Welcome to your CDP Climate Change Questionnaire 2019

C0. Introduction

C0.1

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

Mars has been proudly family owned for over 100 years. It's this independence that gives us the gift of freedom to think in generations, not quarters, so we can invest in the long-term future of our business, our people and the planet — all guided by our enduring Principles. We believe the world we want tomorrow starts with how we do business today. Our bold ambitions must be matched with actions today from our more than 115,000 Associates in 80 countries around the world. Some of our current initiatives are:

- **Investing $1 billion over the next several years to become sustainable in a generation**
- **Working to improve the wellbeing for families around the world**
- **Leveraging and sharing our research to create a better world for pets**

Every day we are one step closer to the world we want tomorrow, through our steadfast commitment to action today.

Our business and the actions we take every day are founded on The Five Principles. They're at the heart of everything we do, no matter what — making sure we don't just talk about a better future, but work towards it every day.

Through our Sustainable in a Generation Plan, we aim to grow our business in ways that are good for people, good for the planet and good for our business. The Plan sets new goals in three key areas: Healthy Planet, Thriving People and Nourishing Wellbeing. Within the Healthy Planet area, our science-based Climate Action goal is to *reduce the total GHG emissions* ***across our value chain*** *by* ***27% by 2025*** *and* ***67% by 2050*** *(from 2015 levels),* in order to play our part to keep the planet from warming beyond two degrees.

We have a diverse global business comprised of four segments: Mars Petcare, Mars Wrigley, Mars Food, and Mars Edge. Our portfolio of brands offers quality and value to consumers around the world and includes PEDIGREE®, WHISKAS®, M&M'S®, SNICKERS®, MARS®, EXTRA®, ORBIT®, UNCLE BEN'S® and many more.

C0.2

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

	Start date	End date	Indicate if you are providing emissions data for past reporting years
Row 1	January 1, 2018	December 31, 2018	No

C0.3

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

Argentina
Australia
Austria
Belgium
Brazil
Canada
China
Colombia
Czechia
Egypt
France
Germany
Hungary
India
Indonesia
Japan

Kenya
Lithuania
Mexico
Netherlands
New Zealand
Philippines
Poland
Russian Federation
Saudi Arabia
South Africa
Spain
Taiwan, Greater China
Thailand
United Arab Emirates
United Kingdom of Great Britain and Northern Ireland
United States of America

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 consolidation approach to your Scope 1 and Scope 2 greenhouse gas inventory.

Operational control

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

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

	Relevance
Agriculture/Forestry	Elsewhere in the value chain only [Agriculture/Forestry/processing/manufacturing/Distribution only]
Processing/Manufacturing	Both direct operations and elsewhere in the value chain [Processing/manufacturing/Distribution only]
Distribution	Elsewhere in the value chain only [Agriculture/Forestry/processing/manufacturing/Distribution only]
Consumption	Yes [Consumption only]

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

Evaluated but judged to be unimportant

Please explain

Mars operates two small cocoa farms in Brazil and Ecuador. These activities represent a tiny fraction of our agricultural emissions in comparison to our third-party supply chain and we do not consider them material.

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

(C-AC0.6f/C-FB0.6f/C-PF0.6f) Why are emissions from distribution activities within your direct operations not relevant to your current CDP climate change disclosure?

Row 1

Primary reason

Other, please specify

Mars does not operate its own fleet and all distribution activities are carried out by third-party suppliers. However, Mars has evaluated these emissions and included them in our value-chain-wide greenhouse gas reduction targets.

Please explain

Because distribution activities are carried out by third-party suppliers, there are no related direct operational emissions to report as Scope 1 or Scope 2 emissions. However, we consider all emissions in our value chain to be relevant, and distribution emissions are evaluated and included in our Scope 3 calculations.

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

Cattle products

% of revenue dependent on this agricultural commodity

40-60%

Produced or sourced

Sourced

Please explain

Dairy products are significant to the majority of revenues from our Mars Wrigley business and beef by-products are significant to revenue from some pet foods. To determine the percentage, we calculated the revenues associated with all our branded chocolate and pet food products containing dairy and beef, as a proportion of total revenues in the last financial year.

Agricultural commodity

Other, please specify

Cocoa

% of revenue dependent on this agricultural commodity

20-40%

Produced or sourced

Sourced

Please explain

Cocoa is the essential ingredient of all of our chocolate products. To determine the percentage, we calculated the revenues associated with all our branded chocolate products as a proportion of total revenues in the last financial year.

Agricultural commodity

Sugar

% of revenue dependent on this agricultural commodity

40-60%

Produced or sourced

Sourced

Please explain

Sugar is significant for a large number of Mars Wrigley products. To determine the percentage, we calculated the revenues associated with all our branded chocolate and confectionery products as a proportion of total revenues in the last financial year.

Agricultural commodity

Rice

% of revenue dependent on this agricultural commodity

10-20%

Produced or sourced

Sourced

Please explain

Rice is an important ingredient for our Food business as well as for some of our pet food brands. To determine the percentage, we calculated the revenues associated with those products as a proportion of total revenues in the last financial year.

Agricultural commodity

Timber

% of revenue dependent on this agricultural commodity

More than 80%

Produced or sourced

Sourced

Please explain

Pulp and paper are present in the primary, secondary and/or tertiary packaging materials for all of our products and are therefore significant to the majority of our revenue. We calculated this percentage by considering the total revenue from products with paper and board packaging during the last financial year.

C1. Governance

C1.1

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

Yes

C1.1a

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

Position of individual(s)	Please explain
Board Chair	The value-chain wide greenhouse gas emissions reduction target included in our Sustainable in a Generation Plan is now included in the Board's long-term metrics and goals, which the chair of the Board is responsible for achieving. The Mars Sustainable in a Generation (SiG) Plan is our plan for growing in ways that are good for people, good for the planet and good for our business. It includes our Climate Action strategy, targets and performance.
Other C-Suite Officer	The Remuneration Committee of the Board meets at least annually to review salaries, including the approval of senior leadership bonuses that are based in part on progress made toward our carbon reduction targets.

C1.1b

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

Frequency with which climate-related issues	Governance mechanisms into which climate-related issues are integrated	Please explain

are a scheduled agenda item		
Scheduled – all meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Monitoring and overseeing progress against goals and targets for addressing climate-related issues	Our Climate Action strategy, targets and performance are core elements of the Mars Sustainable in a Generation (SiG) Plan: our plan for growing in ways that are good for people, good for the planet and good for our business. Performance against our SiG Plan goals, including our science-based, value-chain wide greenhouse gas reduction target, is tracked as a matter of course by the Mars Board along with other company-wide metrics and goals. The Chair of the Board has direct oversight of our performance, which is reviewed at each Board meeting. The Board approved our SiG goals and targets, and oversees the Mars Leadership Team's work to review and guide our strategy, plans, policies, and budgets as necessary to ensure we remain on track to meet them.
Scheduled – all meetings	Setting performance objectives Monitoring implementation and performance of objectives	The Remuneration Committee of the Board meets at least annually to review salaries, including the approval of senior leadership bonuses that are based in part on progress made toward our carbon reduction targets.

C1.2

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

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues

Chief Executive Officer (CEO)	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly

C1.2a

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

The CEO, who chairs the Mars Leadership Team and sits on the Board, is responsible for delivering all targets within our quarterly Corporate Scorecard, including our value-chain wide GHG emissions reduction targets. The Mars Leadership Team reviews and guides our strategy, plans, policies, and budgets as necessary to ensure we remain on track to meet our targets. In addition to this quarterly reporting, the Chief Procurement and Sustainability Officer presents our progress against our SiG Plan goals including for Climate Action to the Board at least annually.

The targets in our Corporate Scorecard and SiG Plan are cascaded by the CEO and Mars Leadership Team to the leadership teams of each business segment for implementation. Business segment presidents are accountable for deploying related strategies within their businesses and for annual monitoring and reporting of their segment's sustainability performance via our corporate reporting system. Senior segment and functional decision makers convene on specific issues and develop detailed strategies for delivering the required impact improvements.

The CEO and Leadership Team delegate responsibility for our Climate Strategy to the Sustainability Steering Group (SSG), which meets quarterly, is chaired by the CSO and comprises senior managers representing each main business segment (Mars Petcare, Mars Wrigley and Mars Food) and each main business function (Procurement, Manufacturing and Public Affairs). The SSG is the engine that drives progress toward our goals for Healthy Planet and Thriving People. Its core mission is to develop and recommend sustainability strategy, policy and initiatives to our business segments, CEO and Leadership Team. This includes both refinements to existing policy and the development of new policy on emerging issues. The SSG also promotes cross-segment learning and engages external expertise as required. The SSG ensures the CEO and Leadership Team are fully briefed on potential courses of action and strategic issues, and that the implications of strategies, targets and potential courses of action are investigated and understood. The SSG also ensures that we measure and report impact data properly and using established methodologies. When such methodologies are lacking, the SSG looks to collaborate externally to create robust methodologies to calculate environmental and societal impacts.

One dimension of our approach to climate action is our investment in the Livelihoods Fund for Family Farming (L3F). A member of the Mars Board and the Chief Procurement and Sustainability Officer represent Mars at biannual L3F Board meetings. A global procurement VP and one of our Global

Sustainability VPs represent Mars on the L3F investment committee, which meets at least four times a year. L3F supports projects that both reduce environmental impacts including greenhouse gas emissions and address social impacts affecting smallholder farmers in developing countries.

Mars won a 2019 Climate Leadership Award for organizational leadership, for our work to improve land use change calculation methods and more accurately assess emissions; our help to launch the Renewable Thermal Collaborative to scale up renewable heating solutions globally; and our participation in the launch of a new corporate leadership platform to diagnose business climate risk throughout the supply chain.

C1.3

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

Yes

C1.3a

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

Who is entitled to benefit from these incentives?

Corporate executive team

Types of incentives

Monetary reward

Activity incentivized

Emissions reduction target

Comment

A percentage of the bonus for our top 100 executives is based on performance against a target for reducing absolute Scope 1 and 2 greenhouse gas emissions from our operations. The emissions reduction goal and the percentage of the bonus linked to this is the same for all executives.

Who is entitled to benefit from these incentives?

Chief Financial Officer (CFO)

Types of incentives

Monetary reward

Activity incentivized

Emissions reduction target

Comment

A percentage of the bonus for our top 100 executives is based on performance against a target for reducing absolute Scope 1 and 2 greenhouse gas emissions from our operations. The emissions reduction goal and the percentage of the bonus linked to this is the same for all executives.

Who is entitled to benefit from these incentives?

Chief Operating Officer (COO)

Types of incentives

Monetary reward

Activity incentivized

Emissions reduction target

Comment

A percentage of the bonus for our top 100 executives is based on performance against a target for reducing absolute Scope 1 and 2 greenhouse gas emissions from our operations. The emissions reduction goal and the percentage of the bonus linked to this is the same for all executives.

Who is entitled to benefit from these incentives?

Chief Procurement Officer (CPO)

Types of incentives

Monetary reward

Activity incentivized

Emissions reduction target

Comment

A percentage of the bonus for our top 100 executives is based on performance against a target for reducing absolute Scope 1 and 2 greenhouse gas emissions from our operations. The emissions reduction goal and the percentage of the bonus linked to this is the same for all executives.

Who is entitled to benefit from these incentives?

Chief Risk Officer (CRO)

Types of incentives

Monetary reward

Activity incentivized

Emissions reduction target

Comment

A percentage of the bonus for our top 100 executives is based on performance against a target for reducing absolute Scope 1 and 2 greenhouse gas emissions from our operations. The emissions reduction goal and the percentage of the bonus linked to this is the same for all executives.

Who is entitled to benefit from these incentives?

Chief Sustainability Officer (CSO)

Types of incentives

Monetary reward

Activity incentivized

Emissions reduction target

Comment

A percentage of the bonus for our top 100 executives is based on performance against a target for reducing absolute Scope 1 and 2 greenhouse gas emissions from our operations. The emissions reduction goal and the percentage of the bonus linked to this is the same for all executives.

Who is entitled to benefit from these incentives?

President

Types of incentives

Monetary reward

Activity incentivized

Emissions reduction target

Comment

A percentage of the bonus for our top 100 executives is based on performance against a target for reducing absolute Scope 1 and 2 greenhouse gas emissions from our operations. The emissions reduction goal and the percentage of the bonus linked to this is the same for all executives.

Who is entitled to benefit from these incentives?

Executive officer

Types of incentives

Monetary reward

Activity incentivized

Emissions reduction target

Comment

A percentage of the bonus for our top 100 executives is based on performance against a target for reducing absolute Scope 1 and 2 greenhouse gas emissions from our operations. The emissions reduction goal and the percentage of the bonus linked to this is the same for all executives.

Who is entitled to benefit from these incentives?

Business unit manager

Types of incentives

Monetary reward

Activity incentivized

Emissions reduction target

Comment

A percentage of the bonus for our top 100 executives is based on performance against a target for reducing absolute Scope 1 and 2 greenhouse gas emissions from our operations. The emissions reduction goal and the percentage of the bonus linked to this is the same for all executives.

Who is entitled to benefit from these incentives?

All employees

Types of incentives

Recognition (non-monetary)

Activity incentivized

Emissions reduction project

Comment

All Mars Associates are eligible to be recognized for exceptional work as part of our Make the Difference awards program. One awards category reflects activities that support the delivery of our Sustainable in a Generation Plan. Local, regional and global winners are selected in each category every year.

C2. Risks and opportunities

C2.1

(C2.1) Describe what your organization considers to be short-, medium- and long-term horizons.

	From (years)	To (years)	Comment
Short-term	0	5	Mars has a short-term target for reducing emissions from direct operations by 2020, from a 2015 baseline. This target is a first step toward our long-term 2050 goal described below. This five-year period is the nearest horizon we are working towards for climate change. It is aligned with other financial and non-financial targets on our corporate scorecard.

Medium-term	5	10	Mars has a medium-term target to reduce value-chain-wide emissions by 27% by 2025 over 10 years from a 2015 baseline, as an interim step on the glide path towards our long-term, science-based goal below. Our targets and goals are an integral part of our corporate sustainability strategy, which is fully aligned with our wider business planning process.
Long-term	10	35	Mars has a science-based long-term target to reduce value-chain-wide emissions by 67% by 2050 from a 2015 baseline, in line with what our calculations say is required to keep us within our share of the global carbon budget. This 35-year period is the longest horizon that we are working towards. It is aligned with other non-financial targets within our Sustainable in a Generation Plan and on our corporate scorecard. Our targets and goals are an integral part of our corporate sustainability strategy, which is fully aligned with our wider business planning process.

C2.2

(C2.2) Select the option that best describes how your organization's processes for identifying, assessing, and managing climate-related issues are integrated into your overall risk management.

Integrated into multi-disciplinary company-wide risk identification, assessment, and management processes

C2.2a

(C2.2a) Select the options that best describe your organization's frequency and time horizon for identifying and assessing climate-related risks.

	Frequency of monitoring	How far into the future are risks considered?	Comment
Row 1	Annually	>6 years	Our companywide risk management processes apply to our manufacturing operations in 32 countries across six continents, to tier-1 suppliers, and origins for key agricultural commodities. Please see our response to C2.2b for a full explanation.

C2.2b

(C2.2b) Provide further details on your organization's process(es) for identifying and assessing climate-related risks.

Our companywide risk management processes apply to our manufacturing operations in 32 countries in six continents, to tier-1 suppliers, and origins for key agricultural raw materials. In developing our value-chain-wide Sustainable in a Generation Plan, our approach was to identify and prioritize the greatest impacts throughout our value chain, using scientifically credible metrics and working with recognized experts to assess climate risks in relation to other risks such as water scarcity and land use. For example, after mapping our agricultural supply chain we partnered with Quantis and Maplecroft to quantify the impacts of sourcing raw materials from the origins identified. This work led us to prioritize efforts to eliminate deforestation from five raw materials: beef, cocoa, palm oil, pulp & paper, and soy.

At company level, The Corporate Risk Manager leads the identification of physical risks to our operations and supply chains. Regulatory risks are assessed and managed by the Global Sustainability Vice President and the Scientific and Regulatory Affairs team. Reputational risks are assessed by global and local Corporate Affairs teams in partnership with corporate and local management teams. We monitor risks regular to ensure they are mitigated.

At asset level, we evaluate the size and scope of climate risks including weather-related and geophysical risks as part of our factory risk assessment process. We assess the feasibility of renewable energy when selecting new factory sites, and of using renewable energy at existing sites. We track emissions at facility level and monitor local regulatory developments. As part of our Sustainable in a Generation Plan, our water stewardship program identifies and prioritizes action at sites in water-scarce areas predicted to become water-stressed due to climate change. These priority sites are setting targets for staying within sustainable water usage levels for their watershed. In relevant cases, we work with insurance brokers to assess site flood risks. For instance, sites highly likely to flood have purchased temporary flood barriers.

We assess risks relating to tier-1 suppliers through our Responsible Sourcing program and Supplier Code of Conduct. This program involves risk assessments for thousands of tier-1 suppliers. These assessments are human rights focused, but also cover environmental risks and due diligence measures. We use independent country, commodity, and product risk data provided by Verisk Maplecroft to score and assess the risks associated with what we buy and where we buy it. Risk assessment helps us determine, based on our requirements, the actions expected of specific suppliers, which could include self-assessments or independent audits. As of year-end 2018, more than 85% of our first-tier suppliers met the requirements of our program. Our Supplier Code of Conduct requires suppliers to comply with all applicable environmental laws and regulations and to continuously strive to improve environmental performance. As guidance, the Code encourages suppliers to minimize and monitor impacts on the environment where

possible through a reduction in greenhouse gas emissions, energy efficiency initiatives, reduction and recycling of natural resources, including water and paper / packaging materials.

