Welcome to your CDP Climate Change Questionnaire 2020

C0. Introduction

C0.1

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

Mondelēz International, Inc. (NASDAQ: MDLZ) empowers people to snack right in over 150 countries around the world. With 2019 net revenues of approximately $26 billion, MDLZ is leading the future of snacking with iconic global and local brands such as Oreo, belVita and LU biscuits; Cadbury Dairy Milk, Milka and Toblerone chocolate; Sour Patch Kids candy and Trident gum. Mondelēz International is a proud member of the Standard and Poor’s 500, Nasdaq 100 and Dow Jones Sustainability Index. Visit www.mondelezinternational.com or follow the company on Twitter at www.twitter.com/MDLZ.

Our environmental policy is:
"Mondelēz International is committed to doing what is right for our planet and meeting the aspirations of our consumers every day. We aim to make an end-to-end positive impact on the world and the communities where we do business. This is core to who we are as a company. We are committed to: • Increasing the sustainable sourcing of ingredients used to make our much-loved brands; • Enhancing the efficient and sustainable use of resources along our supply chain; • Continuous improvement of our environmental performance driving measurable change; and • Meeting or exceeding the requirements of all applicable environmental laws and regulations. Accordingly, Mondelēz International expects all employees to carry out their job responsibilities in accordance with this Policy and to report any environmental concerns they have to management."

We are driven to live up to our purpose to empower people to snack right, and why our vision for impact is to lead the future of snacking by making snacks for both people and planet to love. We understand that the way we live is changing the way we eat—people are more conscious of their health and well-being and are leading lives that are more complicated than ever before. And the world around us is also changing—we’re all more aware of the environmental impact of a growing global population on everything from deforestation and ocean plastics to climate change.

Our consumers shouldn’t have to choose between snacking and eating right. And they shouldn’t have to worry about the impact their snacking choices have on the world and their communities. We want them to be confident when they are choosing our brands, that they are choosing snacks made the right way. Which is why we’re committed to ensuring that snacking can be both sustainable and mindful. These twin priorities are the driving force of our 2025 Snacking Made Right Impact Strategy.
Sustainability is a key strategic priority for us, as stated in our 10K Annual Report: “Our 2025 sustainable snacking strategy provides a clear roadmap, which we believe puts us at the forefront of sustainable ingredient sourcing and continuing to contribute to addressing climate change by reducing emissions. We are focused on making our snacks with less energy, water and waste, with ingredients consumers know and trust. We have specific goals to which we hold ourselves accountable, and we are continuing to make progress in our efforts to deliver meaningful change.”

Our sustainability goals focus on reducing key end-to-end environmental impacts. Our 2025 sustainability goals include:

- Scaling Cocoa Life to source 100% cocoa volume for chocolate
- Scaling Harmony Wheat to source 100% wheat for biscuits in Europe (by 2022)
- Maintain 100% RSPO palm oil
- Setting science-based targets to reduce end-to-end CO2 emissions by 10%*, with a focus on protecting and restoring forests
- 10% reduction in priority water usage in areas where water is most scarce*
- 15% reduction in food waste in manufacturing and 50 reduction in food waste from distribution*
- Advancing packaging innovation and tackling plastic waste with 100% of packaging designed to be recyclable and labelled with recycling information

*vs 2018 baseline

Our focus on climate change is also consistent with our environmental policy, which is stated above.

**Forward-Looking Statements**

This submission contains forward-looking statements. Words, and variations of words, such as “will,” “expect,” “anticipate,” “estimate” and similar expressions are intended to identify these forward-looking statements, including, but not limited to, statements about climate-related risks and opportunities. These forward-looking statements are subject to a number of risks and uncertainties, many of which are beyond Mondelēz International’s control, which could cause Mondelēz International’s actual results to differ materially from those indicated in these forward-looking statements. Please see Mondelēz International’s risk factors, as they may be amended from time to time, set forth in its filings with the SEC, including its most recently filed Annual Report on Form 10-K and Quarterly Report on Form 10-Q. Mondelēz International disclaims and does not undertake any obligation to update or revise any forward-looking statement in this submission, except as required by applicable law or regulation.

**C0.2**

**(C0.2) State the start and end date of the year for which you are reporting data.**
C0.3

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

Argentina
Australia
Austria
Bahrain
Belgium
Bolivia (Plurinational State of)
Brazil
Bulgaria
Canada
Chile
China
Colombia
Costa Rica
Croatia
Czechia
Denmark
Dominican Republic
Ecuador
Egypt
El Salvador
Eswatini
Finland
France
Georgia
Germany
Ghana
Greece
Guatemala
Honduras
Hungary
India
Indonesia
Ireland
Israel
Italy
Japan
Kazakhstan
Lebanon
Lithuania
Malaysia
C0.4

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

USD

C0.5

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

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

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

<table>
<thead>
<tr>
<th>Relevance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture/Forestry</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Processing/Manufacturing</td>
</tr>
<tr>
<td>Distribution</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Consumption</td>
</tr>
</tbody>
</table>

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

(C-AC0.6b/C-FB0.6b/C-PF0.6b) Why are emissions from agricultural/forestry activities undertaken on your own land not relevant to your current CDP climate change disclosure?

Row 1

Primary reason
Do not own/manage land

Please explain
We do not own or manage land, though we do work directly with farmers through our Cocoa Life, Harmony, and other agricultural initiatives. We consider agricultural emissions in our climate disclosure and report emissions from land use change (including deforestation) related to agriculture. Since 2009, we (and our predecessor company) have performed a lifecycle assessment of the air, water, and land impacts of our operations, from farm through consumption and disposal. Agriculture is by far the largest impact on air, water, and land, which is why we invest in sustainable agriculture.

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
Wheat

% of revenue dependent on this agricultural commodity
Produced or sourced
Sourced

Please explain
The percent of revenue is a rough estimate. We are reporting revenue from one or more of our product categories as outlined in our 2018 Form 10-K. For this CDP response, we are using the 10K reported revenue for a category if an estimated majority of products in that category uses the selected commodity, even though not all the products in the category use the commodity selected in CDP.

For wheat, the % is based on the approximately 44.2% of 2019 revenue attributable to our Biscuit category because we use wheat in a majority of the products in that category, even though there are non-wheat products in the category and even though wheat may be in products in other categories.

Agricultural commodity
Sugar

% of revenue dependent on this agricultural commodity
More than 80%

Produced or sourced
Sourced

Please explain
The percent of revenue is a rough estimate. We are reporting revenue from one or more of our product categories as outlined in our 2018 Form 10-K. For this CDP response, we are using the 10K reported revenue for a category if an estimated majority of products in that category uses the selected commodity, even though not all the products in the category use the commodity selected in CDP.

For sugar, the % is based on the approximately 93.0% of 2019 revenue attributable to our Chocolate, Biscuits, Gum and Candy, and Beverages categories, even though there are non-sugar products in the category and even though sugar may be in products in other categories.

Agricultural commodity
Other, please specify
Cocoa and cocoa products

% of revenue dependent on this agricultural commodity
20-40%

**Produced or sourced**

Sourced

**Please explain**

The percent of revenue is a rough estimate. We are reporting revenue from one or more of our product categories as outlined in our 2018 Form 10-K. For this CDP response, we are using the 10K reported revenue for a category if an estimated majority of products in that category use the selected commodity, even though not all the products in the category use the commodity selected in CDP.

For cocoa, the % is based on the approximately 31.5% of 2019 revenue attributable to our Chocolate category because we use cocoa in all (or almost all) of the products in that category, even though cocoa may be in products in other categories.

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Agricultural commodity

Palm Oil

**% of revenue dependent on this agricultural commodity**

60-80%

**Produced or sourced**

Sourced

**Please explain**

The percent of revenue is a rough estimate. We are reporting revenue from one or more of our product categories as outlined in our 2018 Form 10-K. For this CDP response, we are using the 10K reported revenue for a category if an estimated majority of products in that category use the selected commodity, even though not all the products in the category use the commodity selected in CDP.

For palm oil, the % is based on the approximately 75.7% of 2019 revenue attributable to our Biscuit and Chocolate categories because we use palm oil in many of the products in those categories, even though there are non-palm oil products in the category and even though palm oil may be in products in other categories.

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**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.

<table>
<thead>
<tr>
<th>Position of individual(s)</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board-level committee</td>
<td>The Governance, Membership and Public Affairs Committee (“Governance Committee”) of our Board of Directors is responsible for overseeing sustainability as part of our Snacking Made Right Impact Strategy, with regular briefings from our VP and Chief of Global Impact (CSO per CDP categories). The Governance Committee has endorsed our decision to adopt Science Based Targets to reduce end-to-end greenhouse gas emissions (goal validated 2019, announced Feb 2020).</td>
</tr>
<tr>
<td>Chief Executive Officer (CEO)</td>
<td>Our CEO is engaged in the review and progress of our Snacking Made Right Impact Strategy in conjunction with the Governance, Membership and Public Affairs Committee (“Governance Committee”) of our Board of Directors, which is responsible for overseeing sustainability as part of our Snacking Made Right Impact Strategy, with regular briefings from our VP and Chief of Global Impact. We take a comprehensive approach to sustainability, integrating it throughout our business processes. The CEO and Mondelez Leadership Team (executive committee) has endorsed our decision to adopt Science Based Targets to reduce end-to-end greenhouse gas emissions (goal validated 2019, announced Feb 2020). Our sustainability goals are part of our strategic planning process, and therefore, progress and key activities are regularly reported to the Board and the business unit leadership teams. CO2 and energy are key focus areas in our sustainability strategy. See C1.2a.</td>
</tr>
<tr>
<td>Chief Sustainability Officer (CSO)</td>
<td>Our VP and Chief of Global Impact (CSO) chairs a cross-functional Impact Steering Committee (ISC) with members from our key global functions and regions to manage our strategy. Our CSO reports on sust to our CEO and the Governance Committee. A working team led by our Dir. Global Sustainability, who reports to the CSO, recommends sust strategy and goals, oversees implementation and reporting, and is accountable to the ISC. Executive sponsorship is provided by our EVP &amp; General Counsel, EVP Research Development and Quality, and EVP and Region President MDLZ Europe. Clear business goals were set as part of the sust strategy led by our CSO. In addition, each business unit (BU) is responsible for integrating sust into their strategic plans, including our operational goals such as CO2 reduction. The BUs are responsible for developing a plan that will enable them to deliver performance</td>
</tr>
</tbody>
</table>
Chief Risk Officer (CRO)  
Our VP & Chief of Global Governance and Corporate Secretary (Chief Risk Officer) is responsible for our Enterprise Risk Management (ERM) process. See our response in Section 2.2a for more information about our ERM process.

<table>
<thead>
<tr>
<th>C1.1b</th>
<th>(C1.1b) Provide further details on the board’s oversight of climate-related issues.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency with which climate-related issues are a scheduled agenda item</td>
<td>Governance mechanisms into which climate-related issues are integrated</td>
</tr>
</tbody>
</table>
| Scheduled – some meetings | Reviewing and guiding strategy  
Reviewing and guiding risk management policies  
Monitoring and overseeing progress against goals and targets for addressing climate-related issues | The Governance, Membership and Public Affairs Committee (“Governance Committee”) of our Board of Directors is responsible for overseeing sustainability as part of our Snacking Made Right Impact Strategy, with regular briefings from our VP and Chief of Global Impact (our CSO). |

<table>
<thead>
<tr>
<th>C1.2</th>
<th>(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of the position(s) and/or committee(s)</td>
<td>Responsibility</td>
</tr>
<tr>
<td>Chief Executive Officer (CEO)</td>
<td>Both assessing and managing climate-related risks and opportunities</td>
</tr>
<tr>
<td>Chief Operating Officer (COO)</td>
<td>Both assessing and managing climate-related risks and opportunities</td>
</tr>
<tr>
<td>Chief Procurement Officer (CPO)</td>
<td>Both assessing and managing climate-related risks and opportunities</td>
</tr>
<tr>
<td>Chief Sustainability Officer (CSO)</td>
<td>Both assessing and managing climate-related risks and opportunities</td>
</tr>
</tbody>
</table>
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).

For Mondelēz International, sustainability is part of our Snacking Made Right Impact Strategy. Our consumers shouldn't have to choose between snacking and eating right. And they shouldn't have to worry about the impact their snacking choices have on the world and their communities. We want them to be confident when they are choosing our brands, that they are choosing snacks made the right way. Which is why we’re committed to ensuring that snacking can be both sustainable and mindful. These twin priorities are the driving force of our 2025 Snacking Made Right Impact Strategy.

We take a comprehensive approach to the strategy, integrating it throughout our business processes at every level of the organization. To ensure the strategy has high-level direction and endorsement, our CEO is engaged in the review and progress of the strategy in conjunction with the Governance, Membership and Public Affairs Committee (Governance Committee) of our Board of Directors, which is responsible for overseeing sustainability as part of our Snacking Made Right Strategy, with regular briefings from our VP and Chief of Global Impact (CSO).

Our strategy is managed by a cross-functional Impact Steering Committee (ISC) with members from our key global functions and regions, chaired by the VP and Chief of Global Impact (CSO) who, in turn, reports on sust to our CEO and the Governance Committee. The ISC meets quarterly to review progress and to align on key developments in the Impact strategy. Executive sponsorship is provided by our EVP & General Counsel, EVP Research Development and Quality, and EVP and Region President MDLZ Europe. A working team led by our Dir, Global Sustainability, who reports to the CSO, recommends sust strategy and goals, oversees implementation and reporting, and is accountable to the Impact Steering Committee.

Our Risk Committee reviews sustainability as part of the annual ERM process to identify key risks facing the organisation, strategies to manage the risk and assign ownership to senior leaders. Sustainability risks are identified during this review, as reported in our 10k Annual Report and discussed in our answers to question C2.2.

Our sustainability goals are part of our strategic planning process, and therefore, progress and key activities are regularly reported to the Board and the business unit leadership teams. CO2 and hence energy are key focus areas in our sustainability strategy.

In 2018-19, we established new 2025 sustainability goals that placed us at the forefront of the fight against climate change and support our ambition to be the leader in well-being snacks.
while driving down costs and creating efficiencies to accelerate our growth. We adopted science-based targets to reduce absolute end-to-end CO2 emissions by 10% vs 2018 baseline, aligning with emissions reductions necessary to keep global warming well below 2 degrees Celsius (goal validated 2019, announced Feb 2020). Emissions from land-use change are included in this goal and we implement deforestation interventions in key agriculture supply programs, such as Cocoa Life and our Palm Oil Action Plan. We report land-use change impacts in this submission.

Clear business goals have been set as part of the sustainability strategy led by the CSO. In addition, each business unit is responsible for integrating sustainability into their strategic plans, including our operational goals such as CO2 reduction. They are responsible for developing a plan that will enable them to deliver sustainability performance that will contribute to the overall corporate sustainability goals.

C1.3

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

<table>
<thead>
<tr>
<th>Provide incentives for the management of climate-related issues</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Executive compensation, including the CEO and direct reports, is linked directly to achieving sustainability metrics. The process to link sustainability to compensation is described in the 2020 MDLZ Proxy Statement at pages 52, 55, and 65 of the document. In addition, our CEO and executives are expected to drive the path to meet our public 2020 sustainability goals, which include emissions reductions, energy reductions, and supply chain engagement; as well as our 2025 sustainability commitments including our Science-Based CO2 reduction target, as well as reducing food waste, priority water usage and increasing sustainable sourcing and packaging designed for recyclability.</td>
</tr>
</tbody>
</table>

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).

<table>
<thead>
<tr>
<th>Entitled to incentive</th>
<th>Type of incentive</th>
<th>Activity incentivized</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Executive</td>
<td>Monetary reward</td>
<td>Emissions reduction target</td>
<td>Executive compensation, including the CEO and direct reports on the corporate executive team, is linked</td>
</tr>
<tr>
<td>Officer (CEO)</td>
<td>Environmental criteria included in purchases</td>
<td>directly to achieving sustainability metrics. The process to link sustainability to compensation is described in the 2020 MDLZ Proxy Statement at pages 52, 55, and 65 of the document. In addition, our CEO and executives are expected to drive the path to meet our public 2020 sustainability goals, which include emissions reductions, energy reductions, and supply chain engagement; as well as our 2025 sustainability commitments including our Science-Based CO2 reduction target, as well as reducing food waste, priority water usage and increasing sustainable sourcing and packaging designed for recyclability.</td>
<td></td>
</tr>
<tr>
<td>Corporate executive team</td>
<td>Monetary reward</td>
<td>Emissions reduction target Environmental criteria included in purchases Supply chain engagement Executive compensation, including the CEO and direct reports on the corporate executive team, is linked directly to achieving sustainability metrics. The process to link sustainability to compensation is described in the 2020 MDLZ Proxy Statement at pages 52, 55, and 65 of the document. In addition, our CEO and executives are expected to drive the path to meet our public 2020 sustainability goals, which include emissions reductions, energy reductions, and supply chain engagement; as well as our 2025 sustainability commitments including our Science-Based CO2 reduction target, as well as reducing food waste, priority water usage and increasing sustainable sourcing and packaging designed for recyclability.</td>
<td></td>
</tr>
<tr>
<td>All employees</td>
<td>Non-monetary reward</td>
<td>Emissions reduction project Energy reduction project Environmental criteria included in purchases Supply chain engagement For non-monetary: Each business unit has sustainability on their strategic plan and is held accountable. Therefore, incentives come in the form of internal recognition (publicly recognized by the CEO or highlighted with the Board, etc.) and external recognition (press releases, customers, etc.), which can drive incremental business.</td>
<td></td>
</tr>
</tbody>
</table>

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?

