

C0. Introduction

C0.1

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

Bunge Limited (www.bunge.com, NYSE: BG) is a leading global agribusiness and food company operating in over 40 countries with approximately 24,000 employees. The decrease in the number of employees is primarily related to the formation of the BP Bunge Bioenergia joint venture in December 2019, to which we contributed our Brazilian sugar and bioenergy operations.

Bunge buys, sells, stores and transports oilseeds and grains to serve customers worldwide; processes oilseeds to make protein meal for animal feed and edible oil products for commercial customers and consumers; mills wheat, corn and rice to make ingredients used by food companies; and sells fertilizer in South America. The company is now headquartered in St. Louis, Missouri, and celebrated its 200th anniversary in 2018.

C0.2

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

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2019	December 31 2019	No	<Not Applicable>

C0.3

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

- Argentina
- Austria
- Brazil
- Canada
- China
- Finland
- France
- Germany
- Hungary
- India
- Italy
- Mexico
- Netherlands
- Poland
- Romania
- Russian Federation
- Spain
- Turkey
- Ukraine
- United States of America
- Viet Nam

C0.4

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

USD

C0.5

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

Operational control

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

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

(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

Soy

% of revenue dependent on this agricultural commodity

40-60%

Produced or sourced

Sourced

Please explain

The company is a major global trader and processor of oilseeds and grains. Soy is the principal crop Bunge handles in its agribusiness and edible oils segments. Where provided, financial and cost figures in this submission are estimates presented for purposes of providing general insights into scale and materiality. They are unaudited and not immediately comparable to SEC figures reported in Bunge's public filings. Confidential figures have been omitted. Please refer to our annual report on Form 10-K for audited financials and other information.

Agricultural commodity

Palm Oil

% of revenue dependent on this agricultural commodity

Less than 10%

Produced or sourced

Sourced

Please explain

In 2018, Bunge acquired 70% of Loders Croklaan, which primary business is related to Palm products. We are reporting palm related results for 2019 for the first time jointly, as Bunge (considering also Bunge Loders Croklaan - BLC business). Where provided, financial and cost figures in this submission are estimates presented for purposes of providing general insights into scale and materiality. They are unaudited and not immediately comparable to SEC figures reported in Bunge's public filings. Confidential figures have been omitted. Please refer to our annual report on Form 10-K for audited financials and other information.

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
Director on board	Sustainability activities and issues, including climate change risks, are overseen by the Sustainability and Corporate Responsibility Committee of the Bunge Ltd. Board of Directors. This committee was established in 2014. Climate change is also considered by the full board and by various teams and functions, including global sustainability, corporate affairs and economic research. Daily management of emissions falls under our global Productivity, Quality, Safety and Environment (PQSE) program, which is managed by a member of our global senior leadership team, reporting to the Bunge Limited CEO. The selected individuals have oversight of climate related issues because they oversee sustainability and environmental performance for the Company. Therefore, they are best placed to manage climate related issues as they are integrated in to general business strategy.

C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – some meetings	<ul style="list-style-type: none"> Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding business plans Monitoring implementation and performance of objectives Monitoring and overseeing progress against goals and targets for addressing climate-related issues 	<Not Applicable>	The Sustainability and Corporate Responsibility Committee regularly reviews issues, strategy and performance related to climate change, including emissions and deforestation. Written updates on overall sustainability performance, issues and related topics are provided to the full board at each of its meetings. Reviews consider adherence to strategy, risk mitigation and business alignment in Bunge’s operations, supply and value chains.

C1.2

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

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Quarterly
Chief Sustainability Officer (CSO) <i>Vice President, Global Corporate Affairs serves as global lead for sustainability and reports on issues, strategies and progress to the Board Committee quarterly. The CEO attends all Board Committee meetings.</i>	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Quarterly

C1.2a

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

Where in the structure does this committee sit?

The Sustainability and Corporate Responsibility Committee (SCRC) is made up of independent directors of the board. The Chair of the Committee provides updates and feedback to the full Board. The full Board also receives quarterly reports from the Senior Vice President, Sustainability & Governmental Affairs. The CEO is engaged in discussing and addressing, in the highest management level, the issues identified that are related to climate change.

The Senior Vice President, Sustainability & Governmental Affairs (SVP) serves as a regular conduit between the Sustainability Committee and the business. The SVP interacts directly with EHS areas as well as global operations to assure policies and practices are implemented. The company discloses progress on the monitoring and management of material issues regularly, and produces GRI reports at a global or regional level annually.

Why does responsibility lie here?

Responsibility for climate related issues sits here because the members of this committee have influence on the strategy and policy of Bunge’s general management. Through this they can ensure that climate issues are integrated in to business strategy and monitor progress effectively.

What are the responsibilities of the committee?

The responsibilities of the committee include discussion on climate related issues, review and setting of goals, monitoring performance and identifying and considering major risks.

Description of position(s)/committee(s) specific climate-related issues monitoring process

Each area of global operations is responsible for its own climate related management. The committee, via the SVP, engages with the different business areas to collect information on climate – related issues. This information is discussed with the committee at meetings and where required fed into board meetings.

C1.3

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

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	Climate related issues are part of compensation metrics for given members of the senior executive leadership

C1.3a

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

Entitled to incentive	Type of incentive	Activity incentivized	Comment
Other C-Suite Officer	Monetary reward	Emissions reduction target Energy reduction target Efficiency target Supply chain engagement	Executives managing businesses or regional operations where there are material issues, often have supply chain related engagement included among annual performance goals.
Environment/Sustainability manager	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction project Energy reduction target Efficiency project Efficiency target Environmental criteria included in purchases	Accomplishment of climate change related targets are part of incentive plans for environmental managers
Facilities manager	Monetary reward	Efficiency project Efficiency target Environmental criteria included in purchases	Accomplishment of supply chain engagement goals are part of incentive plans for facilities operational managers

C2. Risks and opportunities

C2.1

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

Yes

C2.1a

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

	From (years)	To (years)	Comment
Short-term	1	5	Due to the dynamics of the commodities market, horizons beyond 5 years may change significantly.
Medium-term	5	10	Medium term strategies and analyses consider longer evolution and cycles of international agricultural supply and demand. These may span 5 to 10 years due to climate patterns, government policy and market innovations.
Long-term	10	30	Long term horizons are those that consider scenarios beyond 10 years time and could span multiple commodity market cycles.

C2.1b

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

Adverse weather conditions, including as a result of climate change, may adversely affect the availability, quality and price of agricultural commodities and agricultural commodity products, as well as our operations and operating results. Adverse weather conditions have historically caused volatility in the agricultural commodity industry and consequently in our operating results by causing crop failures or significantly reduced harvests, which may affect the supply and pricing of the agricultural commodities that we sell and use in our business, reduce demand for our fertilizer products and negatively affect the creditworthiness of agricultural producers who do business with us.

Severe adverse weather conditions, such as hurricanes or severe storms, may also result in extensive property damage, extended business interruption, personal injuries and other loss and damage to us. Our operations also rely on dependable and efficient transportation services. A disruption in transportation services, as a result of weather conditions or otherwise, may also significantly adversely impact our operations.

Additionally, the potential physical impacts of climate change are uncertain and may vary by region. These potential effects could include changes in rainfall patterns, water shortages, changing sea levels, changing storm patterns and intensities, and changing temperature levels that could adversely impact our costs and business operations, the location, costs and competitiveness of global agricultural commodity production and related storage and processing facilities and the supply and demand for agricultural commodities. These effects could be material to our results of operations, liquidity or capital resources.

Finally, our business could be affected in the future by the regulation or taxation of greenhouse gas emissions or policies related to national emission reduction plans. We regularly assess the potential impacts to our business resulting from regulation or policies aimed at reducing greenhouse gas emissions.

