127.98

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
11234191

Metric denominator
metric ton of product

Metric denominator: Unit total
87779587

Scope 2 figure used
Location-based

% change from previous year
0

Direction of change
No change

Reason for change
This intensity covers 100% of our business operations from our Plantations and Sugar Milling, Feed and Industrial Products and Food Products business segments. This is our first time to report this intensity.

Intensity figure
0.62

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
1151832.31

Metric denominator
metric ton of product

Metric denominator: Unit total
1848286

Scope 2 figure used
Location-based

% change from previous year
19.5

Direction of change
Decreased

Reason for change
The decrease is mainly due to the completion of all 25 methane capture projects and continued efforts to operate those plants at maximum efficiency which contributes greatly to the actual reduction of methane emissions.

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 CO2e)	GWP Reference
CO2	5290102	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	1206568	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	214399	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 CO2e)
Malaysia	437173.82
Indonesia	3518260
Australasia *Australia, New Zealand, Fiji, New Caledonia, and Papua New Guinea*	352001
Myanmar	7352
Africa *Ghana, Nigeria, Ethiopia and South Africa*	92976
India	332103
China	2000721
United States of America	7023
Netherlands	97
Viet Nam	27730
Philippines	16836
Sri Lanka	5155.95

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 CO2e)
Oil Palm Plantations	314960
Palm Oil Mills	1151337
Sugarcane plantations	13876
Sugar mills	181515
Factories (Food, Feed & Others)	5049381

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 category
<Not Applicable>

Emissions (metric tons CO2e)
328836

Methodology
Default emissions factor

Please explain
Please note that the agriculture/forestry emissions here are the total Scope 1 emissions related to our palm plantations/sugar estates and it includes the distribution emissions involved within the operations (thus there is an overlap with the distribution emissions reported below).

Activity
Processing/Manufacturing

Emissions category
<Not Applicable>

Emissions (metric tons CO2e)
6281549

Methodology
Default emissions factor

Please explain
The processing/manufacturing emissions are the sum of total Scope 1 emissions from mills, refineries and other downstream operations. Emissions from non-manufacturing sites such as regional headquarters are excluded as they are minimal compared to the total emissions from the manufacturing components in the supply chain. Please note that the emissions here have included the distribution emissions involved within the operations (thus there is an overlap with the distribution emissions reported below).

Activity
Distribution

Emissions category
<Not Applicable>

Emissions (metric tons CO2e)
101114

Methodology
Default emissions factor

Please explain
Most of our distribution activities are outsourced to outside transporters which would be factored under Scope 3 emissions.

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)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
Malaysia	192651	0	286955	0
Indonesia	628231	0	1170448	0
Australasia *Australia and New Zealand*	141082	0	337975	0
Africa *Ghana and Nigeria*	16652	0	68035	0
Myanmar	342	0	1580	0
India	10093	0	13574	0
China	3466862	0	5163347	0
United States of America	2234	0	5985	0
Netherlands	41563	0	145027	0
Viet Nam	18605	0	52974	0
Philippines	1507	0	6194	0
Sri Lanka	3297.86	0	6084	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	3467	0
Palm Oil Mills	496	0
Sugarcane Plantations	1290	0
Sugar Mills	27517	0
Factories (Food, Feed & Others)	4490353	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 CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	6383868.27	Decreased	18	With the continued push for better data verification and checks, this has led to an improved overall data accuracy with several mistakes in previously entered 2019 figures corrected.
Other emissions reduction activities	338164.67	Decreased	3	The decrease can be attributed to our emission reductions at oil palm plantations and palm oil mills. The reduced fertilizer inputs in 2020 and the continued efforts to operate our methane capture plants at maximum efficiency.
Divestment		<Not Applicable>		
Acquisitions		<Not Applicable>		
Mergers		<Not Applicable>		
Change in output		<Not Applicable>		
Change in methodology		<Not Applicable>		
Change in boundary	5753846	Increased	52	The significant change was due to the expansion of coverage to 100% of our business operations, from previously Palm Oil and Sugar segments to now include Feed and Industrial Products and Food Products business segments
Change in physical operating conditions		<Not Applicable>		
Unidentified		<Not Applicable>		
Other		<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	No
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)	29299179	15571011	44870190
Consumption of purchased or acquired electricity	<Not Applicable>	136448	4457954	4594402
Consumption of purchased or acquired heat	<Not Applicable>	2878	61178	64056
Consumption of purchased or acquired steam	<Not Applicable>	0	2599599	2599599
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	120.12	<Not Applicable>	120.12
Total energy consumption	<Not Applicable>	29438625	22689742	52128367

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.