<table>
<thead>
<tr>
<th>Time Horizon</th>
<th>From (years)</th>
<th>To (years)</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-term</td>
<td>0</td>
<td>1</td>
<td>Our short-term climate-related and financial goals are aligned (i.e., both look to one year ahead). Our programs related to climate change look at yearly goals to address longer-term issues. For finances, we also consider up to one year to be a short-term issue.</td>
</tr>
<tr>
<td>Medium-term</td>
<td>1</td>
<td>6</td>
<td>For medium-term, our climate-related and financial reviews are different. The numbers provided here for the time horizon are for climate-related issues. For climate-related issues, we currently consider medium-term risks/opportunities to be those that may arise between one to six years ahead. This aligns with our 2025 goals, which address longer-term climate-related issues. See page 10 of our 2019 Snacking Made Right Report (at <a href="https://www.mondelezinternational.com/-/media/Mondelez/Snacking-Made-Right/SMR-Report/2019_MDLZ_Snacking_Made_Right_Report.pdf">https://www.mondelezinternational.com/-/media/Mondelez/Snacking-Made-Right/SMR-Report/2019_MDLZ_Snacking_Made_Right_Report.pdf</a>). For financial issues, we consider medium-term risks/opportunities to be those that may arise between one to three years ahead.</td>
</tr>
<tr>
<td>Long-term</td>
<td>6</td>
<td>30</td>
<td>For long-term, our climate-related and financial reviews are different. The numbers provided here for the time horizon are for climate-related issues. For climate-related issues, we consider potential effects to thirty years and beyond. As an example, our goal to reduce CO2 in manufacturing aligns with current approaches to setting science-based targets to support the global effort to limit climate change to well below 2ºC, which take a long-term approach. For finances, as a general matter, our long-term horizon is three to ten years, depending on the issue.</td>
</tr>
</tbody>
</table>
C2.1b

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

We consider potential impact to be substantive if it is of an equivalent magnitude to criteria used to assess risks in our Enterprise Risk Management framework at the level of “major” or above, combined with a likelihood of more than 50-50. We use the following criteria to define moderate impact in any given year:

1. Financial: operating income changed by 1 percent or more.
2. Reputational: major brand impact less than a 1 year, due to negative national media, public, social media or political attention. Requires global or region team to manage partner relationships and public image.
3. Legal (risk only): violation of law potentially leading to serious sanctions and/or fines/penalties
4. Operational: major operational failure - business impacted for days: people, process and/or technology.

C2.2

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

<table>
<thead>
<tr>
<th>Value chain stage(s) covered</th>
<th>Direct operations</th>
<th>Upstream</th>
<th>Downstream</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk management process</td>
<td>Integrated into multi-disciplinary company-wide risk management process</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency of assessment</td>
<td>More than once a year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time horizon(s) covered</td>
<td>Short-term</td>
<td>Medium-term</td>
<td>Long-term</td>
</tr>
</tbody>
</table>

Description of process

We have a robust enterprise risk management (ERM) process for identifying, measuring, monitoring, and managing risks. The risk universe considered during this process is wide and varied; it includes climate change. The ERM process is overseen by the Risk and Compliance Committee (MRCC), which annually reports to the Board of Director's Audit Committee. The executive sponsors of the MRCC are the EVP and Chief Financial Officer, and the EVP and General Counsel. The purpose of the MRCC is to manage our process to identify and assess the most significant inherent risks to us so
we may adequately mitigate them and/or monitor them across the company. All identified risks are vetted by the MRCC and remain under the MRCC’s governance. Ownership of specific risks is assigned at the Leadership Team (MLT) level (MLT members report directly to the CEO). As owners of each specific risk, MLT members are responsible for verifying that appropriate mitigation controls and monitoring systems are in place. We have a standalone ERM risk category for Environmental & Social Sustainability. Thus, for climate-related risks and opportunities identified as part of the ERM process, MLT members are responsible for verifying controls and monitoring systems to address the risks/opportunities.

In addition, our VP and Chief of Global Impact (our CSO) updates our Board’s Governance, Membership and Public Affairs Committee (the “Governance Committee”) twice a year. The CSO chairs a cross-functional Impact Steering Committee (ISC) with members from our key global functions and regions to manage our strategy. Our CSO reports on sustainability, including climate change risks and how we manage them, to our CEO and the Governance Committee. A working team led by our Director, Global Sustainability, who reports to our CSO, recommends sustainability strategy and goals, oversees implementation and reporting, and is accountable to the ISC, which has executive sponsors. See C1.2 for more information.

Our ERM methodology is governed by the MRCC and includes annual reviews with all business units, considering company level risks by using information gathered at the asset level (regions, countries, individual facilities and business units). The resulting climate change risks are captured in climate change, commodities, reputation and brand image, unanticipated business disruptions, and changes in regulations. These risks can be both company level and asset level risks. We use various multi-dimensional tools and models throughout the company to support the identification of risks to facilitate timely and effective risk.

For the corporation to assess the most important risks at a senior management level, we use a risk mapping process to help identify the impact and likelihood of the risk, based upon a uniform framework. The mapping process also includes an assessment of the controls in place to mitigate the risk. This allows senior management to rank financial, operational, compliance and strategic risks to verify the proper resources (including people, capital, time, and oversight) are in place. The MRCC is responsible for driving the risk process through standard measurement and language for risk exposure. The Business Unit Presidents and their staff are responsible for integrating the culture and measurement into existing business practices. To verify this process is being adhered to, the Internal Audit department verifies the control expectations set up by the MRCC through the course of the audits performed during the year and regional internal audit leads and business integrity leads also participate as members of Region and Business Unit Risk and Compliance Committees.

At the corporate level, we manage global reputational risks related to issues raised by continuity planning and we have assessed the long-term sustainability risks with World Wildlife Fund. We also map our total environmental footprint with a third party (Quantis).
At the senior management level, a risk mapping process helps identify the impact and likelihood of the risk, based upon a uniform framework. We use various multi-dimensional tools and models throughout the company to support the identification of risks to facilitate timely and effective risk response and to have an adequate level of controls and safeguards, including SWOT analysis, risk maps and third-party sources.

Clear business goals have been set as part of the sustainability strategy led by the CSO. Each business unit (BU) is responsible for integrating sustainability into their strategic plans, including our operational goals such as CO2 reduction and other climate-related operational goals. The BUs are responsible for developing a plan that will enable them to deliver performance that will contribute to the overall corporate sustainability goals.

Our sustainability goals are a key way in which we manage our climate-related risks and are part of our strategic planning process, with progress and key activities regularly reported to the Board and the business unit leadership teams. CO2 and hence energy are key focus areas in our sustainability strategy. We had set goals for 2020 which include climate-related goals (including a resilient ingredient supply chain and carbon reductions from our operations) and have since set a new strategy for 2025 to continue and expand our focus on these areas. As part of this, we adopted science-based targets to reduce absolute end-to-end CO2 emissions by 10% vs 2018 baseline, aligning with emissions reductions necessary to keep global warming well below 2 degrees Celsius (goal validated 2019, announced Feb 2020). Emissions from land-use change are included in this goal and we implement deforestation interventions in key agriculture supply programs, such as Cocoa Life and our Palm Oil Action Plan. We report land-use change impacts in this submission.

In addition, we publicly describe our approach to assess materiality for sustainability issues in our Snacking Made Right 2019 Report at page 45. Since 2012, we have worked with internal and external experts to review the impact of major societal issues on our business and shape our strategic responses to them. This starts with our Board of Directors, who are actively involved in our agenda, through the Mondelēz International Leadership team, as well as our regional business units and global functions. External experts include World Wildlife Fund, Quantis and various investment groups. In addition, we consider perspectives from our ongoing stakeholder engagement, as well as participation in various shareholder indices.

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**Value chain stage(s) covered**

Upstream

**Risk management process**

A specific climate-related risk management process
Frequency of assessment
More than once a year

Time horizon(s) covered
Short-term
Medium-term

Description of process
We use various multi-dimensional tools and models throughout the company to support the identification of risks to facilitate timely and effective risk. During procurement, critical single and sole source suppliers are prioritized for risk mitigation through contractual agreements, business continuity planning or qualification of secondary suppliers. Specific focus is given to suppliers supporting strategic product categories.

In Cocoa Life, we track program implementation with quarterly progress reviews with implementing partners, including cocoa suppliers, NGOs and other partners. Implementation criteria include interventions we make to support climate change objectives, such as reducing deforestation by mapping and monitoring participating farms for deforestation risk. In addition, we track impacts from the program with IPSOS to assess the effect interventions are having on the ground.

In our palm oil action plan, we assess our suppliers capability and performance towards eliminating deforestation from their palm oil supplies. Working with an external partner, we assess according to a structured assessment that scores their policies, management of grievances, traceability and land use risk assessment and monitoring capability.
assess E&S risks including asset-level risks and facility-level risks and implement these standards and address those risks. We use various multi-dimensional tools and models throughout the company to support the identification of risks to facilitate timely and effective risk. Plants with the highest operating income must improve their property protection (against fire, flood, wind and earthquake losses to their property) to protect the company from loss. This focuses the capital dollars on the plants with the highest impact.

C2.2a

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

<table>
<thead>
<tr>
<th>Relevant &amp; inclusion</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current regulation</strong></td>
<td>Relevant, always included</td>
</tr>
<tr>
<td>We monitor current regulations and compliance with them as they directly and indirectly relate to climate risks. This is done at multiple levels, within a business unit and within the legal function. Identified risks are elevated within management appropriately and are part of our enterprise risk management (ERM) process. Examples would include regulation on carbon pricing or emissions trading.</td>
<td></td>
</tr>
<tr>
<td><strong>Emerging regulation</strong></td>
<td>Relevant, always included</td>
</tr>
<tr>
<td>We monitor emerging regulations as they directly and indirectly relate to climate risks. This is done at multiple levels, within a business unit and within the legal function. Identified risks are elevated within management appropriately and are part of our ERM process. Examples would include regulation on carbon pricing or emissions trading.</td>
<td></td>
</tr>
<tr>
<td><strong>Technology</strong></td>
<td>Relevant, sometimes included</td>
</tr>
<tr>
<td>As opportunities arise, we review new technologies that may reduce our CO2 emissions and energy use to meet our corporate sustainability goals. An example is the use of satellite monitoring of deforestation in supply chains.</td>
<td></td>
</tr>
<tr>
<td><strong>Legal</strong></td>
<td>Relevant, always included</td>
</tr>
<tr>
<td>We address legal compliance risk, for example in our Form 10-K, where we state (page 16, Risk Factors): Our activities throughout the world are highly regulated and subject to government oversight. Various laws and regulations govern food production, packaging, storage, distribution, sales, advertising, labeling and marketing, as well as licensing, trade, labor, tax and environmental matters, privacy, and health and safety practices. Government authorities regularly change laws and regulations as well as their interpretations. Our compliance with new or revised laws and regulations or the interpretation and application of existing laws and regulations could materially and adversely affect our product sales, financial condition and results of operations.</td>
<td></td>
</tr>
</tbody>
</table>
### Market
Relevant, always included

We address market issues through a variety of ways, including through our sustainable agriculture programs, direct sourcing criteria, and commodity hedging. Risks considered include: environmental risks or controversies across our supply chain that could damage our reputation and brand image, such as deforestation in the palm oil sector. We manage it by our raw material sourcing programs.

### Reputation
Relevant, always included

We consider reputational risks associated with climate change during our ERM process. These risks are managed, ultimately, by the Governance Committee, which receives regular updates from our Chief Well-being, Sustainability, Public and Government Affairs Officer. Risks considered include: environmental risks or controversies across our supply chain that could damage our reputation and brand image, such as deforestation in the palm oil sector. We manage it by our raw material sourcing programs. We acknowledge the reputational risks related to environmental risk in our Form 10-K filed in 2020 (e.g., page 11-12 – reputation and brand image).

### Acute physical
Relevant, always included

As an example, as acknowledged in our Form 10-K filed in 2020 (page 15-16), we have identified the risk that severe weather may cause unanticipated business disruptions. At the asset level, we do business continuity planning for a variety of business matters. We have a business plan to react to disruptions caused by a given crisis, including potential facility interruptions. At the corporate level, we manage global reputational risks related to issues raised by continuity planning. An example would be the impact of hurricanes or severe storms on factory and distribution operations.

### Chronic physical
Relevant, always included

As an example, as acknowledged in our Form 10-K filed in 2020 (page 16-17), we have identified the risk that severe weather and climate change-related events can affect commodity pricing and supply. At the asset level, we do business continuity planning for a variety of business matters. We have a business plan to react to disruptions caused by a given crisis, including key sourcing interruptions. At the corporate level, we manage global reputational risks related to issues raised by continuity planning and raw material sourcing programs. An example would be the impact of climate change on the availability of raw materials such as cocoa sourced from climate-sensitive regions.

**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.

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Risk 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Where in the value chain does the risk driver occur?</td>
<td>Direct operations</td>
</tr>
</tbody>
</table>
| Risk type & Primary climate-related risk driver | Emerging regulation  
Carbon pricing mechanisms |
| Primary potential financial impact | Increased direct costs |
| Company-specific description | Fuel/energy taxes and regulations. Increased cost to generate and purchase energy. |
| Time horizon | Medium-term |
| Likelihood | Likely |
| 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) | 100,000,000 |
| Potential financial impact figure – minimum (currency) | |
| Potential financial impact figure – maximum (currency) | |

**Explanation of financial impact figure**

We are directly impacted by fuel taxes for energy we buy in our direct operations, which contributes to our Scope 1 and 2 carbon footprint. In addition, we would be indirectly impacted by energy and carbon taxes applied elsewhere in our supply chain by increased costs from suppliers. Analysis of likely carbon pricing scenarios indicates a potential annual impact of $100 million on energy costs in our operations, assuming no
change in the energy efficiency or proportion of renewable energy consumed. This is a broad estimate and is not considered a forecast.

Cost of response to risk
40,000,000

Description of response and explanation of cost calculation
Our sustainability strategy and our targets to reduce energy consumption and CO2 emission in our operations constitute a concrete approach to mitigating these risks by anticipating regulatory requirements. This includes improving energy management systems and investing in energy efficient technologies in our factories at an estimated capital cost of $40 million over the period 2018-2025. We are also using low-carbon renewable energy sources to reduce our CO\textsubscript{2} emissions and anticipate this to be cost-neutral.

Comment
In disclosing these risks in C2.3a, we are not specifying that they are among the highest climate-related substantive risks or that the disclosed risks are the only substantive climate-related risks.

Climate change is a real risk to our consumers, our business, our economy and the planet at large. That's why we have set science based targets to reduce our carbon footprint across our value chain – from farms growing our ingredients to the packaging around our products. We have set a target to reduce absolute end-to-end greenhouse gas emissions by 10% by 2025, compared to a 2018 baseline. This is in line with reductions in emissions necessary to keep global warming well below 2 degrees Celsius and in important milestone in our work towards creating a sustainable future for snacking.

---

Identifier
Risk 2

Where in the value chain does the risk driver occur?
Upstream

Risk type & Primary climate-related risk driver
Chronic physical
Changes in precipitation patterns and extreme variability in weather patterns

Primary potential financial impact
Increased direct costs

Company-specific description
In our 2019 Form 10-K risk factors, we disclose at that the price of commodities and other inputs may be influenced by climate change risks and provide examples of those risks. See “Commodity and other input prices . . .” section on page 16 of the 2019 Form
10-K, where we discuss the impact of climate change risks on the security and price of our raw material supply.

**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)**
100,000,000

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**
“Although we monitor our exposure to commodity prices and hedge against input price increases, we cannot fully hedge against changes in commodity costs, and our hedging strategies may not protect us from increases in specific raw material costs.” See 2019 Form 10-K at page 16. While we have not experienced this yet, based on realistic swings in commodity costs of some of our raw materials considered most vulnerable to climate change, we estimate a high potential impact on our cost of goods in an extreme scenario, such as prolonged adverse weather conditions affecting multiple production regions. We consider this extreme scenario to be unlikely so we have based our estimate on the potential impact of one or more significant commodities being impacted in the longer term (more than 6 years), which we consider more likely than not.

**Cost of response to risk**
50,000,000

**Description of response and explanation of cost calculation**
Transforming our agricultural supply chains is an essential foundation for a sustainable future. We’ve launched innovative, industry-leading holistic programs in key commodities like cocoa and wheat. Cocoa Life: multi-year investment empowering more than 200,000 farmers and improving the lives of more than 1 million people. Harmony: our European wheat program, Harmony, promotes biodiversity and good environmental practices in wheat production.

Our palm oil action plan sets out milestones to increase suppliers’ accountability for sustainability across their own operations and third-party supplies.
Our cost of management is calculated according to our annual investment in our sustainable sourcing raw material programs in the region of $50 million.

Comment

---

**Identifier**
Risk 3

**Where in the value chain does the risk driver occur?**
Direct operations

**Risk type & Primary climate-related risk driver**
Acute physical
Increased severity and frequency of extreme weather events such as cyclones and floods

**Primary potential financial impact**
Increased direct costs

**Company-specific description**
In addition, localized episodic extreme weather events such as floods and severe storms have the potential to temporarily disrupt Mondelēz International’s business operations (including manufacturing and product distribution) in affected areas.

**Time horizon**
Medium-term

**Likelihood**
About as likely as not

**Magnitude of impact**
Unknown

**Are you able to provide a potential financial impact figure?**
No, we do not have this figure

**Potential financial impact figure (currency)**

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**
Explanation of financial impact figure
We are directly impacted by disruption in our supply chain through potential loss of revenue if we are unable to produce and distribute our snacks and through exceptional management costs during special situations. Due to the unpredictable nature and location of extreme weather events, these costs are difficult to predict with accuracy in advance.