C2.2

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

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

Annually

Time horizon(s) covered

Medium-term
Long-term

Description of process

Due to the nature of Bunge's footprint and operations, our business could be affected in the future by regulation, taxation of greenhouse gas emissions, or policies related to national emissions reduction plans and market access requirements. Potential consequences could include variances in energy, transportation and raw material costs. The company is dependent on global logistics systems to deliver its products. Issues related to emissions in these areas, as well as those related to sourcing from expanding agricultural regions, could affect the company's performance on climate related strategies. Bunge's Enterprise Risk Management team (ERM) meets quarterly and assesses a variety of risks and opportunities that could have impacts on the business. Climate related risks, such as from adverse weather patterns, current or emerging regulations, reputational hazards, and other sources are included in this process. The results of these assessments are distributed throughout the executive leadership team and to the Board of Directors, and provided to key stakeholders in annual risk reports. More specifically, the company has a team directly charged with incorporating carbon pricing strategy worldwide and tracking low carbon intensity products to leverage the business opportunities. This team works closely with the risk management team to ensure the risk and opportunities adequately reflect the company's approach and ambitions. As a result of climate-related risks in the ERM process, the company has taken steps to mitigate, such as increasing the share of renewable energy sources for its operations, reducing emissions in our facilities and no longer sourcing from newly deforested areas in the Amazon Biome, in an effort to respond to climate issues and shift such production to areas of lower environmental impact. An emerging European Union regulation in 2019 related to the sustainability of soybean in biofuels presented a possible risk for the Company, but was in fact mitigated by Bunge's global asset footprint. As a consequence, Bunge was able to leverage its capacity to deliver deforestation-free soybeans from North America to supply the EU's biofuel directive. Oilseed-based fuels like soy renewable diesel are considered green or drop-in biofuels, chemically equivalent to traditional diesel fuels, but significantly better for the environment. The carbon intensity score for soy renewable diesel is about half that of traditional fossil fuels and much better than corn-derived ethanol.

C2.2a

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Bunge operates in over 40 countries, and as such is subject to various national, regional, and municipal-level laws or regulations that directly impact our operations and projects. Within each country, environmental teams ensure that the company operates in compliance with these laws and regulations, under the general oversight of Bunge's local legal department. When considering current regulations on climate-related factors, Bunge's government affairs and sustainability teams work jointly with other business functions to identify known risks, acceptable thresholds, and mitigating factors. For example in Brazil, deforestation is considered a driver of climate change. Across the high-risk regions of Brazil where deforestation is a higher risk, Bunge observes and complies with the national and regional laws pertaining to legal reserves in its rural operations for sourcing soybean. Legal and regulatory staff in our South America office regularly monitor and review Bunge's practices to ensure, at a minimum, that operations are in compliance with local laws and regulations. In furthering Bunge's commitment to zero deforestation globally, national- and regional-level teams also comply with company-wide policies that in many cases go beyond the legal requirements of the national government or municipality.
Emerging regulation	Relevant, always included	Bunge may be impacted directly and/or indirectly by emerging regulation that may affect our business and operations, and are therefore always included in our assessments. Our government affairs teams work in close cooperation with national-level teams to monitor, review and assess the regulatory environment, engage with government stakeholders, and produce reports that embed emerging regulatory risks into short, medium and long-term planning. For example, carbon taxes or changes to emissions regulations could have short-term impacts on industrial operations. Regulations pertaining to agriculture or trade could pose risks or opportunities across multiple time periods that may affect financial performance in key markets. Additionally, industry-wide voluntary agreements are monitored. An example includes Brazil's Soy Moratorium, which currently restricts farming in the Amazon biome by barring soy traders from purchasing products connected to Amazon deforestation. Such regulation could potentially expand to include the Cerrado biome as well. In 2019, Bunge's government affairs team closely monitored and evaluated the potential impact of E.U. legislation restricting the import of Brazil-based soy, given the rise in Amazon fires within the country. Although no such regulation emerged, it nevertheless raised the prospect of significant financial impact. The company also started to evaluate a proposition to start pricing carbon for locations where there is no regulated enforced carbon pricing.
Technology	Relevant, always included	Technological advances have the potential to impact Bunge's business and operations, and are therefore included in risk assessments. Bunge works to evaluate and incorporate new technology into its market analyses and forecasting. The company also evaluates and invests in new technologies via its venture fund and works with supplying farmers in key areas to apply technologically supported agronomic best practices. New technologies are incorporated into short and long-term strategies. In 2019, Bunge joined with industry peers to develop a radar based technology to monitor tree cover and land use change in palm oil growing regions of Southeast Asia. The new technology is able to penetrate cloud cover, which is a superior method when compared to traditional satellite. The impacts provide for greater capacity to ensure a deforestation-free supply and create new levels of trust with stakeholders.
Legal	Relevant, always included	Legal compliance is a minimum standard in Bunge's operations. Bunge maintains strong compliance standards and infrastructure across global and regional business units, and incorporates legal risks into its assessments. The company conducts employee training on a variety of environmental, social, and technology-related subjects. Bunge also requires legal compliance in supplier contracts that meet and sometimes exceed national regulation. Such regulation includes but is not limited to labor and environmental crimes committed by suppliers. In 2019, 279 farmers in Bunge's Brazil supply chain are blocked due to human rights and labor-related violations contravening the country's Modern Slavery Act, as well as other protocols and moratoria on land use change.
Market	Relevant, always included	Agricultural commodity markets are inherently volatile and influenced by government policy, consumer trends and other influences. Bunge regularly conducts global and local market research analyses to keep track of these trends, and communicates potential risks and opportunities to relevant stakeholders. A significant market demand that we have identified pertains to the availability of certified products. In 2018 we were the largest trader of RTRS-certified (Round Table for Responsible Soy) products, supplying customer demand. Bunge assesses the impact of certification demand and includes in long-term planning and supplier engagement.
Reputation	Relevant, always included	Reputational risks are always included in Bunge's annual assessments. Due to our global presence in key agricultural markets with known impacts on the environment, Bunge places high priority on compliance with national and local regulation to protect at-risk ecosystems, such as our commitment to zero deforestation and protection of HCV and HCS areas when applicable, i.e. mapped in a given ecosystem. A significant reputational risk identified in 2019 was related to the rise in fires used for clearing land in the Amazon Biome. Although in some cases legally permitted, Bunge nevertheless opposes the use of fire to clear land. Furthermore, as a signatory to the Amazon Soy Moratorium, Bunge does not purchase from newly deforested lands after July 2008. The situation in the region created significant reputational risk, as Bunge is a leading supplier of Brazil-based soy and could therefore be erroneously labeled as a driver of the deforestation.
Acute physical	Relevant, sometimes included	Acute physical risks due to climate change are likely to impact specific locations. Bunge's global asset footprint is a natural mitigant to this risk. The company's strategy is to source commodities from multiple regions and leverage multiple logistics and distribution chains to ensure the ability to supply customers in times of market dislocation. In 2019, several Bunge facilities in the United States were damaged due to flooding. The flooding can be considered a consequence of weather patterns that are exacerbated by climate change.
Chronic physical	Relevant, sometimes included	Chronic physical risks are assessed based on new research and data provided around agricultural production in key areas where the Company operates. Bunge's diverse asset footprint could offset chronic physical risks. Persistent changes in agricultural production could impact specific operations and assets. Such changes could also result in adjustments in agricultural production and trade flows, which could have benefits to other parts of Bunge's business. The company considers potential long-term changes in agriculture as part of its regular economic research activities. Bunge uses a sustainable expansion zoning tool, called Agroideal.org, to map areas and trends of chronic physical risks in its supply chain of beans in South America. Additionally, an energy efficiency task force is in charge of seeking energy projects to maximize efficiency of facilities and to minimize exposure to fuel price volatility.