We assess climate risks and opportunities in our extended agricultural supply chain as part of the Mars Strategic Sourcing Methodology (MSSM), our company-wide process for assessing, selecting, contracting and monitoring the performance of suppliers. This six-step process guides our buyers on all aspects of developing a sustainable sourcing strategy, including supply chain mapping, impact assessment, social and environmental risk analysis, strategy prioritization, KPI setting, and performance measurement. Our impact assessments and risk analyses combine supply chain data including raw material type, origins and tonnes purchased, with external impact data from the UN Food & Agriculture Organisation and Ecoinvent, among others. Our Commercial Applied Research Team (CART) supports our decision-making in commodity and risk management. We draw on the team's 3-6 month weather forecasts and climate models to analyse how changes in climate will affect commodity prices. For raw material sourcing locations most vulnerable to climate change, we are conducting more detailed analyses of future projections of climate change and the resilience of stakeholders to cope with these changes over the next 10-20 years. This information informs our sourcing strategies.

We define climate risks in line with the descriptions of transition risks and physical risks within the Task Force on Climate Related Financial Disclosure recommendations.

As part of our work to build the business case for our Sustainable in a Generation Plan, we assessed whether climate risks have a substantive impact on our business by using a proxy carbon price to assess the potential financial implications.

C2.2c

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Regulatory risks and opportunities are assessed as standard for all types of risk. These are jointly assessed and managed by the Global Sustainability Vice President, and the Scientific and Regulatory Affairs team. For example, we evaluate the size and scope of climate risks including weather-related and geophysical risks as part of our factory risk assessment process, and the results feed back into our overall climate risk assessment.

		Supplier compliance with all applicable environmental laws and regulations is assessed as part of our Responsible Sourcing program, which informs our assessment of climate risk in our supply chain.
Emerging regulation	Relevant, always included	Monitoring regulatory change is the foundation of regulatory risk assessment and risk management. We monitor changes in regulations such as carbon taxes through our Technical Regulatory Baseline (TRB). The TRB is a rolling quarterly report that brings internal and external resource tracking together to monitor regulatory change in three stages: emerging/ pre-regulatory; live- where the regulation has passed and there is a window for compliance; active compliance/ enforcement. The TRB covers all regions and multiple regulatory topics, including carbon taxes, food waste, packaging bans, etc.
Technology	Relevant, always included	We have a system to monitor emerging technologies, from both risk and feasibility standpoint. The data is gathered from multiple sources such as patent literature and competitive news. Machine learning helps to ensure that subject matter experts can quickly query and harvest our historical expertise, avoiding reinventing the wheel, but we also monitor the latest external developments. This process allows to evaluate the climate and sustainability impacts and risks of potential new technologies such as the land impact of natural colors.
Legal	Relevant, always included	Mars complies with all applicable legislation, including environmental legislation, in all areas where we operate. We are further mitigating against legal risks posed by climate change, such as the potential to exceed carbon quotas, by implementing a science-based climate action strategy that goes beyond legal requirements. We developed our scientific GHG reduction targets based on peer review and detailed emissions data, with the aim of staying within our share of the global carbon budget.
Market	Relevant, always included	Raw material commodity markets are more likely to be affected by climate change than the markets for our products. Our Commercial Applied Research Team (CART) supports our decision-making in commodity and risk management. We draw on the team's 3-6 month weather forecasts and climate models to analyse how changes in climate will affect commodity prices. For raw material sourcing locations most vulnerable to climate change, we are conducting more detailed analyses of future projections of climate change and the resilience of stakeholders to cope with these changes over the next 10-20 years.
Reputation	Relevant, always included	Climate change presents both reputational risks and opportunities, which are assessed by our global and local Corporate Affairs teams in partnership with corporate and local management teams. One example of how we seek to avoid climate-related reputational risks is by demonstrating leadership through our science-based climate action plan. Mars also sees opportunities to boost our reputation for leadership in renewable energy

		production, by promoting our investment in large-scale wind power generation in order to meet our goal of zero-carbon direct operations by 2040.
Acute physical	Relevant, always included	Physical risks have the potential to interrupt both direct operations and supplies of quality raw materials. The Corporate Risk Manager leads the identification of physical risks and opportunities for our factories and supply chains. For example, as part of our value-chain-wide Sustainable in a Generation Plan, our water stewardship program identifies and prioritizes action at sites in water-scarce areas, including those predicted to suffer acute shortages due to climate change. These sites are setting targets to ensure they stay within sustainable water usage levels for their watershed.
Chronic physical	Relevant, always included	Physical risks have the potential to interrupt both direct operations and supplies of quality raw materials. The Corporate Risk Manager leads the identification of physical risks and opportunities. For example, we draw on 3-6 month weather forecasts and climate models to analyse how changes in climate may create chronic physical risks that affect commodity prices. For raw material sourcing locations most vulnerable to climate change, we are conducting more detailed analyses of future projections of climate change and the resilience of stakeholders to cope with these changes over the next 10-20 years. This information informs our sourcing strategies.
Upstream	Relevant, always included	We assess and manage risks relating to tier-1 suppliers through our Responsible Sourcing program and Supplier Code of Conduct. This program involves risk assessments for thousands of tier-1 suppliers that cover climate change vulnerability, to help evaluate risks and due diligence measures. We assess climate risks and opportunities throughout our agricultural supply chain as an integral part of the Mars Strategic Sourcing Methodology (MSSM). For example, for raw materials deemed at high-risk from climate change impacts, our buyers may work to identify potential lower-risk origins to source from. The six-step MSSM process guides our buyers on all aspects of developing a sustainable sourcing strategy.
Downstream	Relevant, always included	The vast majority of our greenhouse gas emissions and climate risk are in our upstream supply chain. Downstream emissions account for roughly 9% of the total value-chain emissions associated with our business. Nonetheless, for those products that do consume energy during use, such as UNCLE BEN'S rice, we assess energy use in comparison with similar alternatives as part of our efforts to mitigate downstream market and reputational risks.

C2.2d

(C2.2d) Describe your process(es) for managing climate-related risks and opportunities.

Our companywide risk and opportunity management processes apply to our manufacturing operations in 32 countries across six continents, to tier-1 suppliers, and origins for key agricultural commodities. In developing our value-chain-wide Sustainable in a Generation Plan, our approach has been to prioritize the greatest impacts, risks and opportunities throughout our value chain, using scientifically credible metrics and working with recognized experts to develop appropriate, science-based targets and strategies. Risks and opportunities are identified within the same process.

At asset level, we track emissions for each facility. We are reducing **transition risks** from emerging regulation and rising energy costs by increasing energy efficiency and reducing our reliance on fossil fuels, with a 2040 goal of zero net GHG emissions from our direct operations. For example, Mars is already using or purchasing renewable electricity to cover 58% of our total footprint, including 100% of our operations in Austria, Belgium, the Czech Republic, France, Lithuania, Mexico, Poland, Spain, the United Kingdom and the United States. Beyond these 10 countries, we have signed a new 20-year power purchase agreement with Total EREN to purchase 100% of our electricity in Australia from solar power starting in 2020. In addition, our water stewardship program identifies and prioritizes action at sites in water-scarce areas, including those predicted to suffer acute or chronic water scarcity risks due to climate change. These sites are setting targets to ensure they stay within sustainable water usage levels for their watershed.

We manage risks and opportunities relating to tier-1 suppliers through our Responsible Sourcing program and Supplier Code of Conduct. Risk assessment helps us determine, based on our requirements, the actions expected of specific suppliers, which could include self-assessments or independent audits. As of end-2018, more than 85% of suppliers met the requirements of our program. Our Supplier Code of Conduct requires suppliers to comply with all applicable environmental laws and regulations and to continuously strive to improve environmental performance. As guidance, the Code encourages suppliers minimize and monitor impacts on the environment where possible through a reduction in greenhouse gas emissions, energy efficiency initiatives, reduction and recycling of natural resources, including water and paper / packaging materials.

We manage and monitor climate risks and opportunities throughout our agricultural supply chain as part of the Mars Strategic Sourcing Methodology (MSSM). This six-step process guides our buyers on all aspects of developing a sustainable sourcing strategy, including strategy prioritization, KPI setting, and performance measurement. Now, when our buyers use this process to develop new sourcing strategies and to refresh existing ones, sustainability criteria are an integral part of supplier selection, contracts and performance management. For example, our contracts with palm oil suppliers include criteria on deforestation prevention, to make sure we are playing our part in managing the chronic **physical risks** from long-term shifts in climate patterns caused by deforestation. Managing climate change risks in our palm oil supply chain also helps us manage reputational

(transition) risks to Mars of being associated with deforestation. The process helps us determine which suppliers share our values and to identify opportunities for potential partnerships for tackling climate change and other sustainability impacts in our supply chain.

C2.3

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

Yes

C2.3a

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

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type

Transition risk

Primary climate-related risk driver

Policy and legal: Increased pricing of GHG emissions

Type of financial impact

Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

Company- specific description

Increased regulations and taxation seeking to limit fossil fuel energy use and GHG emissions have the potential to increase operating costs in our factories and distribution costs. For example, our sites in China began participating in the China National Emissions Trading Scheme (ETS) in 2018 at a cost of $40,000 in the first year. The EU ETS applied to six Mars manufacturing sites in 2018 and some needed to purchase additional credits during the year. There is potential for similar schemes to be introduced in other regions over time, affecting an increasing number of our factories in terms of finances and management time.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

100,000,000

Potential financial impact figure – maximum (currency)

200,000,000

Explanation of financial impact figure

We have assessed the potential financial implications of three different scenarios related to carbon pricing. The financial impact range provided is based on the scenario we consider to be the most likely, in which carbon taxes cover one-third of our energy-based emissions and using on a hypothetical carbon price of $20-40/tonne.

Management method

Our goal is to decouple environmental impacts from production volumes. Our targets are to reduce scope 1 and 2 emissions by 40% by 2025 and 100% by 2040 as part of our Sustainable in a Generation Plan. Increasing operational and capital efficiency and investing in energy-efficient new technologies are helping reduce emissions as far as possible. Examples of operational efficiency include driving down energy use through Associate behavior change and smarter equipment use. We also invest in technology and processes that use less power, such as heat pump systems that recover waste heat, and in the development of new technology such as DryF, an EU Horizon 2020 project to develop high temperature heat pumps for recovering waste heat in pet food manufacture.

We are eliminating the remaining emissions by investing in renewable energy. Our operations in 10 countries have already fully transitioned to renewable energy sources and 58% of our electricity use globally is renewable. We invest in three ways – by installing on-site renewable generation, through short-term power purchase agreements in Europe, and through long-term power purchase agreements in the USA and the UK. These agreements help finance renewable infrastructure development.

Cost of management

11,700,000

Comment

There are Associates responsible for implementing the SiG Plan at Mars, Incorporated, business segment, and site level. The cost of this resource is between $5m and $6m. Of this, $2.8m funds program management at a global and regional level, and $2.5m is allocated to deploy SiG at site level. Additionally, around $5.7m was spent in 2018 on energy efficiency capital projects at our factories, in service of reaching our SiG Plan targets and reducing the energy and GHG footprint of our factories.

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Supply chain

Risk type

Physical risk

Primary climate-related risk driver

Chronic: Changes in precipitation patterns and extreme variability in weather patterns

Type of financial impact

Reduced revenue from decreased production capacity (e.g., transport difficulties, supply chain interruptions)

Company- specific description

Changes in precipitation and weather patterns pose a risk to the cost and availability of good quality agricultural raw materials. A warmer climate with reduced rainfall may lead to a shortage in some agricultural commodities and associated price shocks. The effects of climate change may also affect where commodities can be produced, with potential costs from shifting sources and increased distribution requirements. For example, external studies have found that, in the United States where Mars sources large quantities of grains for use in our pet food products, farming of wheat and barley is moving further north.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

30,000,000

Potential financial impact figure – maximum (currency)

60,000,000

Explanation of financial impact figure

The financial implications of changing weather patterns shifting our raw materials supplies are in the tens of millions. Our analysis is based on fundamental supply and demand balance sheets, where the uncertainty of physical risks presents financial implications. There is a risk that climate change will reduce yields, quality and availability in the supply chains for some raw materials, leading to higher costs. The financial impact range provided is based on the scenario we consider most likely, where 5% of our raw material spending experiences price pressure.

We are also considering scenarios where prices are reduced and the supply base is increased, due to favorable changes in weather patterns.

Management method

Through the Mars Strategic Sourcing Methodology, our procurement teams are developing sustainable sourcing strategies for high-impact raw materials, to ensure we select and work with suppliers who are committed to reducing these impacts. Our sustainable sourcing programs help suppliers boost efficiency. For example, we encourage contract rice growers to adopt the alternate wetting and drying (AWD) irrigation approach, which saves water and reduces methane emissions, helping to both mitigate and adapt to climate change. In 2016, we ran a pilot project to investigate the climate change resilience and adaptive capacity of rice growers in Spain over the next 10-20 years, to inform our sourcing strategy. Our Commercial Applied Research Team (CART) supports our decision-making in commodity and risk management. The team has expertise in seasonal weather and intimate knowledge of the IPC forecast process, helping Mars to assess the impact of seasonal weather on yields.

Cost of management

825,000

Comment

Our Sustainable in a Generation Plan investment between 2016 and 2019 will be approximately $1 billion, with roughly one third of that invested in the Healthy Planet pillar. One key area of investment is halting deforestation to reduce GHG emissions and increase supply chain resilience. We’re making investments in cocoa traceability and deforestation prevention; in the sustainable sourcing of palm oil, beef and soy; and in agroforestry systems through the Livelihoods Fund for Family Farming.

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type

Transition risk

Primary climate-related risk driver

Reputation: Increased stakeholder concern or negative stakeholder feedback

Type of financial impact

Reduced revenue from negative impacts on workforce management and planning (e.g., employee attraction and retention)

Company- specific description

Reputational damage arising from negative press coverage or NGO campaigning on issues such as palm oil and deforestation has the potential to affect our relationships with customers, suppliers, Mars associates, regulators and business partners. This has the potential to increase operational costs as we work with suppliers to address concerns, or cease doing business with suppliers that are unable or unwilling to change their practices.

Time horizon

Short-term

Likelihood

About as likely as not

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

1,000,000

Potential financial impact figure – maximum (currency)

10,000,000

Explanation of financial impact figure

We estimate the financial impact at between $1-$10 million. As a privately-owned company, we cannot estimate resulting share-price changes. The impact on our business would take the form of softer costs such as loss of talent or relationships with suppliers, regulators and partners.

Management method

Mars seeks only to do business with suppliers that share our values and commitment to sustainable sourcing. Our strategies, policies, partnerships and actions for addressing high-profile environmental impacts such as deforestation reduce the risk of negative press coverage. On palm oil, for example, we are working toward fully sustainable and traceable sources of palm oil that are free from deforestation, expansion on carbon-rich peatlands, and human and labor rights violations. We partner with Earthworm (formerly TFT) to help mills and plantations increase traceability, and we support Earthworm's aggregator and refinery transformation (ART) program. These measures will help ensure a genuinely sustainable pipeline where all material is sourced from companies whose mills only produce sustainable palm oil.

Cost of management

3,000,000

Comment

Approximately 18 associates work in this area, requiring between $2–3 million investment per year (in salaries, travel and program budgets. Thirteen associates work full-time on developing our sustainable sourcing program, working with the senior category buyers of key raw materials. Five associates are dedicated to the CART team.

C2.4

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

Yes

C2.4a

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

Identifier

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Use of more efficient production and distribution processes

Type of financial impact

Reduced operating costs (e.g., through efficiency gains and cost reductions)

Company-specific description

We are already capitalizing on opportunities to reduce costs by operating more efficiently and reducing our reliance on fossil fuels. For example, our Mars Wrigley business has implemented a global program to monitor and improve utility systems efficiency, while our Steinbourg, Veghel and Viersen factories have installed heat pump systems that recover waste heat, reducing natural gas use and associated emissions.

Time horizon

Current

Likelihood

Virtually certain

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

10,000,000

Potential financial impact figure – maximum (currency)

180,000,000

Explanation of financial impact figure

The estimated financial savings are in the range of $10-$180 million. Government incentives can support the deployment of energy efficiency and renewable energy assets in service of our objectives. We estimated the high end of this range based on the expired US Production Tax Credit incentive of $23/MWh for renewables and energy use equal to ~1/8 of our global total.

Strategy to realize opportunity

Our goal is to decouple environmental impacts from production volumes. Our targets are to reduce scope 1 and 2 emissions by 40% by 2025 and 100% by 2040 as part of our Sustainable in a Generation Plan. Increasing operational and capital efficiency and investing in energy-efficient new technologies are helping reduce emissions as far as possible. Examples of operational efficiency include driving down energy use through Associate behavior change and smarter equipment use. We also invest in technology and processes that use less power, such as heat pump systems that recover waste heat, and in the development of new technology such as DryF, an EU Horizon 2020 project to develop high temperature heat pumps for recovering waste heat in pet food manufacture.

Cost to realize opportunity

6,000,000

Comment

There are Associates responsible for implementing the SiG Plan at Mars, Incorporated, business segment, and site level. The cost of this resource is between $5m and $6m. Of this, $2.8m funds program management at a global and regional level, and $2.5m is allocated to deploy our SiG Plan at site level.

Identifier

Opp2

Where in the value chain does the opportunity occur?