Fuels (excluding feedstocks)

Diesel

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

606637

MWh fuel consumed for self-generation of electricity

606637

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

Emission factor

0.003

Unit
metric tons CO2e per liter

Emissions factor source
2006 IPCC Guidelines for National Greenhouse Gas Inventories

Comment

Fuels (excluding feedstocks)
Natural Gas

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
2990106

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
2990106

Emission factor
0.056

Unit
metric tons CO2e per GJ

Emissions factor source
2006 IPCC Guidelines for National Greenhouse Gas Inventories

Comment

Fuels (excluding feedstocks)
Lignite Coal

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
1118021

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
1118021

Emission factor
1.21

Unit
metric tons CO2e per metric ton

Emissions factor source
2006 IPCC Guidelines for National Greenhouse Gas Inventories

Comment

Fuels (excluding feedstocks)
Subbituminous Coal

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
6575312

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-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
6575312

Emission factor
1.829

Unit
metric tons CO2e per metric ton

Emissions factor source
2006 IPCC Guidelines for National Greenhouse Gas Inventories

Comment

Fuels (excluding feedstocks)
Other, please specify (Other bituminous coal)

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
4072566

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
4072566

Emission factor
2.458

Unit
metric tons CO2e per metric ton

Emissions factor source
2006 IPCC Guidelines for National Greenhouse Gas Inventories

Comment

Fuels (excluding feedstocks)
Lubricants

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
15819

MWh fuel consumed for self-generation of electricity
15819

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

Emission factor
0.003

Unit
metric tons CO2e per liter

Emissions factor source
2006 IPCC Guidelines for National Greenhouse Gas Inventories

Comment
Lubricants used in our operations are mainly on the motors and engines to reduce friction and minimize the heat generation at moving surfaces for a more efficient functioning of the mechanisms.

Fuels (excluding feedstocks)
Motor Gasoline

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
25450

MWh fuel consumed for self-generation of electricity
25450

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

Emission factor
0.002

Unit
metric tons CO2e per liter

Emissions factor source
2006 IPCC Guidelines for National Greenhouse Gas Inventories

Comment

Fuels (excluding feedstocks)
Primary Solid Biomass

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
28754009

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
28754009

Emission factor
1.179

Unit
metric tons CO2e per metric ton

Emissions factor source
2006 IPCC Guidelines for National Greenhouse Gas Inventories

Comment

Fuels (excluding feedstocks)
Biodiesel

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
78821

MWh fuel consumed for self-generation of electricity
78821

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

Emission factor
1.918

Unit
metric tons CO2e per metric ton

Emissions factor source
2006 IPCC Guidelines for National Greenhouse Gas Inventories

Comment

Fuels (excluding feedstocks)
Biogas

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization
177059

MWh fuel consumed for self-generation of electricity
177059

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

Emission factor
0.197

Unit
metric tons CO2e per MWh

Emissions factor source
2006 IPCC Guidelines for National Greenhouse Gas Inventories

Comment

Fuels (excluding feedstocks)
Liquefied Petroleum Gas (LPG)

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
568

MWh fuel consumed for self-generation of electricity
568

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

Emission factor
0.002

Unit
metric tons CO2e per liter

Emissions factor source
2006 IPCC Guidelines for National Greenhouse Gas Inventories

Comment

Fuels (excluding feedstocks)
Heavy Gas Oil

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
0.3

MWh fuel consumed for self-generation of electricity
0.3

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

Emission factor
2.94

Unit
kg CO2 per liter

Emissions factor source
2006 IPCC Guidelines for National Greenhouse Gas Inventories (Residual Fuel Oil (3s 5 and 6))