C2.3

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

Yes

C2.3a

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

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Chronic physical	Changes in precipitation patterns and extreme variability in weather patterns
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Primary potential financial impact

Decreased revenues due to reduced production capacity

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Bunge's risk assessment process has identified weather-related disruptions in particular geographic areas as having an impact on financial, logistical and operational performance. Although Bunge's global footprint helps to mitigate the disruptions to our supply chain, there are nevertheless persistent risks to areas exposed to varying fluctuations in climate and weather patterns. For example, changing weather patterns and situations brought about by increased rainfall can have negative impacts on facilities or plants that are nearby important water sources, and furthermore can diminish the company's ability to ship product. This happened in Bunge facilities in North America in 2019 due to historic rainfall and flooding.

Time horizon

Medium-term

Likelihood

About as likely as not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Impacts would vary depending upon the nature of the operations affected, and the availability of crop. Financial impact could include property damage, damage to infrastructure, transportation disruption, higher costs for transporting product, higher insurance costs, and loss of customer or business revenue.

Cost of response to risk

100000

Description of response and explanation of cost calculation

Bunge endeavours to source commodities from a variety of sources globally to mitigate disruptions in the supply chain. Our global footprint enables this wider logistic network. Additionally, Bunge widely uses technologies that help track and predict weather patterns that can help minimize instances of shocks from severe weather. Finally, climate-related factors are built into CAPEX and M&A decision-making process to help mitigate the possibility of climate disasters in future scenarios.

Comment

Please refer to financial note in section C-AC0.7

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Current regulation	Carbon pricing mechanisms
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Primary potential financial impact

Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Bunge is subject to regulations and carbon pricing for emissions in various local and regional contexts. The growth of this regulatory regime presents additional costs for our operating companies in these regions, as well as locations that are not yet subject to carbon taxation or trading schemes. Also, due to its large footprint, some units of the company are located in areas with high risk of acute climate events.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

In 2019, Bunge paid carbon-related taxes, owing to regulation mostly in the European Union. The annual costs vary depending on the tax levels and other regulations in each national context. Similar levels of taxation throughout all 40 countries in which Bunge operates could increase these annual figures.

Cost of response to risk

0

Description of response and explanation of cost calculation

Bunge has already implemented a proprietary facility management system intended to reduce costs and to improve efficiency across over 40 countries where the company operates. In 2019 the system was embedded into 97% of Bunge facilities. As a result of Bunge's long-term GHG emissions reduction goals (10% between 2016-2026 per

unit of production), we can expect to reduce costs associated with carbon taxation and other regulation. Additionally, in 2019 the company began a task force to measure and find business opportunities based on the carbon intensity of Bunge's products. This includes the impact of carbon taxes on facilities where relevant.

Comment

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Reputation	Stigmatization of sector
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Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Bunge has a significant impact on the environment through our supply chain. Agriculture already accounts for nearly 30% of global carbon emissions, driven by land use change and agricultural operations. Therefore Bunge is subject to scrutiny by a variety of stakeholders: customers, investors, consumers, the media, NGOs, governments and international organizations, and its own employees. For example, Bunge is the largest trader of soybean from Brazil, specifically areas of the country that are at higher risk of deforestation like the Cerrado in the MATOPIBA and Mato Grosso States. In 2019, the situation in the Amazon became globally known as farmers increased the amount of fire used to clear land for agricultural purposes. Although Bunge opposes the use of fire to clear land (even when legal), and we no longer purchase soy grown from land in the Amazon deforested after 2008, there was still considerable reputational risk due to the company's size in the country and its global operations.

Time horizon

Medium-term

Likelihood

Unlikely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Increased reputational scrutiny could result in decreased revenues from consumer-facing brands, particularly those based in countries where regulation against Brazil-based soy has the potential to emerge. In 2019, there were reasonable possibilities of boycotts of Brazil-based products into the EU due to the Amazon fire situation. This could have resulted in financial losses to the company.

Cost of response to risk

200000

Description of response and explanation of cost calculation

Since 2016 Bunge has developed a supply chain-wide non-deforestation policy. Additionally, the company commits to environmental goals related to carbon emissions, water usage, and waste disposal to help mitigate our impact on ecosystems. The company also maintains high standards for labor, human rights, and workplace safety. Bunge is also a participant in a variety of trade associations, working groups, and international organizations that demonstrate our commitment to sustainability throughout our operations. Annual disclosures and a transparent culture help ensure that the brand is valued by stakeholders. Specific to our Brazil operations, we track and disclose information on our sourcing from high-risk areas of the Cerrado, where deforestation is more common. We have issued 8 progress reports so far providing a high level of transparency into the operations. In 2019 we achieved 100% traceability to all direct sourcing, and have achieved 100% monitoring for direct source farms in Argentina and Paraguay, and 91% monitoring in Brazil. This offers a high degree of trust in our ability to deliver products to market without exposure to sustainability or climate-related risks.

Comment

Figures above are estimates based on management approach and monitoring systems.

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

Energy source

Primary climate-related opportunity driver

Use of lower-emission sources of energy

Primary potential financial impact

Reduced direct costs

Company-specific description

The majority of Bunge's facilities are in South America (primarily Brazil) and in North America. Since the facilities in Brazil are all powered by renewable energy, the main opportunity for growth in use of renewables is in North America. By utilizing solar and wind power, Bunge can reduce energy costs for its facilities. Through 2019, the company closed a deal with a wind energy provider for two large facilities in Kansas to be 100% renewable, with additional locations already embracing clean electricity generation. Furthermore, Bunge North America is 100% coal-free.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Positive impact due to reduction in energy procurement from third party sources in select regions.

Cost to realize opportunity

0

Strategy to realize opportunity and explanation of cost calculation

Since 2016 the company has committed to a global energy consumption reduction target of 10% per year. This involves a commitment to using renewable energy where feasible. Bunge's journey towards Best in Class operations continues. Our Bunge Management Operating System is now implemented in 97% of our facilities. We have embarked to develop this into an enhanced framework, called the Bunge Production System. Lead-Learning Sites in each region were defined with the next level of operational excellence in 2019. Building on previous successes, we launched a new Energy Optimization Program in 2017 that will cover 55 facilities world-wide by 2020. Under the program, Bunge is implementing energy reduction projects and enabling the use of modern software technology to monitor and optimize energy consumption on a continual basis. Furthermore, the company seeks to lock in low rate renewable energy deals with third party providers for facilities, particularly North America.

Comment

Costs to realize these opportunities have been considered as investments in past periods. Please refer to financial note in section C-AC0.7

Identifier

Opp2

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

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

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Responding to consumer, investor, and customer demand for more sustainable supply chains, Bunge has developed and implemented policies that will improve our environmental footprint in the high-risk areas in which we operate. The commodities most affected by this policy are soy and palm oil, which are the main commodities operated by the company, accounting for more than 60% of annual revenue. Bunge has developed traceability systems to ensure better management of climate and reputation related supply chain issues, and has offered such systems as differentials in the commodity market. In recent years, Bunge was the trader with largest amount of certified RTRS beans during 2018. The company continues to operate with other certification related to climate change mitigation / business opportunities. Our ability to provide certified products to market has allowed the company to close on its first-ever sustainability-linked revolving credit facility, where 2 of the performance targets are tied to growth in certified products. This reflects stakeholder trust in the company's ability to deliver market demands.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Use of certified products offers customers an option to buy beans and oil from sustainable sources in compliance with multistakeholder initiatives on non-deforestation. Bunge was the largest trader of RTRS-certified beans in 2018, amounting to over 180,000 MT of beans and credits. Our growth in the use of certified products across both soy and palm commodities is built into the company's sustainability-linked revolving credit facility, amount to a loan of \$1.75 billion. Please refer to financial note in section C-AC0.7

Cost to realize opportunity

0

Strategy to realize opportunity and explanation of cost calculation

As the largest soy trader in Brazil, Bunge is an active member of multi-stakeholder platforms developing solutions to deforestation, including a signatory to the Amazon Moratorium, and a participant of the Cerrado Working Group (GTC). Through dialogues with participants in these forums, Bunge is promoting industry-wide transparency and disclosure practices that will allow upstream suppliers and downstream costumers to understand our positive environmental impact.

