FMC Corp - Climate Change 2020

C0. Introduction

C0.1

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

FMC Corporation is an agricultural science company serving global agricultural markets by providing innovative solutions, applications and quality products for more than a century. On November 1, 2017 FMC acquired a significant portion of DuPont's Crop Protection business. In March 2019, FMC completely divested its Lithium business to become a pure play Agricultural Sciences Company. FMC employs approximately 6,500 people throughout the world. FMC's 2019 revenue totalled approximately USD$ 4.6 billion. FMC's product line helps meet the food and nutrient needs of a growing population as it provides innovative and cost-effective solutions to enhance crop yields and quality by controlling a broad spectrum of insects, weeds and diseases, and non-agricultural solutions for pest control. Sustainability is an enduring, fundamental part of FMC's structure, built into who we are as a company. We continue to integrate sustainability into our innovation, operations, and business practices, which strengthens our business performance and aligns with our corporate strategy. With our customers' use of our products and changes to our business operations, we are addressing six of the world's "major global challenges" that are among society's most profound concerns and have significant implications. They are 1) Food Expectations: Food and crop production must meet the basic needs of a rapidly-growing population and socio-economically diverse population that seek a wider array of nutritional options. 2) Health and Safety Expectations: The need for reduced worker exposure, control of pests known to negatively impact human health. 3) Environmental Consciousness: Growing interest in natural and benign materials is driving the need for new, improved, bio-based products that reduce environmental impacts. 4) Climate Change: Reduction in greenhouse gas emissions is a necessary step in mitigating climate-warming trends. 5) Scarce Resources: To cope with limited availability of fresh water, energy and other essential resources, we must carefully manage them and use more renewable alternatives. 6) Land Competition: Urbanization to accommodate a growing population and poor land management techniques limit the amount of arable land available for agriculture, which intensifies the need to increase farmland productivity and crop yields. Each of these challenges shapes the way FMC does business. In 2019, FMC took a focused approach to link the "major global challenges" with the United Nations Sustainable Development Goals (SDGs). This includes a detailed review of SDG #2 and #15, and their associated targets on which FMC can make a positive impact.

FMC is committed to continuing to do its part to address climate change and its impacts. In 2019 we set new environmental goals to reflect the changes to our business with the acquisition of the DuPont Crop Protection Business and the divestiture of the FMC Lithium business. Our new 2030 reduction targets for energy and greenhouse gas emissions are both 25 percent from our 2018 baseline year. In 2019, FMC has reduced both energy intensity and GHG intensity by 14 percent. FMC has been reporting its GHG emissions and mitigation strategy to CDP since 2016. FMC has detailed the business risks and opportunities we have due to climate change and its impacts in our CDP climate change reports.

FMC representatives may from time to time make written or oral statements that are "forward-looking" and provide other than historical information. Such statements are based on our current views and assumptions regarding future events, future business conditions and the outlook for FMC based on currently available information. These statements involve known and unknown risks, uncertainties and factors that may cause actual results to be materially different from any results, levels of activity, performance or achievements expressed or implied by any forward-looking statement. We wish to caution readers not to place undue reliance on any such forward-looking statements, which speak only as of the date made.

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.

Australia
Brazil
Canada
China
Denmark
France
Germany
India
Indonesia
Italy
Pakistan
Russian Federation
Singapore
Thailand
United Kingdom of Great Britain and Northern Ireland
United States of America

C0.4

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

USD

C0.5

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

Operational control

C-CH0.7

(C-CH0.7) Which part of the chemicals value chain does your organization operate in?

Row 1

Bulk organic chemicals

Please select

Bulk inorganic chemicals

Please select

Other chemicals

Specialty chemicals

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	The highest responsibility for climate-related initiatives is the Chairman of the Board of Director's Sustainability Committee. The Board of Directors has adopted a written charter to address climate change by outlining the Sustainability Committee's duties. The Chairman of the Sustainability Committee ensures that the charter is addressed in periodic board meetings and operationalized by the corporation. The written charter includes: •Conducting an annual self-assessment of risks and opportunities related to climate change •Monitoring FMC's Sustainability Program that also includes environmental sustainability, program development and advancement, goals and objectives, and progress toward achieving those objectives •Monitoring FMC's environmental responsibility •Monitoring FMC's programs against American Chemistry Council's Responsible Care initiative related to climate change. As an example, the Chairman, with the consent of the Committee, approved the adaptation of TCFD recommendations. FMC has subsequently published its first draft of TCFD report on our sustainability website www.fmcsustainability.com, and are planning to undertake climate related scenario analysis early next year. The Sustainability Committee is assisted by FMC's internal Sustainability Steering Team, that meets quarterly, to decide on sustainability and climate related goals, risks and opportunities, various reporting responsibilities and discusses sustainability scorecards.