Cost of response to risk

Description of response and explanation of cost calculation
We have in place several protocols, including special situations management and emergency preparedness and response procedures. These allow us to address and help mitigate adverse effects. Due to the unpredictable nature and location of extreme weather events, the financial impacts are difficult to predict with accuracy in advance and so we cannot estimate the related cost of our response.

Comment

-----------------------------------

Identifier
Risk 4

Where in the value chain does the risk driver occur?
Downstream

Risk type & Primary climate-related risk driver
Market
Changing customer behavior

Primary potential financial impact
Decreased revenues due to reduced demand for products and services

Company-specific description
In our 2019 Annual Report Form 10-K at page 12 of the document, we acknowledge: “Prolonged negative perceptions concerning the health, environmental and social implications of certain food products, ingredients, packaging materials, sourcing or production methods could influence consumer preferences and acceptance of some of our products and marketing programs.”

Time horizon
Medium-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)
50,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure
Maintaining focus on ethical sourcing and supply chain management opportunities to address evolving consumer preferences is important to our growth. Failure to satisfy consumer preferences could materially and adversely affect our reputation, brands, product sales, financial condition and results of operations. We base our financial impact figure on an estimate of revenue decline in our chocolate and biscuit categories if sustainable agriculture programs are not successfully implemented and communicated. This is a broad estimate and not considered a forecast.

Cost of response to risk
50,000,000

Description of response and explanation of cost calculation
Transforming our agricultural supply chains is an essential foundation for a sustainable future. We’ve launched innovative, industry-leading holistic programs in key commodities like cocoa and wheat. Cocoa Life: multi-year investment empowering more than 200,000 farmers and improving the lives of more than 1 million people. Harmony: our European wheat program, Harmony, promotes biodiversity and good environmental practices in wheat production.

Our palm oil action plan sets out milestones to increase suppliers’ accountability for sustainability across their own operations and third-party supplies.

We are focused on consumer well-being. Our mindful snacking strategy aligns with our purpose to empower people to snack right. Continuing to evolve our portfolio so that we are offering a broad range of high-quality snacks to meet consumers’ expanding needs is central to our strategy of accelerating our growth. At the same time, we are working to empower and encourage consumers to snack mindfully with portion control offerings and labeling. Expanding our portion control options – snacks that are 200 calories or less and are individually wrapped – enables people to enjoy the treats they love, become more mindful about what they eat and manage their daily calorie intake.

Our cost of management is calculated according to our annual investment in our sustainable sourcing raw material programs in the region of $50 million.
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.

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Opp1</th>
</tr>
</thead>
</table>

Where in the value chain does the opportunity occur?
Upstream

Opportunity type
Resilience

Primary climate-related opportunity driver
Other, please specify
Increased reliability, climate-resilience of raw material supply chain

Primary potential financial impact
Reduced direct costs

Company-specific description
In ingredient sourcing, we continue to leverage our global operating scale to secure sustainable raw materials and work with suppliers to drive meaningful social and environmental changes, focusing where we can make the greatest impact. For example, we launched our Cocoa Life program in 2012 and are investing up to $400 million through 2022 to build a sustainable cocoa supply. We are also improving sustainability in our wheat supply by working with farmers in North America and through our Harmony program in Europe.

Our palm oil action plan sets out milestones to increase suppliers’ accountability for sustainability across their own operations and third-party supplies.

By implementing these sustainable agriculture programs, we help our supply chains to mitigate their emissions and to become more resilient to the effects of climate change, leading to more stable and secure supplies of key raw materials.
For example, we source the majority of our cocoa from West Africa, where there is significant opportunity to improve farmers’ productivity and climate change resilience via our Cocoa Life program. In addition, we encourage more sustainable and climate resilient production of wheat through our Harmony and North American wheat sustainability programs and palm oil through our Palm Oil Action Plan.

**Time horizon**
Long-term

**Likelihood**
Likely

**Magnitude of impact**
High

**Are you able to provide a potential financial impact figure?**
No, we do not have this figure

**Potential financial impact figure (currency)**

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**
We anticipate that more sustainable and climate resilient supplies of key raw materials will increase security of supply and help to reduce exposure to fluctuations in availability and price volatility. Potential financial impact of this opportunity could not be be estimated at this time.

**Cost to realize opportunity**
50,000,000

**Strategy to realize opportunity and explanation of cost calculation**
Transforming our agricultural supply chains is an essential foundation for a sustainable future. We’ve launched innovative, industry-leading holistic programs in key commodities like cocoa and wheat. Cocoa Life: multi-year investment empowering more than 200,000 farmers and improving the lives of more than 1 million people. Harmony: our European wheat program, Harmony, promotes biodiversity and good environmental practices in wheat production.

Our palm oil action plan sets out milestones to increase suppliers’ accountability for sustainability across their own operations and third-party supplies.
Our cost of management is calculated according to our annual investment in our sustainable sourcing raw material programs in the region of $50 million.

**Comment**
In disclosing these opportunities in C2.4a, we are not specifying that they are among the highest climate-related substantive opportunities or that the disclosed opportunities are the only substantive climate-related opportunities.

**Identifier**
Opp2

**Where in the value chain does the opportunity occur?**
Direct operations

**Opportunity type**
Resource efficiency

**Primary climate-related opportunity driver**
Use of more efficient production and distribution processes

**Primary potential financial impact**
Reduced indirect (operating) costs

**Company-specific description**
We use significant energy in our factories to manufacture our products. Increased energy efficiency in our factories enables us to use less energy and therefore save costs per ton of production.

For example, in our factories across the world we have opportunities to install energy efficient capital equipment for manufacturing processes such as ovens, steam production and refrigeration. Energy management systems enable us to track and monitor energy use and focus efforts to reduce consumption.

**Time horizon**
Medium-term

**Likelihood**
Very 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)**
25,000,000

**Potential financial impact figure – minimum (currency)**
Potential financial impact figure – maximum (currency)

Explanation of financial impact figure
Our sustainability strategy and our targets to reduce energy consumption include improving energy management systems and investing in energy efficient technologies in our factories result in cost efficiencies from lower energy consumption. We estimate savings of approximately $25 million over the period from 2018-2025. This is a broad estimate and not considered a forecast.

Cost to realize opportunity
40,000,000

Strategy to realize opportunity and explanation of cost calculation
Our sustainability strategy and our targets to reduce energy consumption and CO2 emission in our operations constitute a concrete approach to mitigating these risks by anticipating regulatory requirements. This includes improving energy management systems and investing in energy efficient technologies in our factories at an estimated capital cost of $40 million over the period 2018-2025.

Comment

-----------------------------------------------------------------------------------

Identifier
Opp3

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 direct costs

Company-specific description
We use renewable energy in our factories through installation of on-site renewable energy at various facilities, and by power purchase agreements in Mexico, Brazil, Lithuania, Greece, India, Thailand, Italy and the US (from 2020), with other opportunities under investigation. Investing in renewable energy provides opportunities to help us reduce emissions and costs and grow our business in future.

Time horizon
Medium-term

**Likelihood**
Very likely

**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)**
40,000,000

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**
We estimate that purchasing renewable electricity supplies in our factories will lead to a potential annual benefit in our operations of approximately $40 million from avoided carbon pricing by 2025, based on the proportion of our total energy consumption that is likely to come from low-carbon renewable sources. This is a broad estimate and not considered a forecast.

**Cost to realize opportunity**
0

**Strategy to realize opportunity and explanation of cost calculation**
We are also using low-carbon renewable energy sources to reduce our CO₂ emissions and anticipate this to be cost-neutral as a result of renewable energy sources becoming cost competitive vs traditional fossil fuel sources in a number of markets.

**Comment**

---

**Identifier**
Opp4

**Where in the value chain does the opportunity occur?**
Downstream

**Opportunity type**
Products and services

**Primary climate-related opportunity driver**
Shift in consumer preferences
Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
We are addressing consumer trends for well-being by renovating and innovating on our base portfolio, cleaning up ingredient lines and expanding our use of sustainably sourced ingredients. We communicate to consumers about signature programs in our raw material supply for brands in our Chocolate and Biscuit categories.

Time horizon
Medium-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)
50,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure
Maintaining focus on ethical sourcing and supply chain management opportunities to address evolving consumer preferences is important to our growth. Meeting consumer preferences could materially benefit our reputation, brands, product sales, financial condition and results of operations. We base our financial impact figure on an estimate of annual revenue opportunity in our chocolate and biscuit categories if sustainable agriculture programs are successfully implemented and communicated. This is a broad estimate and not considered a forecast.

Cost to realize opportunity
50,000,000

Strategy to realize opportunity and explanation of cost calculation
Transforming our agricultural supply chains is an essential foundation for a sustainable future. We’ve launched innovative, industry-leading holistic programs in key commodities like cocoa and wheat. Cocoa Life: multi-year investment empowering more than 200,000 farmers and improving the lives of more than 1 million people. Harmony: our European wheat program, Harmony, promotes biodiversity and good environmental practices in wheat production.
Our palm oil action plan sets out milestones to increase suppliers’ accountability for sustainability across their own operations and third-party supplies.

Our cost of management is calculated according to our annual investment in our sustainable sourcing raw material programs in the region of $50 million.

Comment

C3. Business Strategy

C3.1

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

Yes, and we have developed a low-carbon transition plan

C3.1a

(C3.1a) Does your organization use climate-related scenario analysis to inform its strategy?

Yes, qualitative and quantitative

C3.1b

(C3.1b) Provide details of your organization’s use of climate-related scenario analysis.

<table>
<thead>
<tr>
<th>Climate-related scenarios and models applied</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>2DS</td>
<td>1. We perform annually a comprehensive analysis of our environmental footprint, which includes carbon, water and land impacts across our whole lifecycle. This work provides us with a better understanding of the impacts across our supply chain and enables us to focus activities where it matters.</td>
</tr>
<tr>
<td>Other, please specify See Details for descriptions.</td>
<td>2. We use forward-looking scenario analyses, including a 2°C scenario, to inform our goal setting process. We adopted science-based targets to reduce absolute end-to-end CO2 emissions by 10% vs 2018 baseline, aligning with emissions reductions necessary to keep global warming well below 2 degrees Celsius (goal validated 2019, announced Feb 2020). Emissions from land-use change are included in this goal and we implement deforestation interventions in key agriculture supply programs, such as Cocoa Life and our Palm Oil Action Plan. We report land-use change impacts in this submission. We plan energy efficiency and renewable energy projects in our operations to enable us to meet this goal. 3. We also have worked with WWF to identify key environmental risks, including climate change, for our key commodities. This has informed our risk management procedures by analyzing what may affect</td>
</tr>
</tbody>
</table>

...
our raw materials supplies.

4. The Paris Agreement influenced the business strategy in two key ways: First, we adopted the science-based target methodology to set our CO2 emissions reduction goal. Secondly, we increased our commitments to address deforestation in our key agricultural supply chains, based on the insight from our lifecycle assessment that deforestation within our supply chain represents the largest contributor to our footprint. We announced our commitment to combat deforestation in cocoa at COP21. We committed to lead private sector action in Côte d’Ivoire’s national program to combat deforestation. Deforestation accounts for over 10 percent of global GHG emissions and represents a major opportunity to reduce CO2 release into the atmosphere.

C3.1d

(C3.1d) Describe where and how climate-related risks and opportunities have influenced your strategy.

<table>
<thead>
<tr>
<th>Have climate-related risks and opportunities influenced your strategy in this area?</th>
<th>Description of influence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Products and services Yes</td>
<td>Our purpose is to empower people to snack right and our vision for impact is to lead the future of snacking by making snacks for both people and planet to love. We understand that people are more conscious of their health and well-being and more aware of the environmental impact of a growing global population on everything from deforestation and ocean plastics to climate change. Our consumers shouldn’t have to worry about the impact their snacking choices have on the world and their communities. We want them to be confident when they are choosing our brands, that they are choosing snacks made the right way. We’re committed to ensuring that snacking can be both sustainable and mindful. Our goals for all our global chocolate brands to source from Cocoa Life by 2025 and all EU biscuits from Harmony by 2022 reflect the opportunity we see to benefit from shifts in consumer preferences towards food products made with more sustainable ingredients. Likewise, communicating our commitment to sustainability through on-pack communication of these signature programs reduces the</td>
</tr>
</tbody>
</table>
risk that consumers will reject products because of concerns about environmental impact.

Along with our Palm Oil Action Plan, Cocoa Life and Harmony incentivize farmers and raw material traders to reduce the environmental impact of commodity production. This addresses risks we see from climate change to impact the security of our raw material supply, and from deforestation to make climate change worse and to reduce the resilience of agriculture in regions where forests are lost.

By implementing these programs at scale across our supply chains we benefit from opportunities to build a more resilient supply by encouraging farmers to adapt to climate change through practices such as agroforestry which make them more resilient to drought and extreme heat.

<table>
<thead>
<tr>
<th>Supply chain and/or value chain</th>
<th>Yes</th>
</tr>
</thead>
</table>
|                                | Our annual lifecycle analysis pinpoints hotspots in our supply chain which contribute the greatest contributions to our end-to-end carbon footprint, of which raw material production accounts for around 60%. Therefore, we target sustainable agriculture as a key way to help reduce our footprint and to achieve our science-based target to reduce absolute end-to-end CO2 emissions by 10% vs 2018 baseline, aligning with emissions reductions necessary to keep global warming well below 2 degrees Celsius (goal validated 2019, announced Feb 2020). Emissions from land-use change are included in this goal and we implement deforestation interventions in key agriculture supply programs, such as Cocoa Life and our Palm Oil Action Plan. We report land-use change impacts in this submission.

Our signature programs, Cocoa Life and Harmony, along with our Palm Oil Action Plan, incentivize farmers and raw material traders to reduce the environmental impact of commodity production. This addresses risks we see from climate change to impact the security of our raw material supply, and from deforestation to make climate change worse and to reduce the resilience of agriculture in regions where forests are lost.

By implementing these programs at scale across our supply chains we benefit from opportunities to build a more resilient supply by encouraging farmers to adapt to climate change through practices such as agroforestry which make them more resilient to drought and extreme heat.
more resilient to drought and extreme heat.

We increased our commitments to address deforestation in our key agricultural supply chains, based on the insight from our lifecycle assessment that deforestation within our supply chain represents the largest contributor to our footprint.

<table>
<thead>
<tr>
<th>Investment in R&amp;D</th>
<th>Yes</th>
</tr>
</thead>
</table>
| Our R&D investment strategy helps us to address climate change risks and opportunities by developing guidance on sustainable agricultural practices to reduce the environmental impact of agriculture and to help farmers become more resilient by helping them to adapt to changing climate.

For example, in our Cocoa Life program, we have Good Agricultural Practices (GAP) and Good Environmental Practices (GEP) manuals produced by our R&D teams to help farmers increase their productivity while farming in more environmentally sensitive ways. This helps us to achieve our strategy to help farmers grow more cocoa on less land, which improves their incomes and reduces the incentive to expand production into forested areas.

In addition, we invest in agroforestry research, development and implementation as part of the solution and have identified a knowledge gap on the topic as it relates to the financial impact for smallholders. This is why we are running trials and research with farms to introduce agroforestry at different levels of tree density and introduced an incentive model to promote agroforestry practices.

Likewise, our R&D function leads our sustainable packaging strategy which aims to achieve the ultimate aim to create zero net waste packaging through initiatives to ensure all packaging is designed to be recyclable by 2025, to eliminate surplus packaging material and to increase the proportion of recycled content in packaging.

<table>
<thead>
<tr>
<th>Operations</th>
<th>Yes</th>
</tr>
</thead>
</table>
| Our science-based targets to reduce absolute end-to-end CO2 emissions by 10% vs 2018 baseline, aligns with emissions reductions necessary to keep global warming well below 2 degrees Celsius (goal validated 2019, announced Feb 2020). We plan energy efficiency and renewable energy projects in our operations to enable us to meet this goal.

We look at two key impact areas to reduce GHG emissions:
direct and indirect control. Matters within our direct control are a relatively minor portion of our total footprint, but we have direct influence. From 2013-2019, we reduced energy-related emissions 15% on an absolute basis.

These strategies are designed to address the risks we see from the impact of increased carbon pricing on our operations costs and of unanticipated interruptions from the impact of severe weather on operations. Likewise, we see opportunities to reduce operations costs by using energy more efficiently and increasing the proportion of energy we buy from low-carbon renewable sources.

C3.1e

(C3.1e) Describe where and how climate-related risks and opportunities have influenced your financial planning.