Comment

Costs to realize the opportunity are based on gathering data from farmers, monitoring performance, and engaging and investing to build sustainable approaches in multiple regions. Please refer to financial note in section C-AC0.7

Identifier

Opp3

Where in the value chain does the opportunity occur?

Upstream

Opportunity type

Resilience

Primary climate-related opportunity driver

Resource substitutes/diversification

Primary potential financial impact

Increased revenues through access to new and emerging markets

Company-specific description

Bunge operates a global asset footprint and sources agricultural commodities from multiple regions. This provides the company with an ability to supply world demand and meet customer needs in times of climate volatility and variability that may reduce agricultural production in specific areas or disrupt global trade flows.

Time horizon

Medium-term

Likelihood

More likely than not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Dislocation in agricultural supply can have a material impact on Bunge's results. This is mitigated by the company's global footprint, allowing the sourcing of products from diverse locations.

Cost to realize opportunity

0

Strategy to realize opportunity and explanation of cost calculation

Bunge maintains a global asset network and manages agricultural product flows in an integrated manner. The company conducts regular agricultural supply and demand analysis, considering climate and other variables.

Comment

Investments to realize this opportunity have been made in past periods. Other costs include ongoing variable costs associated with the regular operation of our facilities. Please refer to financial note in section C-AC0.7

C3. Business Strategy

C3.1

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

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

C3.1a

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

Yes, qualitative and quantitative

C3.1b

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

Climate-related scenarios and models applied	Details
Other, please specify (Internal analysis and tailor made models)	The company uses internal models to define its emissions targets.
2DS	In 2018, Bunge investigated the alignment of the company's GHG emissions goals with a 2 degrees Celsius pathway. To assess Bunge's SBT for Scope 1 & 2 emissions, the 2DS scenario was chosen, aligning Bunge's requirements to the Sectoral Decarbonisation Approach (SDA) methodology. To validate the outputs of the SDA model, Bunge has used RCP 2.6. As Bunge operates in the agricultural sector, which has no specific pathway, RCP 2.6 was analysed to ensure that the SDA output was appropriate. Science based targets are currently being modeled to a number of target years, with 2030 being the longest-term target assessed. 2030 has been identified and chosen due to the SBTi validation criteria C5 and the requirement of a long-term carbon reduction target. As Bunge would seek SBTi validation in setting an SBT, alignment to the validation criteria is necessary. Our entire Scope 1 & 2 footprint, including emissions originating from biogenic sources, have been included within the scope of our scenario analysis. This covers approximately 99% of our global Scope 1 & 2 GHG emissions and therefore all of our operations that have a material impact on our environmental performance.

C3.1d

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

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	Climate change as a result of fossil fuel-based energy emissions continues to grow. In order to wean consumers off dependency on fuels like extracted oil, it will be important to develop and integrate sustainable energy sources for consumption, particularly automotive use. Bunge has a number of facilities in Brazil that produce ethanol from sugar cane and the company is an important global player in the biofuel industry producing biofuel from soybeans. This fuel produces lower carbon emissions than traditional fuel sources. In 2019, this business overall (market general figure) accounted for 40% of Brazilian soybean oil production derived to biofuel. The company also runs biofuel plants in Europe, sourcing other grains and palm oil as raw materials. The company recently created a multi-disciplinary team to evaluate carbon intensity of products and to propose low carbon business opportunities.
Supply chain and/or value chain	Yes	Responding to consumer, investor, and customer demand for more sustainable supply chains, Bunge has developed and implemented policies that will improve our environmental footprint in the high-risk areas in which we operate. For example, we have established a company-wide goal of deforestation-free supply chain by 2025. This policy applies to all of Bunge's investments, strategy and operations, and is extended to suppliers and joint business ventures. The commodities most affected by this policy are soy and palm, which are the main commodities sourced by the company, accounting for more than 60% of annual revenue. Bunge has developed traceability systems to ensure better management of climate and reputation related supply chain issues, and has offered such systems as differentials in the commodity market. In both soy and palm, Bunge offers certified and verified products based on market demand, and delivers these products with assurances of their sustainability and quality credentials. As the largest soy trader in Brazil, Bunge is an active member of multi-stakeholder platforms developing solutions to deforestation, including a signatory to the Amazon Moratorium, a participant of the Cerrado Working Group (GTC), and a founding member of the Soft Commodities Forum (SCF). Through dialogues with participants in these forums, Bunge is promoting industry-wide transparency and disclosure practices that will allow upstream suppliers and downstream costumers to understand our positive environmental impact.
Investment in R&D	Yes	Research and development factors strongly into Bunge's ability to provide new products to market, as well as minimize risks associated with climate and other sustainability variables. For example, Bunge's Vénusz sunflower cooking oil has been a well-known brand in the market for years. By shifting the sourcing of oilseeds into ISCC +certification, the local team successfully rebranded the product. Vénusz, which was already GMO-free, is also now certified for sustainability in ISCC+ standards, bottled in 50% recycled PET, and using IFC-certified paper for its label. A marketing campaign advertised these benefits to customers to increase their visibility and tangibility and, as a result, the brand has increased its sales and expanded into different markets. These and other future sustainability innovations, are helping the brand maintain its leadership in the eastern European market.
Operations	Yes	Enhancing the climate resilience and sustainability impact of Bunge's operations is a key component of our strategy, with particular emphasis found to be cutting costs associated with energy use. Since 2016, Bunge has been progressively reducing the intensity of its energy use and the scope 1 and 2 emissions from its facilities, with the goal of reaching an overall 10% reduction in by 2026. We are making good progress on these goals, and expect to meet them by the deadline. In 2019, Bunge's use of renewable energy in facilities in North America, including 100% wind powered facilities in Atchison AND Emporia, Kansas, USA, is helping the company to reduce costs in the amount of over \$200,000 a year, as well as help meet our emissions and energy use goals. This is in addition to other facilities on the continent that also benefit from renewable energy, including a large processing plant in Council Bluffs, Iowa. Furthermore, due to widely available access to the more sustainable biofuel source in Brazil, our facilities there have significantly lower emissions than in other parts of the world.

C3.1e

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

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Capital allocation Access to capital Assets Liabilities	As customer preference for sustainably sourced commodities increases, Bunge has explored ways to add these products into our portfolio as an opportunity to increase revenue. Certification schemes provide a way to ensure verification for products with a premium cost. As long as customers demand for certification continues, Bunge will incorporate these into revenue expectations. The magnitude of impact is medium-low on overall revenue. In 2019, Bunge closed its first \$1.75bn sustainability-linked revolving credit facility tied to performance targets -- two of which directly relate to the company's push to supply more certified products to customers on demand. In parallel, the company established a carbon task-force in 2019 with the purpose of identifying the carbon intensity of its products, in order to find short term carbon market opportunities. The wide availability of renewable energy from wind power in key North American states where Bunge operates processing and crushing facilities has made it possible to lower operating costs associated with electricity generation. The magnitude of impact is medium-low because most facilities in North America are low-electricity usage grain storage. However in 2018 Bunge began purchasing wind power indirectly for two high-energy usage facilities in Kansas, which will be 100% renewable through wind. Energy savings in 2019 were from \$200,000. Bunge is actively seeking additional renewable energy sources for its other facilities in North America, and regularly seeks ways to reduce costs with these sources. Bunge monitors capital expenditure risks and opportunities, but has not identified any materially relevant situations to date. However, starting in 2019, Bunge began a process to modernize its capital expenditures strategy to ensure that strict environmental and sustainability criteria were reflected in future planning and investment. The content will encompass material factors that will help Bunge to meet its environmental goals of reductions in emissions, energy, waste and water usage by 2026, and will have a doubling effect of reducing costs to account for future regulations and taxation on carbon emissions. In parallel, a task force was established to incorporate carbon pricing into all future CAPEX planning for the future. Access to capital represents a significant opportunity for Bunge's climate-related financial planning. Market direction points towards capital being more closely tied to sustainability considerations. In 2019 Bunge closed its first \$1.75 billion revolving credit facility tied to performance across five sustainability indicators: emissions intensity reductions, soy traceability, palm traceability, soy certification and palm certification. Widely hailed by our stakeholders for its ambition and complexity, Bunge believes that capital opportunities such as these will become more prominent in the future, and therefore is actively exploring additional options to build upon this achievement. Climate change and acute physical impacts associated with rapidly changing weather patterns and increased storm likelihood present significant risks to Bunge's assets along coastal waterways and other maritime locations. In 2019, a Bunge facility in the United States was damaged due to unusually high seasonal flooding and storms, considered to be a new consequence of global climate change. This reflects the importance of asset location and vulnerability, and as such, is factored into new planning and strategy. We are subject to various environmental protection and occupational health and safety laws and regulations in the countries in which we operate, and we incur costs to comply with these requirements. Compliance with applicable laws and regulations relating to environmental matters has not had a material financial or competitive effect on our business. However, due to our extensive operations across multiple industries and jurisdictions globally, we are exposed to the risk of claims and liabilities under these laws and regulations. Violation can result in substantial fines, administrative sanctions, criminal penalties, revocations of operating permits and/or shutdown of facilities. In 2019, Bunge did not have any materially significant fines related to climate or other sustainability factors.