Supply Chain

Opportunity type

Resilience

Primary climate-related opportunity driver

Participation in renewable energy programs and adoption of energy-efficiency measures

Type of financial impact

Increased reliability of supply chain and ability to operate under various conditions

Company-specific description

We study changing precipitation patterns in locations across our supply chain. In agricultural areas where precipitation is increasing, we expect this to increase the supplies of some agricultural products, and to potentially open up new sourcing regions for certain crops. We are also working with suppliers to build longer term partnerships for sustainable growth by collaborating to mitigate and adapt to climate change impacts and ensure supplies of sustainable raw materials.

Time horizon

Medium-term

Likelihood

Virtually certain

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

12,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

We have already achieved benefits of at least $12 million from acting on opportunities to source from areas less affected by climate change. We analyze scenarios to estimate the impact of changes in average precipitation on our supply chain. This helps us to estimate where the greatest impacts will occur. Our analysis estimates that although a change in average temperature has the potential to double sourcing costs for some materials, on the margin there will be some opportunities as new regions become viable sourcing locations. For example, building a sustainable rice program in Pakistan has saved us $12 million to date.

Strategy to realize opportunity

Impact assessment is an integral part of developing our sustainable sourcing strategies using the Mars Strategic Sourcing Methodology (MSSM). We routinely scan crop-growth trends to anticipate shifts in geographic production patterns. While this more often highlights risks to existing production, it can also identify opportunities to source from alternative regions.

To build resilience in existing sourcing locations, we are working with suppliers to build longer term partnerships for sustainable growth. This can lead to efficiency cost savings through, for example, lower input costs for fertilizer, water, and land. Our sustainable rice program in Pakistan has resulted in cost savings by reducing quality issues from 90% to 5%, while cutting water use and greenhouse gas emissions. We are expanding the program to India, Thailand and Cambodia.

Cost to realize opportunity

825,000

Comment

Our Sustainable in a Generation Plan investment between 2016 and 2019 will be approximately $1 billion, with roughly one third of that invested in the Healthy Planet pillar. One key area of investment is halting deforestation to reduce GHG emissions and increase supply chain resilience. In addition to the rice program described, we're making investments in cocoa traceability; in the sustainable sourcing of palm oil, beef and soy; and in agroforestry systems through the Livelihoods Fund for Family Farming.

Identifier

Opp3

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resilience

Primary climate-related opportunity driver

Other

Type of financial impact

Other, please specify

Enhanced corporate reputation

Company-specific description

Our ability to make our business Sustainable in a Generation relies on access to the most capable talent and expert partners. Having a reputation as a leader in corporate sustainability enhances our ability to attract and retain the most talented people and to build partnerships with credible and experienced third party organizations.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

1,000,000

Potential financial impact figure – maximum (currency)

10,000,000

Explanation of financial impact figure

Our estimate of $1-10m is based on the estimated worth to Mars of unpaid media coverage of major projects like our Mesquite Creek Wind Farm and our participation in public conferences and forums.

Strategy to realize opportunity

Our corporate and segment-level Sustainability and Corporate Affairs teams seek opportunities to publicize our sustainability efforts and participate in external sustainability forums. This enables us to share best practices, drive progress in sustainable business, and enhance our reputation as a sustainable business leader. Our Associates have told us repeatedly that the launch of our Sustainable in a Generation Plan made them proud to work at Mars. We also consistently hear from candidates (no matter what function they are applying to join) that they are familiar with the Sustainable in a Generation Plan and consider it important in their decision to apply for the job.

Cost to realize opportunity

6,000,000

Comment

There are Associates responsible for implementing the SiG Program at Mars, Incorporated, business segment, and site level. The cost of this resource is between $5m and $6m. Of this, $2.8m funds program management at a global and regional level, and $2.5m is allocated to deploy SiG at site level.

Identifier

Opp4

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Shift in consumer preferences

Type of financial impact

Better competitive position to reflect shifting consumer preferences, resulting in increased revenues

Company-specific description

We are piloting ways to use our brands to engage customers and consumers on sustainability issues. This has the potential to create a win-win situation by raising awareness and changing behavior, while increasing sales.

Time horizon

Short-term

Likelihood

More likely than not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

750,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

We would need to spend a conservative estimate of $750,000 in order to garner the same level of media coverage generated by our Fans of Wind campaign (see below). The success of the campaign in generating media impressions means we consider this a saving in marketing spend. We did not estimate revenues from the campaign.

Strategy to realize opportunity

We are piloting ways to use our brands to engage customers and consumers on sustainability issues. For example, our M and Ms Fans of Wind campaign in the U.S.A. led to almost 100 million positive media impressions and over 3 million social media impressions for M&Ms, as well as praise and recognition from stakeholders on websites including LinkedIn and Mashable.

We are developing a new campaign for 2019 to renew our climate commitments and engage our suppliers to take action. We will report the results in the next reporting cycle.

Cost to realize opportunity

0

Comment

Identifier

Opp5

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

Type of financial impact

Reduced operational costs (e.g., through use of lowest cost abatement)

Company-specific description

We are transitioning our manufacturing operations to renewable electricity to achieve our 2040 goal of zero greenhouse gas emissions from direct operations.

Time horizon

Current

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

1,000,000

Potential financial impact figure – maximum (currency)

10,000,000

Explanation of financial impact figure

We are working to procure renewable electricity at the same cost as traditional electricity sources, and in many cases are making meaningful savings. Our renewable power purchasing agreements have created one-off savings of several million dollars in one country, and annual savings of $1-$2m in another country.

Strategy to realize opportunity

We are eliminating the emissions remaining after efficiency measures have been implemented by investing in renewable energy. Our operations in 10 countries have already fully transitioned to renewable electricity sources. Around 58% of our electricity use globally is renewable. We invest in three ways – by installing on-site renewable generation, through short-term power purchase agreements in Europe, and through long-term power purchase agreements in the USA and the UK. These agreements help finance renewable infrastructure development.

Cost to realize opportunity

0

Comment

We are working to procure renewable electricity at the same cost as traditional electricity sources, and in many cases are making meaningful savings. We do not invest capital in renewable energy projects themselves, but instead form long-term purchasing agreements with energy providers which can finance infrastructure expansion. We therefore consider there to be no cost to realize this opportunity.

C2.5

(C2.5) Describe where and how the identified risks and opportunities have impacted your business.

	Impact	Description
Products and services	Impacted for some suppliers, facilities, or product lines	We are piloting ways to use our brands to engage customers and consumers on sustainability issues. This has the potential to create a win-win situation by raising awareness and changing behavior, while increasing sales. For example, our M&M's Fans of Wind campaign in the U.S.A. led to millions of positive media impressions for M&Ms and praise and recognition from stakeholders. We would need to spend a conservative estimate of $750,000 in order to garner the same level of media coverage. The success of the campaign in generating media impressions means we consider this a saving in marketing spend.
Supply chain and/or value chain	Impacted for some suppliers, facilities, or product lines	Changes in precipitation patterns and extreme variability in weather patterns are a risk to the cost and availability of good quality agricultural raw materials. A warmer, drier climate may lead to a shortage in some commodities and associated price shocks. We estimate that 5% of our raw material spending could experience price shocks in the short-medium term. The effects of climate change may also affect where our raw materials can be produced. Through our Sustainable in a Generation Plan, we are working with suppliers to mitigate risks and build secure, resilient supplies. The SIG Plan focuses on our top 10 raw materials by impact, accounting for >80% of our total raw material volumes. As one example, our rice program in Pakistan has resulted in cost savings by reducing quality issues from 90% to 5%, while cutting water use and GHG emissions. We are expanding the program to India, Thailand and Cambodia. We encourage contract rice growers to adopt alternate wetting and drying (AWD) irrigation, which saves water and reduces methane emissions. In 2016, we ran a pilot project to investigate the climate change resilience and adaptive capacity of rice growers in Spain over 10-20 years, to inform our sourcing strategy. We will not source from suppliers that will not make equivalent commitments and stay true to our policies.

Adaptation and mitigation activities	Impacted for some suppliers, facilities, or product lines	As part of our Sustainable in a Generation Plan, our water stewardship program identifies and prioritizes sites in water-scarce areas, including those predicted to become water-stressed due to climate change. We have identified more than 20 sites where water scarcity is a significant business risk. These sites are setting targets to ensure they stay within sustainable water usage levels for their watershed and will complete water stewardship reviews before 2020. In relevant cases, we work with insurance brokers to assess site flood risks. For instance, sites highly likely to flood have purchased temporary flood barriers. To mitigate risks, we are reducing emissions from land use change by tackling deforestation, for example, and improving agricultural practices to reduce inputs and boost soil and biomass.
Investment in R&D	Impacted	Over the past three years (since 2015), we have almost tripled our sustainability investments to just under $200m/year. Our investment between 2016 and 2019 will be approximately $1 billion. These investments are roughly equal across the Healthy Planet, Thriving People and Nourishing Wellbeing pillars of our Sustainable in a Generation Plan. Within the Healthy Planet strategy, a key area of investment is halting deforestation. We're making investments in traceability with cocoa; investing in sourcing changes in palm oil, beef and soy; and investing in agroforestry systems through the Livelihoods Fund for Family Farming.
Operations	Impacted	We estimate that carbon taxes could apply to one-third of our energy-based emissions in the short-medium term. To reduce this risk and reduce our footprint, we are eliminating the emissions remaining after efficiency measures have been implemented by investing in renewable energy. Our operations in 10 countries have already fully transitioned to renewable energy sources. Around 58% of our electricity use globally is renewable. We invest in three ways – by installing on-site renewable generation, through short-term power purchase agreements in Europe, and through long-term power purchase agreements in the USA and the UK. These agreements can help finance renewable infrastructure development.
Other, please specify		

C2.6

(C2.6) Describe where and how the identified risks and opportunities have been factored into your financial planning process.

	Relevance	Description
Revenues	Impacted for some suppliers, facilities, or product lines	While we have no evidence that revenues were impacts in 2018, in 2017 we believe we lost sales valued at around $3 million as a result of customers being impacted by the hurricane season in North America. This is a low magnitude of impact on revenues, but one which our risk assessments show has a 50% chance of recurring. In 2018, to help customers avoid risk and Mars to avoid lost sales, Banfield Pet Hospitals helped pet owners and nonprofits prepare for when the next disaster hits. Banfield conducted research among 1,000 pet owners in the U.S. states most susceptible to disasters to establish a baseline of preparedness and set out to help fill the gap. Among the most notable takeaways: 91% of pet owners surveyed are not prepared for the next disaster. Timed with FEMA's National Animal Disaster Preparedness Day on May 12, 2018 and the start of hurricane season in June, Banfield launched a disaster-preparedness campaign that involved: - May-September: Disaster preparedness tips and a checklist displayed in all Banfield May-June: - Pre-assembled pet disaster preparedness kits available for a $45+ Banfield Foundation donation, plus 1,000 kit donations to vulnerable pet owners in Houston and Louisiana - May 7-12: Local media interviews with Banfield vets in high-risk states (Louisiana, Florida, Texas), and partnered with Texas A and M University's Veterinary Emergency Team to hand out kits to local non-profits and provide disaster-preparedness tips for pets.
Operating costs	Impacted	Our sustainability investments (see below) are leading to cost savings in three areas: - Efficiency savings in direct operations (water, electricity, materials) - Sourcing cost savings (longer term contracts, consolidation) - Efficiency cost savings in sourcing (lower input costs for fertilizer, water, land) Our $1B investment is already leading to cost saving opportunities within our operations of a low-medium

		magnitude. We're working to keep our spending on renewable energy on a par with other sources of electricity, and consider this a cost of doing business. In fact, our long-term, country-level contracts for renewable energy procurement are making meaningful savings in many cases, with one country saving $5m and another saving up to $2m annually.
Capital expenditures / capital allocation	Impacted	Over the past three years (since 2015), we have almost tripled our sustainability investments to just under $200m/year. Our investment between 2016 and 2019 will be approximately $1 billion, constituting a high impact on capital expenditures. These investments are roughly equal across the Healthy Planet, Thriving People and Nourishing Wellbeing pillars of our Sustainable in a Generation Plan. Within the Healthy Planet strategy, a key area of investment is halting deforestation. We're making investments in traceability with cocoa; investing in sourcing changes in palm oil, beef and soy; and investing in agroforestry systems through the Livelihoods Fund for Family Farming. In our direct operations, we facilitate approvals for capital projects that reduce water and energy consumption by setting the profitability threshold for such investments at a lower level than for other productivity measures, and by allowing a longer payback period.
Acquisitions and divestments	Impacted for some suppliers, facilities, or product lines	Our Corporate Development team has developed an informal process that includes considering sustainability impacts as a strategic driver of M&A activity. We plan to formalize this process over time, but we believe the impact of climate change on acquisitions and divestments to be low.
Access to capital	Not impacted	As a privately-owned company, Mars makes very limited use of capital markets and does not foresee any related risks.
Assets	Impacted	We have made dedicated investments in our factories for several years in order to achieve our operational energy and GHG reduction targets. We do not invest assets in renewable energy but use a third-party capital model, forming long-term purchasing agreements with energy providers which can finance infrastructure expansion.

		Our long-term, country-level contracts for renewable energy procurement are making meaningful savings in many cases, with one country saving $5m and another saving up to $2m annually. These savings have a potentially high impact at a country level and a medium impact for Mars overall.
Liabilities	Impacted for some suppliers, facilities, or product lines	As a privately-owned company, Mars makes very limited use of capital markets and does not foresee any related risks. However, we are forming long-term purchasing agreements with energy providers to secure access to renewable energy supplies, based purely on mitigating climate risks. These agreements have a potentially high impact at a country level and a medium impact for Mars overall.
Other		

C3. Business Strategy

C3.1

(C3.1) Are climate-related issues integrated into your business strategy?

Yes

C3.1a

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

Yes, qualitative

C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b

(C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b) Indicate whether your organization has developed a low-carbon transition plan to support the long-term business strategy.

Yes

C3.1c

(C3.1c) Explain how climate-related issues are integrated into your business objectives and strategy.

The urgency of climate change is recognized in the UN Sustainable Development Goals (SDGs): SDG 13 calls for "urgent action to combat climate change and its impacts." Mars supports the SDGs and recognizes the need for engaging others to collectively play our part in addressing climate change, as no single company can make meaningful progress alone.

Climate change has critical implications throughout our value chain. We release carbon dioxide when we consume fossil fuels – in our factories or indirectly to produce fertilizers used by farmers supplying our raw materials – or contribute to deforestation through agricultural expansion. When farmers grow our raw materials, the plants sequester carbon. This carbon cycle is central to our share of climate impacts and our opportunities to reduce them. We have developed a framework that applies the carbon cycle and carbon budget concepts. Our theory of change is that by focusing on strategies to reduce direct emissions and sequester carbon in our value chain, while exploring opportunities to invest in carbon sequestration activities outside our value chain, we can stay within our carbon budget (see below).

Taking action to reduce the greenhouse gas emissions associated with our business is a central aspect of the Healthy Planet pillar of our Sustainable in a Generation Plan – our plan for growing in ways that are good for people, good for the planet and good for our business.

Influence of climate on business objectives and strategy, and link to emissions reduction target:
Science tells us that to avoid the worst consequences of climate change, we should limit the increase in global average temperature to well below 2°C more than pre-industrial levels, a threshold outlined in the international Paris Agreement on climate change. To stay beneath this threshold, scientists estimate that no more than 1 trillion tonnes of carbon dioxide can be added to the atmosphere. This is called the "carbon budget". Global emissions since 1870 have already consumed more than half of that budget, leaving less than 500 billion tonnes to emit in the future.

Working with the Science Based Target initiative, World Resources Institute (WRI) and other partners, we calculated our share of the global carbon budget from 2015-2050 at a cumulative 560 MtCO2e, based on our 2015 emissions of 26.2 MtCO2e. If our annual emissions remain constant at 2015 levels, we will consume our budget in less than 22 years. If we achieve a 67% emissions reduction by 2050, we will stay within our share of the global carbon budget.

Based on this calculation, our targets are to reduce our total GHG emissions from our full value chain by 27% by 2025 and by 67% by 2050, from 2015 levels. These targets are included among our corporate objectives due to the potential impacts of climate change on our operations and the security of our raw material supplies. While energy use is a significant driver of our operational emissions, agriculture and land use change emissions make up the lion's share – approximately 75% – of our estimated full value chain emissions of 26.2 million tonnes of carbon dioxide equivalent (MtCO2e).

Our theory of change is that by focusing on strategies to reduce our direct emissions and sequester carbon within our value chain, while exploring opportunities to invest in carbon sequestration activities outside our value chain, we can stay within our carbon budget.

Short-term strategy:
For our direct operations, our short-term strategy involves increasing energy efficiency and expanding clean energy by investing in renewables. We incentivize factory managers to meet their sustainability goals by linking performance to their bonuses. We also facilitate approvals for capital projects that reduce water and energy consumption by setting the profitability threshold for such investments at a lower level than for other productivity measures, and by allowing a longer payback period. In our value chain, our short-term strategy involves reducing and avoiding deforestation and forest degradation related to the raw materials we source, as well as increasing carbon sequestration and reducing GHG emissions through improved agricultural practices.

Substantial climate-related business decisions in 2018:
The most substantial business decision taken in 2018 was to launch Cocoa for Generations, our strategy for making our cocoa supply chain sustainable. Cocoa for Generations includes a commitment to a deforestation-free global cocoa supply chain by 2025. We will measure the GHG emissions reduction and include it in future GHG inventories. To assure that our cocoa is grown on existing legal farmland and does not come from protected forest areas, we expect the farmers supplying us to provide satellite GPS locations. We have disclosed our cocoa countries of origin, our current Tier 1 suppliers and progress on traceability to Tier 2 Farmer Groups and Tier 3 Farmers, as well as our detailed action plans for Côte d'Ivoire and Ghana - where over 65% of the world's cocoa is grown - as part of our contribution to the Cocoa and Forests Initiative. In 2020, we will publish action plans for Indonesia, Brazil and Cameroon, and complete a risk assessment for Ecuador, so that we know where efforts need to be focused. Additional business decisions in 2018 included signing a contract for 100% renewable energy to our operations in Australia.