C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – all meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding annual budgets Setting performance objectives Monitoring implementation and performance of objectives Monitoring and overseeing progress against goals and targets for addressing climate-related issues Other, please specify (Reviewing and approving annual Sustainability Commitments)	<Not Applicable>	The highest governance body responsible for climate-related initiatives at FMC is the Board of Directors' Sustainability Committee. This committee was established when sustainability was formalized at FMC in 2011. The committee meets three times per year to review and direct climate change related sustainability programs and submit summary reports to the full Board of Directors. The Sustainability Committee of the Board of Directors (the "Committee") is composed of six outside members of the Board, one of whom is the Chairman. The Committee and its Chairman are nominated by the Nominating and Corporate Governance Committee, and elected annually at the organizational meeting of the Board. The Committee's scope encompasses FMC's safety, environmental and sustainability programs as these were found to be important in the Materiality Assessment of the company. It reviews these programs (objectives, plans, and performance) and recommends actions, as necessary, to ensure continuous performance improvement and alignment with constituent expectations (both internal and external). The Committee also monitors program goals in light of market, environmental and social trends and expectations. The Committee meets as scheduled by its Chairman, nominally three times per year in conjunction with the April, July and October meetings of the Board of Directors. Assisting the Committee is the Vice President, Global Procurement, Global Facilities and Corporate Sustainability, who serves as the Committee's executive secretary. The executive secretary prepares the agenda and the minutes of the meetings. The Global Sustainability Director reports to the Committee the changes in sustainability metrices related to climate change resulting from the Committee's inquiries and recommendations. She also assists the Chairman in preparing reports to be submitted to the Board. The Committee conducts a self-assessment of its performance annually.

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 Procurement Officer (CPO) *CPO and CSO is currently held by a single individual.*	<Not Applicable>	Both assessing and managing climate-related risks and opportunities *The CPO/CSO has the overall responsibility of leading and managing Sustainability related programs throughout the Corporation and overseas Corporate Sustainability Organization in addition to Procurement Organization*	<Not Applicable>	Quarterly
Chief Sustainability Officer (CSO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Quarterly
Environment/ Sustainability manager *The Environment/Sustainability Manager, internally known as Director of Corporate Sustainability.*	<Not Applicable>	Both assessing and managing climate-related risks and opportunities *Director of Corporate Sustainability heads the Corporate Sustainability Org. that includes Sustainability Engineer and Analyst, as well as numerous cross functional teams, to manage day to day activities related to sustainability. The Director also heads the External Sustainability Advisory Council.*	<Not Applicable>	Quarterly
Sustainability committee *Internally known as Executive Sustainability Steering Team and comprises of Executives of the company*	<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).

The Chief Executive Officer is responsible for smooth functioning of the corporation, includinng the Sustainability program at FMC. The CEO is also a passionate spoksperson for the Sustainability initiatives internal and external to FMC.

The Vice President of Global Procurement, Global Facilities, and Corporate Sustainability (CSO/CPO), who is a member of FMC's executive leadership, has the overall responsibility of leading and managing Sustainability related programs throughout the Corporation.

The Director of Corporate Sustainability oversees the implementation and integration of sustainability at FMC. The Director reports to the Vice President of Global Procurement, Global Facilities, and Corporate Sustainability, and FMC's internal Sustainability Steering Team (SST). The SST includes Vice Presidents and executives from Manufacturing, EHS, R&D, Regulatory, Marketing and Sales, Communications, Procurement, Human Resources, Legal and Government Affairs. The SST meets on a quarterly basis and dives deeply in to climate-related issues such as corporate environmental goals, stakeholder feedback and sustainability initiatives. The Director also communicates directly with the Board of Directors' Sustainability Committee on sustainability and climate change three times a year. The Corporate Sustainability Director collaborates with the Vice President of Operations and FMC's Operations, Human Resource and R&D directors to develop and ensure the achievement of FMC's 2025 and 2030 safety, environmental, innovation and social metrics and targets. In 2019, the Board of Director's Sustainability Committee approved the new corporate sustainability goals upon becoming a pure agricultural sciences company. The Director also appraised the Board the feedback from FMC's external sustainability advisory council, diversity and inclusion initiatives and the development of FMC's Product Stewardship and Sustainability Assessment tool for R&D projects. Additionally, this individual manages the Corporate Sustainability Group, who collects, verifies and audits FMC's metrics for innovation, business practices, and environment (energy, water, greenhouse gas emissions and waste). The Corporate Sustainability Group works cross-functionally to monitor the implementation of FMC's sustainability programs globally.