<table>
<thead>
<tr>
<th>Financial planning elements that have been influenced</th>
<th>Description of influence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1 Direct costs Capital expenditures</td>
<td>In order to deliver our targets to reduce emissions from operations, we plan capital expenditures over a medium-term horizon (1-6 years) to support investments to improve energy management systems and install energy-efficient technologies in our factories. These investments help us to reduce exposure to increased energy costs from carbon pricing and to benefit from opportunities to reduce costs through more efficient manufacturing processes. Our 2025 sustainability plans are supported by an enterprise-wide roadmap, which allocates KPIs and associated investment requirements to each of our geographic business units. The roadmap covers each year until 2025 and ensures that we have financial control of our sustainable agriculture, end-to-end environmental impact, packaging and social sustainability programs. It addresses all elements of our climate change risks and opportunities.</td>
</tr>
</tbody>
</table>

C3.1f

(C3.1f) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).
## C4. Targets and performance

### C4.1

**C4.1**

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

Absolute target

#### C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

<table>
<thead>
<tr>
<th>Target reference number</th>
<th>Year target was set</th>
<th>Target coverage</th>
<th>Scope(s) (or Scope 3 category)</th>
<th>Base year</th>
<th>Covered emissions in base year (metric tons CO2e)</th>
<th>Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)</th>
<th>Target year</th>
<th>Targeted reduction from base year (%)</th>
<th>Covered emissions in target year (metric tons CO2e) [auto-calculated]</th>
<th>Covered emissions in reporting year (metric tons CO2e)</th>
<th>% of target achieved [auto-calculated]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abs 1</td>
<td>2015</td>
<td>Company-wide</td>
<td>Scope 1+2 (market-based)</td>
<td>2013</td>
<td>1,566,367</td>
<td>90</td>
<td>2020</td>
<td>15</td>
<td>1,331,411.95</td>
<td>1,336,793</td>
<td>90 %</td>
</tr>
</tbody>
</table>
Target status in reporting year
Achieved

Is this a science-based target?
Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science-Based Targets initiative

Please explain (including target coverage)
In 2015, we established new 2020 sustainability goals that placed us at the forefront of the fight against climate change and support our 2020 ambition to be the leader in well-being snacks while driving down costs and creating efficiencies to accelerate our growth. We used the science-based targets methodology to set absolute CO2 from energy emissions reduction goals from manufacturing by 15% from base year 2013 as part of our ambitious end-to-end approach. We consulted with the science-based target setting organisations at the time and supported the We Mean Business coalition in 2015. However, this goal is not validated by the current SBT Initiative and does not cover Scope 3 emissions. In our Snaking Made Right 2019 Progress Report, we report our 2020 CO2 reduction goal as ‘achieved’ on the basis that the reduction reported above is 15% when rounded to the nearest percentage point.

Target reference number
Abs 2

Year target was set
2019

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 1+2 (location-based) +3 (upstream & downstream)

Base year
2018

Covered emissions in base year (metric tons CO2e)
18,903,340

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
80

Target year
2025

Targeted reduction from base year (%)
Covered emissions in target year (metric tons CO2e) [auto-calculated]
17,013,006

Covered emissions in reporting year (metric tons CO2e)

% of target achieved [auto-calculated]

Target status in reporting year
New

Is this a science-based target?
Yes, this target has been approved as science-based by the Science-Based Targets initiative

Please explain (including target coverage)
Our Science-Based Target is to reduce absolute Full Scope GHG emissions 10% by 2025 from a 2018 base year, with a scope 3 focus on the main source of impacts, purchased goods and services, including emissions from land-use change.

The combined scope 3 target(s) cover 79% of total scope 1, 2 and 3 emissions, corresponding to the following categories: Purchased Goods and Services and Waste Generated in Operations. Purchased goods and services represent on their own 78% of our scope 3 emissions, together with waste generation in operations, our scope 3 targets cover 79% of scope 3 emissions, significantly above the 2/3 threshold required by the SBTi criteria.

We defined a focused scope 3 strategy aiming at significantly reducing food impact, through actions to reduce emissions from agricultural production and deforestation in key raw material supply chains, as well as food waste. Since integrating the impacts of land-use change into our GHG reporting in our 2019 CDP Climate submission, we also include land-use change in the scope of our Science-Based Target.

We do not report performance for 2019 in this question. Changes in 2019 scope 3 emissions from the prior year are mainly driven by data improvements and methodological changes. A better year-over-year comparison will be available next year following our baseline re-evaluation.

C4.2

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

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

<table>
<thead>
<tr>
<th>Target reference number</th>
<th>Oth 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year target was set</td>
<td>2015</td>
</tr>
<tr>
<td>Target coverage</td>
<td>Company-wide</td>
</tr>
<tr>
<td>Target type: absolute or intensity</td>
<td>Absolute</td>
</tr>
<tr>
<td>Target type: category &amp; Metric (target numerator if reporting an intensity target)</td>
<td>Waste management Other, please specify % reduction in waste generated in manufacturing</td>
</tr>
<tr>
<td>Target denominator (intensity targets only)</td>
<td></td>
</tr>
<tr>
<td>Base year</td>
<td>2013</td>
</tr>
<tr>
<td>Figure or percentage in base year</td>
<td>412,536</td>
</tr>
<tr>
<td>Target year</td>
<td>2020</td>
</tr>
<tr>
<td>Figure or percentage in target year</td>
<td>335,000</td>
</tr>
<tr>
<td>Figure or percentage in reporting year</td>
<td>325,955</td>
</tr>
<tr>
<td>% of target achieved [auto-calculated]</td>
<td>111.6655489063</td>
</tr>
<tr>
<td>Target status in reporting year</td>
<td>Achieved</td>
</tr>
<tr>
<td>Is this target part of an emissions target?</td>
<td></td>
</tr>
</tbody>
</table>
Is this target part of an overarching initiative?
Other, please specify
Consumer Goods Forum

Please explain (including target coverage)
Units are metric tonnes. In 2015, we established new 2020 sustainability goals. By 2020, we will reduce total manufacturing waste by 20%, focusing on total waste and not just non-beneficial waste. Our waste volumes are recalculated annually and adjusted, if necessary, to incorporate changes in quantification methodologies, significant data corrections, and corporate structural changes, including acquisitions or divestitures.

We have exceeded our goal to reduce total waste by 20% by 2020, compared to 2013. In 2019, we have already reduced total waste in manufacturing by 21%, compared to our 2013 baseline.

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.

<table>
<thead>
<tr>
<th>Initiative category &amp; Initiative type</th>
<th>Number of initiatives</th>
<th>Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under investigation</td>
<td>56</td>
<td>11,773</td>
</tr>
<tr>
<td>To be implemented*</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Implementation commenced*</td>
<td>77</td>
<td>15,158</td>
</tr>
<tr>
<td>Implemented*</td>
<td>150</td>
<td>76,646</td>
</tr>
<tr>
<td>Not to be implemented</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.
Energy efficiency in production processes
Waste heat recovery

**Estimated annual CO2e savings (metric tonnes CO2e)**

2,037

**Scope(s)**

Scope 1
Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

359,796

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

287,711

**Payback period**

<1 year

**Estimated lifetime of the initiative**

3-5 years

**Comment**

---------------------------------------------------------------------------------------------

**Initiative category & Initiative type**

Energy efficiency in buildings
Building Energy Management Systems (BEMS)

**Estimated annual CO2e savings (metric tonnes CO2e)**

117

**Scope(s)**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

26,658

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

2,000

**Payback period**

<1 year
Estimated lifetime of the initiative
3-5 years

Comment

Initiative category & Initiative type
Energy efficiency in production processes
Combined heat and power (cogeneration)

Estimated annual CO2e savings (metric tonnes CO2e)
1,001

Scope(s)
Scope 1
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
123,194

Investment required (unit currency – as specified in C0.4)
352,025

Payback period
1-3 years

Estimated lifetime of the initiative
6-10 years

Comment

Initiative category & Initiative type
Energy efficiency in production processes
Compressed air

Estimated annual CO2e savings (metric tonnes CO2e)
1,007

Scope(s)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary
Annual monetary savings (unit currency – as specified in C0.4)  
409,166

Investment required (unit currency – as specified in C0.4)  
530,886

Payback period  
1-3 years

Estimated lifetime of the initiative  
3-5 years

Comment

Initiative category & Initiative type  
Energy efficiency in production processes  
Cooling technology

Estimated annual CO2e savings (metric tonnes CO2e)  
243

Scope(s)  
Scope 2 (market-based)

Voluntary/Mandatory  
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)  
147,022

Investment required (unit currency – as specified in C0.4)  
433,531

Payback period  
1-3 years

Estimated lifetime of the initiative  
3-5 years

Comment

Initiative category & Initiative type  
Energy efficiency in buildings  
Heating, Ventilation and Air Conditioning (HVAC)
<table>
<thead>
<tr>
<th>Initiative category &amp; Initiative type</th>
<th>Energy efficiency in buildings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated annual CO2e savings (metric tonnes CO2e)</td>
<td>3,654</td>
</tr>
<tr>
<td>Scope(s)</td>
<td></td>
</tr>
<tr>
<td>Scope 1</td>
<td></td>
</tr>
<tr>
<td>Scope 2 (market-based)</td>
<td></td>
</tr>
<tr>
<td>Voluntary/Mandatory</td>
<td>Voluntary</td>
</tr>
<tr>
<td>Annual monetary savings (unit currency – as specified in C0.4)</td>
<td>435,008</td>
</tr>
<tr>
<td>Investment required (unit currency – as specified in C0.4)</td>
<td>1,122,478</td>
</tr>
<tr>
<td>Payback period</td>
<td>1-3 years</td>
</tr>
<tr>
<td>Estimated lifetime of the initiative</td>
<td>6-10 years</td>
</tr>
<tr>
<td>Comment</td>
<td></td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th>Initiative category &amp; Initiative type</th>
<th>Insulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated annual CO2e savings (metric tonnes CO2e)</td>
<td>87</td>
</tr>
<tr>
<td>Scope(s)</td>
<td></td>
</tr>
<tr>
<td>Scope 2 (market-based)</td>
<td></td>
</tr>
<tr>
<td>Voluntary/Mandatory</td>
<td>Voluntary</td>
</tr>
<tr>
<td>Annual monetary savings (unit currency – as specified in C0.4)</td>
<td>12,556</td>
</tr>
<tr>
<td>Investment required (unit currency – as specified in C0.4)</td>
<td>3,628</td>
</tr>
<tr>
<td>Payback period</td>
<td>&lt;1 year</td>
</tr>
<tr>
<td>Estimated lifetime of the initiative</td>
<td>3-5 years</td>
</tr>
</tbody>
</table>
Comment

-------------------------------------------------------------------------------------

Initiative category & Initiative type
   Energy efficiency in buildings
   Lighting

Estimated annual CO2e savings (metric tonnes CO2e)
   1,058

Scope(s)
   Scope 2 (market-based)

Voluntary/Mandatory
   Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
   300,699

Investment required (unit currency – as specified in C0.4)
   299,997

Payback period
   1-3 years

Estimated lifetime of the initiative
   6-10 years

Comment

-------------------------------------------------------------------------------------

Initiative category & Initiative type
   Energy efficiency in production processes
   Machine/equipment replacement

Estimated annual CO2e savings (metric tonnes CO2e)
   421

Scope(s)
   Scope 1
   Scope 2 (market-based)

Voluntary/Mandatory
   Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
   51,813
Investment required (unit currency – as specified in C0.4)
367,279

Payback period
4-10 years

Estimated lifetime of the initiative
6-10 years

Comment

Initiative category & Initiative type
- Energy efficiency in buildings
- Maintenance program

Estimated annual CO2e savings (metric tonnes CO2e)
1,047

Scope(s)
- Scope 2 (market-based)

Voluntary/Mandatory
- Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
147,439

Investment required (unit currency – as specified in C0.4)
122,000

Payback period
<1 year

Estimated lifetime of the initiative
3-5 years

Comment

Initiative category & Initiative type
- Energy efficiency in production processes
- Motors and drives

Estimated annual CO2e savings (metric tonnes CO2e)
1,150
Scope(s)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
281,670

Investment required (unit currency – as specified in C0.4)
447,777

Payback period
1-3 years

Estimated lifetime of the initiative
3-5 years

Comment

Initiative category & Initiative type
Energy efficiency in production processes
Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
2,078

Scope(s)
Scope 1
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
765,961

Investment required (unit currency – as specified in C0.4)
1,540,109

Payback period
1-3 years

Estimated lifetime of the initiative
3-5 years

Comment
Initiative category & Initiative type
Energy efficiency in production processes
Cooling technology

Estimated annual CO2e savings (metric tonnes CO2e)
900

Scope(s)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
150,381

Investment required (unit currency – as specified in C0.4)
355,921

Payback period
1-3 years

Estimated lifetime of the initiative
3-5 years

Comment

Initiative category & Initiative type
Energy efficiency in production processes
Reuse of steam

Estimated annual CO2e savings (metric tonnes CO2e)
260

Scope(s)
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
24,937

Investment required (unit currency – as specified in C0.4)
30,000
<table>
<thead>
<tr>
<th>Initiative category &amp; Initiative type</th>
<th>Energy efficiency in production processes</th>
<th>Reuse of water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated annual CO2e savings (metric tonnes CO2e)</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>Scope(s)</td>
<td>Scope 2 (market-based)</td>
<td></td>
</tr>
<tr>
<td>Voluntary/Mandatory</td>
<td>Voluntary</td>
<td></td>
</tr>
<tr>
<td>Annual monetary savings (unit currency – as specified in C0.4)</td>
<td>4,163</td>
<td></td>
</tr>
<tr>
<td>Investment required (unit currency – as specified in C0.4)</td>
<td>13,269</td>
<td></td>
</tr>
<tr>
<td>Payback period</td>
<td>1-3 years</td>
<td></td>
</tr>
<tr>
<td>Estimated lifetime of the initiative</td>
<td>6-10 years</td>
<td></td>
</tr>
<tr>
<td>Comment</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
25,000

Investment required (unit currency – as specified in C0.4)
70,000

Payback period
1-3 years

Estimated lifetime of the initiative
6-10 years

Comment

Initiative category & Initiative type
Low-carbon energy consumption
Solar heating and cooling

Estimated annual CO2e savings (metric tonnes CO2e)
122

Scope(s)
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
3,364

Investment required (unit currency – as specified in C0.4)
85,932

Payback period
21-25 years

Estimated lifetime of the initiative
6-10 years

Comment

Initiative category & Initiative type
Low-carbon energy generation
Solar PV

**Estimated annual CO2e savings (metric tonnes CO2e)**
2,606

**Scope(s)**
Scope 2 (market-based)

**Voluntary/Mandatory**
Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**
298,281

**Investment required (unit currency – as specified in C0.4)**
1,880,039

**Payback period**
4-10 years

**Estimated lifetime of the initiative**
6-10 years

---

**Initiative category & Initiative type**
Low-carbon energy consumption
Low-carbon electricity mix

**Estimated annual CO2e savings (metric tonnes CO2e)**
17,781

**Scope(s)**
Scope 2 (market-based)

**Voluntary/Mandatory**
Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**
264,000

**Investment required (unit currency – as specified in C0.4)**
30,000

**Payback period**
<1 year

**Estimated lifetime of the initiative**
1-2 years

**Comment**  
During 2019, several sites started receiving renewable energy in countries such as Mexico, Lithuania, Greece and India.

| Initiative category & Initiative type | Waste reduction and material circularity  
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste reduction</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Estimated annual CO2e savings (metric tonnes CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>40,885</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scope(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope 3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Voluntary/Mandatory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voluntary</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Annual monetary savings (unit currency – as specified in C0.4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>87,500,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Investment required (unit currency – as specified in C0.4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Payback period</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1 year</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Estimated lifetime of the initiative</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-5 years</td>
</tr>
</tbody>
</table>

**Comment**  
Monetary saving number as reported in Snacking Made Right page 34: We believe the best way to tackle waste is not to generate it in the first place. As most of our factories have achieved zero waste to landfill, we focus beyond recycling to reduce total waste in our manufacturing. For us, that mainly means food waste. In 2019, we have saved a total $87.5 million due to waste reduction initiatives. Our goal is to reduce total waste in manufacturing by 20% by 2020 (vs. 2013). To this end we have adopted a zero waste mindset and empower factory floor teams to run our War on Waste methodology to identify, reduce and eliminate waste at the source.

**C4.3c**

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

<table>
<thead>
<tr>
<th>Method</th>
<th>Comment</th>
</tr>
</thead>
</table>

53
### Compliance with regulatory requirements/standards

At production facility level. Examples: EU Emission Trading Scheme (see relevant section of CDP); European IPPC legislation; UK Climate legislation

### Employee engagement

Some examples: Earth Week initiatives, Environmental Month (with safety and health), environmental volunteering initiatives, Green Teams, carpool networks, incentives for biking and running to work, parking spots dedicated for hybrid vehicles. Our employee communications and engagement programs at all of our manufacturing and office sites worldwide includes energy/CO2 awareness activities.

### Dedicated budget for energy efficiency

Dedicated budget for energy efficiency, renewable energy projects, and other emissions reduction activities in our operations enables us to meet our publicly available science-based CO2 reduction goal. In 2019, we invested almost 8 million Dollars in energy efficiency projects and low-Carbon installations.

### Dedicated budget for other emissions reduction activities

Dedicated budget for renewable energy projects and other emissions reduction activities in our operations enables us to meet our publicly available science-based CO2 reduction goal. In 2019, we executed a 12 year contract for renewable energy in US, allowing the construction of a new solar plant in Texas. This project alone will reduce 5% of MDLZ scopes 1&2 emissions from energy for manufacturing sites comparing to 2013 baseline.

### 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.

<table>
<thead>
<tr>
<th>Level of aggregation</th>
<th>Description of product/Group of products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group of products</td>
<td>From 2013 to 2020, we targeted to eliminate 65,000 metric tonnes of packaging material. By the end of 2019, we nearly reached that goal at 64,580 tonnes of packaging eliminated, avoiding around at least 80,000 tonnes of CO2 emissions. These changes resulted in emissions avoidance because of the materials used and more efficient transportation.</td>
</tr>
</tbody>
</table>
We have updated our goals for beyond 2020. As stated in our 2019 Snacking Made Right report at 33: “To this end, we are determined to:
• Make all packaging recyclable by 2025
• Have recycling information for consumers on all packaging by 2025
• Lead the way in pack optimization and material reduction
• Eliminate unnecessary plastic while delivering product safety and quality
• Address the collection and recycling of plastic packaging
• Invest in waste management and increase post-consumer recycled material in all plastic packaging.”