C3.1f

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

Climate change and other environmental issues are a significant part of the agriculture industry. As much as 30% of greenhouse gas emissions are a result of land use change and agricultural development. Therefore these issues are implicitly recognized in Bunge's long-term supply and demand strategic forecasting processes. Bunge seeks to mitigate the effects of agricultural production on local ecosystems by employing a company-wide environmental management policy that requires reductions in emissions, water usage, waste disposal, and total energy use. Bunge also embraces the use of new technologies and strategies that minimize costs while also reducing our dependence on emissions-related operations. In 2019, Bunge developed a new industrial operations approach, called the Bunge Production System (BPS), in which environmental sustainability is a key pillar with specific KPIs associated with industrial operations performance.

The rapid growth of markets demanding low carbon intensity products has also motivated the establishment of a multi-disciplinary task force responsible carbon tracking. As an outcome of this task force, the company is developing strategies and objectives to deliver value products to market based on the company's low-carbon intensity performance.

Bunge also has short-term targets and objectives that are in alignment with business strategy and environmental performance. Our non-deforestation policy is applicable throughout our entire supply-chain, and continues to improve as we source products from more suppliers each year. By 2020, 100% of our soy volumes directly sourced from farms in areas of South America considered at higher risk of deforestation are traceable. We monitor over 8,300 farms across more than 14 million hectares of land. A portion of these farms are no longer supply to us, though we continue to monitor them for any land use change.

C4. Targets and performance

C4.1

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

Intensity target

C4.1b

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

Target reference number

Int 1

Year target was set

2016

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (location-based)

Intensity metric

Metric tons CO2e per metric ton of product

Base year

2016

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

0.06155

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

100

Target year

2026

Targeted reduction from base year (%)

10

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

0.055395

% change anticipated in absolute Scope 1+2 emissions

% change anticipated in absolute Scope 3 emissions

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

0.05901

% of target achieved [auto-calculated]

41.2672623883022

Target status in reporting year

Underway

Is this a science-based target?

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

Please explain (including target coverage)

In 2019 the company underwent significant changes to its operations, and therefore saw changes in its ESG reporting boundary. The most notable include the divesting of Bunge's sugar and bioenergy assets to a joint venture with BP, and the inclusion of new plants following the acquisition of Loders Croklaan in 2018. Considering these changes, Bunge's baseline calculation from 2016 has been adjusted to reflect the removal of the sugar & bioenergy assets in 2019. The 2026 target date remains consistent with the original reporting. The new plants from Bunge Loders Croklaan are implementing their goal to reduce 10% of its emissions reductions as well and will report accordingly such metric starting next year.

C4.2

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

Other climate-related target(s)

C4.2b

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

Target reference number

Oth 1

Year target was set

2016

Target coverage

Company-wide

Target type: absolute or intensity

Intensity

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

Energy productivity	Other, please specify (Energy (Scopes 1&2))
---------------------	---

Target denominator (intensity targets only)

GJ

Base year

2016

Figure or percentage in base year

1.002

Target year

2026

Figure or percentage in target year

0.9

Figure or percentage in reporting year

0.956

% of target achieved [auto-calculated]

45.0980392156863

Target status in reporting year

Underway

Is this target part of an emissions target?

No

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain (including target coverage)

Baseline 2016 had the removal of S&B to reflect business adjustment. Expect to reach the 2026 target.

Target reference number

Oth 2

Year target was set

2016

Target coverage

Company-wide

Target type: absolute or intensity

Intensity

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

Waste management	Other, please specify (total waste to landfill)
------------------	---

Target denominator (intensity targets only)

metric ton of waste

Base year

2016

Figure or percentage in base year

0.846

Target year

2026

Figure or percentage in target year

0.76

Figure or percentage in reporting year

0.79

% of target achieved [auto-calculated]

65.1162790697674

Target status in reporting year

Underway

Is this target part of an emissions target?

No

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain (including target coverage)

Baseline 2016 had the removal of S&B to reflect business adjustment. Expect to reach the 2026 target.

Target reference number

Oth 3

Year target was set

2015

Target coverage

Company-wide

Target type: absolute or intensity

Absolute

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

Land use change	Percent of supply chain compliant with zero gross deforestation
-----------------	---

Target denominator (intensity targets only)

<Not Applicable>

Base year

2016

Figure or percentage in base year

10

Target year

2025

Figure or percentage in target year

100

Figure or percentage in reporting year

98

% of target achieved [auto-calculated]

97.7777777777778

Target status in reporting year

Underway

Is this target part of an emissions target?

Connected to sustainable supply chains, indirectly supporting reduction of emissions that could cause climate change.

Is this target part of an overarching initiative?

Remove deforestation

Please explain (including target coverage)

The target covers the company's efforts to eliminate deforestation in our global supply chains, particularly soy from South America. The KPI covers monitoring of direct source farms from areas at higher risk of deforestation in Brazil, Argentina and Paraguay. More information available at <https://www.bunge.com/sustainability/non-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	248	310000
To be implemented*		
Implementation commenced*		
Implemented*		
Not to be implemented		

C4.3b

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

C4.3c

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

Method	Comment
Dedicated budget for energy efficiency	Bunge's Best in Class initiative, including enhanced analytics, optimized assets and improved processes, is being implemented throughout all of our operations. Our Bunge Management Operating System is now implemented in nearly 100% of our facilities. We have embarked to develop this into an enhanced framework, called the Bunge Production System. Lead-Learning Sites in each region were defined and implemented throughout 2019. Building on previous successes, we have progressed with our Energy Optimization Program and are focusing on the 14 plants under current implementation until completion and delivery of results. Under the program, Bunge is implementing energy reduction projects and enabling the use of modern software technology to monitor and optimize energy consumption on a continual basis. Further development will evolve according to the successes of the Program.
Dedicated budget for other emissions reduction activities	Certain units in plants and other facilities have been utilizing previous generation equipment that needs to be replaced in order to support approach for achieving emissions targets. Bunge's optimization programs are addressing these units and intend to update with modern equivalents offering lower carbon emissions.
Financial optimization calculations	Some initiatives aim to extend the life span of equipment that would allow company to realize financial optimization.

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

The company produces biofuel, which can be used as fuel or added to regular fossil fuel and still reduces over to 60% of emissions when compared to traditional fossil fuels.

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

The EU Taxonomy for environmentally sustainable economic activities

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

% of total portfolio value

<Not Applicable>

Asset classes/ product types

<Not Applicable>

Comment

We own and operate biodiesel facilities in Europe and Brazil and have equity investments in biodiesel producers in Europe and Argentina. This business is complementary to our core Agribusiness operations as in each case we supply some of the raw materials (crude vegetable oil) used in their production processes. Due to business confidentiality, we do not disclose the specific revenue from such product or sales. It's important to note that up to 40% of crude oil sales in Brazil are linked to biofuel supplies.