C1.3

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

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

C1.3a

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

Entitled to incentive	Type of incentive	Activity inventivized	Comment
Corporate executive team	Monetary reward	Behavior change related indicator Company performance against a climate-related sustainability index	FMC's executive officers and vice presidents, including those who are members of FMC's executive team are encouraged to include sustainability-related targets, like greenhouse gas emissions and energy reductions, in their annual performance indicators. FMC has committed to developing targets that will contribute to FMC's corporate 2030 sustainability targets to reduce energy, greenhouse gas emissions, waste disposed and water use in high-risk areasintensities. Due to recent changes in FMC's portfolios through Acquisition and Divestiture, FMC has set new targets for 2030 using 2018 as the baseline year.
Environment/Sustainability manager	Monetary reward	Company performance against a climate-related sustainability index	FMC's Director of Corporate Sustainability has incentives for the management of climate change-related issues within her annual performance indicators. She was responsible for the completion of the pre-assurance process completed in 2019 and third-party assurance of FMC's environmental data. FMC's Sustainability Group collects FMC's energy and greenhouse gas data to monitor and track FMC's progress on its environmental targets, including the goal to reduce FMC's energy and greenhouse gas intensities.
Procurement manager	Monetary reward	Supply chain engagement	FMC Procurement tracks projects that may have a "Potential Sustainability Advantage", The categories are Energy Usage, Packaging Reduction, Emissions Reductions, Reuse/Recycle Substitutions, Waste Reduction and Water Usage. The results are reviewed and recognized by Management for making a contribution to support our Sustainability goals.
Buyers/purchasers	Monetary reward	Environmental criteria included in purchases Supply chain engagement	FMC Procurement tracks projects that may have a "Potential Sustainability Advantage", The categories are Energy Usage, Packaging Reduction, Emissions Reductions, Reuse/Recycle Substitutions, Waste Reduction and Water Usage. The results are reviewed and recognized by Management for making a contribution to support our Sustainability goals.
Other, please specify (An FMC plant location, laboratory, business unit or staff functional department within a Group/Business or a Corporate Staff function)	Non-monetary reward	Behavior change related indicator	FMC recognize exceptional performance and/or improvement of a plant location, laboratory, business unit or staff functional department within a Group/Business or a Corporate Staff function in the areas of EHS and Sustainability.
Other, please specify (FMC employees or small groups)	Non-monetary reward	Behavior change related indicator	FMC recognizes employees or small groups for outstanding achievements and leadership in the areas of EHS and Sustainability.
All employees	Non-monetary reward	Other (please specify) (General Sustainability Engagement)	FMC's Global Sustainability Group has produced a sustainability blog, which is featured on FMC's sustainability website. The goal of the blog is to inform and engage FMC's international workforce on programs and initiatives related to sustainability at FMC. Employees and stakeholders can submit information to the Global Sustainability Group on how they are creating a more sustainable future within and outside of FMC.

C2. Risks and opportunities

C2.1

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

Yes

C2.1a

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

	From (years)	To (years)	Comment
Short-term	0	3	No Comment
Medium-term	3	10	No Comment
Long-term	10	20	No Comment

C2.1b

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

FMC assesses risks using impact and likelihood definitions defined by the Risk Council (composed of the Chairman of the Board of Directors, CEO, CFO, General Counsel and Chief Compliance Officer, President/Chief Operating Officer, and Head of Risk, Control and Audit) to arrive at “enterprise” level risks, those risks are considered substantive and are estimated to have a financial impact of $50 million or more of EBIT.

Impact: Considers the *consequences of an event*, separate from the likelihood that the event will actually occur. Impact ratings *consider risk and control activities in place* and whether they operate effectively. FMC rates impact on a five point scale with level of 1 (Minor) to 5 (Critical). The level of impact is determined by the effect on net income, working capital as well as non-financial indicators such as business disruption, legal regulatory compliance and reputational impact.

Likelihood: Considers the probability of an event occurring over the next five years, given both the inherent probability and the preventive measures in place. FMC rates likelihood on a five point scale with level of 1 (Remote) to 5 (Likely).