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

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions
Other, please specify
Packaging reduction. We classify our products with packaging reduction as low carbon for purposes of CDP Climate. They are low carbon because they involve lesser calculated emissions based on the packaging changes.

% revenue from low carbon product(s) in the reporting year
9

Comment

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, 2013

Base year end
December 31, 2013

Base year emissions (metric tons CO2e)
718,473

Comment
The environmental reporting requirement is to remove all data from divestitures and add data from acquisitions for the year of acquisition and prior years. (See The Greenhouse Gas Protocol, section Tracking Emissions Over Time, pages 34 - 39.) Our Scope 1
emissions are recalculated annually and adjusted, if necessary, to incorporate changes in quantification methodologies, significant data corrections, and corporate structural changes, including acquisitions or divestitures. Scope 1 2013 emissions reported here are only from energy for manufacturing sites, as per the definition of our 2020 Carbon reduction target.

Scope 2 (location-based)

Base year start
January 1, 2013

Base year end
December 31, 2013

Base year emissions (metric tons CO2e)
847,894

Comment
The environmental reporting requirement is to remove all data from divestitures and add data from acquisitions for the year of acquisition and also prior years. (See The Greenhouse Gas Protocol, section Tracking Emissions Over Time, pages 34 - 39.) Our Scope 2 location-based emissions are recalculated annually and adjusted, if necessary, to incorporate changes in quantification methodologies, significant data corrections, and corporate structural changes, including acquisitions or divestitures. Scope 2 2013 emissions reported here are only from energy for manufacturing sites, as per the definition of our 2020 Carbon reduction target.

Scope 2 (market-based)

Base year start
January 1, 2013

Base year end
December 31, 2013

Base year emissions (metric tons CO2e)
900,402

Comment
The environmental reporting requirement is to remove all data from divestitures and add data from acquisitions for the year of acquisition and also prior years. (See The Greenhouse Gas Protocol, section Tracking Emissions Over Time, pages 34 - 39.) Our Scope 2 market-based emissions are recalculated annually and adjusted, if necessary, to incorporate changes in quantification methodologies, significant data corrections, and corporate structural changes, including acquisitions or divestitures. Scope 1 2013 emissions reported here are only from energy for manufacturing sites, as per the definition of our 2020 Carbon reduction target.
C5.2

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

- US EPA Center for Corporate Climate Leadership: Direct Fugitive Emissions from Refrigeration, Air Conditioning, Fire Suppression, and Industrial Gases
- US EPA Center for Corporate Climate Leadership: Indirect Emissions From Purchased Electricity
- US EPA Center for Corporate Climate Leadership: Direct Emissions from Stationary Combustion Sources
- US EPA Center for Corporate Climate Leadership: Direct Emissions from Mobile Combustion Sources
- Other, please specify
- US EPA Climate Leaders: Design Principles

C5.2a

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

Mondelez monthly collects data from manufacturing sites under operational control to calculate CO2e emissions. We use a data collection system to consolidate and convert all data related to fuels consumed, electricity imported and generated, other purchased energies and fugitive emissions into CO2e using the most current available conversion factors. All energy related data from manufacturing sites is verified to a reasonable level of assurance by SGS.

The environmental reporting requirement is to remove all data from divestitures and add data from acquisitions for the year of acquisition and also prior years. (See The Greenhouse Gas Protocol, section Tracking Emissions Over Time, pages 34 – 39.) Our Scope 1 and Scope 2 emissions are recalculated annually and adjusted, if necessary, to incorporate changes in quantification methodologies, significant data corrections, and corporate structural changes, including acquisitions or divestitures.

C6. Emissions data

C6.1

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

<table>
<thead>
<tr>
<th>Reporting year</th>
<th>Gross global Scope 1 emissions (metric tons CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>856,590</td>
</tr>
</tbody>
</table>

Comment
CO2 emissions due to fuels consumption reduced 2% in 2019 versus 2018, the overall scope 1 emissions have increased due to a methodological change in the calculation of emissions from refrigerant gases.

**C6.2**

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

<table>
<thead>
<tr>
<th>Row 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scope 2, location-based</strong></td>
</tr>
<tr>
<td>We are reporting a Scope 2, location-based figure</td>
</tr>
<tr>
<td><strong>Scope 2, market-based</strong></td>
</tr>
<tr>
<td>We are reporting a Scope 2, market-based figure</td>
</tr>
</tbody>
</table>

**Comment**

**C6.3**

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

<table>
<thead>
<tr>
<th>Reporting year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scope 2, location-based</strong></td>
</tr>
<tr>
<td>938,601</td>
</tr>
<tr>
<td><strong>Scope 2, market-based (if applicable)</strong></td>
</tr>
<tr>
<td>906,349</td>
</tr>
</tbody>
</table>

**Comment**

Mondelez market-based scope 2 emissions reduced more than 5% comparing to previous year due to new renewable energy contracts in place, for example, for Greece, Lithuania and Mexico.

**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**

Executive Transportation

**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**

Deemed out of scope for Mondelez this year. These emissions were calculated for the previous reporting cycle and are insignificant, around 0.01% from total Mondelez emissions.

---

**Source**

Leased product warehouses

**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**

Some leased product warehouses are operationally controlled but not included. GHG emissions based on available data have been determined to be insignificant (much less than 1%) compared to available data from our other product warehouses.

---

**Source**

Leased sales cars

**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
Some sales cars are operationally controlled but not included. GHG emissions are insignificant (much less than 1%) compared to owned sales fleet.

C6.5

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

Purchased goods and services

<table>
<thead>
<tr>
<th>Evaluation status</th>
<th>Relevant, calculated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metric tonnes CO2e</td>
<td>15,034,298</td>
</tr>
</tbody>
</table>

Emissions calculation methodology

Changes in 2019 scope 3 emissions from the prior year are mainly driven by data improvements and methodological changes. A better year-over-year comparison will be available next year following our baseline re-evaluation.

Agricultural raw materials are the main source of CO2 scope 3 emissions, with packaging production contributing an important, but clearly secondary, source of emissions. Our most prominent commodities are: cocoa, wheat, dairy, sugar, palm oil. The supply chain was characterized based on the total mass of purchases of nearly 100 food input material categories and eight packaging material categories. For each of these material categories, information on the life cycle GHG emissions was taken from a variety of sources, including the most prominent Ecoinvent database, scientific literature and other available data. In cases where data for the exact commodity or category could not be found, the most suitable proxy available was selected to avoid large gaps. Emissions are determined as the mass purchased multiplied by these factors of GHG emissions per weight. For packaging materials, processing to produce a finished package has been assumed based on emissions information from the Ecoinvent database. In the case of agricultural commodities that require additional processing beyond the level of their representation in the database, insufficient information is available to represent such processes, except in the case that it takes place in one of our facilities.

We report emissions that include land use change (LUC), using recently developed LUC reporting methodology. For calculating the land use change emissions, Quantis’ Dryad tool was used. Dryad mainly uses FAOSTAT data that are collected from 1990 to the most recent available year for each country crop combination. The tool accounts for all land conversion types eg. Deforestation, secondary forest to pasture land, etc.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
Please explain

**Capital goods**

**Evaluation status**
Not relevant, explanation provided

**Please explain**
Historically, Mondelez performed qualitative investigations and concluded that this scope 3 category was not relevant comparing to our total scope 3 emissions.

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

**Evaluation status**
Relevant, calculated

**Metric tonnes CO2e**
1,164,761

**Emissions calculation methodology**
Emissions from all direct uses of energy have been calculated based on amounts of electricity and fuel used throughout the company and applying cradle-to-gate emission factors from the Ecoinvent database, consistent with the methodology used throughout the Scope 3 calculations described here. From this result, the Scope 2 emissions, described above, were subtracted. Emissions from external manufacturing are also included in this category.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
0

**Please explain**
The YOY increase in emissions associated with this category is due to an increase in external manufacturing.

**Upstream transportation and distribution**

**Evaluation status**
Relevant, calculated

**Metric tonnes CO2e**
2,311,217

**Emissions calculation methodology**
Data excludes warehouses. We use third-party transportation companies (common carriers) to transport raw materials to manufacturing facilities. The primary GHG emission source from common carriers is CO2 from diesel fuel combustion.
Transportation CO2 emissions for production materials were estimated based on a number of simplifying assumptions: average distance (e.g., source country to country of use), common modes of transport, average fuel efficiency, assumed shipment weights, etc. The calculation is based on the multiplication of life cycle emissions information for the relevant modes of transport (in units of emission per tkm) derived from the Ecoinvent database.

This year, some emissions resulting from distribution of sold product were recategorized as Category 4, due to Mondelez being the entity financially responsible for that transport.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
0

**Please explain**
There was an overall YOY increase, due to the recategorization of some downstream activities as Category 4 (previously they were Category 9).

**Waste generated in operations**

**Evaluation status**
Relevant, calculated

**Metric tonnes CO2e**
84,072

**Emissions calculation methodology**
Emissions from landfill, incineration and recycling of operation waste, inbound packaging, etc. were considered in the calculation.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
0

**Please explain**
There was an overall YOY decrease, due to the reduction of waste generation in our operations. This is a result of the significant effort across our supply chain to continuously reduce waste.

**Business travel**

**Evaluation status**
Relevant, calculated

**Metric tonnes CO2e**
41,446

**Emissions calculation methodology**
Employee air, car, and rail business travel emissions were estimated using spend data and EIO-LCA emission model. The source of the latest emission factors is taken from Carnegie Mellon University Green Design Institute. (2019) Economic Input-Output Life Cycle Assessment (EIO-LCA) US 2007. Some Economic Input-Output data sourced from 2002 source (hotel stays, which was newly included this year), due to data limitations. All quantities calculated to adjust for inflation between data year and reporting year.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
0

**Please explain**
There was an overall YOY decrease, due to a decrease in spend on air travel.

**Employee commuting**

**Evaluation status**
Relevant, calculated

**Metric tonnes CO2e**
190,306

**Emissions calculation methodology**
Emissions estimated based on publicly-available regional car and public transit commute data. Assumed 26.81 mile distance round trip (for all modes), 240 days per year.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
0

**Please explain**
There was an overall YOY decrease, due to a methodology change that refined mode assumptions. In previous years, it was assumed all employees traveled by car. In F19, commuter ridership data were used to estimate emissions associated with commuting via public transit.

**Upstream leased assets**

**Evaluation status**
Not relevant, explanation provided

**Please explain**
Despite the existence of some leasing activities in Mondelez, leasing assets is not part of our core business. Emissions from leased assets were qualitatively evaluated and considered irrelevant.

**Downstream transportation and distribution**
Evaluation status
Relevant, calculated

Metric tonnes CO2e
89,945

Emissions calculation methodology
This year, because Mondelez is financially responsible for product transport to retail, the emissions of distribution of sold product has been recategorized to Category 4.

Emissions also include those resulting from retail storage. Production volumes (minus an assume distribution loss) and product categories inform the extent to which refrigeration is required at retail, ultimately resulting in a calculation of energy required to refrigerate relevant products at stores. This energy quantity is mapped to an electricity consumption emission factor from the Ecoinvent database."

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
There was an overall YOY decrease, due to a recategorization of some downstream activities as Category 4 (previously were Category 9). Other than this, there was also a methodology change associated with retail storage which resulted in a decrease in impacts as well. Last year, impacts from retail storage were calculated based on dairy ingredient masses which likely overestimates. This year, retail storage impacts were calculated based on dairy and grocery product categories.

Processing of sold products

Evaluation status
Not relevant, explanation provided

Please explain
As a snack company, the vast majority of our products is sold for direct consumption, without any additional industrial processing. Therefore, emissions due to processing sold products are deemed irrelevant.

Use of sold products

Evaluation status
Relevant, calculated

Metric tonnes CO2e
52,986

Emissions calculation methodology
The emissions reported here reflect a rough prediction of the emissions from the use of products. The end-of-life of the food products themselves is not included. The emissions
during the use of products include refrigeration for dairy, egg based products and cheeses. Assumptions have been made based on the proportion of the total of our products sold that are likely to undergo each use. For simplicity, it has currently been assumed that all use activities are fueled by electricity. Approximations are then made of the amount of electricity use required per kilogram of product. These approximations are made based on preliminary estimates of typical consumer behaviors and are generic among product categories. The total amount of electricity use is then estimated based on emissions factors taken from the Ecoinvent database for several countries or an adapted dataset from IEA electricity statistics.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
0

**Please explain**
Minimal YOY increase.

**End of life treatment of sold products**

<table>
<thead>
<tr>
<th>Evaluation status</th>
<th>Relevant, calculated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metric tonnes CO2e</td>
<td>883,179</td>
</tr>
</tbody>
</table>

**Emissions calculation methodology**
The end-of-life of packaging is determined based on the amount of various categories of packaging material that have been purchased in the relevant time period (with the assumption that this is also representative of the amount of packaging disposed in the same period). The proportions of various fates (landfilling, recycling and incineration) of each material have been determined by information available for several countries, which has then been applied as an approximation of disposal routes within each of the five global sales regions. Emissions information is taken from the Ecoinvent database to determine the amount of GHG emissions occurring during the landfilling, recycling and incineration of any given material. Generally, a “cut-off” approach was taken to end of life allocation. This means that in the case of recycling, full burden is applied at the input, but emissions and credits associated with end of life treatment are excluded from the scope.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
0

**Please explain**
There was an overall YOY increase in impacts, due to a methodology change wherein the impacts associated with transporting waste to end of life was included for the first time this year.

**Downstream leased assets**
Evaluation status
Not relevant, explanation provided

Please explain
In Mondelez operations there are a few, very limited instances where we are asset lessors, as this activity is not part of our core business. We qualitatively evaluated emissions from this category and considered them irrelevant.

Franchises
Evaluation status
Not relevant, explanation provided

Please explain
Mondelez is a snacking company that sells directly mostly to retailers and distributors. Franchises are not applicable to Mondelez business model.

Investments
Evaluation status
Not relevant, explanation provided

Please explain
Historically, Mondelez performed qualitative investigations and concluded that this scope 3 category was not relevant comparing to our total scope 3 emissions.

Other (upstream)
Evaluation status
Not relevant, explanation provided

Please explain
The majority of our upstream emissions have been reported in other categories.

Other (downstream)
Evaluation status
Not relevant, explanation provided

Please explain
The majority of our downstream emissions have been reported in other categories.

C-AC6.6/C-FB6.6/C-PF6.6
(C-AC6.6/C-FB6.6/C-PF6.6) Can you break down your Scope 3 emissions by relevant business activity area?
Yes
C-AC6.6a/C-FB6.6a/C-PF6.6a

(C-AC6.6a/C-FB6.6a/C-PF6.6a) Disclose your Scope 3 emissions for each of your relevant business activity areas.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Agriculture/Forestry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope 3 category</td>
<td>Purchased goods and services</td>
</tr>
<tr>
<td>Emissions (metric tons CO2e)</td>
<td>15,034,298</td>
</tr>
</tbody>
</table>

**Please explain**

Changes in 2019 scope 3 emissions from the prior year are mainly driven by data improvements and methodological changes. A better year-over-year comparison will be available next year following our baseline re-evaluation.

Agricultural raw materials are the main source of CO2 scope 3 emissions, with packaging production contributing an important, but clearly secondary, source of emissions. Our most prominent commodities are: cocoa, wheat, dairy, sugar, palm oil. The supply chain was characterized based on the total mass of purchases of nearly 100 food input material categories and eight packaging material categories. For each of these material categories, information on the life cycle GHG emissions was taken from a variety of sources, including the most prominent Ecoinvent database, scientific literature and other available data. In cases where data for the exact commodity or category could not be found, the most suitable proxy available was selected to avoid large gaps.

Emissions are determined as the mass purchased multiplied by these factors of GHG emissions per weight. For packaging materials, processing to produce a finished package has been assumed based on emissions information from the Ecoinvent database. In the case of agricultural commodities that require additional processing beyond the level of their representation in the database, insufficient information is available to represent such processes, except in the case that it takes place in one of our facilities.

We report emissions that include land use change (LUC), using recently developed LUC reporting methodology. For calculating the land use change emissions, Quantis’ Dryad tool was used. Dryad mainly uses FAOSTAT data that are collected from 1990 to the most recent available year for each country crop combination. The tool accounts for all land conversion types eg. Deforestation, secondary forest to pasture land, etc.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Distribution</th>
</tr>
</thead>
</table>
**Scope 3 category**
Upstream transportation and distribution

**Emissions (metric tons CO2e)**
2,311,217

**Please explain**
Data excludes warehouses. We use third-party transportation companies (common carriers) to transport raw materials to manufacturing facilities. The primary GHG emission source from common carriers is CO2 from diesel fuel combustion. Transportation CO2 emissions for production materials were estimated based on a number of simplifying assumptions: average distance (e.g., source country to country of use), common modes of transport, average fuel efficiency, assumed shipment weights, etc. The calculation is based on the multiplication of life cycle emissions information for the relevant modes of transport (in units of emission per tkm) derived from the Ecoinvent database. Previously, the methodology was based on estimating emissions based on quantity of fuel consumed. Starting 2018, a shift was made to estimate emissions based on tkm. The intention behind the methodological update is to better align with the SBTi models.