Comment

Fuels (excluding feedstocks)
Wood

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
286572

MWh fuel consumed for self-generation of electricity
286572

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

Emission factor
1.777

Unit
metric tons CO2e per metric ton

Emissions factor source
2006 IPCC Guidelines for National Greenhouse Gas Inventories

Comment

Fuels (excluding feedstocks)
Anthracite Coal

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
166475

MWh fuel consumed for self-generation of electricity
166475

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

Emission factor
2.643

Unit
metric tons CO2e per metric ton

Emissions factor source
2006 IPCC Guidelines for National Greenhouse Gas Inventories

Comment

Fuels (excluding feedstocks)
Acetylene

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
57

MWh fuel consumed for self-generation of electricity
57

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

Emission factor
3.385

Unit
metric tons CO2e per metric ton

Emissions factor source

Based on chemical source (after burning): 2C2H2 + 5O2 -> 4CO2 + 2H2O; thus emission factor is 2 x 44/26 = 3.385kg/kg

Comment

Fuels (excluding feedstocks)
Other, please specify (Ethanol)

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
2717

MWh fuel consumed for self-generation of electricity
2717

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

Emission factor
5.56

Unit
kg CO2e per gallon

Emissions factor source
2006 IPCC Guidelines for National Greenhouse Gas Inventories

Comment

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	1569120.95	1064689.62	1070811.44	595678.11
Heat				
Steam				
Cooling	0	0	0	0

C9. Additional metrics

C9.1

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

Description
Other, please specify (Water use per MT FFB processed)

Metric value
1.15

Metric numerator
Water use for process

Metric denominator (intensity metric only)
Ton of Fresh Fruit Bunch processed in palm mill

% change from previous year
2.5

Direction of change
Decreased

Please explain
Water management initiatives at our palm oil mills with better monitoring of leakages and points of high risks have allowed tighter control over water consumption and subsequent management of it.

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
C4. Targets and performance	Product footprint verification	Verification under the EU Renewable Energy Directive (EU RED) and EU RED related national implementation laws.	For palm products sold for ISCC biofuel purpose, third-party verification audits were conducted to check the biofuel product footprint/pathway against the required standards.
C4. Targets and performance	Emissions reduction activities	ISAE 3000 Assurance Engagement Other Than Audits or Reviews of Historical Financial Information	The total emission reductions achieved by our methane capture initiatives at our palm oil mills have been verified to be accurate by third-party auditors (refer to limited assurance statement in our Sustainability Report 2017).
C4. Targets and performance	Emissions reduction activities	ISAE 3000 Assurance Engagement Other Than Audits or Reviews of Historical Financial Information	In order to monitor compliance of our NDPE commitments, we have a Supplier Group Compliance Program which detects deforestation (if any) and extent of such deforestation for us to take action. The total hectarage monitored under this program has been externally verified by the third-party auditors (refer to Sustainability Report 2020).

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?

Although our current entities in China would not fall within the industries covered by China's National Cap & Trade Program 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 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.

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
Compliance & onboarding

Details of engagement
Included climate change in supplier selection / management mechanism
Climate change is integrated into supplier evaluation processes

% of suppliers by number
100

% total procurement spend (direct and indirect)
100

% of supplier-related Scope 3 emissions as reported in C6.5
0

Rationale for the coverage of your engagement
With over several hundreds of 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 to screen for environmental and social risks. The collected SRT data together with the mill's certification status and neighbourhood geospatial risk analysis is then used to prioritise the mills for site verification to further assess the risk levels.

Impact of engagement, including measures of success
The main objective for these engagement programmes is to have more suppliers stepping up and committing themselves to be more sustainable in their practices to align with global demands. To date, close to 90% of our group-level palm oil suppliers have either provided a written confirmation of their commitment to our NDPE policy, published their equivalent policy, reported on NDPE compliance via our supplier reporting tool platform, or become a member of RSPO. For suppliers who were unable to meet our NDPE requirements after continuous engagements for improvements, we would have to take the step of suspension of such suppliers. Since 2015, we have suspended 30 parent companies (managing 2.5 million hectares of oil palm plantations) from our supply chain due to non-compliance with our NDPE policy, majority of it related to deforestation. This loss of supply to our business is substantial but through these actions, it showed our seriousness in tackling these issues and ensure suppliers would continue to adopt sustainable practices to avoid being suspended. To ensure suppliers can demonstrate their commitments in accordance with our NDPE policy, we regularly provide capacity building training programmes and access to relevant facilities.