Long-term strategy:
Mars will continue to refine and expand our approach to measuring and reducing our GHG emissions, including addressing land-use-related emissions such as deforestation. We will work with thought leaders to improve data and methodologies and apply the best available science. We are committed to transparency, and will work to strengthen our emissions calculations and reporting. Applying our principle that "all GHG emissions count," we will strive

for a complete picture of our emissions, by exploring emerging areas such as soil carbon dynamics, carbon pricing, and indirect land-use change emissions accounting. We will continue to develop our approach to carbon sequestration activities linked to our value chain. Finally, while our GHG reduction targets aim to reduce our emissions consistent with helping to prevent the worst climate change impacts, we recognize that climate change is already occurring. Adapting to and improving resilience against climate change is also critical for the long-term sustainability of our business, and we will continue to assess and respond to the related impacts in our value chain.

Mars won a 2019 Climate Leadership Award for organizational leadership, for our work to improve land use change calculation methods and more accurately assess emissions; our help to launch the Renewable Thermal Collaborative to scale up renewable heating solutions globally; and our participation in the launch of a new corporate leadership platform to diagnose business climate risk throughout the supply chain.

C3.1d

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

Climate-related scenarios	Details
2DS	Working with the Science Based Target initiative, World Resources Institute (WRI) and other partners, we calculated our share of the global carbon budget from 2015-2050 at a cumulative 560 MtCO2e, based on our 2015 emissions of 26.2 MtCO2e. The carbon budget is based on what is required to limit the increase in global average temperature to well below 2°C above pre-industrial levels, a threshold outlined in the international Paris Agreement on climate change. To stay beneath this threshold, scientists estimate that no more than 1 trillion tonnes of carbon dioxide can be added to the atmosphere. Global emissions since 1870 have already consumed more than half of that budget, leaving less than 500 billion tonnes to emit in the future. In a scenario where our annual emissions remain constant at 2015 levels, we will consume our share of the budget in less than 22 years. In a low-carbon transition where we achieve a 67% reduction by 2050, we will stay within our share of the global carbon budget. Based on this modelling, we have set targets to reduce our total GHG emissions from our full value chain by 27% by 2025 and by 67% by 2050, from 2015 levels. This is leading to major changes in the way we do business, and particularly in the way we source our raw materials, which accounts for ~75% of emissions in our value chain. For example, we have integrated sustainability criteria into our

	Mars Strategic Sourcing Methodology, including tools for impact assessment and strategic options for buyers to select from to develop an appropriate sustainable procurement strategy for a specific raw material. In another example, we have published a policy and two country-level action plans for tackling deforestation in our cocoa supply chain.
Other, please specify 4.5 degree scenario	In 2016, we ran a pilot project to investigate the climate change resilience and adaptive capacity of rice growers in Spain over the next 10-20 years, based on a scenario with 4.5 degrees of warming if 'business as usual' continues and no mitigation action is taken. We used those findings to inform our sourcing strategy. We also recognize the compelling findings of the IPCC 1.5 degree scenario report, and are working to integrate them into our Climate Action strategy.
Other, please specify IPCC: A2, A1B, and B1 scenarios	Mars uses the WRI Aqueduct tool to assess projected change in baseline water stress in geographies where we operate and source from. The projected change in baseline water stress is based on three different scenarios of climate change and socio-economic development created by the IPCC: the A2, A1B, and B1 scenario. Using this tool, we've identified watersheds in our supply chain that are experiencing stress or may experience stress in the future due to climate change. Some locations are included purely on the basis that Aqueduct shows they are likely to become water scarce in future. Reduced water availability in these watersheds may affect farmers' ability to grow crops for our raw materials, leading to price increases or shortages. We use the Aqueduct assessments to prioritize watersheds under the most stress and where agricultural water use is greatest. These watersheds are located in Australia, India, Pakistan, Spain and the United States. Our ultimate goal is to eliminate water use in excess of sustainable levels. As we work toward our ultimate goal, our interim target is to cut unsustainable water use by half by 2025, in close collaboration with our suppliers and others across our extended value chain.

C-AC3.1e/C-CE3.1e/C-CH3.1e/C-CO3.1e/C-EU3.1e/C-FB3.1e/C-MM3.1e/C-OG3.1e/C-PF3.1e/C-ST3.1e/C-TO3.1e/C-TS3.1e

(C-AC3.1e/C-CE3.1e/C-CH3.1e/C-CO3.1e/C-EU3.1e/C-FB3.1e/C-MM3.1e/C-OG3.1e/C-PF3.1e/C-ST3.1e/C-TO3.1e/C-TS3.1e) Disclose details of your organization's low-carbon transition plan.

Our implementation pathway is designed to reach our Healthy Planet goals to reduce total GHGs across our value chain 27% by 2025 and 67% by 2050 (from 2015 levels). We aim for net zero emissions direct operations by 2040. The different elements of our pathway are outlined below:

Short-term strategy: For direct operations, our short-term strategy involves increasing energy efficiency and expanding clean energy by investing in renewables. In our value chain, it involves reducing and avoiding deforestation and forest degradation related to the raw materials we source, as well as increasing carbon sequestration and reducing GHG emissions through improved agricultural practices. These actions are underway now.

Renewable energy: While we continue to pursue energy use reductions in our operations, switching to renewable and low-carbon sources is also important. Our strategy relies on both on- and off-site renewable energy projects. We use attribute tracking systems established by governments, grid operators or private contracts such as renewable energy certificates and other instruments to track the output of a generating asset against Mars' energy use. Mars is already using or purchasing renewable electricity to cover 58% of our total footprint, including 100 percent of our operations in Austria, Belgium, the Czech Republic, France, Lithuania, Mexico, Poland, Spain, the United Kingdom and the United States. Beyond these 10 countries, we have signed a new 20-year power purchase agreement with Total EREN to purchase 100 percent of our electricity in Australia from solar power starting in 2020. We are also working on low-carbon (e.g. certain biomass options) and zero-carbon (such as solar) thermal energy sources at project and structural levels, to make it easier for all companies to procure and source low-carbon thermal energy to replace natural gas.

Land use and deforestation: Agricultural and land-use change related GHG emissions represent nearly 25% of global human emissions and 75% of Mars' value chain emissions. Mars has integrated agriculture-related land use change into our GHG reduction target, establishing a quantitative metric for tracking reductions in deforestation. The 75% of Mars' emissions from agricultural supply chains includes approximately 29% from land use change and 46% from agriculture. This impact is primarily concentrated in raw materials sourced from tropical countries – beef, cocoa, palm oil, pulp and paper, and soy account for more than 80% of our estimated land use-related GHGs. This information is helping Mars, our suppliers and our peers more effectively address deforestation and land degradation in the way we source, and stay within our carbon budget.

Sourcing: Mars has three primary options for reducing our emissions related to the raw materials in our value chain:
- **Improve raw material production practices** – e.g. yield improvement or more precise application of inputs such as fertilizer.
- **Change where we source** – i.e. source raw materials grown in alternative regions with a lower GHG impact.
- **Replace the raw materials we source** – substitute lower-emission ingredients or design new products that use lower impact materials.

In all cases this involves working closely with suppliers and farmers to develop mutually-beneficial solutions for remaining within our share of the carbon budget.

Sequestration: Mars is working to source raw materials from agricultural systems that capture carbon for a longer time period or can be changed to do so. Examples include composting agricultural wastes to use as soil enrichment, activities that create and store biomass such as increasing the carbon

on degraded lands, and encouraging farmers to employ practices that increase sequestration. We are exploring this opportunity across our raw materials – particularly in tree crops such as cocoa.

Long-term strategy: We will continue to refine our approach to measuring and reducing GHG emissions. We will work with thought leaders to improve data and methodologies and apply the best available science. We are committed to transparency, and will work to strengthen our calculations and reporting. Applying our principle that "all GHG emissions count," we will strive for a complete picture by exploring emerging areas such as soil carbon dynamics, carbon pricing, and indirect land-use change emissions accounting. We will continue to develop our approach to sequestration activities linked to our value chain. Finally, while our targets are based on helping to prevent the worst climate change impacts, we recognize that climate change is already occurring. Adapting to and improving resilience to climate change are also critical, and we will continue to assess and respond to the related impacts in our value chain.

C4. Targets and performance

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.

Target reference number

Abs 1

Scope

Scope 1+2 (market-based) +3 (upstream & downstream)

% emissions in Scope

100

Targeted % reduction from base year

27

Base year

2015

Start year

2017

Base year emissions covered by target (metric tons CO2e)

32,954,700

Target year

2025

Is this a science-based target?

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

% of target achieved

6.51

Target status

Underway

Please explain

Our intention is to decouple GHG emissions from business growth across our full value chain, including emissions from our agricultural supply chain, which accounts for 75% of total emissions in our value chain. Our aim is to at least freeze emissions until 2020 and achieve a 27% reduction by 2025. This is an interim target toward the long-term commitment in Abs2, and is in line with recommendations to reduce global GHG emissions by 80% by 2050.

Please note that we have restated our 2015 baseline to reflect divestments and acquisitions in our business, an updated methodology on land use change, and more accurate data on the volumes on some raw materials in our agricultural supply chain.

Target reference number

Abs 2

Scope

Scope 1+2 (market-based) +3 (upstream & downstream)

% emissions in Scope

100

Targeted % reduction from base year

67

Base year

2015

Start year

2017

Base year emissions covered by target (metric tons CO2e)

32,954,700

Target year

2050

Is this a science-based target?

No, but we are reporting another target that is science-based

% of target achieved

2.62

Target status

Underway

Please explain

This is our long-term target for decoupling GHG emissions from business growth across our full value chain, including emissions from our agricultural supply chain, which account for 75% of total emissions in our value chain. This is a science-based target that has been set in line with scientific recommendations for reducing global GHG emissions by 80% by 2050. However, it has not been approved by the Science-Based Targets Initiative due to the length of our timescale.

Please note that we have restated our 2015 baseline to reflect divestments and acquisitions in our business, an updated methodology on land use change, and more accurate data on the volumes on some raw materials in our agricultural supply chain.

Target reference number

Abs 3

Scope

Scope 1 +2 (market-based)

% emissions in Scope

97

Targeted % reduction from base year

40

Base year

2015

Start year

2017

Base year emissions covered by target (metric tons CO2e)

1,544,781

Target year

2025

Is this a science-based target?

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

% of target achieved

60

Target status

Underway

Please explain

Our aim is to decouple GHG emissions from business growth and achieve absolute emissions reductions. This is an interim target toward the long-term commitment in Abs4 of eliminating scope 1 and 2 emissions from operations, in line with recommendations to reduce global GHG emissions by 80% by 2050. It builds on the 25% absolute reduction in scope 1 & 2 emissions our operations already achieved between 2007 and 2015.

The 3% currently out of scope is our estimate for scope 1 emissions from leased vehicles in our sales force, however, this is included within Abs1 and Abs2 above.

Please note that we have restated our 2015 baseline to reflect divestments and acquisitions in our business.

Target reference number

Abs 4

Scope

Scope 1 +2 (market-based)

% emissions in Scope

97

Targeted % reduction from base year

100

Base year

2015

Start year

2017

Base year emissions covered by target (metric tons CO2e)

1,544,781

Target year

2040

Is this a science-based target?

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

% of target achieved

24

Target status

Underway

Please explain

Our long-term commitment is to eliminate scope 1 and 2 emissions from operations, in line with recommendations to reduce global greenhouse gas emissions by 80% by 2050. The 3% currently out of scope is our estimate for scope 1 emissions from leased vehicles in our sales force, however, this is included within Abs1 and Abs2 above.

Please note that we have restated our 2015 baseline to reflect divestments and acquisitions in our business.

C4.2

(C4.2) Provide details of other key climate-related targets not already reported in question C4.1/a/b.

Target

Renewable electricity consumption

KPI – Metric numerator

% of electricity consumption from renewable sources

KPI – Metric denominator (intensity targets only)

Base year

2015

Start year

2017

Target year

2040

KPI in baseline year

33

KPI in target year

100

% achieved in reporting year

58

Target Status

Underway

Please explain

Mars is focused on reducing carbon emissions in its own operations and is gradually increasing renewable energy supply to its sites worldwide with the goal that 100% of energy consumption will be fossil-fuel free by 2040. Mars has committed to 100% renewable electricity through its participation in the RE100 campaign.

Part of emissions target

Our renewable electricity goal contributes towards targets Abs3 and Abs4 to reduce GHG emissions from our direct operations by 40% by 2020 and to zero by 2040.

In turn, these targets contribute to our value-chain wide targets (Abs1 and Abs2) for reducing all GHG emissions associated with our business.

Is this target part of an overarching initiative?

RE100

Target

Land use

KPI – Metric numerator

Total land area associated with our value chain in hectares

KPI – Metric denominator (intensity targets only)

Base year

2015

Start year

2017

Target year

2025

KPI in baseline year

2,717,640

KPI in target year

2,780,175

% achieved in reporting year

0

Target Status

Underway

Please explain

This metric relates to land use change and deforestation in our agricultural supply chain - both contributors to climate change. To calculate our land area, Mars utilized a combination of our raw material sourcing data and global peer-reviewed data-sets, such as the World Food Life Cycle Assessment database and ecoinvent. From these data sources, we estimated our total land footprint to be around 2.6 million hectares in our 2015 base year. We have restated our 2015 baseline to reflect more accurate data for certain raw materials.

Our goal is to hold flat the total land area associated with our value chain, even as we grow our business. We aim to do this by improving productivity and yields and addressing deforestation. The modest increase in our land area from our 2015 baseline reflects a growth in some raw materials that require high land use. We are working to develop strategies that will reduce the amount of land needed to grow our key ingredients, for example by working with farmers to boost yields and improve the resilience of crops.

Part of emissions target

Freezing our land footprint and reducing the expansion of agriculture into forests will contribute to our value-chain wide targets (Abs1 and Abs2) for reducing all GHG emissions associated with our business.

Is this target part of an overarching initiative?

Remove deforestation

C4.3

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

Yes

C4.3a

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

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	285	11,832,315
To be implemented*	283	9,244
Implementation commenced*	1	77,027
Implemented*	485	27,777
Not to be implemented	0	0

C4.3b

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

Initiative type

Low-carbon energy purchase

Description of initiative

Wind

Estimated annual CO2e savings (metric tonnes CO2e)

27,319

Scope

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

900,000

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

0

Payback period

No payback

Estimated lifetime of the initiative

6-10 years

Comment

This initiative is our purchase of low-carbon energy beginning in 2018, including in Mexico where we as of 2018 we source 100% renewable electricity.

Initiative type

Energy efficiency: Processes

Description of initiative

Other, please specify

These savings are the total from 484 various scope 1 and scope 2 emissions reduction initiatives

Estimated annual CO2e savings (metric tonnes CO2e)

458

Scope

Scope 1

Voluntary/Mandatory

Voluntary

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

804,374

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

4,797,399

Payback period

4 - 10 years

Estimated lifetime of the initiative

6-10 years

Comment

These savings were calculated based on total energy intensity savings compared with the previous year.

C4.3c

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

Method	Comment
Marginal abatement cost curve	In developing our strategies to deliver our Sustainable in a Generation (SiG) GHG emissions reduction targets, our business segments prioritize projects based on marginal abatement costs.
Dedicated budget for energy efficiency	Each Mars business segment sets aside budget for projects to improve energy efficiency, through both capital and operational expenditure in our factories.
Employee engagement	Our commitment to more sustainable operations is embedded in our culture. Associates from our manufacturing, research and development and procurement functions in each Mars business segment consider it a priority to implement our Sustainable in a Generation (SiG) Plan and improve performance at our operations. Our SiG workshops identify potential improvements in energy use and increase Associate engagement in our SiG Plan.
Other Data management systems	Site-level performance data help us assess how effective our efficiency and technology measures are and determine the best future investments. This process has already led us to accelerate renewable energy activities in order to keep us on track to meet our energy and greenhouse gas reduction targets.
Internal incentives/recognition programs	A percentage of the bonus for our top 100 executives is based on performance against our absolute Scope 1 and 2 emissions reduction target. In addition, our global Make the Difference Awards take place every other year to celebrate Associates who bring innovative thinking, fresh perspectives and personal commitment to their work. The awards include a 'planet' category for associates who improve our environmental performance. They reward innovation, responsibility and exceptional effort and help us share best practices across the organization.
Dedicated budget for other emissions reduction activities	Over the past three years (since 2015), we have almost tripled our sustainability investments to just under $200m/year. Our investment between 2016 and 2019 will be approximately $1 billion. These investments are roughly equal across the Healthy Planet, Thriving People and Nourishing Wellbeing pillars of our Sustainable in a Generation Plan. Within the Healthy Planet strategy, a key area of investment is halting deforestation. We're making investments in traceability with cocoa; investing in sourcing changes in palm oil, beef and soy; and investing in agroforestry systems through the Livelihoods Fund for Family Farming.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

Yes

C4.5a

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

Level of aggregation

Group of products

Description of product/Group of products

We used innovative technology to reduce the cooking time on our UNCLE BEN'S® rice by half, resulting in an 18% reduction of GHG emissions during the cooking phase.