---

**Activity**
Distribution

**Scope 3 category**
Downstream transportation and distribution

**Emissions (metric tons CO2e)**
89,945

**Please explain**
Data excludes warehouses. We use third-party transportation companies (common carriers) to supplement our need to transport finished product from manufacturing facilities to distribution centers, warehouses and customers. The primary GHG emission source from common carriers is CO2 from diesel fuel combustion. The calculation is based on the multiplication of life cycle emissions information for the relevant modes of transport per tkm from the Ecoinvent database. Previously, the methodology was based on estimating emissions based on quantity of fuel consumed. Starting 2018, a shift was made to estimate emissions based on tkm. The intention behind the methodological update is to better align with the SBTi models.

---

**Activity**
Consumption

**Scope 3 category**
Use of sold products
Emissions (metric tons CO2e)
52,986

Please explain
The emissions reported here reflect a rough prediction of the emissions from the use of products. The end-of-life of the food products themselves is not included. The emissions during the use of products include refrigeration for dairy, egg based products and cheeses. Assumptions have been made based on the proportion of the total of our products sold that are likely to undergo each use. For simplicity, it has currently been assumed that all use activities are fueled by electricity. Approximations are then made of the amount of electricity use required per kilogram of product. These approximations are made based on preliminary estimates of typical consumer behaviors and are generic among product categories. The total amount of electricity use is then estimated based on emissions factors taken from the Ecoinvent database for several countries or an adapted dataset from IEA electricity statistics. This estimate is higher than last year, reasons being: 1) update in emission factors 2) inclusion of refrigeration needed to store ingredients.

Activity
Consumption

Scope 3 category
End of life treatment of sold products

Emissions (metric tons CO2e)
883,179

Please explain
The end-of-life of packaging is determined based on the amount of various categories of packaging material that have been purchased in the relevant time period (with the assumption that this is also representative of the amount of packaging disposed in the same period). The proportions of various fates (landfilling, recycling and incineration) of each material have been determined by information available for several countries, which has then been applied as an approximation of disposal routes within each of the five global sales regions. Emissions information is taken from the Ecoinvent database to determine the amount of GHG emissions occurring during the landfilling, recycling and incineration of any given material. Generally, an “avoided burden” approach is taken at the end-of-life routes that result in a beneficial co-product of disposal. For example, in the case of recycling a plastic, it is assumed that the production of virgin plastic is avoided, and for the combustion of a plastic, it is assumed that a given amount of heat and/or electricity has been recovered and therefore prevented the production of electricity or heat by other means.
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 biofuel combustion (processing/manufacturing machinery)

<table>
<thead>
<tr>
<th>Emissions (metric tons CO2)</th>
<th>36,517</th>
</tr>
</thead>
</table>

Methodology

Default emissions factors

Please explain

Calculations were made using default emission factors for biogenic fuels as provided by DEFRA.

CO2 emissions from biofuel combustion (other)

<table>
<thead>
<tr>
<th>Emissions (metric tons CO2)</th>
<th>0</th>
</tr>
</thead>
</table>

Methodology

Other, please specify

We don't have information regarding emissions from biofuel combustion in transportation.

Please explain

From the methodology used to calculate transportation emissions it is not possible to estimate biogenic emissions from biofuels.

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

Other

Cocoa and cocoa co-products

Do you collect or calculate GHG emissions for this commodity?
Yes

**Please explain**
The supply chain was characterized based on the total mass of purchases for each of the commodities. Information on the life cycle GHG emissions was taken from a variety of sources, including the most prominent Ecoinvent database, scientific literature and other available data. In cases where data for the exact commodity could not be found, the most suitable proxy available was selected to avoid large gaps. Emissions are determined as the mass purchased multiplied by these factors of GHG emissions per weight.

---

**Agricultural commodities**

- Other
  - Dairy

**Do you collect or calculate GHG emissions for this commodity?**
Yes

**Please explain**
The supply chain was characterized based on the total mass of purchases for each of the commodities. Information on the life cycle GHG emissions was taken from a variety of sources, including the most prominent Ecoinvent database, scientific literature and other available data. In cases where data for the exact commodity could not be found, the most suitable proxy available was selected to avoid large gaps. Emissions are determined as the mass purchased multiplied by these factors of GHG emissions per weight.

---

**Agricultural commodities**

- Sugar

**Do you collect or calculate GHG emissions for this commodity?**
Yes

**Please explain**
The supply chain was characterized based on the total mass of purchases for each of the commodities. Information on the life cycle GHG emissions was taken from a variety of sources, including the most prominent Ecoinvent database, scientific literature and other available data. In cases where data for the exact commodity could not be found, the most suitable proxy available was selected to avoid large gaps. Emissions are determined as the mass purchased multiplied by these factors of GHG emissions per weight.

---

**Agricultural commodities**
Wheat

Do you collect or calculate GHG emissions for this commodity?
Yes

Please explain
The supply chain was characterized based on the total mass of purchases for each of the commodities. Information on the life cycle GHG emissions was taken from a variety of sources, including the most prominent Ecoinvent database, scientific literature and other available data. In cases where data for the exact commodity could not be found, the most suitable proxy available was selected to avoid large gaps. Emissions are determined as the mass purchased multiplied by these factors of GHG emissions per weight.

Agricultural commodities

Palm Oil

Do you collect or calculate GHG emissions for this commodity?
Yes

Please explain
The supply chain was characterized based on the total mass of purchases for each of the commodities. Information on the life cycle GHG emissions was taken from a variety of sources, including the most prominent Ecoinvent database, scientific literature and other available data. In cases where data for the exact commodity could not be found, the most suitable proxy available was selected to avoid large gaps. Emissions are determined as the mass purchased multiplied by these factors of GHG emissions per weight.

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)
- 476,271

Change from last reporting year
- Lower

Please explain
There was a decrease in purchased mass between FY2018 and FY2019.

**Sugar**

Reporting emissions by

Total

Emissions (metric tons CO2e)

679,918

Change from last reporting year

Higher

Please explain

There was an increase in purchased mass between FY2018 and FY2019.

**Wheat**

Reporting emissions by

Total

Emissions (metric tons CO2e)

1,795,124

Change from last reporting year

Lower

Please explain

There was a decrease in purchased mass and a shift to purchasing wheat from less impacting sourcing regions in FY2019.

**Other**

Reporting emissions by

Total

Emissions (metric tons CO2e)

9,454,319

Change from last reporting year

Lower

Please explain

This item includes emissions calculated for Cocoa and cocoa products (4,288,977 CO2e metric tons) and Dairy (5,165,342 CO2e metric tons). There was a decrease in purchased mass of cocoa and cocoa products and a shift to purchasing them from less impacting sourcing regions in FY2019. For dairy, we had an increase in purchased mass and a change in data collection that generated an increase in emissions versus previous year.
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
0.0000681513

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
1,762,939

Metric denominator
unit total revenue

Metric denominator: Unit total
25,868,000,000

Scope 2 figure used
Market-based

% change from previous year
0.61

Direction of change
Decreased

Reason for change
Our scopes 1 and 2 emissions in 2019 reduced 1% versus previous year as a result of several activities implemented, such as the conversion of manufacturing operations to renewable energy (sites in Mexico, Lithuania and Greece) and implementation of several energy efficiency projects.

Intensity figure
22.0367375

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
1,762,939

Metric denominator
full time equivalent (FTE) employee

Metric denominator: Unit total
80,000
Scope 2 figure used
Market-based

% change from previous year
0.88

Direction of change
Decreased

Reason for change
Our scopes 1 and 2 emissions in 2019 reduced 1% versus previous year as a result of several activities implemented, such as the conversion of manufacturing operations to renewable energy (sites in Mexico, Lithuania and Greece) and implementation of several energy efficiency projects.

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).

<table>
<thead>
<tr>
<th>Greenhouse gas</th>
<th>Scope 1 emissions (metric tons of CO2e)</th>
<th>GWP Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other, please specify CO2e</td>
<td>856,590</td>
<td>IPCC Fifth Assessment Report (AR5 – 100 year)</td>
</tr>
</tbody>
</table>

C7.2

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

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Scope 1 emissions (metric tons CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>277,292</td>
</tr>
<tr>
<td>Europe</td>
<td>293,592</td>
</tr>
<tr>
<td>Latin America (LATAM)</td>
<td>112,872</td>
</tr>
<tr>
<td>Asia, Australasia, Middle East and Africa</td>
<td>172,833</td>
</tr>
</tbody>
</table>
C7.3

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

By activity

C7.3c

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

<table>
<thead>
<tr>
<th>Activity</th>
<th>Scope 1 emissions (metric tons CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>720,717</td>
</tr>
<tr>
<td>Private Fleet</td>
<td>78,375</td>
</tr>
<tr>
<td>Sales fleet</td>
<td>57,498</td>
</tr>
</tbody>
</table>

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-AC7.4b/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.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Emissions (metric tons CO2e)</th>
<th>Methodology</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processing/Manufacturing</td>
<td>720,717</td>
<td>Default emissions factor</td>
<td>Scope 1 emissions reported here include fuel combustion and fugitive emissions at manufacturing sites.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activity</th>
<th>Emissions (metric tons CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distribution</td>
<td></td>
</tr>
</tbody>
</table>
135,873

**Methodology**

Default emissions factor

**Please explain**

Scope 1 emissions reported here for distribution include impacts from private fleet and sales fleet.

**C7.5**

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

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Scope 2, location-based (metric tons CO2e)</th>
<th>Scope 2, market-based (metric tons CO2e)</th>
<th>Purchased and consumed electricity, heat, steam or cooling (MWh)</th>
<th>Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>207,284</td>
<td>205,484</td>
<td>419,336</td>
<td>618</td>
</tr>
<tr>
<td>Europe</td>
<td>303,103</td>
<td>303,871</td>
<td>747,625</td>
<td>6,983</td>
</tr>
<tr>
<td>Latin America (LATAM)</td>
<td>89,775</td>
<td>91,138</td>
<td>204,286</td>
<td>49,967</td>
</tr>
<tr>
<td>Asia, Australasia, Middle East and Africa</td>
<td>338,440</td>
<td>305,856</td>
<td>478,709</td>
<td>40,038</td>
</tr>
</tbody>
</table>

**C7.6**

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

By activity

**C7.6c**

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

<table>
<thead>
<tr>
<th>Activity</th>
<th>Scope 2, location-based (metric tons CO2e)</th>
<th>Scope 2, market-based (metric tons CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>760,408</td>
<td>721,255</td>
</tr>
<tr>
<td>Non-manufacturing</td>
<td>178,193</td>
<td>185,094</td>
</tr>
</tbody>
</table>

**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?
(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.

<table>
<thead>
<tr>
<th>Change in emissions (metric tons CO2e)</th>
<th>Direction of change</th>
<th>Emissions value (percentage)</th>
<th>Please explain calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in renewable energy consumption</td>
<td>17,781</td>
<td>Decreased</td>
<td>1</td>
</tr>
<tr>
<td>Other emissions reduction activities</td>
<td>18,081</td>
<td>Decreased</td>
<td>1</td>
</tr>
<tr>
<td>Change in output</td>
<td>19,500</td>
<td>Increased</td>
<td>1.1</td>
</tr>
</tbody>
</table>
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?

Market-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.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Indicate whether your organization undertook this energy-related activity in the reporting year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption of fuel (excluding feedstocks)</td>
<td>Yes</td>
</tr>
<tr>
<td>Consumption of purchased or acquired electricity</td>
<td>Yes</td>
</tr>
<tr>
<td>Consumption of purchased or acquired heat</td>
<td>Yes</td>
</tr>
<tr>
<td>Consumption of purchased or acquired steam</td>
<td>Yes</td>
</tr>
<tr>
<td>Consumption of purchased or acquired cooling</td>
<td>No Adamant</td>
</tr>
<tr>
<td>Generation of electricity, heat, steam, or cooling</td>
<td>Yes</td>
</tr>
</tbody>
</table>

C8.2a

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

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

<table>
<thead>
<tr>
<th></th>
<th>Heating value</th>
<th>MWh from renewable sources</th>
<th>MWh from non-renewable sources</th>
<th>Total (renewable and non-renewable) MWh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption of fuel (excluding feedstock)</td>
<td>LHV (lower heating value)</td>
<td>72,983</td>
<td>2,969,458</td>
<td>3,042,441</td>
</tr>
<tr>
<td>Consumption of purchased or acquired electricity</td>
<td></td>
<td>97,606</td>
<td>1,771,493</td>
<td>1,869,098</td>
</tr>
<tr>
<td>Consumption of purchased or acquired heat</td>
<td></td>
<td>2,637</td>
<td>0</td>
<td>2,637</td>
</tr>
<tr>
<td>Consumption of purchased or acquired steam</td>
<td></td>
<td>0</td>
<td>76,167</td>
<td>76,167</td>
</tr>
<tr>
<td>Consumption of self-generated non-fuel renewable energy</td>
<td></td>
<td>4,538</td>
<td></td>
<td>4,538</td>
</tr>
<tr>
<td>Total energy consumption</td>
<td></td>
<td>177,763</td>
<td>4,817,118</td>
<td>4,994,882</td>
</tr>
</tbody>
</table>

### C8.2c

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

Heating value
  LHV (lower heating value)

Total fuel MWh consumed by the organization
  534

MWh fuel consumed for self-generation of electricity
  534

MWh fuel consumed for self-generation of heat
  0

MWh fuel consumed for self-generation of steam
  0

MWh fuel consumed for self-cogeneration or self-trigeneration
  0

Emission factor
  1.04543

Unit
  kg CO2e per GJ

Emissions factor source
  Defra 2018

Comment
  Biodiesel used as fuel for generator in one of our sites in India.

Fuels (excluding feedstocks)
  Natural Gas

Heating value
  LHV (lower heating value)

Total fuel MWh consumed by the organization
  2,825,421

MWh fuel consumed for self-generation of electricity
  30,500

MWh fuel consumed for self-generation of heat
  1,863,280
MWh fuel consumed for self-generation of steam
931,640

MWh fuel consumed for self-cogeneration or self-trigeneration

Emission factor
56.77

Unit
kg CO2e per GJ

Emissions factor source
Defra 2018

Comment
We only have detail on the generation of electricity. We use most of the natural gas consumed in biscuit ovens, boilers and water heaters, but we don't have this level of granularity. The numbers provided here are an estimation that one third of the natural gas consumption is to generate steam and two thirds are used in baking processes or water heating.

<table>
<thead>
<tr>
<th>Fuels (excluding feedstocks)</th>
<th>Heating value</th>
<th>Total fuel MWh consumed by the organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butane</td>
<td>LHV (lower heating value)</td>
<td>23,630</td>
</tr>
</tbody>
</table>

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam
2,363

MWh fuel consumed for self-cogeneration or self-trigeneration
21,267

Emission factor
61.63

Unit
kg CO2e per GJ
Emissions factor source
EPA, 2018

Comment
We consume butane as fuel at only one location, the estimated usage is 10% for steam and 90% for ovens.

Fuels (excluding feedstocks)
Coal

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
9,589

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
9,589

MWh fuel consumed for self-cogeneration or self-trigeneration
0

Emission factor
94.98

Unit
kg CO2e per GJ

Emissions factor source
DEFRA, 2018

Comment
We have one boiler in the whole supply chain that consumes coal. A plan is being developed to replace this equipment.

Fuels (excluding feedstocks)
Heavy Gas Oil

Heating value
LHV (lower heating value)
Total fuel MWh consumed by the organization
24,015

MWh fuel consumed for self-generation of electricity
24,015

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-cogeneration or self-trigeneration

Emission factor
79.29

Unit
kg CO2e per GJ

Emissions factor source
DEFRA, 2018

Comment
We don’t have details on the usage of heavy oil per site. We estimate that the majority of it is used as fuel for emergency electricity generators.

Fuels (excluding feedstocks)
Light Distillate

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
28,601

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-cogeneration or self-trigeneration

Emission factor
81.71

**Unit**
kg CO2e per GJ

**Emissions factor source**
DEFRA, 2018

**Comment**
We don't have details on the usage of Light Distillate per site.

---

**Fuels (excluding feedstocks)**
Liquefied Petroleum Gas (LPG)

**Heating value**
LHV (lower heating value)

**Total fuel MWh consumed by the organization**
36,730

**MWh fuel consumed for self-generation of electricity**
0

**MWh fuel consumed for self-generation of heat**
36,730

**MWh fuel consumed for self-generation of steam**
0

**MWh fuel consumed for self-cogeneration or self-trigeneration**
0

**Emission factor**
63.97

**Unit**
kg CO2e per GJ

**Emissions factor source**
DEFRA, 2018

**Comment**
We don't have details on the usage of LPG per site but we estimate the majority of it is used to generate heat.

---

**Fuels (excluding feedstocks)**
Propane Gas
Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
21,472

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat
21,472

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-cogeneration or self-trigeneration

Emission factor
59.83

Unit
kg CO2e per GJ

Emissions factor source
EPA 2018

Comment
We don't have details on the usage of Propane per site but we estimate the majority of it is used to generate heat.

---

Fuels (excluding feedstocks)
Other, please specify
Rapeseed Oil

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
492

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat
492

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-cogeneration or self-trigeneration

**Emission factor**
1.05

**Unit**
kg CO2e per GJ

**Emissions factor source**
DEFRA, 2018

**Comment**
We don't have details on the usage of rapeseed oil per site but we estimate the majority of it is used to generate heat.