Comment

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
0

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 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.

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. Out of our 919 suppliers, 574 completed SRTs were submitted as of December 2020. This accounts for 62.5% of the supply base, an increase from the 52.3% reported in 2019. We expect to further improve our SRT response rate in 2021, specifically targeting suppliers who have yet to participate.

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.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?
Other

C12.3e

(C12.3e) Provide details of the other engagement activities that you undertake.

Wilmar is a partner and steering committee member of the Tropical Forest Alliance (TFA). The Tropical Forest Alliance 2020 brings governments, private sector and civil society together to end deforestation in commodity production. Wilmar is also a member of TFA's Smallholders Task Force, which aims to support smallholders in improving their livelihoods and productivity while protecting the environment.

Wilmar has been an active member of the Roundtable on Sustainable Palm Oil (RSPO) since 2005, and remains involved in a wide range of RSPO task forces and working groups. We are Chair of the RSPO Smallholder Support Fund Panel, Co-chairs of the RSPO Smallholder Working Group, the Biodiversity and High Conservation Value (BHCV) Working Group and the FFB Legality & Traceability Task Force, as well as members of the Emissions Reduction Working Group and the Trade and Traceability Standing Committee.

Wilmar is also a member of the Grow Asia Business Council, a multi-stakeholder partnership that brings together South East Asia's smallholders, governments, companies, NGOs and other stakeholders to develop inclusive and sustainable value chains that benefit farmers. We are a member of Grow Asia's palm oil working group in Indonesia, which seeks to work on 2 million hectares of land, helping 1 million farmers to increase their productivity by 150%, while reducing their impact on the environment.

The Sustainable Trade Finance Council (STFC) seeks to incentivise the trade of sustainably produced commodities at scale and Wilmar is an active member of the STFC, providing regular inputs and feedback to the various strategies and initiatives. We also participate actively in STFC forums and workshops.

ISCC System GmbH (ISCC) operates globally applicable certification systems for evidencing sustainability requirements due to legal regulations or voluntary agreements, in particular the sustainability requirements of the Renewable Energy Directive (2009/28/EC) of the European Union and national rules & systems existing for the national implementation of this directive. Wilmar is an active member of the ISCC Working Group on Land Use Change and Methane Reduction and Avoidance.

Wilmar is a founding member of the Fire Free Alliance (FFA), which was established in February 2016. The FFA focuses on fire prevention through community engagement. Wilmar socialized the 'Fire-Free Community' program to 61 villages in South Sumatra and Central Kalimantan in 2016.

Wilmar is also a founding member of the PONGO Alliance, together with Sime Darby and Musim Mas, the Orangutan Land Trust and several wildlife conservation experts and NGOs. The alliance aims to support the management of orang-utans and other wildlife in palm oil landscapes. Current priorities include capacity building for companies having orangutans and other wildlife in their land on best practices in forest conservation management.

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy 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.

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 other regulatory filings

Status
Complete

Attach the document
WILMAR-SR2020(final).pdf
WILMAR-SR2020(final).pdf

Page/Section reference
Page 9 (Board Statement), Page 12-13 (Protecting the environment), Page 26-31 (Our approach to sustainability), Page 50-75 (Climate Change & Environmental Footprint of Operations), Page 183-189 (Base Data - Climate Change & Environmental Footprint of Operations)

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
Better management of fertilizer use has resulted in better soil quality with reduced leaching of excess nutrients. Also, the yield has improved with targeted application of the right dosage/method of fertilizers to ensure maximum effectiveness.

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?
Soil

Description of impact
By properly managing the palm waste during replanting season with cutting the palm tree fronds & trunks into smaller pieces through mechanical means and allowing it to naturally disintegrate back into the soil, these natural fertilizers contributes back into the soil to maintain optimum fertile soil quality.

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.

C15. Signoff