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

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

Lifecycle analysis

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

3

Comment

Lifecycle analysis shows that, across our full portfolio, product use represents just 0.3% of our total value chain GHG emissions. As a result, our strategies for reducing GHG emissions do not focus on this area, but we seek to make voluntary improvements beyond regulatory requirements for the small number of products where the product use phase is more significant. For instance, we used innovative technology to reduce the cooking time on our UNCLE BEN'S® rice by half, resulting in an 18% reduction of GHG emissions during the cooking phase. The cooking time reduction from 20 to 10 minutes if applied across our total production and based on an electric range boiling 1.5L of water and the same US electricity average represents a savings of nearly 50,000 tonnes of CO2e.

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, 2015

Base year end

December 31, 2015

Base year emissions (metric tons CO2e)

733,381

Comment

Our base year is 2015, which we used to set our Sustainable in a Generation targets for value-chain wide emissions reductions.

Please note that we have restated our baseline emissions to reflect changes to our business.

Scope 2 (location-based)

Base year start

January 1, 2015

Base year end

December 31, 2015

Base year emissions (metric tons CO2e)

1,208,523

Comment

Our base year is 2015, which we used to set our Sustainable in a Generation targets for value-chain wide emissions reductions.

Please note that we have restated our baseline emissions to reflect changes to our business.

Scope 2 (market-based)

Base year start

January 1, 2015

Base year end

December 31, 2015

Base year emissions (metric tons CO2e)

811,400

Comment

Our base year is 2015, which we used to set our Sustainable in a Generation targets for value-chain wide emissions reductions.

Please note that we have restated our baseline emissions to reflect changes to our business.

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.

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

C6. Emissions data

C6.1

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

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

692,518

Start date

January 1, 2018

End date

December 31, 2018

Comment

C6.2

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

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

C6.3

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

Reporting year

Scope 2, location-based

1,066,902

Scope 2, market-based (if applicable)

482,498

Start date

January 1, 2018

End date

December 31, 2018

Comment

C6.4

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

Yes

C6.4a

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

Source

Sales Autos

Relevance of Scope 1 emissions from this source

Emissions are relevant and calculated, but not disclosed

Relevance of location-based Scope 2 emissions from this source

No emissions from this source

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

No emissions from this source

Explain why this source is excluded

Emissions from sales autos are excluded from our science-based Scope 1 & Scope 2 target because sales auto business activities are managed separately from the rest of our direct operations. However, these emissions are included in our full value chain Science Based target.

C6.5

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

Purchased goods and services

Evaluation status

Relevant, calculated

Metric tonnes CO2e

27,696,076

Emissions calculation methodology

We calculated emissions using a combination of primary data, geographically-specific public life-cycle analysis data sets, and internal data on our material usage.

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

28

Explanation

We have been collecting increasing amounts of data from suppliers each year. In 2018 we collected farm location data for suppliers representing 28% of our raw material GHG emissions. Additionally, 100% of our business travel emissions was collected from our travel booking partner.

Capital goods

Evaluation status

Relevant, calculated

Metric tonnes CO2e

124,004

Emissions calculation methodology

We calculated these emissions using representative capital projects and secondary data sources for material emissions factors (e.g. steel, concrete).

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

0

Explanation

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

Evaluation status

Not relevant, explanation provided

Explanation

These activities are not applicable to our business.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

705,232

Emissions calculation methodology

Emissions from outbound logistics are calculated using distance, weight and fuel emissions factors. Emissions from inbound logistics are estimated as equivalent to outbound. (Emissions from outbound logistics are now captured under "Downstream transportation & distribution".)

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

0

Explanation

Waste generated in operations

Evaluation status

Not relevant, explanation provided

Explanation

End of life impacts of packaging waste are covered in “End of life treatment of sold Products”. A significant majority of product (food) waste is reused as animal feed, avoiding emissions by displacing other feeds (though we do not claim these benefits).

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO2e

27,529

Emissions calculation methodology

Calculated using data from travel providers plus flight class/segment length data.

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

100

Explanation

Calculated using data from travel providers plus flight class/segment length data.

Employee commuting

Evaluation status

Relevant, calculated

Metric tonnes CO2e

154,826

Emissions calculation methodology

Estimated using actual headcount plus estimated distances and vehicle efficiencies.

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

0

Explanation

See explanation above

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Explanation

Our business does not have any upstream leased assets.

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

2,179,743

Emissions calculation methodology

Calculated from published retail scope 1 and 2 footprint data and market share, plus Mars outbound logistics.

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

0

Explanation

Processing of sold products

Evaluation status

Not relevant, explanation provided

Explanation

Mars products do not require any further processing before the use phase.

Use of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

81,504

Emissions calculation methodology

Calculated based on the time and energy required to cook UNCLE BEN'S rice products.

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

0

Explanation

End of life treatment of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

187,562

Emissions calculation methodology

Calculated based on regional recycling/landfill/incineration rates for packaging materials.

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

0

Explanation

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Explanation

Our business does not have any downstream leased assets.

Franchises

Evaluation status

Not relevant, explanation provided

Explanation

Our business does not lease or operate any franchises.

Investments

Evaluation status

Not relevant, explanation provided

Explanation

Our business does not make any significant external investments.

Other (upstream)

Evaluation status

Not relevant, explanation provided

Explanation

Not applicable

Other (downstream)

Evaluation status

Not relevant, explanation provided

Explanation

Not applicable

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.

Activity

Agriculture/Forestry

Scope 3 category

Purchased goods and services

Emissions (metric tons CO2e)

21,460,000

Please explain

Impacts calculated using a combination of primary data and geographically-specific public lifecycle analysis datasets, coupled with internal material usage. In scope for this calculation are agricultural products including food materials and forestry/paper packaging materials, and their associated processing upstream of our operations.

Activity

Distribution

Scope 3 category

Downstream transportation and distribution

Emissions (metric tons CO2e)

2,168,000

Please explain

Calculated from published retail scope 1 and 2 footprint data and market share, plus Mars outbound logistics.

Activity

Consumption

Scope 3 category

End of life treatment of sold products

Emissions (metric tons CO2e)

188,000

Please explain

Calculated based on regional recycling/landfill/incineration rates for packaging materials.

C6.7

(C6.7) Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

Yes

C6.7a

(C6.7a) Provide the emissions from biologically sequestered carbon relevant to your organization in metric tons CO2.

Row 1

Emissions from biologically sequestered carbon (metric tons CO2)

12,046.54

Comment

This figure only includes our scope 1 biologically sequestered carbon as we do not have the capability to separate out biologically sequestered carbon from our scope 3 wider value chain at this time.

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)

Emissions (metric tons CO2)

12,046.54

Methodology

Region-specific emissions factors

Please explain

We calculated this data using the World Resource Institute (2015) GHG Protocol tool for stationary combustion V4.1. We entered emissions for all of our locations which are fueled by Biomass or Biogas.

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

Cattle products

Do you collect or calculate GHG emissions for this commodity?

Yes

Please explain

All beef slaughterhouse locations are tracked and World Food Life Cycle Database, Ecoinvent, Agribalyse or third party verified supplier specific LCA datasets are used to calculate our scope 3 emissions for beef and dairy cattle products.

Agricultural commodities

Rice

Do you collect or calculate GHG emissions for this commodity?

Yes

Please explain

All rice origin locations are tracked and World Food Life Cycle Database, Ecoinvent, Agribalyse or third party verified supplier specific LCA datasets are used to calculate our scope 3 emissions.

Agricultural commodities

Sugar

Do you collect or calculate GHG emissions for this commodity?

Yes

Please explain

All sugar origin locations are tracked and World Food Life Cycle Database, Ecoinvent, Agribalyse or third party verified supplier specific LCA datasets are used to calculate our scope 3 emissions.

Agricultural commodities

Timber

Do you collect or calculate GHG emissions for this commodity?

Yes

Please explain

All pulp and paper origin regions are tracked and World Food Life Cycle Database, Ecoinvent, Agribalyse or third party verified supplier specific LCA datasets are used to calculate our scope 3 emissions.

Agricultural commodities

Other

Cocoa

Do you collect or calculate GHG emissions for this commodity?

Yes

Please explain

All Cocoa origin regions are tracked and World Food Life Cycle Database, Ecoinvent, Agribalyse or third party verified supplier specific LCA datasets are used to calculate our scope 3 emissions. We are also obtaining on the ground smallholder farmer supplier data which we plan to incorporate into our Cocoa LCA datasets in the near future.

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.

Cattle products

Reporting emissions by

Total

Emissions (metric tons CO2e)

5,746,570

Change from last reporting year

Lower

Please explain

We have strategies in place to reduce our emissions from dairy, to reduce purchases of cattle products and shift to lower footprint raw materials for our pet foods.

Rice

Reporting emissions by

Total

Emissions (metric tons CO2e)

925,762

Change from last reporting year

Lower

Please explain

We have strategies in place to improve farmers yields in our supply chain which are reducing unsustainable water withdrawal and GHG per tonne of rice sourced.

Sugar

Reporting emissions by

Total

Emissions (metric tons CO2e)

552,660

Change from last reporting year

Lower

Please explain

We sourced fewer tonnes of sugar leading to a decline in GHG emissions in 2018.

Timber

Reporting emissions by

Total

Emissions (metric tons CO2e)

637,265

Change from last reporting year

Higher

Please explain

Earthworm, our traceability partner, helps us map our pulp and paper supply chain. This is a lagging indicator and represents 2017 tCO2e.

Other

Reporting emissions by

Total

Emissions (metric tons CO2e)

11,653,646

Change from last reporting year

Lower

Please explain

Emissions from cocoa sourcing were 11,653,646 tonnes in 2018. This was a 9% decrease on 2018 caused by changes in the mix of cocoa products that we source.

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

33.6

Metric numerator (Gross global combined Scope 1 and 2 emissions)

1,175,016

Metric denominator

unit total revenue

Metric denominator: Unit total

35,000

Scope 2 figure used

Market-based

% change from previous year

21

Direction of change

Decreased

Reason for change

Our emissions decreased in 2018 due to continued efficiency improvements and increased renewable electricity sourcing. For example, in 2018, we had 100% renewable power coverage in Mexico for the first time and higher output from our North American wind farm.

Please note total revenues are $35bn.

Intensity figure

0.13

Metric numerator (Gross global combined Scope 1 and 2 emissions)

1,175,016

Metric denominator

metric ton of product

Metric denominator: Unit total

0

Scope 2 figure used

Market-based

% change from previous year

22

Direction of change

Decreased

Reason for change

We do not disclose our production tonnage (hence why 0 was entered above), however, our emissions decreased in 2018 due to continued efficiency improvements and increased renewable electricity sourcing.

C7. Emissions breakdowns

C7.1

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

Yes

C7.1a

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

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	667,585	IPCC Fifth Assessment Report (AR5 – 100 year)
HFCs	14,669	IPCC Fifth Assessment Report (AR5 – 100 year)
Other, please specify Other Refigerants	9,991	IPCC Fifth Assessment Report (AR5 – 100 year)

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
Africa and Middle East	9,741
CIS and Asia	131,681
Europe	178,705
Americas	372,391

C7.3

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

By business division

C7.3a

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

Business division	Scope 1 emissions (metric ton CO2e)
Mars Wrigley	256,642
Mars Food	43,730
Mars Petcare	378,274
Mars Edge	416
Offices & Retail	13,456

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.

Activity
Processing/Manufacturing

Emissions (metric tons CO2e)
692,186

Methodology
Default emissions factor

Please explain
These emissions are calculated from the volume or energy content of fuels used within our operational boundaries.

C7.5

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

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
Africa and Middle East	43,631	43,305	69,257	1,735
CIS and Asia	316,924	316,714	517,955	497
Europe	226,212	50,050	748,826	532,086
Americas	480,135	72,430	1,043,398	794,677

C7.6

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

By business division

C7.6a

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

Business division	Scope 2, location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
Mars Wrigley	597,753	260,671
Mars Food	26,379	11,418
Mars Petcare	350,684	136,809
Mars Edge	1,410	0
Offices and Retail	90,677	73,601

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?

Decreased

C7.9a

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

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	206,983	Decreased	14.6	This decrease is due to additional renewable energy sourcing in Mexico in 2018 as well as significant increases in output from our North America wind farm and European renewable electricity purchases.

				Emissions value (percentage) = Change in Emissions 206,983 CO2e / prior year Scope 1+2 emissions 1,417,154 CO2e a. Change in Emissions = Current Year Emissions 1,175,016 CO2e - prior year Scope 1+2 emissions 1,417,154 CO2e – Other emissions reduction actives 458 CO2e – Divestments (Drinks and Exclusive Brand Pet) 34696.66 CO2e
Other emissions reduction activities	458	Decreased	0	This decrease is due to efficiency initiatives (energy efficiency: processes) as described in CC4.3b. Other emissions reduction activities = (total energy saved 8455 GJ / 2018 total energy consumption 21,679,106.46 GJ * (scope 1: 692,518 CO2e + Scope 2 market based: 482,498 CO2e)) / prior year Scope 1+2 emissions 1,417,154 CO2e a. Total energy saved = 2018 total energy consumption 21,679,106.46 GJ * energy intensity saved 4% i. Energy intensity saved = (2017 energy intensity 2.564 GJ/t – 2018 energy intensity 2.563 GJ/t) / 2017 energy intensity 2.564 GJ/t
Divestment	34,696.66	Decreased	2.4	Our Drinks business and Exclusive Brand pet food business were divested in 2018 and their emissions have been removed for the whole year. Divestment = actual CO2e of divested entities (Drinks and Exclusive Brand Pet food): 34696.66 CO2e / prior year Scope 1+2 emissions 1,417,154 CO2e
Acquisitions	0	No change	0	We made no acquisitions for which we have emissions data to report in 2018.
Mergers	0	No change	0	We had no mergers which we have emissions data to report on in 2018
Change in output	0	No change	0	

Change in methodology	0	No change	0	
Change in boundary	0	No change	0	
Change in physical operating conditions	0	No change	0	
Unidentified	0	No change	0	
Other	0	No change	0	

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.

	Indicate whether your organization undertakes this energy-related activity
Consumption of fuel (excluding feedstocks)	Yes

Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	Yes
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	45,064	3,737,425	3,782,490
Consumption of purchased or acquired electricity		1,257,889	1,008,511	2,266,400
Consumption of purchased or acquired heat		3,022	0	3,022
Consumption of purchased or acquired steam		31,604	105,672	137,275
Consumption of self-generated non-fuel renewable energy		1,449		1,449
Total energy consumption		1,339,028	4,851,608	6,190,636

C8.2b

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

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	No

Consumption of fuel for the generation of heat	No
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	Yes

C8.2c

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

Fuels (excluding feedstocks)

Liquefied Petroleum Gas (LPG)

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

56,906

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Comment

Fuels (excluding feedstocks)

Diesel

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

17,082

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Comment

GHG Protocol's "Stationary Combustion tool", version 4.1, using Scope 1 fuel GWP Set = "2014 IPCC Fifth Assessment Report"

Fuels (excluding feedstocks)

Fuel Oil Number 4

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

2,161

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Comment

GHG Protocol's "Stationary Combustion tool", version 4.1, using Scope 1 fuel GWP Set = "2014 IPCC Fifth Assessment Report"

Fuels (excluding feedstocks)

Fuel Oil Number 5

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

13,397

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Comment

GHG Protocol's "Stationary Combustion tool", version 4.1, using Scope 1 fuel GWP Set = "2014 IPCC Fifth Assessment Report"

Fuels (excluding feedstocks)

Petrol

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

48

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Comment

Fuels (excluding feedstocks)

Natural Gas

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

3,647,183

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-cogeneration or self-trigeneration

321,749

Comment

Fuels (excluding feedstocks)

Other Petroleum Gas

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

648

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Comment

Fuels (excluding feedstocks)

Biogas

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

21,208

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-cogeneration or self-trigeneration

10,801

Comment

2006 IPCC guidelines for National Greenhouse Gas Inventories (accessed through the GHGP Biogenic emissions excel tool)

Fuels (excluding feedstocks)

Wood Waste

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

23,856

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Comment

2006 IPCC guidelines for National Greenhouse Gas Inventories (accessed through the GHGP Biogenic emissions excel tool)

C8.2d

(C8.2d) List the average emission factors of the fuels reported in C8.2c.