---

**Fuels (excluding feedstocks)**
Wood

**Heating value**
LHV (lower heating value)

**Total fuel MWh consumed by the organization**
67,080

**MWh fuel consumed for self-generation of electricity**

**MWh fuel consumed for self-generation of heat**
33,540

**MWh fuel consumed for self-generation of steam**
33,540

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

**Emission factor**
4.18

**Unit**
kg CO2e per GJ

**Emissions factor source**
DEFRA, 2018

**Comment**
We don't have details on the usage of wood per site but we estimate half of it is used to generate steam and the other half for heat.
Fuels (excluding feedstocks)
  Bagasse

Heating value
  LHV (lower heating value)

Total fuel MWh consumed by the organization
  4,874

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam
  4,874

MWh fuel consumed for self-cogeneration or self-trigeneration

Emission factor
  3.65

Unit
  kg CO2e per GJ

Emissions factor source
  DEFRA, 2018

Comment
  Bagasse is used in Mondelez sites to produce steam.

C8.2d

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

<table>
<thead>
<tr>
<th></th>
<th>Total Gross generation (MWh)</th>
<th>Generation that is consumed by the organization (MWh)</th>
<th>Gross generation from renewable sources (MWh)</th>
<th>Generation from renewable sources that is consumed by the organization (MWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity</td>
<td>35,041</td>
<td>35,041</td>
<td>4,538</td>
<td>4,538</td>
</tr>
<tr>
<td>Heat</td>
<td>2,637</td>
<td>2,637</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Steam</td>
<td>76,167</td>
<td>76,167</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cooling</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero emission factor in the market-based Scope 2 figure reported in C6.3.

Sourcing method
Power purchase agreement (PPA) with on-site/off-site generator owned by a third party with no grid transfers (direct line)

Low-carbon technology type
Solar

Country/region of consumption of low-carbon electricity, heat, steam or cooling
Australia

MWh consumed accounted for at a zero emission factor
1,229

Comment
On site solar energy in 2 facilities in Australia: Scoresby and Sutontown plants.

Sourcing method
Power purchase agreement (PPA) with on-site/off-site generator owned by a third party with no grid transfers (direct line)

Low-carbon technology type
Solar

Country/region of consumption of low-carbon electricity, heat, steam or cooling
India

MWh consumed accounted for at a zero emission factor
3,154

Comment
On site solar at our sites in India: Induri, Malanpur and Sri-City.
Low-carbon technology type
   Solar

Country/region of consumption of low-carbon electricity, heat, steam or cooling
   Philippines

MWh consumed accounted for at a zero emission factor
   128

Comment
   On-site solar from our site in Philippines: Sucat plant.

Sourcing method
   Power purchase agreement (PPA) with on-site/off-site generator owned by a third party with no grid transfers (direct line)

Low-carbon technology type
   Solar

Country/region of consumption of low-carbon electricity, heat, steam or cooling
   Belgium

MWh consumed accounted for at a zero emission factor
   3

Comment
   On-site generation in our facility in Belgium: Herentals

Sourcing method
   Other, please specify
      Mondelez owned on-site solar installation

Low-carbon technology type
   Solar

Country/region of consumption of low-carbon electricity, heat, steam or cooling
   Brazil

MWh consumed accounted for at a zero emission factor
   24

Comment
   On-site generation in Brazil: Curitiba plant
Sourcing method
Green electricity products (e.g. green tariffs) from an energy supplier, not supported by energy attribute certificates

Low-carbon technology type
Geothermal

Country/region of consumption of low-carbon electricity, heat, steam or cooling
Italy

MWh consumed accounted for at a zero emission factor
6,983

Comment
Geothermal energy purchased in Caramagna site, in Italy.

Sourcing method
Green electricity products (e.g. green tariffs) from an energy supplier, not supported by energy attribute certificates

Low-carbon technology type
Geothermal

Country/region of consumption of low-carbon electricity, heat, steam or cooling
Philippines

MWh consumed accounted for at a zero emission factor
3,638

Comment
Geothermal energy purchased in Sucat, Philippines.

Sourcing method
Green electricity products (e.g. green tariffs) from an energy supplier, not supported by energy attribute certificates

Low-carbon technology type
Hydropower

Country/region of consumption of low-carbon electricity, heat, steam or cooling
India
MWh consumed accounted for at a zero emission factor
835

Comment
Hydropower purchased for Malanpur plant, in India

Sourcing method
Green electricity products (e.g. green tariffs) from an energy supplier, not supported by energy attribute certificates

Low-carbon technology type
Solar

Country/region of consumption of low-carbon electricity, heat, steam or cooling
India

MWh consumed accounted for at a zero emission factor
5,544

Comment
Solar energy purchased for Malanpur site, in India.

Sourcing method
Green electricity products (e.g. green tariffs) from an energy supplier, not supported by energy attribute certificates

Low-carbon technology type
Solar

Country/region of consumption of low-carbon electricity, heat, steam or cooling
United States of America

MWh consumed accounted for at a zero emission factor
371

Comment
Solar energy supplied by local utilities in Portland, United States.

Sourcing method
Green electricity products (e.g. green tariffs) from an energy supplier, not supported by energy attribute certificates

Low-carbon technology type
Wind

Country/region of consumption of low-carbon electricity, heat, steam or cooling
  South Africa

MWh consumed accounted for at a zero emission factor
  2,132

Comment
  Wind energy bought during part of the year in Port Elizabeth, South Africa.

Sourcing method
  Power purchase agreement (PPA) with a grid-connected generator with energy attribute certificates

Low-carbon technology type
  Wind

Country/region of consumption of low-carbon electricity, heat, steam or cooling
  Mexico

MWh consumed accounted for at a zero emission factor
  10,550

Comment
  PPA signed with Enel in Mexico, to obtain energy from a Wind farm for Ecatepec site.

Sourcing method
  Green electricity products (e.g. green tariffs) from an energy supplier, not supported by energy attribute certificates

Low-carbon technology type
  Wind

Country/region of consumption of low-carbon electricity, heat, steam or cooling
  United States of America

MWh consumed accounted for at a zero emission factor
  247

Comment
  Wind energy supplied by local utility company to Portland site, in US.
Sourcing method
Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type
Wind

Country/region of consumption of low-carbon electricity, heat, steam or cooling
Greece

MWh consumed accounted for at a zero emission factor
6,129

Comment
Wind energy purchased with certificated for our operation in Athens, Greece.

Sourcing method
Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type
Low-carbon energy mix

Country/region of consumption of low-carbon electricity, heat, steam or cooling
Lithuania

MWh consumed accounted for at a zero emission factor
10,224

Comment
100% Renewable energy contract with local utility supplier backed up by certificates for our site in Kaunas, Lithuania.

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.
**C10. Verification**

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

<table>
<thead>
<tr>
<th>Scope</th>
<th>Verification/assurance status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope 1</td>
<td>Third-party verification or assurance process in place</td>
</tr>
<tr>
<td>Scope 2 (location-based or market-based)</td>
<td>Third-party verification or assurance process in place</td>
</tr>
<tr>
<td>Scope 3</td>
<td>Third-party verification or assurance process in place</td>
</tr>
</tbody>
</table>

**(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.**

---

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Reasonable assurance

**Attach the statement**

Madison - GHG Verification Statement 2019 v1.0.pdf

**Page/section reference**

All pages.

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

**(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.**

---
**Scope 2 approach**  
Scope 2 market-based

**Verification or assurance cycle in place**  
Annual process

**Status in the current reporting year**  
Complete

**Type of verification or assurance**  
Reasonable assurance

**Attach the statement**

Mondelez - GHG Verification Statement 2019 v1.0.pdf

**Page/section reference**

All

**Relevant standard**  
ISO14064-3

**Proportion of reported emissions verified (%)**  
100
C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

<table>
<thead>
<tr>
<th>Scope 3 category</th>
<th>Scope 3 (upstream &amp; downstream)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verification or assurance cycle in place</td>
<td>Annual process</td>
</tr>
<tr>
<td>Status in the current reporting year</td>
<td>Complete</td>
</tr>
<tr>
<td>Type of verification or assurance</td>
<td>Limited assurance</td>
</tr>
</tbody>
</table>

Attach the statement

Mondelez - GHG Verification Statement 2019 v1.0.pdf

Page/section reference

All

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

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?

No, we do not verify any other climate-related information reported in our CDP disclosure

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)?

Yes
C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

EU ETS

C11.1b

(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.

<table>
<thead>
<tr>
<th>EU ETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Scope 1 emissions covered by the ETS</td>
</tr>
<tr>
<td>% of Scope 2 emissions covered by the ETS</td>
</tr>
<tr>
<td>Period start date</td>
</tr>
<tr>
<td>Period end date</td>
</tr>
<tr>
<td>Allowances allocated</td>
</tr>
<tr>
<td>Allowances purchased</td>
</tr>
<tr>
<td>Verified Scope 1 emissions in metric tons CO2e</td>
</tr>
<tr>
<td>Verified Scope 2 emissions in metric tons CO2e</td>
</tr>
<tr>
<td>Details of ownership</td>
</tr>
</tbody>
</table>

Comment

C11.1d

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

We periodically evaluate exposure to EU ETS and decide if this justifies a centralized approach or local management. We continued to pursue a strategy of reducing emission at source, supported by evaluating internal trading before external trading.
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

C12.1a

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

<table>
<thead>
<tr>
<th>Type of engagement</th>
<th>Details of engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engagement &amp; incentivization (changing supplier behavior)</td>
<td>Run an engagement campaign to educate suppliers about climate change</td>
</tr>
</tbody>
</table>

% of suppliers by number

63

% total procurement spend (direct and indirect)

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

Rationale for the coverage of your engagement

The % of suppliers by number represents the proportion of our cocoa volume for our chocolate brands sourced via Cocoa Life during 2019. Our goal is that by 2025, all chocolate brands will source their cocoa from Cocoa Life. At the end of 2019, we reached 175,017 farmers in 2,012 communities.

Impact of engagement, including measures of success

In May 2020, we published Cocoa Life’s 2019 Annual Report as part of our Snacking Made Right 2019 Progress Report. The report shows that Cocoa Life is having a
positive impact: • Cocoa yields are continuously improving and results show that as cocoa farms become more efficient, their yield increases. This is an important development, as farms that can do more with less land are able to create spare land that can be used for other income-generating activities, helping make cocoa farming a prosperous business. • More communities are steering their own development and Cocoa Life communities can become drivers of change. Through the use of planning and advocacy tools, these communities have been able to attract the funding and resources needed to develop — an important step because sector change will only be sustained if local actors feel empowered to do so. • Farmers are choosing not to expand into protected forests and encouraging and enabling cocoa farmers and communities to protect the land where cocoa is grown has been fundamental to the Cocoa Life approach. Mapping efforts and tools support farmers in understanding how to get more out of their farms – helping them build better businesses. Since 2016, we have promoted a coordinated strategy and supply chain transparency by openly publishing our farm mapping updates online. This marked the first time a large cocoa sourcing company had disclosed locations of the cocoa farms they source from. We are the first branded food producer to partner with Global Forest Watch to implement satellite image mapping practices to analyze how Cocoa Life farms interact with forested and protected land. This allows us to intervene if farmers expand into protected areas. Our interactive online map provides public traceability of locations of Cocoa Life farms and supports farmers in improving yields. To date, 85% (149,761) of Cocoa Life registered farms, spanning over 243,792 ha, have been mapped. We have mapped 100% of the farms registered with Cocoa Life in Ghana, Côte d’Ivoire and Indonesia when we set our CFI targets in 2018. We are also well on our way to mapping farms newly registered in 2019. • These efforts reduce deforestation, reducing climate change impacts.

Comment

For Cocoa Life: We invest in practices and resources to improve farmer productivity on existing land to promote forest conservation. • We have trained 172,285 community members and farmers as of 2019 on good environmental practices. • In partnership with the United Nations Development Programme, as of 2019 we distributed 1,420,082 economic shade trees on cocoa farms in Ghana, Cote d’Ivoire and Indonesia to restore forest lands and make farmer cocoa yields more productive. Cocoa Life efforts also are aimed at helping farmers become more resilient to climate change. See https://www.cocoalife.org/the-program/climate-change. Our climate change strategy addresses deforestation in our raw material supply chain, with a particular focus on cocoa and palm oil. Cocoa Life is an integrated cocoa sourcing strategy, addressing farming, community, livelihoods, youth and environment. As part of Cocoa Life’s climate change strategy, we have REDD+ partnerships with the governments of Cote d’Ivoire and Ghana, focused on addressing deforestation in cocoa producing areas. Cocoa Life helps to transform markets by connecting consumers with cocoa origin communities through the use of an on-pack logo on selected brands, including Cadbury Dairy Milk, Cote d’Or and Marabou. In addition to Cocoa Life, we helped instigate the sector-wide Cocoa and Forest Initiative, working with cocoa and chocolate companies, the governments of Cote d’Ivoire and Ghana and international partners.
Type of engagement
Engagement & incentivization (changing supplier behavior)

Details of engagement
Run an engagement campaign to educate suppliers about climate change

% of suppliers by number
65

% total procurement spend (direct and indirect)

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

Rationale for the coverage of your engagement
The % of suppliers by number represents the proportion of our EU biscuits made with wheat from our Harmony program during 2019. Our goal is that by 2022, all EU biscuits will source their wheat from Harmony.

Impact of engagement, including measures of success
In 2007, our biscuit brands in France had a vision of a better way to grow wheat and so Harmony was born. Today, our Harmony program has grown into an industry-leading and well-respected program for sustainable farming. More than 1,500 farmers across Europe have joined the initiative and 100 percent of the wheat supply to our French bakeries comes from the Harmony fields. Through Harmony, we work with farmers across Europe to grow wheat in a way that helps conserve water, cares for the soil, protects and promotes biodiversity, and reduces carbon emissions. We also engage with governments and NGOs throughout the process, and 10 percent of farmers are audited each year by an independent organization to ensure compliance with the Harmony Charter. As a result, the program has led to a 20 percent reduction in pesticide use, and nearly 10 million bees and more than 25 species of butterflies have been observed in flowers sown around the Harmony fields. In addition to our work in EU, since 2015, we’ve partnered with Michigan State University (MSU) and our supplier of soft white wheat, Cooperative Elevator Company (Coop), a 100+ year old cooperative. In partnership with MSU and Coop, we engage a group of about 100 family farmers each year to track their farming practices, use of inputs such as fertilizer, and their yield. The group anonymously tracks their own year-on-year performance, as well as their performance versus peers. In 2018, MSU analyzed data over three years of the program and determined that farmers who used advanced agronomy practices improved their yields between 1.5 and 4 bushels per acre more than those who didn’t. Growers in this program collaborate and learn from each other, to produce the highest quality Triscuit wheat while considering the ecological footprint. As they enjoy a higher yield than peers outside the program, MSU and Coop’s agronomy team are working to make the learnings more widely accessible to all 1,100 Coop growers.
**Comment**

Each year, the Harmony Charter is reviewed and updated as part of our continuous improvement approach. In 2016, we began an ambitious monitoring system to measure and assess the environmental and economic impact of Harmony practices. Working in partnership with SMAG, a software solutions provider for the agricultural sector, and Agrosolutions, we’ve developed an automated reporting approach to calculate and monitor 12 key economic and environmental indicators on Harmony farms. The results will be used to inform continuous improvement with farmers and to advocate for the continued shift toward sustainable wheat.

---

**Type of engagement**

Compliance & onboarding

**Details of engagement**

Climate change is integrated into supplier evaluation processes

**% of suppliers by number**

100

**% total procurement spend (direct and indirect)**

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

**Rationale for the coverage of your engagement**

The % of suppliers by number represents the proportion of our palm oil supply covered by our Palm Oil Action Plan. Our goal is for 100% of our palm oil to be traceable to the mill from suppliers with aligned policies.

**Impact of engagement, including measures of success**

Since 2013, 100% of our supply has been RSPO and in 2019 97% was traceable to the mill and 98% from suppliers with policies aligned to ours. RSPO efforts directly relate to reducing climate impacts by working to eliminate deforestation. We have a fulsome action plan available at: https://www.mondelezinternational.com/Snacking-Made-Right/ESG-Topics/Palm-Oil

We require suppliers to meet the terms of our Palm Oil Action as a condition of doing business and we evaluate their performance against it regularly. We called for our suppliers to act faster to eliminate deforestation and to map and monitor all palm oil plantations and concessions. Specifically, we have asked our suppliers to commit to palm oil concession mapping as a vital step to accountability and change. As of 2019, we excluded 89 concessions or mills linked to 33 upstream suppliers that were found to be involved in deforestation, because we believe urgent action is needed across the entire supply chain to protect the Earth’s forests and deliver benefits to countries that produce palm oil.

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

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

Yes

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

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

Management practice reference number
MP1

Management practice
Agroforestry

Description of management practice
Introduction of shade trees and agroforestry practices on cocoa farms to reduce emissions and increase productivity and climate change resilience.

Your role in the implementation
Financial
Knowledge sharing
Operational
Procurement

Explanation of how you encourage implementation
Via our Cocoa Life program, in partnership with the United Nations Development Programme, as of 2019 we distributed 1,420,082 economic shade trees on cocoa farms in Ghana, Cote d’Ivoire and Indonesia to restore forest lands and make farmer cocoa yields more productive.

In addition, we invest in agroforestry research, development and implementation as part of the solution and have identified a knowledge gap on the topic as it relates to the financial impact for smallholders. This is why we are running trials and research with farms to introduce agroforestry at different levels of tree density and introduced an incentive model to promote agroforestry practices. Our Payments for Environmental Services (PES) pilot programs incentivize farmers and communities to protect forests and adopt forest-friendly farming techniques such as planting complementary crops.
Climate change related benefit

- Emissions reductions (mitigation)
- Increasing resilience to climate change (adaptation)
- Increase carbon sink (mitigation)

Comment

Guided by the measurable key indicator results reported in our Cocoa Life 2019 Annual Report, our Cocoa Life program will refine its focus to key areas of intervention where we can make the biggest impact, including combating deforestation through both conservation and restoration cocoa farming practices. Achieving zero deforestation globally requires public-private partnerships. Cocoa origin governments must have the right policies and commitments in place and align on agroforestry principles. We will continue to publicly report our impact results and encourage more industry members to implement integrated and holistic approaches to broaden the collective impact at scale.