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 2016

Base year end

December 31 2016

Base year emissions (metric tons CO2e)

1663890

Comment

Includes direct CO2 emissions from fuel use in facilities.

Scope 2 (location-based)

Base year start

January 1 2016

Base year end

December 31 2016

Base year emissions (metric tons CO2e)

1674805

Comment

This refers to GHG emissions from purchased energy.

Scope 2 (market-based)

Base year start

January 1 2016

Base year end

December 31 2016

Base year emissions (metric tons CO2e)

Comment

No market based emissions were implemented at the baseline year.

C5.2

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

Brazil GHG Protocol Programme
IPCC Guidelines for National Greenhouse Gas Inventories, 2006
US EPA Mandatory Greenhouse Gas Reporting Rule
Other, please specify (Argentina / Brazil governmental sources)

C5.2a

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

The Argentine Secretary of Energy and the Brazilian Ministry of Science and Technology are also sources of regional indexes that support the use of global guidelines like the GHG protocol and IPCC.

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)

1958125

Start date

<Not Applicable>

End date

<Not Applicable>

Comment

In 2019 the company underwent significant changes to its operations, and therefore saw changes in its ESG reporting boundary. The most notable include the divesting of Bunge's sugar and bioenergy assets to a joint venture with BP, and the inclusion of new plants following the acquisition of Loders Croklaan in 2018.

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

Most sites use location-based Scope 2, and there are a few locations where Bunge is purchasing 100% renewable electricity (from wind and solar), therefore it is included in the reported market base portion.

C6.3

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

Reporting year

Scope 2, location-based

1791572

Scope 2, market-based (if applicable)

0

Start date

<Not Applicable>

End date

<Not Applicable>

Comment

The company acquires third party generated steam and electricity which are both from renewable sources and therefore with no indirect emissions and within proper certificate guidelines and credentials.

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

Ports, silos and offices

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

Emissions are not relevant

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

Emissions are not relevant

Explain why this source is excluded

Ports, silos and offices are not relevant in the calculation of Scope 1 and 2 for the company, as they have been shown to produce considerably low emissions compared to the other facilities within our reporting boundary. Therefore Bunge's resources for emissions reductions are allocated based on where impact will be most significant.

C6.5

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

Purchased goods and services

Evaluation status

Relevant, calculated

Metric tonnes CO2e

49082756

Emissions calculation methodology

GHG Protocol

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

0

Please explain

Supplier data (from farms and growers) is not collected as the basis is very large and spread (farmers, silos and intermediaries spread worldwide). Despite this, we see an increased amount from 2018, mainly due to the acquisition of Bunge Loders Crokian and the incorporation of those facilities into the reporting boundary.

Capital goods

Evaluation status

Relevant, calculated

Metric tonnes CO2e

96501

Emissions calculation methodology

GHG Protocol

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

0

Please explain

Primary data not available, no material change from 2018, used same value for 2019.

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

Evaluation status

Relevant, calculated

Metric tonnes CO2e

860560

Emissions calculation methodology

GHG Protocol

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

0

Please explain

Considerable reduction from 2018 as a result of reduction programs and business scope changes.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

5511781

Emissions calculation methodology

GHG Protocol

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

0

Please explain

Not available; ~90% calculated from primary data and remaining from spend. Reduction from lower tonnage as of last year and business scope change.

Waste generated in operations

Evaluation status

Relevant, calculated

Metric tonnes CO2e

10075

Emissions calculation methodology

GHG Protocol

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

0.01

Please explain

Amount of hazardous / non hazardous waste is tracked. Emissions calculated using factors.

Business travel

Evaluation status

Not relevant, calculated

Metric tonnes CO2e

10500

Emissions calculation methodology

GHG Protocol

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

100

Please explain

Amount of air travel is centrally controlled and each flight has its associated CO2e emissions.

Employee commuting

Evaluation status

Not relevant, calculated

Metric tonnes CO2e

23948

Emissions calculation methodology

GHG Protocol

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

0.03

Please explain

Calculated using factors based on full time employees, reduced from 2018 to 2019 due to lower number of employees.

Upstream leased assets

Evaluation status

Not relevant, calculated

Metric tonnes CO2e

85442

Emissions calculation methodology

GHG Protocol

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

0.09

Please explain

Current data not available, but there has been no material change in the baseline. Previous year amount has been reported.

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

2823909

Emissions calculation methodology

GHG Protocol

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

0

Please explain

Data not available. Calculated from factors and using intensity of upstream Ex-sea transportation.

Processing of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

24370517

Emissions calculation methodology

GHG Protocol

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

0

Please explain

Data not available. Calculated from factors derived from volumes sold.

Use of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

275647

Emissions calculation methodology

GHG Protoc

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

0

Please explain

Data not available. Calculated from spend data and factors.

End of life treatment of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

3081866

Emissions calculation methodology

GHG Protocol

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

0

Please explain

Primary data not available. Calculated from tonnage data and factors.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Leased assets are immaterial to company operations

Franchises

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

No franchises under Bunge's business model

Investments

Evaluation status

Not relevant, calculated

Metric tonnes CO2e

44621

Emissions calculation methodology

GHG Protocol

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

0

Please explain

Data not available. Calculated from list of partners and public data. Amount is immaterial and was reported the same as previous year.

Other (upstream)

Evaluation status

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Other (downstream)

Evaluation status

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

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

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

Yes

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

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

CO2 emissions from biofuel combustion (processing/manufacturing machinery)

Emissions (metric tons CO2)

3721048

Methodology

Default emissions factors

Please explain

Reduction from previous year due to change in scope of business. Biogenic emissions remain as the main source of boiler fuel in the Brazilian operations.

CO2 emissions from biofuel combustion (other)

Emissions (metric tons CO2)

0

Methodology

Please select

Please explain

Biogenic emissions disclosed from biomass only. Biofuel related emissions area immaterial.

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

Soy

Do you collect or calculate GHG emissions for this commodity?

Yes

Please explain

we calculate emissions considering GHG agricultural protocol and consider metrics currently used for the certification of emissions.

Agricultural commodities

Palm Oil

Do you collect or calculate GHG emissions for this commodity?

Yes

Please explain

we calculate emissions considering GHG agricultural protocol and consider metrics currently used for the certification of emissions.

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

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

Palm Oil

Reporting emissions by

Total

Emissions (metric tons CO2e)

10870455

Denominator: unit of production

<Not Applicable>

Change from last reporting year

This is our first year of measurement

Please explain

First year of measurement due to recent acquisition of a new business.

Soy

Reporting emissions by

Total

Emissions (metric tons CO2e)

16335010

Denominator: unit of production

<Not Applicable>

Change from last reporting year

About the same

Please explain

Reduced from last year mainly from lower originated volume.

C6.10

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

Intensity figure

0.094

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

3749697

Metric denominator

unit total revenue

Metric denominator: Unit total

39852000

Scope 2 figure used

Location-based

% change from previous year

31.78

Direction of change

Increased

Reason for change

Change on the business baseline due to BLC acquisition and S&B divestiture.

C7. Emissions breakdowns

C7.1

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

No

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
Argentina	191802
Austria	17444
Brazil	48671
Canada	175186
China	4397
Finland	0
France	26062
Germany	50417
Hungary	1835
India	126309
Italy	61703
Mexico	1681
Poland	78938
Romania	15702
Russian Federation	2772
Spain	174990
Turkey	35429
Ukraine	1265
United States of America	670803
Viet Nam	98723
Netherlands	115435
Malaysia	58559

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)
North America	847672
South America	240472
Europe	591993
Asia	287989

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?