Biogas

Emission factor

0.0546

Unit

metric tons CO2e per GJ

Emission factor source

2006 IPCC guidelines for National Greenhouse Gas Inventories (accessed through the GHGP Biogenic emissions excel tool)

Comment

Diesel

Emission factor

0.07062

Unit

metric tons CO2e per GJ

Emission factor source

GHG Protocol's "Stationary Combustion tool", version 4.1, using Scope 1 fuel GWP Set = "2014 IPCC Fifth Assessment Report"

Comment

Fuel Oil Number 4

Emission factor

0.06944

Unit

metric tons CO2e per GJ

Emission factor source

GHG Protocol's "Stationary Combustion tool", version 4.1, using Scope 1 fuel GWP Set = "2014 IPCC Fifth Assessment Report"

Comment

Fuel Oil Number 5

Emission factor

0.07376

Unit

metric tons CO2e per GJ

Emission factor source

GHG Protocol's "Stationary Combustion tool", version 4.1, using Scope 1 fuel GWP Set = "2014 IPCC Fifth Assessment Report"

Comment

Liquefied Petroleum Gas (LPG)

Emission factor

0.05683

Unit

metric tons CO2e per GJ

Emission factor source

GHG Protocol's "Stationary Combustion tool", version 4.1, using Scope 1 fuel GWP Set = "2014 IPCC Fifth Assessment Report"

Comment

Natural Gas

Emission factor

0.05053

Unit

metric tons CO2e per GJ

Emission factor source

GHG Protocol's "Stationary Combustion tool", version 4.1, using Scope 1 fuel GWP Set = "2014 IPCC Fifth Assessment Report"

Comment

Other Petroleum Gas

Emission factor

0.05683

Unit

metric tons CO2e per GJ

Emission factor source

GHG Protocol's "Stationary Combustion tool", version 4.1, using Scope 1 fuel GWP Set = "2014 IPCC Fifth Assessment Report"

Comment

Petrol

Emission factor

0.06606

Unit

metric tons CO2e per GJ

Emission factor source

GHG Protocol's "Stationary Combustion tool", version 4.1, using Scope 1 fuel GWP Set = "2014 IPCC Fifth Assessment Report"

Comment

Wood Waste

Emission factor

0.112

Unit

metric tons CO2e per GJ

Emission factor source

2006 IPCC guidelines for National Greenhouse Gas Inventories (accessed through the GHGP Biogenic emissions excel tool)

Comment

C8.2e

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

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	74,190	74,190	1,449	1,449
Heat	0	0	0	0
Steam	83,388	83,388	998	998
Cooling	0	0	0	0

C8.2f

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

Basis for applying a low-carbon emission factor

Energy attribute certificates, Renewable Energy Certificates (RECs)

Low-carbon technology type

Wind

Region of consumption of low-carbon electricity, heat, steam or cooling

North America

MWh consumed associated with low-carbon electricity, heat, steam or cooling

726,969

Emission factor (in units of metric tons CO2e per MWh)

0

Comment

All these RECs originate from a single 118 turbine windfarm in Texas that MARS partnered to develop.
The US RECs are certified, storaged and transferred to MARS from the ERCOT (Electric Reliability Council of Texas, Inc.) systems.
Electric Reliability Council of Texas, Inc. (ERCOT) is the independent organization certified under Public Utility Regulatory Act (PURA) § 39.151 by the Public Utility Commission of Texas (PUCT).

Basis for applying a low-carbon emission factor

Other, please specify

Other (PECs)

Low-carbon technology type

Solar PV

Region of consumption of low-carbon electricity, heat, steam or cooling

North America

MWh consumed associated with low-carbon electricity, heat, steam or cooling

1,360

Emission factor (in units of metric tons CO2e per MWh)

0

Comment

PECs (Portfolio Energy Credits) are certified, storaged and transferred to MARS from the Nevada Tracks Renewable Energy Credits (NVTREC). Credits are certified after the end of each year.
Included within the statutes defining Nevada's Renewable Portfolio Standard is a provision (NRS 704.7821) that authorizes the creation of a

system of portfolio energy credits (PECs). This system allows renewable energy producers to earn and sell PECs to electric utilities that are required to meet Nevada's Renewable Portfolio Standard. This system of earning and selling portfolio credits, called the PEC Trading Program, is administered by the PUCN.

Basis for applying a low-carbon emission factor

Contract with suppliers or utilities (e.g. green tariff), supported by energy attribute certificates

Low-carbon technology type

Wind

Region of consumption of low-carbon electricity, heat, steam or cooling

Europe

MWh consumed associated with low-carbon electricity, heat, steam or cooling

173,810

Emission factor (in units of metric tons CO2e per MWh)

0

Comment

Contracted renewable supply in Belgium, Lithuania, Spain, Poland, Czech Rep., with the majority of generation from wind power.

Basis for applying a low-carbon emission factor

Power Purchase Agreement (PPA) with energy attribute certificates

Low-carbon technology type

Wind

Region of consumption of low-carbon electricity, heat, steam or cooling

Europe

MWh consumed associated with low-carbon electricity, heat, steam or cooling

127,238

Emission factor (in units of metric tons CO2e per MWh)

0

Comment

The renewable energy attributes of this project are managed by the UK government, independent of Mars or the owners of the Moy Windfarm.

Basis for applying a low-carbon emission factor

Contract with suppliers or utilities (e.g. green tariff), supported by energy attribute certificates

Low-carbon technology type

Hydropower

Region of consumption of low-carbon electricity, heat, steam or cooling

Europe

MWh consumed associated with low-carbon electricity, heat, steam or cooling

228,015

Emission factor (in units of metric tons CO2e per MWh)

0

Comment

The label generated by e-Control discloses the percentage of each type of energy supplied to our organization. Generation takes place in Austria.

Basis for applying a low-carbon emission factor

Off-grid energy consumption from an on-site installation or through a direct line to an off-site generator owned by another company

Low-carbon technology type

Solar PV

Region of consumption of low-carbon electricity, heat, steam or cooling

Asia Pacific

MWh consumed associated with low-carbon electricity, heat, steam or cooling

497

Emission factor (in units of metric tons CO2e per MWh)

0

Comment

On-site Solar PV at our location in China, backed by certificates or contract specifying exclusivity.

Basis for applying a low-carbon emission factor

Power Purchase Agreement (PPA) with energy attribute certificates

Low-carbon technology type

Wind

Region of consumption of low-carbon electricity, heat, steam or cooling

Latin America

MWh consumed associated with low-carbon electricity, heat, steam or cooling

58,839

Emission factor (in units of metric tons CO2e per MWh)

0

Comment

Self-supply scheme power purchase agreement with CFE in Mexico, supported by tracking instruments.

Basis for applying a low-carbon emission factor

Contract with suppliers or utilities (e.g. green tariff), not supported by energy attribute certificates

Low-carbon technology type

Hydropower

Region of consumption of low-carbon electricity, heat, steam or cooling

Latin America

MWh consumed associated with low-carbon electricity, heat, steam or cooling

7,508

Emission factor (in units of metric tons CO2e per MWh)

0

Comment

Renewable energy use reported by our Royal Canin factory in Brazil

Basis for applying a low-carbon emission factor

Grid mix of renewable electricity

Low-carbon technology type

Other low-carbon technology, please specify

Geothermal

Region of consumption of low-carbon electricity, heat, steam or cooling

Europe

MWh consumed associated with low-carbon electricity, heat, steam or cooling

3,022

Emission factor (in units of metric tons CO2e per MWh)

0.29

Comment

Geothermal energy used at our factory in Hungary, with emissions factor based on the Hungarian grid average.

Basis for applying a low-carbon emission factor

Off-grid energy consumption from an on-site installation or through a direct line to an off-site generator owned by another company

Low-carbon technology type

Wind

Region of consumption of low-carbon electricity, heat, steam or cooling

Africa

MWh consumed associated with low-carbon electricity, heat, steam or cooling

1,735

Emission factor (in units of metric tons CO2e per MWh)

0

Comment

This is renewable energy used by our site in Kenya.

C9. Additional metrics

C9.1

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

Description

Land use

Metric value

2,780,175

Metric numerator

Total hectares of land in our value chain

Metric denominator (intensity metric only)

% change from previous year

2.3

Direction of change

Increased

Please explain

This metric relates to land use change and deforestation in our agricultural supply chain - both contributors to climate change. To calculate our land area, Mars utilized a combination of our raw material sourcing data and global peer-reviewed data-sets, such as the World Food Life Cycle Assessment database and ecoinvent. From these data sources, we estimated our total land footprint to be around 2.7 million hectares in our 2015 base year. We have restated our 2015 baseline to reflect more accurate data for certain raw materials.

Our goal is to hold flat the total land area associated with our value chain, even as we grow our business. We aim to do this by improving productivity and yields and addressing deforestation. The modest increase in our land area from our 2015 baseline reflects a growth in some raw materials that require high land use. We are working to develop strategies that will reduce the amount of land needed to grow our key ingredients, for example by working with farmers to boost yields and improve the resilience of crops.

Description

Other, please specify

Gap to sustainable value chain water use

Metric value

403,284,000

Metric numerator

Million cubic meters

Metric denominator (intensity metric only)

Year

% change from previous year

10.1

Direction of change

Decreased

Please explain

This metric measures Mars' progress towards our water stewardship goal to ensure water use in our value chain is within annually renewable levels by watershed. This is relevant because climate change is likely to increase water scarcity in some areas where we operate and source from. We chose this target because it is context-based, and so focuses on playing our part in solving water availability issues in the watersheds we operate in or source from. As we deploy strategies aimed at reducing unsustainable water use, we are increasing our understanding of water

stress in our sourcing watersheds. This is informing our purchasing decisions for raw materials such as rice and mint, and our efficiency improvement programs, helping us to reduce our water impacts in future and achieve our 2025 target.

C10. Verification

C10.1

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

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

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

Scope

Scope 1

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Mars Assurance Statement v2-ASRauthorized-Final June 28 2019.docx

Page/ section reference

Whole document

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope

Scope 1

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Moderate assurance

Attach the statement

Mars Assurance Statement v2-ASRauthorized-Final June 28 2019.docx

Page/ section reference

Whole document

Relevant standard

Other, please specify

LRQA verification approach

Proportion of reported emissions verified (%)

100

Scope

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Mars Assurance Statement v2-ASRauthorized-Final June 28 2019.docx

Page/ section reference

Whole document

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Moderate assurance

Attach the statement

Mars Assurance Statement v2-ASRauthorized-Final June 28 2019.docx

Page/ section reference

Whole document

Relevant standard

Other, please specify

LRQA verification approach

Proportion of reported emissions verified (%)

100

C10.1b

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

Scope

Scope 3- at least one applicable category

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Attach the statement

Mars Assurance Statement v2-ASRauthorized-Final June 28 2019.docx

Page/section reference

Whole document

Relevant standard

ISO14064-3

C10.2

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

Yes

C10.2a

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

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C6. Emissions data	Other, please specify Scope 3 GHG emissions related to the purchase of cocoa and dairy	ISO 14064-3:2006	For the first time, this year LRQA verified the scope 3 GHG emissions in our supply chain associated with the sourcing of cocoa and dairy as raw materials for our products. This data is included in our response to C-FB6.9. 1

[1]Mars Assurance Statement v2-ASRauthorized-Final June 28 2019.docx

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.

China national ETS

EU ETS

C11.1b

(C11.1b) Complete the following table for each of the emissions trading systems in which you participate.

China national ETS

% of Scope 1 emissions covered by the ETS

1.5

Period start date

January 1, 2018

Period end date

December 31, 2018

Allowances allocated

49,508

Allowances purchased

6,744

Verified emissions in metric tons CO2e

0

Details of ownership

Facilities we own and operate

Comment

The data provided cover two sites that are covered by the program.

EU ETS

% of Scope 1 emissions covered by the ETS

10.2

Period start date

January 1, 2018

Period end date

December 31, 2018

Allowances allocated

36,768

Allowances purchased

30,121

Verified emissions in metric tons CO2e

0

Details of ownership

Facilities we own and operate

Comment

The data provided covers six E.U. sites that are included in the program.

C11.1d

(C11.1d) What is your strategy for complying with the systems in which you participate or anticipate participating?

We ensure compliance with carbon pricing and tax systems through our Sustainable in a Generation Plan. Within this plan, our targets are to reduce scope 1 & 2 emissions by 40% by 2025 and 100% by 2040.

Increasing operational and capital efficiency and investing in energy-efficient new technologies are helping reduce emissions as far as possible. Examples of operational efficiency include driving down energy use through Associate behavior change and smarter equipment use. We also invest in

technology and processes that use less power, such as heat pump systems that recover waste heat, and in the development of new technology such as DryF, an EU Horizon 2020 project to develop high temperature heat pumps for recovering waste heat in pet food manufacture.

We are eliminating the remaining emissions by investing in renewable electricity. Our operations in 10 countries have already fully transitioned to renewable electricity sources. Around 58% of our electricity used globally is renewable. We invest in three ways – by installing on-site renewable generation, through short-term power purchase agreements in Europe, and through long-term power purchase agreements in the USA and the UK. In some cases these agreements help finance renewable infrastructure development.

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?

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price

Change internal behavior

Drive low-carbon investment

GHG Scope

Scope 1

Scope 2

Scope 3

Application

Avoiding future carbon taxes formed part of the business case for our Sustainable in a Generation Plan and associated $1 billion investment in sustainability by 2019. A compelling business case was critical in securing sign-off for the SIG Plan and investment from the Mars Leadership Team and Board. Implementing the SIG Plan involves significant shifts in some aspects of our business, such as investment in long-term renewable energy contracts and changes to the way we source our raw materials to reduce emissions in our agricultural supply chain.

Actual price(s) used (Currency /metric ton)

30

Variance of price(s) used

To determine the impact of carbon pricing on each of our business segments, we modeled different time horizons (2025 and 2040) and different elements of our value chain (sourcing, operations, logistics). For each element of the value chain, we assessed:
- likelihood of taxation
- level of taxation
- the % of the tax that Mars would be responsible.

In each case, we modeled three scenarios: best case, worst case and most likely case.

Type of internal carbon price

Implicit price

Impact & implication

The Mars Leadership Team signed off the SIG Plan, which was launched in September 2017. Implementing the SIG Plan involves significant shifts in some aspects of our business, such as investment in long-term renewable energy contracts and changes to the way we source our raw materials to reduce emissions in our agricultural supply chain.

C12. Engagement

C12.1

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

Yes, our suppliers

Yes, our customers

Yes, other partners in the value chain

C12.1a

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

Type of engagement

Compliance & onboarding

Details of engagement

Included climate change in supplier selection / management mechanism

Climate change is integrated into supplier evaluation processes

% of suppliers by number

100

% total procurement spend (direct and indirect)

100

% Scope 3 emissions as reported in C6.5

80

Rationale for the coverage of your engagement

Sustainable in a Generation is our plan for growing in ways that are good for people, good for the planet and good for our business. At the heart of the plan is a determination to extend our focus deep into our extended supply chains, as well as in our direct operations and, where impactful, with customers and consumers. As a first measure, our Responsible Sourcing questionnaire asks all tier-1 raw material suppliers whether they have a policy on greenhouse gas emissions, what they are doing to reduce GHG emissions, whether they invest in research on climate change, and whether they report to CDP. The SiG Plan applies to the 23 raw materials presenting the greatest environmental and social concerns, although our primary focus is on 10 materials that account for 80% of our impact including scope 3 emissions. We prioritize deeper engagement with suppliers of these priority raw materials. In 2017, we integrated sustainability into the Mars Strategic Sourcing Methodology (MSSM). MSSM is our six-step process for guiding buyers in all aspects of procurement, including supplier evaluation, selection and management. MSSM now includes tools for impact assessment and options for buyers to select from to develop an appropriate sustainable procurement strategy. In all cases this involves working closely with suppliers and farmers to develop mutually-beneficial solutions for remaining within our share of the carbon budget.

Impact of engagement, including measures of success

By integrating sustainability criteria into the Mars Strategic Sourcing Methodology, we aim to systematically select suppliers based on their sustainability impact and performance in addition to more traditional criteria such as cost and quality. By working closely with suppliers and farmers, we plan to develop mutually-beneficial solutions for reducing value-chain wide GHG emissions and remaining within our share of the carbon budget. As part of MSSM, buyers work with suppliers to develop sustainable sourcing KPIs to include in tenders and contracts for supplying our raw materials. This process involves collecting data on key impacts including climate change and deforestation prevention from our suppliers, and the KPIs are used to monitor supplier performance over time. For example, we have created a scorecard that rates palm oil suppliers' efforts across six sustainability criteria: policies, transparency, traceability, transformation programs, verification processes and grievance mechanisms. To focus on actions rather than words, the scorecard applies greater weighting to the last three areas. Each of our direct suppliers receives the results of their scorecard as part of our annual supplier selection and review process.

Mars won a 2019 Climate Leadership Supply Chain Award for our sustainable procurement strategy for raw material production, including our work to engage rice growers to adopt alternate wetting and drying irrigation approaches, and our involvement in the Cocoa and Forests Initiative to eliminate deforestation from the cocoa supply chain.

Comment

Type of engagement

Engagement & incentivization (changing supplier behavior)

Details of engagement

Offer financial incentives for suppliers who reduce your upstream emissions (Scopes 3)

% of suppliers by number

% total procurement spend (direct and indirect)

% Scope 3 emissions as reported in C6.5

Rationale for the coverage of your engagement

Sustainable in a Generation is our plan for growing in ways that are good for people, good for the planet and good for our business. At the heart of the plan is a determination to extend our focus deep into our extended supply chains, as well as in our direct operations and, where impactful, with customers and consumers. The plan applies to 23 raw materials presenting the greatest environmental and social concerns, although our primary focus is on 10 materials that account for 80% of our impact including scope 3 emissions. We prioritize engagement with suppliers of these priority raw materials. We have integrated sustainability into the Mars Strategic Sourcing Methodology (MSSM) for the 23 priority raw materials. MSSM is our six-step process for guiding buyers in all aspects of procurement, including supplier evaluation, selection and management. MSSM now includes tools for impact assessment and options for buyers to select from to develop an appropriate sustainable procurement strategy. In all cases this involves working closely with suppliers and farmers to develop mutually-beneficial solutions for remaining within our share of the carbon budget.

Impact of engagement, including measures of success

By integrating sustainability criteria into the Mars Strategic Sourcing Methodology, we aim to systematically select suppliers based on their sustainability impact and performance in addition to more traditional criteria such as cost and quality. By awarding contracts based in part on sustainability performance, we are providing suppliers with a financial incentive to address climate change - in particular through deforestation

prevention - and other relevant impacts. For example, since 2016, Mars Food's partnerships with basmati rice farmers in India and Pakistan have improved environmental stewardship. The results have boosted quality and productivity, enabling farmers to earn a $54 per tonne premium for producing Sustainable Rice Platform verified rice. Equally, we will walk away from suppliers whose sustainability performance does not meet our contractual requirements.