Management practice reference number

MP2

Management practice

Biodiversity considerations

Description of management practice

Farmers in our Harmony program implement the following actions for biodiversity:

- At least 3% of every Harmony wheat field dedicated to flowers or hedges
- Inter-season crops
- Actions to sensitize farmers to the issue of biodiversity
- Responsible use of pesticides

Your role in the implementation

Knowledge sharing
Operational
Procurement

Explanation of how you encourage implementation

Through Harmony, we work with farmers across Europe to grow wheat in a way that helps conserve water, cares for the soil, protects and promotes biodiversity, and reduces carbon emissions. We also engage with governments and NGOs throughout the process, and 10 percent of farmers are audited each year by an independent organization to ensure compliance with the Harmony Charter. As a result, the program has led to a 20 percent reduction in pesticide use, and nearly 10 million bees and more than 25 species of butterflies have been observed in flowers sown around the Harmony fields.
Climate change related benefit

Increasing resilience to climate change (adaptation)
Reduced demand for pesticides (adaptation)

Comment

At the end of 2019, 65 percent of our biscuits across the EU were made with Harmony wheat, including brands such as LU, Oro, LiGA, and Fontaneda. While we’ve made solid progress so far, we know there is still more to be done. Our ambition is to source 100 percent of our wheat need in the EU by 2022.

Management practice reference number

MP3

Management practice

Fertilizer management

Description of management practice

Farmers in our Harmony program grow wheat in a sustainable way to prevent the usage of pesticides and fertilizers, preserve water and soil reduce carbon emissions, through:
• Rigorous Selection of seeds for the resilience and quality of our biscuits
• Crop rotation to minimize treatment
• Principled use of water and reasoned treatment at the last resort

In North America, our wheat farmers are adopting innovative practices to optimize pesticide and fertilizer use, growing all of the wheat we need for our Triscuit brand, with a lower environmental footprint.

Your role in the implementation

Knowledge sharing
Operational
Procurement

Explanation of how you encourage implementation

Through Harmony, we work with farmers across Europe to grow wheat in a way that helps conserve water, cares for the soil, protects and promotes biodiversity, and reduces carbon emissions. We also engage with governments and NGOs throughout the process, and 10 percent of farmers are audited each year by an independent organization to ensure compliance with the Harmony Charter. As a result, the program has led to a 20 percent reduction in pesticide use, and nearly 10 million bees and more than 25 species of butterflies have been observed in flowers sown around the Harmony fields.

Since 2015, we’ve partnered with Michigan State University (MSU) and our supplier of soft white wheat, Cooperative Elevator Company (Coop), a 100+ year-old cooperative. In partnership with MSU and Coop, we engage a group of about 100 family farmers
each year to track their farming practices, use of inputs such as fertilizer, and their yield. The group anonymously tracks their own year-on-year performance, as well as their performance versus peers.

**Climate change related benefit**

Emissions reductions (mitigation)

**Comment**

At the end of 2019, 65 percent of our biscuits across the EU were made with Harmony wheat, including brands such as LU, Oro, LiGA, and Fontaneda. While we’ve made solid progress so far, we know there is still more to be done. Our ambition is to source 100 percent of our wheat need in the EU by 2022.

In 2018, MSU analyzed data over three years of the program and determined that farmers who used advanced agronomy practices improved their yields between 1.5 and 4 bushels per acre more than those who didn’t. Growers in this program collaborate and learn from each other, to produce the highest quality Triscuit wheat while considering the ecological footprint. As they enjoy a higher yield than peers outside the program, MSU and Coop’s agronomy team are working to make the learnings more widely accessible to all 1,100 Coop growers.

**Management practice reference number**

MP4

**Management practice**

Governmental or institutional policies and programs

**Description of management practice**

Programs to address deforestation risks linked to key supply chains, cocoa and palm oil, by engaging in sector-wide action coordinated with governments in key producing countries: Cote d’Ivoire and Ghana (cocoa) and Indonesia (palm oil).

**Your role in the implementation**

Financial
Knowledge sharing
Operational

**Explanation of how you encourage implementation**

In 2015, Mondelēz International was the first company to raise the issue of deforestation in the cocoa industry at the COP21 summit in Paris and the first chocolate maker to sign Memoranda of Understanding (MoUs) with the governments of Ghana and Côte d’Ivoire.

We are a founding member of the Cocoa and Forests Initiative (CFI), a collaboration among the governments of Cote d’Ivoire and Ghana – the world’s two largest cocoa producers – as well as 30 cocoa and chocolate companies and other partners, is
Committed to ending deforestation, restoring forested areas and eliminating illegal cocoa production.

Our action plans align to the CFI’s three focus areas of Forest Protection & Restoration, Sustainable Production & Farmers’ Livelihoods and Social Inclusion & Community Engagement, and feature the following commitments:

• We are one of the first chocolate companies to commit to map 100% of the farms in our Cocoa Life program in key origins to ensure that farmers are not operating in forested land. We’ve already mapped 85% of these farms covering 243,792 ha, using Global Forest Watch to assess the risk of tree loss.
• We’re the first organization to introduce incentives in the form of Payment for Environmental Services (PES) agreements to a cocoa-farming context, encouraging farmers to protect and restore forests. We aim to have agreements with 33,000 farmers by 2022.
• We know that deforestation can’t be addressed through cocoa farmers alone, so we involve the whole community. By 2022, nearly 1,300 cocoa communities will have active forest restoration and protection programs through Cocoa Life.

In palm oil, we worked with the Government of Indonesia and other partners to develop the Indonesia Sustainable Palm Oil (SPO) Initiative to help strengthen smallholder farmers, support national policy reform and reduce deforestation through public-private partnerships. This led to the publication in 2017 of Indonesia’s first-ever National Action Plan (NAP) for sustainable palm oil, which provides a national framework for reform.

Climate change related benefit
Emissions reductions (mitigation)
Increasing resilience to climate change (adaptation)
Increase carbon sink (mitigation)

Comment
For palm oil: We also helped Conservation International and other partners to create the Coalition for Sustainable Livelihoods, an initiative focused on collective action to drive economic development, reduce poverty and improve natural resource management in the Indonesian provinces of North Sumatra and Aceh. The project supports the aims of the NAP.

Management practice reference number
MP5

Management practice
Land use change

Description of management practice
Programs to address deforestation in key supply chains--cocoa and palm oil--by engaging suppliers (traders) and producers.
Your role in the implementation

Financial
Knowledge sharing
Operational
Procurement

Explanation of how you encourage implementation

Our climate change strategy addresses deforestation in our raw material supply chain, with a particular focus on cocoa and palm oil.

Among other things, our Palm Oil Action Plan requires suppliers to improve practices across entire operations. It also focuses on risk assessment and engagement of third-party suppliers to drive accountability for traded oil. Key provisions require suppliers to:

• Take full responsibility for eliminating deforestation in their own operation and upstream supply chain by mapping and monitoring all plantations and adopting a “suspend and engage” approach requiring immediate suspension of companies involved in deforestation.
• Take action against the exploitation of worker human rights through adopting the Consumer Goods Forum (CGF) Priority Industry Principles on forced labor.
• Improve traceability and transparency by maintaining universal mill lists with group level owners clearly indicated, and publishing them regularly, as well as using satellite technology to map and monitor sources of palm.
• Demonstrate implementation of supplier progress against this updated Palm Oil Action Plan as a prerequisite of doing business with Mondelez International.

In May 2020, we published Cocoa Life’s 2019 Annual Report as part of our Snacking Made Right 2019 Progress Report. The report shows that Cocoa Life is having a positive impact:

• Cocoa yields are continuously improving and results show that as cocoa farms become more efficient, their yield increases.
• More communities are steering their own development and Cocoa Life communities can become drivers of change.
• Farmers are choosing not to expand into protected forests and encouraging and enabling cocoa farmers and communities to protect the land where cocoa is grown has been fundamental to the Cocoa Life approach.

Climate change related benefit

Emissions reductions (mitigation)
Increasing resilience to climate change (adaptation)
Increase carbon sink (mitigation)

Comment

Since 2016, we have promoted a coordinated strategy and supply chain transparency by openly publishing our farm mapping updates online. This marked the first time a large cocoa sourcing company had disclosed locations of the cocoa farms they source from.

• As of 2019, 85% (149,761) of Cocoa Life registered farms, spanning over
243,792 ha, have been mapped and they are not in priority protected forest areas.

We invest in practices and resources to improve farmer productivity on existing land to promote forest conservation.

- We have trained 172,285 community members and farmers as of 2019 on good environmental practices.
- In partnership with the United Nations Development Programme, as of 2019 we distributed 1,420,082 economic shade trees on cocoa farms in Ghana, Cote d’Ivoire and Indonesia to restore forest lands and make farmer cocoa yields more productive.

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

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

Yes

C12.3

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

- Direct engagement with policy makers
- Trade associations
- Other

C12.3a

(C12.3a) On what issues have you been engaging directly with policy makers?

<table>
<thead>
<tr>
<th>Focus of legislation</th>
<th>Corporate position</th>
<th>Details of engagement</th>
<th>Proposed legislative solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other, please specify</td>
<td>Support</td>
<td>We co-chair the Consumer Goods Forum’s Palm Oil Working Group, which published palm oil sourcing guidelines for members during 2015; we work with the Roundtable on Sustainable Palm Oil; we supported the NY Declaration on Forests; we supported UNDP’s work with the Government of Indonesia and companies to support the scale up of sustainable palm oil in Indonesia via a commodity platform approach. This led to the publication in 2017 of Indonesia’s first-ever National Action Plan (NAP) for sustainable palm oil, which provides a national framework for reform.</td>
<td>The goal is to support the scale-up of sustainable palm oil in Indonesia via jurisdictional initiatives such as the Coalition for Sustainable Livelihoods, an initiative set up by Conservation International and...</td>
</tr>
<tr>
<td>Climate finance</td>
<td>Support</td>
<td>We announced our commitment to combat deforestation in cocoa at the UN Climate Summit COP21, where world leaders met in Paris to negotiate a new climate agreement. Mondelez International committed to lead private sector action in Côte d’Ivoire’s national program to combat deforestation in cocoa. These actions will contribute to the United Nations sponsored REDD+ program, with financial support from the World Bank. In January 2018, we agreed to a similar REDD+ partnership with the government of Ghana. In October 2018, we published a case study on our pilot REDD+ programme in Cote d’Ivoire: <a href="https://www.cocoalife.org/progress/pioneering-forest-protection-work-in-cote-d-ivoire">https://www.cocoalife.org/progress/pioneering-forest-protection-work-in-cote-d-ivoire</a></td>
<td>In Côte d’Ivoire, we work together with the Ivorian government and other experts to map and monitor forested areas, and train farmers in good agricultural practices and agroforestry. In Ghana, Mondelez International is contributing $5 million USD over five years to the Ghana Cocoa Forest REDD+ Program (GCFRP), which aims to significantly reduce the high rate of deforestation and forest degradation, as well as their associated greenhouse carbon emissions.</td>
</tr>
</tbody>
</table>
C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?

Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

<table>
<thead>
<tr>
<th>Trade association</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer Goods Forum</td>
</tr>
</tbody>
</table>

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association’s position

The Consumer Goods Forum ("CGF") is a global, parity-based industry network that is driven by its members to encourage the global adoption of practices and standards that serves the consumer goods industry worldwide. It brings together the CEOs and senior management of some 400 retailers, manufacturers, service providers, and other stakeholders across 70 countries, and it reflects the diversity of the industry in geography, size, product category and format. Its member companies have combined sales of EUR 3.5 trillion and directly employ nearly 10 million people, with a further 90 million related jobs estimated along the value chain. It is governed by its Board of Directors, which comprises more than 50 manufacturer and retailer CEOs. The Consumer Goods Forum’s environmental sustainability work positions the consumer goods industry as a leader in tackling climate change, reducing waste and improving environmental stewardship in global supply chains. In pulling its weight to tackle climate change, the CGF has identified three key areas where its members are well-positioned to effect significant change. These are:

• Reducing food waste across operations and throughout the rest of the value chain
• Tackling deforestation
• Phasing out the most polluting refrigerants

To help the industry align around a common set of targets, CGF members have publicly committed to certain business practices through resolutions on deforestation (2010), refrigeration (2010 and 2016) and food waste (2015): these issues continue to be recognised as significant sources of greenhouse gasses. There is additional work with stakeholders to drive progress towards broader international goals, such as those set by
the UN Sustainable Development Goals with a focus on developing partnerships (SDG 17). The CGF’s environmental work is also working on SDG 12 (ensure sustainable consumption for all), SDG 13 (Combat climate change and its impacts) and SDG 15 (Protect the planet). By joining forces and acting collectively, members of The Consumer Goods Forum can have a transformative impact.

How have you influenced, or are you attempting to influence their position?
We actively help develop CGF’s refrigeration, deforestation and food waste positions and we resolved to do our part in achieving the Forum’s goal of assisting countries achieve net-zero deforestation. We remain active in helping CGF develop its work in this area and co-chaired the development of sourcing guidelines for palm oil - published during 2015 - and contributed to discussions between CGF and the Tropical Forest Alliance.

C12.3e

(C12.3e) Provide details of the other engagement activities that you undertake.
In December 2019, we signed the United for the Paris Agreement letter of support for staying in the Paris Agreement: https://www.unitedforparisagreement.com/

In 2016, we were one of more than 600 US-based companies that signed the “Business Backs Low-Carbon USA” letter calling on US policy makers to continue to support the transition to a low-carbon economy and the Paris Agreement.

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?
To maintain consistency, engagement is coordinated by a corporate sustainability team, which includes key functions involved in setting and delivering sustainability strategy, including the Corporate and Government Affairs function, which has responsibility for external engagement. In addition, our Public and Government Affairs team includes sustainability as part of its integrated global strategy. Decisions to participate in engagement relating to climate change are reviewed by key members of the sustainability and public and government affairs teams, under the leadership of the Vice President and Chief Impact Officer and VP and Chief of Global Communications and Government Affairs.

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).
In voluntary sustainability report

Status
Complete

Attach the document

2019_MDLZ_Snacking_Made_Right_Report.pdf

Page/Section reference
Relevant sections: Performance (pages 4-10), Right Way (pages 25-36), Cocoa Life (pages 42-51) and Governance (pages 52-56)

Content elements
Governance
Strategy
Emission targets
Other metrics

Comment
Each year we publish a report on our strategy to create positive impact for people and planet. Our purpose at Mondelez International is to empower people to snack right. And a big part of that is creating sustainable and mindful snacks for both people and the planet to love. We believe that consumers should not have to choose between snacking and eating right, or to be concerned about the impact their snacking choices have on the world and their communities. This is why we are committed to ensuring that snacking is both sustainable and mindful. The report details progress we are making towards goals and targets, and lists examples from our programs.

C13. Other land management impacts

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

(C-AC13.2/C-FB13.2/C-PF13.2) Do you know if any of the management practices mentioned in C-AC12.2a/C-FB12.2a/C-PF12.2a that were implemented by your suppliers have other impacts besides climate change mitigation/adaptation?
No
C15. Signoff

C-FI

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

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

<table>
<thead>
<tr>
<th>Job title</th>
<th>Corresponding job category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1 Global Director, Sustainability</td>
<td>Environment/Sustainability manager</td>
</tr>
</tbody>
</table>

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

<table>
<thead>
<tr>
<th>Row 1</th>
<th>Annual Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>25,868,000,000</td>
</tr>
</tbody>
</table>

SC0.2

(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?

Yes

SC0.2a

(SC0.2a) Please use the table below to share your ISIN.

<table>
<thead>
<tr>
<th>ISIN country code (2 letters)</th>
<th>ISIN numeric identifier and single check digit (10 numbers overall)</th>
</tr>
</thead>
</table>
SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

<table>
<thead>
<tr>
<th>Allocation challenges</th>
<th>Please explain what would help you overcome these challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managing the different emission factors of diverse and numerous geographies makes calculating total footprint difficult</td>
<td>Mondelez has various product categories with different emissions profiles, depending on raw materials, production processes and technologies. Our annual footprint analysis is performed at an enterprise level not product level. And our product mix varies across different markets and customers. Therefore, in order to have our emissions allocated to each different customer in each market, we would need to allocate a very large amount of resources to generate a very complex model.</td>
</tr>
</tbody>
</table>

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.
SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

SC3.1

(SC3.1) Do you want to enroll in the 2020-2021 CDP Action Exchange initiative?

SC3.2

(SC3.2) Is your company a participating supplier in CDP’s 2019-2020 Action Exchange initiative?

SC4.1

(SC4.1) Are you providing product level data for your organization’s goods or services?

Submit your response

In which language are you submitting your response?

   English

Please confirm how your response should be handled by CDP

<table>
<thead>
<tr>
<th>I am submitting to</th>
<th>Public or Non-Public Submission</th>
<th>Are you ready to submit the additional Supply Chain Questions?</th>
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<tbody>
<tr>
<td>Investors</td>
<td>Public</td>
<td>Yes, submit Supply Chain Questions now</td>
</tr>
<tr>
<td>Customers</td>
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Please confirm below

I have read and accept the applicable Terms