Partially

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 category

<Not Applicable>

Emissions (metric tons CO2e)

1958125

Methodology

Default emissions factor

Please explain

Primary fuel tonnage use controlled and emission factors applied.

C7.5

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

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
United States of America	483219		651211	0
Canada	33923		190361	0
Brazil	26016		473203	0
Spain	1934		5113.49	208
Austria	0	0	25915	25915
Turkey	14214	0	32436	0
Italy	5541		13731	
Hungary	17560	0	51056	0
Ukraine	28068	0	83203	0
Russian Federation	14380	0	43767	0
Germany	31268	0	331778	257260
Poland	44881			
Finland	590		8602	
Romania	21558			
France	7050			
China	817006		1024374	
India	31060		32925	
Mexico	21469		47168	
Viet Nam	14718		15601	
Argentina	91361		170907	
Netherlands	30469		65957	
Malaysia	56245		63513	
Please select				

C7.6

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

C7.6a

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

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
North America	538068	
South America	116962	
Europe	217505	0
Asia	919029	

C7.9

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

C7.9a

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

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	18638	Decreased	1	Biogenic only emissions difference between 2019 and 2018 for ex - Sugar and Bioenergy scope
Other emissions reduction activities		<Not Applicable>		
Divestment	4229900	Decreased	76	Biogenic only; Diversion from sugar and bio energy business
Acquisitions		<Not Applicable>		Aquisition of Bunge Loders Crooklan
Mergers		<Not Applicable>		
Change in output		<Not Applicable>		
Change in methodology		<Not Applicable>		
Change in boundary		<Not Applicable>		
Change in physical operating conditions		<Not Applicable>		
Unidentified		<Not Applicable>		
Other		<Not Applicable>		

C7.9b

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

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?
More than 65% but less than or equal to 70%

C8.2

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

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	3387845	9471127	12858972
Consumption of purchased or acquired electricity	<Not Applicable>		2438181.99	2438181.99
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>		1131636	1131636
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>		<Not Applicable>	
Total energy consumption	<Not Applicable>		16428790	16428790.19

C8.2b

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

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

C8.2c

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

Fuels (excluding feedstocks)

Natural Gas

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

8457601

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

Emission factor

0.00192

Unit

metric tons CO2e per m3

Emissions factor source

Comment

Factor for metric countries. For USA it was used 0.054495 Metric Tons / MCF

Fuels (excluding feedstocks)

Petrol

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

1342

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

Emission factor

0.00231

Unit

metric tons CO2e per liter

Emissions factor source

Comment

Factor for metric countries. For USA it was used 0.008778 Metric Tons / Gallons

Fuels (excluding feedstocks)

Diesel

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

43142.14

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

Emission factor

0.0027

Unit

metric tons CO2e per liter

Emissions factor source

Comment

Factor for metric countries. For USA it was used 0.010241 Metric Tons / Gallons

Fuels (excluding feedstocks)

Light Distillate

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

117960

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

Emission factor

Unit

Please select

Emissions factor source

Comment

Fuels (excluding feedstocks)

Liquefied Petroleum Gas (LPG)

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

61651

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

Emission factor

0.00151

Unit

metric tons CO2e per liter

Emissions factor source

Comment

Factor for metric countries. For USA it was used 0.005744 Metric Tons / Gallons

Fuels (excluding feedstocks)

Coal

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

789432

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

Emission factor

Unit

Please select

Emissions factor source

Comment

Fuels (excluding feedstocks)

Wood

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

1636657

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

Emission factor

Unit

Please select

Emissions factor source

Comment

Fuels (excluding feedstocks)

Solid Biomass Waste

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

1751187

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

Emission factor

Unit

Please select

Emissions factor source

Comment

Seed hulls +other solid B-Mass

C8.2d

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

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	254358			
Heat	0	0	0	0
Steam				
Cooling	0	0	0	0

C8.2e

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

Sourcing method

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

Low-carbon technology type

Other, please specify (Renewable Energy market based approach)

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

Other, please specify (Austria (25,915 MWh) , Germany (11,121) MWh) and Spain (208 MWh))

MWh consumed accounted for at a zero emission factor

37244

Comment

Sourcing method

Heat/steam/cooling supply agreement

Low-carbon technology type

Other, please specify (Different low carbon supplies)

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

Other, please specify (FinalInd (8,602 MWh from B-Mass) and Germany (246,139 Mwh of Muni solid waste cogen plant).)

MWh consumed accounted for at a zero emission factor

254741

Comment

C9. Additional metrics

C9.1

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

Description

Energy usage

Metric value

0.95

Metric numerator

GJ

Metric denominator (intensity metric only)

metric Tons of production

% change from previous year

0.4

Direction of change

Increased

Please explain

Change in footprint and originated volumes has affected negatively our YoY KPI progress. Change is not material and we see as normal and will not affect our long term goals.

Description

Waste

Metric value

0.78

Metric numerator

M3 waste

Metric denominator (intensity metric only)

metric Tons of production

% change from previous year

4.4

Direction of change

Increased

Please explain

Change in footprint and originated volumes has affected negatively our YoY KPI progress. Change is not material and we see as normal and will not affect our long term goals.

C10. Verification

C10.1

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

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

C10.2

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

No, but we are actively considering verifying within the next two years

C11. Carbon pricing

C11.1

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

Yes

C11.1a

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

EU ETS

C11.1b

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

EU ETS

% of Scope 1 emissions covered by the ETS

25

% of Scope 2 emissions covered by the ETS

7

Period start date

January 1 2019

Period end date

July 12 2019

Allowances allocated

Allowances purchased

Verified Scope 1 emissions in metric tons CO₂e

Verified Scope 2 emissions in metric tons CO₂e

Details of ownership

Facilities we own and operate

Comment

Plants under ETS in Poland and Spain did purchase allowances, other European plants did not buy allowances as were under the free allocated levels.

C11.1d

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

Bunge has a long history in the Clean Development Mechanism system and has been an active participant in the European Trading Scheme (ETS). Market changes have forced us to evolve our strategy for carbon trading and find new opportunities as presented in the ETS.

For the ETS scheme, we are complying with regional legislation. We comply with this scheme as we have a group internally that is dedicated to monitoring changes, engaging with working groups and ensuring that relevant data is collated and reviewed in line with annual deadlines. Countries involved in ETS are Spain, Italy, Poland and Austria. Only Spain and Poland are required to purchase EUAs in the market.

The allowances allocated are the free allocation we receive. The emissions verified are the amount that we send/pay to the authorities.

Through 2019, Bunge began an internal process to explore setting a carbon price globally, beyond just the European Market. We expect to implement this new global carbon pricing system in the near future.

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

Navigate GHG regulations
Drive energy efficiency
Other, please specify (Calculate payback investments for CAPEX projects under carbon price)

GHG Scope

Scope 1
Scope 2

Application

Emissions and environmental markets liquidity provider and internal price on carbon is applied over certain facilities located in regions under regulation regarding carbon emissions.

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

25

Variance of price(s) used

Prices vary according to markets, in 2019 internal operations were directly impacted by EU ETS (~EUR 25). Internal pricing methodology preparation for pilot adoption in 2020 .

Type of internal carbon price

Shadow price
Implicit price

Impact & implication

Internal carbon price has been used in selected facilities located in areas where carbon is or may be priced.

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

Code of conduct featuring climate change KPIs
Climate change is integrated into supplier evaluation processes

% of suppliers by number

95

% total procurement spend (direct and indirect)

95

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

95

Rationale for the coverage of your engagement

Engagement through contract clauses and application of Code of Ethics to all agricultural suppliers.

Impact of engagement, including measures of success

Compliance to the company's code and policy, decreasing negative impact on the environment, land use change and reputation and sourcing capacity risks in the direct supply chain.

Comment

Policies are explained and are part of commercial contracts with suppliers, supporting adherence and compliance to the company's directives.