Mars won a 2019 Climate Leadership Supply Chain Award for our sustainable procurement strategy for raw material production, including our work to engage rice growers to adopt alternate wetting and drying irrigation approaches, and our involvement in the Cocoa and Forests Initiative to eliminate deforestation from the cocoa supply chain.

Comment

Type of engagement

Innovation & collaboration (changing markets)

Details of engagement

Run a campaign to encourage innovation to reduce climate impacts on products and services

% of suppliers by number

1

% total procurement spend (direct and indirect)

% Scope 3 emissions as reported in C6.5

Rationale for the coverage of your engagement

Collaborating with our suppliers on innovation through our sustainable sourcing programs helps boost efficiency. We select suppliers with whom to engage in collaborative research based on the importance to Mars of the raw material they supply, and the degree of impact associated with

that raw material in the location it is sourced from. The supplier's commitment and capacity to engage research is also critical. Our strategy is to focus on deep engagement with suppliers sourcing raw materials with the greatest impact, rather than limited engagement across our entire supply chain. As such, the number of suppliers engaged is not high, but those suppliers account for a high proportion of impact in our supply chain.

For example, cocoa accounts for 75% of our land footprint while Cote d'Ivoire and Ghana account for more than 65% of world cocoa production. In 2018, as part of the World Cocoa Foundation's Cocoa and Forests Initiative, we worked with major cocoa suppliers sourcing from West Africa to develop detailed action plans for tackling deforestation from cocoa production. We are developing similar action plans for other cocoa-sourcing countries, to help us reach our ambition of a deforestation-free global cocoa supply chain by 2025.

In another example, we encourage contract rice growers to adopt the alternate wetting and drying (AWD) irrigation approach developed through Mars-sponsored research, which saves water and reduces methane emissions.

Impact of engagement, including measures of success

For cocoa, as our deforestation action plans were developed in 2018 and launched in early 2019, we are not yet able to report on measures of success. However, our action plans include clear targets in all areas, and we will report progress along with our suppliers as part of our Cocoa and Forests Initiative membership. To date, Mars can trace 95% of the cocoa we source to a country of origin via our Tier 1 direct suppliers. Nearly 40% of our cocoa supply chain can be traced to Tier 2 - farmer group - and 24% of our supply chain can be traced to a Tier 3 - farm level. Understanding the origins of our supply is a critical first step in deforestation prevention.

We worked directly with rice farmers in the Mississippi Delta to use alternate wetting and drying (AWD), an irrigation technique that reduces both water use and GHG emissions with little or no impact on yields. We are testing our findings in other regions, including Pakistan, where we work with more than 450 rice farmers on improved farming techniques.

Mars won a 2019 Climate Leadership Supply Chain Award for our sustainable procurement strategy for raw material production, including our work to engage rice growers to adopt alternate wetting and drying irrigation approaches, and our involvement in the Cocoa and Forests Initiative to eliminate deforestation from the cocoa supply chain.

Comment

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement

Collaboration & innovation

Details of engagement

Other – please provide information in column 5

% of customers by number

% Scope 3 emissions as reported in C6.5

Please explain the rationale for selecting this group of customers and scope of engagement

We collaborate with customer programs to reduce emissions, such as Walmart's Project Gigaton, an initiative launched in 2017 to eliminate one gigaton of GHG emissions from Walmart's supply chain. Walmart is our largest customer, providing an opportunity to make a meaningful different by making a shared effort to reduce emissions from our considerable combined value chains.

In addition, in 2018 our engagement with Target led to their involvement in the Value Change Initiative led by Gold Standard, in which we are developing a methodology to measure emissions reductions in agricultural supply chains.

Mars is also leading the Consumer Goods Forum's work to reset its deforestation strategy. The new strategy has been signed off by CGF board for launch in 2019.

Impact of engagement, including measures of success

Walmart reports that together, more than 1,000 suppliers committed to Project Gigaton have conserved 93 million metric tons of emissions through a combination of energy efficiency, renewable energy and sustainable packaging projects since the April 2017 launch.

Consumer Good Forum members represent combined sales of 3.5 trillion Euros. These members will seek to implement the new deforestation strategy for which Mars led the development in their agricultural supply chains.

C12.1c

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

The urgency of climate change is recognized in the UN Sustainable Development Goals (SDGs) – SDG 13 calls for "urgent action to combat climate change and its impacts." Mars supports the SDGs and recognizes the need for engaging others to collectively play our part in addressing climate change, as no single company can make meaningful progress alone. We prioritize stakeholder engagement on GHG emissions and climate change in the area of our value chain responsible for the greatest proportion of our emissions - our agricultural supply chain. We have in place a number of raw material sustainable sourcing strategies where we work with partners and farmers beyond our tier-1 suppliers to reduce environmental impacts. These strategies usually involve other partners in the value chain such as industry bodies, NGOs and third-party experts. For example:

- Through our partnership with Proforest and our membership of the Global Roundtable on Sustainable Beef, the Brazil Roundtable on Sustainable Beef, and the SAI Beef Platform, we are engaged in industry efforts to reduce deforestation and other emissions related to livestock production.
- We participate in the Sustainable Agriculture Initiative Platform's efforts to develop a Dairy Sustainability Framework for business-to-business settings, with input from both dairy buyers and suppliers.
- We collaborated with a Spanish rice supplier, WWF and Danone to pilot good practices for reducing the GHG, water and biodiversity impacts of rice, and to jointly advocate sustainability to national and regional government.
- We are working with the World Cocoa Foundation, ACDI/VOCA, USAID, and other leading chocolate and cocoa companies, on a common strategy to address the impacts of climate change on cocoa, and to find innovations to help farmers adapt to changing weather patterns. We are also active in the World Cocoa Foundation Cocoa and Forests Initiative, and have published a policy and action plans for addressing deforestation from cocoa production, in collaboration with our suppliers.
- Through our partnership with Earthworm (formerly The Forest Trust), we support their Aggregator and Refinery Transformation program to address deforestation in the palm oil supply chain and Kumakaya pilot for on-the-ground verification that palm oil is sustainably produced.

In addition, we participate in initiatives run by academic and industry partners in the value chain which aim to improve scientific understanding and data relating to sustainable agriculture. For example:

- We are working to help improve public data on the impacts of agricultural production through partner-level engagement with the World Food Lifecycle Database (WFLDB) project. Through this project we link supplier-specific data to the WFLDB process and review the resulting lifecycle analysis

models, improving the quality of the data.
- We work with industry partners to share best practices and conduct lifecycle assessments of specific aspects of our value chain, through organizations including The Sustainability Consortium, The Sustainable Food Lab and AIM-PROGRESS.
Improved land use change methods, including measures to more accurately assess emissions impacts; helped to launch the Renewable Thermal Collaborative to scale up renewable heating solutions globally; and participated in the launch of a new corporate leadership platform to diagnose business climate risk throughout the supply chain.

Mars won a 2019 Climate Leadership Award for organizational leadership, for our work to improve land use change calculation methods and more accurately assess emissions; our help to launch the Renewable Thermal Collaborative to scale up renewable heating solutions globally; and our participation in the launch of a new corporate leadership platform to diagnose business climate risk throughout the supply chain.

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

Through the Livelihoods Fund for Family Farming (L3F) set up by Mars and Danone in 2015, we encourage investment in large-scale projects that enable farmers to produce greater yields of higher quality using sustainable agricultural practices including agroforestry systems. Projects create additional benefits such as biodiversity preservation, water resources management, and carbon dioxide sequestration.

Your role in the implementation

Financial
Knowledge sharing
Procurement

Explanation of how you encourage implementation

L3F proposes a new approach to supply chains. Through the Fund, we invest in large-scale projects enabling farmers to produce greater yields of higher quality through sustainable agricultural practices including agroforestry systems. Projects strengthen the connection between groups of family farmers and business supply chains. Investors, including Mars, commit to purchasing the commodities originating from these projects over a 10-year period. Projects also create benefits for society as a whole through biodiversity preservation, water resources management, and CO2 sequestration. L3F receives results-based payments in order to guarantee tangible social, economic and environmental impacts.

Mars currently invests in L3F projects for coconut, rice and vanilla and is exploring projects for cocoa and palm oil.

Climate change related benefit

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

Comment

Management practice reference number

MP2

Management practice

Biodiversity considerations

Description of management practice

Through the Livelihoods Fund for Family Farming (L3F) set up by Mars and Danone in 2015, we encourage investment in large-scale projects that enable farmers to produce greater yields of higher quality using sustainable agricultural practices including agroforestry systems. Projects create additional benefits such as biodiversity preservation, water resources management, and carbon dioxide sequestration.

Your role in the implementation

Financial
Knowledge sharing
Procurement

Explanation of how you encourage implementation

L3F proposes a new approach to supply chains. Through the Fund, we invest in large-scale projects enabling farmers to produce greater yields of higher quality through sustainable agricultural practices including agroforestry systems. Projects strengthen the connection between groups of family farmers and business supply chains. Investors, including Mars, commit to purchasing the commodities originating from these projects over a 10-year period. Projects also create benefits for society as a whole through biodiversity preservation, water resources management, and CO2 sequestration. L3F receives results-based payments in order to guarantee tangible social, economic and environmental impacts.

Mars currently invests in L3F projects for coconut, rice and vanilla and is exploring projects for cocoa and palm oil.

Climate change related benefit

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

Comment

Management practice reference number

MP3

Management practice

Change in the topography or landscapes

Description of management practice

We support research and collaborations designed to transform the way raw materials are produced at a landscape level, driving joined-up change across a supply shed rather than individual plantations or farms.

For example, in 2018 we began supporting the Coalition for Sustainable Livelihoods to improve smallholder productivity and sustainable development in Aceh and North Sumatra, in Indonesia. With members including Conservation International, IDH Sustainable Trade Initiative, The Livelihoods Fund, Earthworm, the United Nations Development Program and other multinational food companies, the Coalition aims to develop a landscape approach that builds sustainable livelihoods and improves natural resource management.

Your role in the implementation

Financial
Knowledge sharing
Procurement

Explanation of how you encourage implementation

By aligning public and private sector efforts, Mars and other members of the Coalition for Sustainable Livelihoods aim to help advance government programs and policies while contributing to supply chain sustainability.

Climate change related benefit

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

Comment

Management practice reference number

MP4

Management practice

Crop diversity

Description of management practice

Through the Livelihoods Fund for Family Farming (L3F) set up by Mars and Danone in 2015, we encourage investment in large-scale projects that enable farmers to produce greater yields of higher quality using sustainable agricultural practices including intercropping. Projects create additional benefits such as biodiversity preservation, water resources management, and carbon dioxide sequestration.

For example, our coconut project aims to provide farmers with training, affordable inputs, high-yield planting materials and extension services, to help them increase productivity and diversify their crops and income. Intercropping is a key part of the model. Farmers will plant smaller, perennial cash crops such as coffee and bananas between coconut trees, to provide a higher and more regular income. Depending on location, they will also introduce annual food and cash crops such as roots and vegetables.

Your role in the implementation

Financial
Knowledge sharing
Procurement

Explanation of how you encourage implementation

L3F proposes a new approach to supply chains. Through the Fund, we invest in large-scale projects enabling farmers to produce greater yields of higher quality through sustainable agricultural practices including agroforestry systems. Projects strengthen the connection between groups of family farmers and business supply chains. Investors, including Mars, commit to purchasing the commodities originating from these projects over a 10-year period. Projects also create benefits for society as a whole through biodiversity preservation, water resources management, and CO2 sequestration. L3F receives results-based payments in order to guarantee tangible social, economic and environmental impacts.

Mars currently invests in L3F projects for coconut, rice and vanilla and is exploring projects for cocoa and palm oil.

Climate change related benefit

Increasing resilience to climate change (adaptation)

Comment

Management practice reference number

MP5

Management practice

Diversifying farmer income

Description of management practice

Mars buys a range of raw materials from suppliers who in turn source these materials from an estimated 500,000 smallholder farmers worldwide. The majority of these smallholder farmers are from West Africa or Asia, with fewer from Central and South America. These farmers grow crops like cocoa, rice and mint. Each supply chain provides a unique context and different set of challenges.

At Mars, we believe everyone working within our extended supply chains should earn sufficient income to maintain a decent standard of living. Lifting smallholder farmers and farm workers out of poverty on its own will not ensure long-term supply security for critical raw materials. Our ultimate ambition is for people working in our supply chain to have sufficient income to provide a decent standard of living and to want to keep growing the crops we use.

Our sustainable sourcing income strategy has two pillars of work. The first is supply chain transformation, starting with cocoa, mint and rice, to significantly increase farmer incomes toward a decent standard of living. Significant work is already underway in each raw material, including investment in agricultural science research, technology transfer, certification, and co-founding the Livelihoods Fund for Family Farming. The second pillar of work is The Farmer Income Lab, a collaborative “think-do tank” established to address the critical questions we need to answer in order to improve farmers’ incomes within our supply chains to the extent required. For climate change, there are fundamentals in place that provide a framework for developing effective policies and implementation programs. The Greenhouse Gas Protocol sets a standard way to calculate and report our emissions and the work of the Intergovernmental Panel on Climate Change and the Planetary Boundaries framework informs what our emissions reduction targets should be. For farmer income, this framework is missing. This lack of clarity creates real barriers to

driving impact on the ground, at scale, for Mars and others. The Farmer Income Lab's primary objective is to generate these fundamental missing insights needed to inform Mars' policy development, sustainable sourcing implementation and advocacy, with the aim of driving faster and more effective impact at scale. We will amplify our impact by sharing our insights externally.

Your role in the implementation

Financial
Knowledge sharing
Procurement

Explanation of how you encourage implementation

As an example of how we encourage implementation, our sustainable rice program works with rice farmers in Asia and includes technical support for increasing yields and reducing input costs, including water efficiency methods that also reduce methane emissions. We're a leading member of the Sustainable Rice Platform (SRP), a global multi-stakeholder alliance led by the United Nations Environmental Program and the International Rice Research Institute. This platform includes members such as government agencies, research institutions and non-governmental organizations including World Wildlife Fund and Oxfam.

As another example, in India alone, more than 20,000 farmers grow the mint we need for our products. Through our AdvanceMint program, over the next five years we're training more than 20,000 smallholder farmers in Uttar Pradesh in good agricultural practices. By 2025 we aim to improve productivity, reduce water consumption by 30% and improve smallholder farmer's incomes.

Climate change related benefit

Emissions reductions (mitigation)
Increasing resilience to climate change (adaptation)

Comment

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

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

Yes

C12.3

(C12.3) 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
Funding research organizations

C12.3a

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

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Clean energy generation	Support	As a member of BICEP, an advocacy coalition, we are committed to working with policy makers to pass energy and climate legislation, and enabling the transition to a low-carbon economy that will create new jobs and stimulate economic growth while stabilizing our planet's climate. For example, in 2018 we participated in meetings with U.S. congressional lawmakers on climate change, and we discussed climate and energy priorities with lawmakers from the states of Virginia, Pennsylvania and North Carolina.	U.S. government policy for addressing climate change.
Other, please specify	Support	Participation in UN General Assembly and Climate Week. Mars leaders took part in panel discussions and speaking events focused on tackling the urgent threats facing the planet and its people. Through an interactive exhibit at the	Drive progress toward UN Sustainable Development Goals

Climate mitigation efforts		Hub, Mars showcased its commitment to sustainable sourcing and our renewable energy progress.	
Adaptation or resilience	Support	Participation in the annual UN Climate Change Conference.	Fulfill the role of the United States within the Paris Climate Agreement
Clean energy generation	Support	Engaging with European Commission policy makers on rules around renewable electricity procurement, and informing natural capital metrics and deforestation policies.	Clearer definition of rules on clean energy procurement
Other, please specify Collaboration for accelerated action	Support	Global Climate Action Summit, San Francisco	Launch deeper worldwide commitments and accelerated action from countries—supported by all sectors of society—to put the globe on track to prevent dangerous climate change and realize the historic Paris Agreement.
Other, please specify Progress toward UN Global Goals	Support	Launch of the 'Climate Calling' radio station partnership with Project Everyone—Mars has partnered with Project Everyone, the not-for-profit organization that pushes for urgent progress on the UN's Global Goals, on a "pop-up" radio station — offering business leaders and thinkers an opportunity to share their views on environmental progress. Working with a range of radio partners, the content was broadcast globally and across social media throughout September 2018.	Push for urgent progress on the UN's Global Goals.
Climate finance	Support	Mars is a founding member of the Sustainable Food Policy Alliance, launched in 2018 with Danone, Unilever and Nestle.	The Alliance seeks to drive progress in public policies that shape what people eat and how it impacts their health, communities, and the planet. It advocates for innovative, science-based solutions to take action against the costly impacts of climate change, build more resilient communities, promote renewable energy, and further develop sustainable agriculture systems.

			Specific policies the Alliance is engaging on are: 1. Urging U.S. policymakers to ensure the Farm Bill and other farm policies reflect the pressing need to increase the scale of actions to address water quality and water conservation issues, focus on improving soil health, and expand the deployment of renewable energy, particularly wind and solar. The Farm Bill should leverage all available tools, including research and public-private partnerships such as the Regional Conservation Partnership Program (RCPP), to make smart investments in conservation and sustainability. 2. Exploring the economics of sustainability, including financial incentives to reduce emissions and transition to low-carbon alternatives, with a particular focus on ways to create value for farmers, ranchers, and others who are implementing leading edge practices to cut greenhouse gas emissions. 3. Advocating on behalf of smart, comprehensive energy and environmental policies at the state, national, and international levels, including the Paris Climate Agreement, the Clean Power Plan or other commitments that result in change necessary to reduce greenhouse gas emissions in line with what evidence-based science says is necessary.

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.