C12.1b

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

Type of engagement

Education/information sharing

Details of engagement

Run an engagement campaign to education customers about your climate change performance and strategy

% of customers by number

70

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

80

Portfolio coverage (total or outstanding)

<Not Applicable>

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

Customers demand more information on land use change in our supply chain and what are the policies in place. Our role is not only to promote the right incentives and governance over suppliers, but also to engage customers into positive discussions and solutions, sharing the responsibility with them. Global customers are primary target, while local business also receive the outcomes of the governance in place.

Impact of engagement, including measures of success

Customers are more aware about feasible solutions and their share of responsibility. Company is then able to minimize reputation issues and enhances possible solutions into the market, supporting the resilience of the systems.

C12.1d

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

Bunge's Grains & Oilseeds commitment, established in 2015, sets out our approach to promoting sustainable agriculture and achieving deforestation-free supply chains. It calls for value chains that are transparent, verified sustainable and which create positive impacts on the ground while advancing the spirit of the Sustainable Development Goals. The commitment calls for:

- eliminating deforestation from our agricultural supply chains worldwide by 2025
- reducing greenhouse gas (GHG) emissions
- protecting peat land and other carbon-capturing ecosystems
- conserving freshwater and acting responsibly in water-stressed regions
- conserving biodiversity
- supporting livelihoods
- respecting labor and land use rights
- applying free, prior and informed consent.

Our commitment is especially material for soybeans sourced in areas of South America that are at higher risk of deforestation, such the Brazilian Cerrado and Argentinian Chaco regions. In 2020, 100% of our soy volumes directly sourced from farms in these regions are traceable. We monitor over 8,300 farms across more than 14 million hectares of land. A portion of these farms are no longer supply to us, though we continue to monitor them for any land use change. .

Bunge believes that palm oil and palm kernel oil must be produced in a manner that is legally compliant and traceable, that protects forests and biodiversity, reduces greenhouse gas (GHG) emissions and respects the rights of indigenous peoples, workers and local communities. Our [Palm Oil Sourcing Policy](#) shows our approach to sustainable sourcing of this commodity. In 2019, we achieved 98% traceability to the mill for palm oil, and over 36% traceability to plantation. Over 20 million hectares of forest are monitored by satellite and radar. Land use changes are reported on a bi-weekly basis, and we work with a variety of stakeholders to engage plantations that are identified as having violated our sourcing policy.

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

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 with minor exceptions	Bunge engages with policy makers on issues related to biofuel production, marketing, sustainability and trade. The company supports market-based approaches to promoting economically and environmentally efficient first generation biofuels.	To encourage the use of biofuel and bio-electricity where it is available, considering a proper relation to food supply and local economic viability

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

Fediol

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Support the use of oilseed raw materials for biofuel

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

Participation in the board

Trade association

Abiove

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Support the use of oilseed raw materials for biofuel

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

Participation in the council

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?

Public affairs' activities at Bunge are overseen by the SVP Sustainability & Governmental Affairs, who reports to the Bunge Limited CEO. The Global Government Affairs committee, which is comprised of public affairs' heads from each of Bunge's regional operating companies and global segments, coordinates policies, positions and activities on an ongoing basis.

C12.4

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

Publication

In other regulatory filings

Status

Complete

Attach the document

Page/Section reference

Content elements

Governance

Strategy

Risks & opportunities

Other metrics

Comment

Annual report (10-k filing) brings the content marked above plus other metrics as per financial requirements

Publication

In voluntary sustainability report

Status

Complete

Attach the document

Page/Section reference

Content elements

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

Other metrics

Comment

GRI-Core, Global sustainability report with the latest 2019 data.

C15. Signoff

C-FI

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

C15.1

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

	Job title	Corresponding job category
Row 1	Senior Vice President, Sustainability and Government Affairs	Chief Sustainability Officer (CSO)

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	41140000000

SC0.2

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

Yes

SC0.2a

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

	ISIN country code (2 letters)	ISIN numeric identifier and single check digit (10 numbers overall)
Row 1	US	BMG1696210

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

Ajinomoto Co.Inc.

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

19.22

Uncertainty (±%)

5

Major sources of emissions

Verified

No

Allocation method

Allocation based on the volume of products purchased

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

Bunge South America Data - All emission data were based on Brazilian GHG Protocol Guidelines.

Requesting member

Ajinomoto Co.Inc.

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

10.11

Uncertainty (±%)

5

Major sources of emissions

Verified

No

Allocation method

Allocation based on the volume of products purchased

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

Bunge South America Data - All emission data were based on Brazilian GHG Protocol Guidelines.

Requesting member

Arcos Dorados

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

460.62

Uncertainty (±%)

5

Major sources of emissions**Verified**

No

Allocation method

Allocation based on the volume of products purchased

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

Bunge South America Data - All emission data were based on Brazilian GHG Protocol Guidelines.

Requesting member

Arcos Dorados

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

421.44

Uncertainty (±%)

5

Major sources of emissions**Verified**

No

Allocation method

Allocation based on the volume of products purchased

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

Bunge South America Data - All emission data were based on Brazilian GHG Protocol Guidelines.

Requesting member

Arcos Dorados

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

20291.13

Uncertainty (±%)

5

Major sources of emissions

cultivation, production, processing and logistics

Verified

No

Allocation method

Allocation based on the volume of products purchased

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

Bunge South America Data - All emission data were based on Brazilian GHG Protocol Guidelines.

Requesting member

Kellogg Company

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

7384

Uncertainty (±%)

5

Major sources of emissions

Verified

No

Allocation method

Allocation based on the volume of products purchased

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

Requesting member

Kellogg Company

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

6755

Uncertainty (±%)

5

Major sources of emissions

Verified

No

Allocation method

Allocation based on the volume of products purchased

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

Requesting member

PepsiCo, Inc.

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

6177

Uncertainty (±%)

5

Major sources of emissions

Verified

No

Allocation method

Allocation based on the volume of products purchased

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

Requesting member

PepsiCo, Inc.

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

5652

Uncertainty (±%)

5

Major sources of emissions

cultivation, production, processing and logistics

Verified

No

Allocation method

Allocation based on the volume of products purchased

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

Requesting member

PepsiCo, Inc.

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

154850

Uncertainty (±%)

5

Major sources of emissions

Verified

No

Allocation method

Allocation based on the volume of products purchased

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

Requesting member

Kellogg Company

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

185081

Uncertainty (±%)

5

Major sources of emissions

Verified

No

Allocation method

Allocation based on the volume of products purchased

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

Requesting member

Anheuser Busch InBev

Scope of emissions

Scope 1

Allocation level

Business unit (subsidiary company)

Allocation level detail

Emissions in metric tonnes of CO2e

1480

Uncertainty (±%)

5

Major sources of emissions

Verified

No

Allocation method

Allocation based on the volume of products purchased

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

Requesting member

Anheuser Busch InBev

Scope of emissions

Scope 2

Allocation level

Business unit (subsidiary company)

Allocation level detail

Emissions in metric tonnes of CO2e

1354

Uncertainty (±%)

5

Major sources of emissions

Verified

No

Allocation method

Allocation based on the volume of products purchased

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

Requesting member

Anheuser Busch InBev

Scope of emissions

Scope 3

Allocation level

Business unit (subsidiary company)

Allocation level detail

Emissions in metric tonnes of CO2e

37111

Uncertainty (±%)

5

Major sources of emissions

Verified

No

Allocation method

Allocation based on the volume of products purchased

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

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
Diversity of product lines makes accurately accounting for each product/product line cost ineffective	Full life cycle analysis.

SC1.4

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

Yes

SC1.4a

(SC1.4a) Describe how you plan to develop your capabilities.

Bunge currently allocates emissions to specific customers based on total revenue.

Additionally Bunge adopts the continuous improvement in order to improve accuracy of data and calculations

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 2020-2021 CDP Action Exchange initiative?

No

SC3.2

(SC3.2) Is your company a participating supplier in CDP's 2019-2020 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

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

Please confirm below

I have read and accept the applicable Terms