Trade association

Ceres

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The Ceres BICEP initiative advocates for innovative climate and clean energy policies. Its members are proponents of renewable energy, greener transportation and stricter pollution controls on power plants.

How have you influenced, or are you attempting to influence their position?

Mars has signed BICEP's Climate Declaration, which calls upon U.S. federal policymakers to seize the economic opportunity of addressing climate change. Through BICEP, Mars advocates for policies that will enable cleaner, more efficient energy use and generate solutions for the threats of climate change. For example, in 2018 we participated in meetings with U.S. congressional lawmakers on climate change, and we discussed climate and energy priorities with lawmakers from the states of Virginia, Pennsylvania and North Carolina.

Trade association

The Sustainable Food Policy Alliance

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The Alliance seeks to drive progress in public policies that shape what people eat and how it impacts their health, communities, and the planet. It advocates for innovative, science-based solutions to take action against the costly impacts of climate change, build more resilient communities, promote renewable energy, and further develop sustainable agriculture systems.

Specific policies the Alliance is engaging on are:

1. Urging U.S. policymakers to ensure the Farm Bill and other farm policies reflect the pressing need to increase the scale of actions to address water quality and water conservation issues, focus on improving soil health, and expand the deployment of renewable energy, particularly wind and solar. The Farm Bill should leverage all available tools, including research and public-private partnerships such as the Regional Conservation Partnership Program (RCPP), to make smart investments in conservation and sustainability.

2. Exploring the economics of sustainability, including financial incentives to reduce emissions and transition to low-carbon alternatives, with a particular focus on ways to create value for farmers, ranchers, and others who are implementing leading edge practices to cut greenhouse gas emissions.

3. Advocating on behalf of smart, comprehensive energy and environmental policies at the state, national, and international levels, including the Paris Climate Agreement, the Clean Power Plan or other commitments that result in change necessary to reduce greenhouse gas emissions in line with what evidence-based science says is necessary.

How have you influenced, or are you attempting to influence their position?

Mars is a founding member of the Sustainable Food Policy Alliance, launched in 2018 with Danone, Unilever and Nestle. We are represented on its Leadership Council and Governing Board.

Trade association

Consumer Goods Forum (CGF)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

CGF is a global industry network that brings together CEOs and senior corporate managers to collaborate on sustainability and consumer issues. CGF has committed to mobilizing its resources to achieve zero net deforestation by 2020. CGF's position is that "Climate change is a major strategic threat, one which could affect our customers and their habitats, our businesses and the wider economy and society".

How have you influenced, or are you attempting to influence their position?

Our CEO is a co-sponsor of the Consumer Goods Forum's (CGF) work on sustainability and our CSO co-leads the CGF Sustainability Committee. Mars associates also sit on several impact-specific steering committees and working groups. For example, we lead the deforestation working group, including efforts to develop a new theory of change on how companies can address deforestation and develop a new framework for action from 2020.

Trade association

WWF Renewable Energy Buyers Alliance

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Supports renewable energy. Aim of the group is to make it easier for corporates to buy renewable energy by sharing expertise and publishing principles.

How have you influenced, or are you attempting to influence their position?

Co-authors and initial signatories to the principles.

Trade association

RE100

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Convened by The Climate Group and in partnership with CDP, RE100 raises awareness of the benefits for going '100% renewable'. The initiative celebrates the success of companies on their journey to being 100% renewable and collaborates with others to determine the best approaches for achieving the final goal.

How have you influenced, or are you attempting to influence their position?

Mars is a founding member of the RE100 commitment.

Trade association

Rocky Mountain Institute Business Renewables Center

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The Business Renewables Center is a member-based organization founded by Rocky Mountain Institute. The BRC works with major corporations, developers and service providers to streamline and accelerate corporate procurement of large-scale wind and solar energy.

How have you influenced, or are you attempting to influence their position?

Mars joined the Business Renewables Center in May 2016 to use our experience to help other companies successfully purchase renewable energy, and to gain market insights that the BRC network provides.

Trade association

FoodDrinkEurope (FDE) – Climate and Energy Expert Group

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The FoodDrinkEurope (FDE) Association represents the commercial, technical, economic, legal and scientific interests of the food and drink manufacturing industry in the European Union. The Climate & Energy Working Group deals with topics such as climate change, renewable energy, energy efficiency, and waste-to-energy policies, among others. The Group calls on policymakers to:
- Agree an ambitious long-term global climate deal. FDE Board members agreed to contribute to this target reducing greenhouse gas emissions in operations by 25% by 2025.
- Put in place effective implementation mechanisms for the approved EU 2030 Climate and Energy Framework and EU Energy Union Strategy.
- Maintain a permanent dialogue to ensure a holistic approach to the European food chain.
- Agree a global definition as well as a scientifically-reliable methodology for assessing food wastage.
- Stimulate investment and innovation in low-carbon and resource efficient technologies.
- Foster industrial symbiosis and a circular economy.
- Help consumers make more sustainable and healthy lifestyle choices.

How have you influenced, or are you attempting to influence their position?

Mars chairs the working group, ensuring our position is taken into consideration in each decision.

Trade association

Business Council for Sustainable Energy

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The BCSE International Policy Committee advocates for renewable energy at international climate fora, including UN COP climate change conferences.

How have you influenced, or are you attempting to influence their position?

Mars is a paying member of the BCSE International Policy Committee and supports its advocacy for renewable energy.

Trade association

The Sustainability Consortium

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The Sustainability Consortium (TSC) is a global organization working with consumer goods industry members to deliver more sustainable consumer products. TSC convenes diverse stakeholders to work collaboratively to build science-based decision tools and solutions that address sustainability issues that are materially important throughout a product's supply chain and lifecycle. TSC also offers a portfolio of services to help drive effective implementation.

How have you influenced, or are you attempting to influence their position?

Our Global VP for Sustainability sits on the TSC board and our Global Senior Manager, Sustainability Reporting co-chairs the Food, Beverage and Agriculture Working Group. We share the TSC's commitment to translating the best sustainability science into business tools.

Trade association

The Sustainable Packaging Coalition

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The Sustainable Packaging Coalition is a membership-based collaborative that believes in the power of industry to make packaging more sustainable. It defines packaging as sustainable when it:

- Is beneficial, safe, and healthy for individuals and communities throughout its life cycle
- Meets market criteria for both performance and cost
- Is sourced, manufactured, transported, and recycled using renewable energy
- Optimizes the use of renewable or recycled source materials

- Is manufactured using clean production technologies and best practices
- Is made from materials that are healthy throughout the life cycle
- Is physically designed to optimize materials and energy
- Is effectively recovered and utilized in biological and/or industrial closed loop cycles

How have you influenced, or are you attempting to influence their position?

Our Senior Manager, Sustainability Reporting co-chairs the Forest Products Working Group and other Mars associates participate in its activities. Mars is funding a tool to assess deforestation risk in the pulp and paper supply chain in the SE United States.

Trade association

The Renewable Thermal Collaborative

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The Renewable Thermal Collaborative (RTC) serves as the leading coalition for organizations that are committed to scaling up renewable heating and cooling at their facilities and dramatically cutting carbon emissions. RTC members recognize the growing demand and necessity for renewable heating and cooling and the urgent need to meet this demand in a manner that delivers sustainable, cost-competitive options at scale.

How have you influenced, or are you attempting to influence their position?

Mars is a founding member of the RTC and co-wrote its position on renewable thermal energy.

C12.3d

(C12.3d) Do you publicly disclose a list of all research organizations that you fund?

No

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?

Mars participates in all policy engagement and research that we support, enabling us to ensure these activities remain consistent with our climate change strategy. As paying members of the organizations we support, we can influence their positions, policies and research objectives. We work with many trade associations around the world, and hold leadership positions in some of them. On some issues, our views are different from these organizations. On the rare occasions we cannot reach a compromise, we are willing to advocate independently or adopt internal policies to govern our activities.

The Mars Associates who work on policy initiatives are involved with multiple organizations, ensuring our positions are consistently communicated across all activities.

The selection of the organizations and policy initiatives we support is managed by our internal Sustainability Working Group and overseen by our Sustainability Leadership Team. This is intended to ensure that we work only with those organizations whose positions and policies are consistent and supportive of our own approach.

In all external engagements, we follow the policies in the Mars Guide to Global Standards, Policies and Practices, which help us to act with integrity, honesty and in line with The Five Principles. We make sure all relevant Associates understand and abide by these policies.

C12.4

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

Publication

In voluntary sustainability report

Status

Underway – previous year attached

Attach the document

Mars Sustainability Report - English.pdf

Page/Section reference

Please see pages 10-11 for data and details of our performance on climate action and land management in 2017-2018.

See also page 7 for an overview of sustainability strategy and governance.

Content elements

Governance
Strategy
Emissions figures
Emission targets
Other metrics
Other, please specify

Actions on land management and deforestation in our agricultural supply chain

Comment

As a privately-owned company, Mars is not required to produce a mainstream annual report or other similar regulatory filing. However, we are committed to transparency, and produce our annual Sustainable in a Generation Plan report as a voluntary exercise to hold us to account and keep our stakeholders informed of our progress.

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?

Yes

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

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

Management practice reference number

MP3

Overall effect

Positive

Which of the following has been impacted?

Biodiversity
Soil
Water
Yield
Other, please specify
Smallholder farmer income

Description of impacts

Production of crops — including palm oil that Mars sources — supports thousands of smallholder farmers and helps drive the regional economies in North Sumatra and Aceh, in Indonesia. These smallholders and nearby communities are often dependent on healthy forests and natural resources that provide fresh water, reduce risks of floods and landslides, and buffer against the impacts of climate change. There are numerous government, private sector and civil society initiatives aiming to advance economic, social and environmental sustainability, but many of these efforts are not aligned to achieve the desired scale or impacts.

Have any response to these impacts been implemented?

Yes

Description of the response(s)

The Coalition for Sustainable Livelihoods aims to improve smallholder productivity and sustainable development in Aceh and North Sumatra. With members including Conservation International, IDH Sustainable Trade Initiative, The Livelihoods Fund, Earthworm, the United Nations Development Program and other multinational food companies, the Coalition aims to develop a landscape approach that builds sustainable livelihoods and improves natural resource management. By aligning public and private sector efforts, the Coalition aims to help advance government programs and policies while contributing to supply chain sustainability. By aligning public and private sector efforts, Mars and other members of the Coalition for Sustainable Livelihoods aim to help advance government programs and policies while contributing to supply chain sustainability.

Management practice reference number

MP5

Overall effect

Positive

Which of the following has been impacted?

Water

Yield

Other, please specify

Smallholder farmer income

Description of impacts

Rice and mint are both critical raw materials for our business. In addition to GHG reductions, our sustainable sourcing programs for these raw materials have identified water consumption and smallholder farmer incomes as priority impacts to address.

Have any response to these impacts been implemented?

Yes

Description of the response(s)

Our sustainable rice program works with rice farmers in Asia and includes technical support for increasing yields and reducing input costs, including water efficiency methods that also reduce methane emissions. We're a leading member of the Sustainable Rice Platform (SRP), a global multi-stakeholder alliance led by the United Nations Environmental Program and the International Rice Research Institute. This platform includes members such as government agencies, research institutions and non-governmental organizations including World Wildlife Fund and Oxfam.

As another example, in India alone, more than 20,000 farmers grow the mint we need for our products. Through our AdvanceMint program, over the next five years we're training more than 20,000 smallholder farmers in Uttar Pradesh in good agricultural practices. By 2025 we aim to improve productivity, reduce water consumption by 30% and improve smallholder farmer's incomes.

C14. 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.

C14.1

(C14.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Global Vice President of Supply, Research and Development, and Procurement	Chief Operating Officer (COO)

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?

	Annual Revenue
Row 1	35,000,000,000

SC0.2

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

No

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.

Requesting member

Tesco

Scope of emissions

Scope 1

Allocation level

Company wide

Emissions in metric tonnes of CO2e

12,861

Uncertainty (±%)

10

Major sources of emissions

Fuel use at our factories and offices - our overall scope 1 emissions have been third-party verified - the allocation to Tesco has not.

Verified

Yes

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Direct collection of energy use data at sites - this is a global allocation based on Mars' 2018 emissions and our business volume with Tesco.

Requesting member

Tesco

Scope of emissions

Scope 2

Allocation level

Company wide

Emissions in metric tonnes of CO2e

8,961

Uncertainty (±%)

10

Major sources of emissions

Electricity use at our factories and offices - our overall scope 2 emissions have been third-party verified - the allocation to Tesco has not. We used our market-based scope 2 inventory for this allocation.

Verified

Yes

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Direct collection of energy use data at sites - this is a global allocation based on Mars' 2018 emissions and our business volume with Tesco.

Requesting member

Walmart, Inc.

Scope of emissions

Scope 1

Allocation level

Company wide

Emissions in metric tonnes of CO2e

68,995

Uncertainty (±%)

10

Major sources of emissions

Fuel use at our factories and offices - our overall scope 1 emissions have been third-party verified - the allocation to WalMart has not.

Verified

Yes

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Direct collection of energy use data at sites - this is a global allocation based on Mars' 2018 emissions and our business volume with Walmart.

Requesting member

Walmart, Inc.

Scope of emissions

Scope 2

Allocation level

Company wide

Emissions in metric tonnes of CO2e

48,071

Uncertainty (±%)

10

Major sources of emissions

Electricity use at our factories and offices - our overall scope 2 emissions have been third-party verified - the allocation to WalMart has not. We used our market-based scope 2 inventory for this allocation.

Verified

Yes

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Direct collection of energy use data at sites - this is a global allocation based on Mars' emissions and our business with Walmart.

Requesting member

Wal Mart de Mexico

Scope of emissions

Scope 1

Allocation level

Company wide

Emissions in metric tonnes of CO2e

1,306

Uncertainty (±%)

10

Major sources of emissions

Fuel use at our factories and offices - our overall scope 1 emissions have been third-party verified - the allocation to WalMart de Mexico has not.

Verified

Yes

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Direct collection of energy use data at sites - this is a global allocation based on Mars' emissions and our business with Walmart de Mexico.

Requesting member

Wal Mart de Mexico

Scope of emissions

Scope 2

Allocation level

Company wide

Emissions in metric tonnes of CO2e

910

Uncertainty (±%)

10

Major sources of emissions

Electricity use at our factories and offices - our overall scope 2 emissions have been third-party verified - the allocation to WalMart de Mexico has not. We used our market-based scope 2 inventory for this allocation.

Verified

Yes

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Direct collection of energy use data at sites - this is a global allocation based on Mars' emissions and our business with Walmart de Mexico.

Requesting member

S Group

Scope of emissions

Scope 1

Allocation level

Company wide

Emissions in metric tonnes of CO2e

566

Uncertainty (±%)

10

Major sources of emissions

Electricity use at our factories and offices - our overall scope 1 emissions have been third-party verified - the allocation to S Group has not.

Verified

Yes

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Direct collection of energy use data at sites - this is a global allocation based on Mars' emissions and our business with S Group.

Requesting member

S Group

Scope of emissions

Scope 2

Allocation level

Company wide

Emissions in metric tonnes of CO2e

394

Uncertainty (±%)

10

Major sources of emissions

Electricity use at our factories and offices - our overall scope 2 emissions have been third-party verified - the allocation to S Group has not. We used our market-based scope 2 inventory for this allocation.

Verified

Yes

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Direct collection of energy use data at sites - this is a global allocation based on Mars' emissions and our business with S Group.

Requesting member

Kellogg Company

Scope of emissions

Scope 1

Allocation level

Company wide

Emissions in metric tonnes of CO2e

222

Uncertainty (±%)

10

Major sources of emissions

Electricity use at our factories and offices - our overall scope 1 emissions have been third-party verified - the allocation to Kellogg's has not.

Verified

Yes

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Direct collection of energy use data at sites - this is a global allocation based on Mars' emissions and our business with Kellogg.

Requesting member

Kellogg Company

Scope of emissions

Scope 2

Allocation level

Company wide

Emissions in metric tonnes of CO2e

154

Uncertainty (±%)

10

Major sources of emissions

Electricity use at our factories and offices - our overall scope 2 emissions have been third-party verified - the allocation to Kellogg's has not. We used our market-based scope 2 inventory for this allocation.

Verified

Yes

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Direct collection of energy use data at sites - this is a global allocation based on Mars' emissions and our business with Kellogg.

Requesting member

Target Corporation

Scope of emissions

Scope 1

Allocation level

Company wide

Emissions in metric tonnes of CO2e

10,388

Uncertainty (±%)

10

Major sources of emissions

Electricity use at our factories and offices - our overall scope 1 emissions have been third-party verified - the allocation to Target has not.

Verified

Yes

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Direct collection of energy use data at sites - this is a global allocation based on Mars' emissions and our business with Target.

Requesting member

Target Corporation

Scope of emissions

Scope 2

Allocation level

Company wide

Emissions in metric tonnes of CO2e

7,237

Uncertainty (±%)

10

Major sources of emissions

Electricity use at our factories and offices - our overall scope 2 emissions have been third-party verified - the allocation to Target has not. We used our market-based scope 2 inventory for this allocation.

Verified

Yes

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Direct collection of energy use data at sites - this is a global allocation based on Mars' emissions and our business with Target.

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?

Allocation challenges	Please explain what would help you overcome these challenges

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?

No

SC3.1

(SC3.1) Do you want to enroll in the 2019-2020 CDP Action Exchange initiative?

No

SC3.2

(SC3.2) Is your company a participating supplier in CDP's 2018-2019 Action Exchange initiative?

No

SC4.1

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

No, I am not providing data

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

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

Please confirm below

I have read and accept the applicable Terms