C2.2

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

Value chain stage(s) covered
Direct operations
Upstream
Downstream

Risk management process
Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment
More than once a year

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

Description of process
Description of the process used to determine which risks and opportunities could have a substantive financial or strategic impact: FMC's Risk, Control and Audit Group (RC&A), who leads the company's Enterprise Risk Management (ERM) process, conducts a company-wide enterprise risk assessment to report on FMC's exposure to risk factors (generally disclosed in our 10-K). The assessment process includes engaging with business functions globally on issues including risks/opportunities associated with climate change. Assessment findings are reported to the Risk Council and FMC's executive leadership four times a year, and Board of Directors annually. Quarterly-RC&A group reviews key risks with the Risk Council, which is composed of the Chairman of the Board of Directors, CEO, CFO, General Counsel and Chief Compliance Officer, President/Chief Operating Officer, and Head of Risk, Control and Audit. FMC's Risk Council is responsible for ensuring good risk governance, defining strategic risks, and monitoring risk assessment processes in strategic planning, business/capital planning and M&A. In addition, the Corporate Sustainability Group conducts a materiality assessment every two years that quantitatively and qualitatively analyses material issues. They conduct interviews with employees with a deep understanding of our business for climate change and other material issues to FMC. They also conduct a survey asking internal and external stakeholders to rank environmental sustainability issues based on each issue's perceived impact on and importance to FMC. The 2018 survey had 52 respondents, representing non-government organizations, customers, suppliers, foundations, trade associations and employees. The outcome of the survey were reported to FMC's executive leadership team, Sustainability Steering Committee, Board Sustainability Team and on our sustainability website (https://www.fmcsustainability.com/#materiality). The next materiality assessment in scheduled for 2020. Separately, on an asset level, RC&A conducts an annual risk assessment for our manufacturing sites and physical assets for impact of climate change, among other topics, on our operations. It has a review process for potential natural catastrophes and possible sources of risks, which are generally disclosed in our 10-K. The Sustainability Group manages the company's energy consumption, GHG emissions, water use and waste generation data. FMC obtained third-party assurance on its 2019 data on energy, GHG emissions, waste disposed and water use at high risk areas. FMC's sites collect and report this data to the Sustainability Group, ensuring FMC is able to measure its environmental impact. The Sustainability Group conducts water risk assessments and energy audits at FMC facilities and results are applied at other sites as needed. Example of how the described process is applied to Physical risks and/or opportunities: (Situation) FMC recognizes that the long-term physical impacts of climate change will continue to manifest themselves going forward, including sea level rise, which may put some of our facilities at risk. (Task) FMC is examining options to protect our resources close to sea level against sea level changes and stronger storm surges. (Action) For example, plans are in place at our Ronland, Denmark site to strengthen its dike system to improve the resilience of this site to the impacts of sea level rise or stronger storm surges. (Result) FMC has already repaired the dike to ensure ensure a minimum height of 1.9m above normal sea level around the Ronland peninsular. In 2020, there are plans to increase the dike to 2.3m above sea level. The project will be carried out in collaboration with the Danish Coastal Authority. Example of how the described process is applied to Transitional risks and/or opportunities: (Situation) FMC's Ronland, Denmark plant is subject to the EU ETS and is below Phase III's emissions cap. In 2021, Phase IV of the EU ETS will come into effect and allowances will decrease by 2.2 percent annually from 2021 to 2030. (Task) Our Ronland, Denmark plant will continue to be subject to the EU ETS and the new emissions limits in Phase IV may increase costs at this plant, depending on the new EU-wide emissions cap and the cost of procuring allowances. Additionally, China is in the process of expanding the implementation of the country's cap and trade program across the country in order to limit emissions. General environmental regulations in China and the country's cap-and-trade program are designed to improve air quality and the environment and they are quickly becoming more prevalent throughout the country. (Action) FMC realizes the potential impacts on the company's operations due to government's recent increased focus on improving the country's environmental conditions. Environmental regulations have the potential to increase the costs of active ingredient contract manufacturing companies that produce our active ingredients. (Result)FMC could potentially need to increase capital investment in emission reduction technology to reduce its GHG emissions.

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	FMC is currently subject to the European Union (EU) Emission Trading Scheme (ETS), which has a goal to reduce greenhouse gas emissions by 43 percent by 2030 from 2005 emission levels. (Situation) FMC's Ronland, Denmark plant is subject to the EU ETS and is below Phase III's emissions cap. In 2021, Phase IV of the EU ETS will come into effect and allowances will decrease by 2.2 percent annually from 2021 to 2030. (Task) Our Ronland, Denmark plant will continue to be subject to the EU ETS and the new emissions limits in Phase IV may increase costs at this plant, depending on the new EU-wide emissions cap and the cost of procuring allowances. Additionally, China is in the process of expanding the implementation of the country's cap and trade program across the country in order to limit emissions. General environmental regulations in China and the country's cap-and-trade program are designed to improve air quality and the environment and they are quickly becoming more prevalent throughout the country. (Action) FMC realizes the potential impacts on the company's operations due to the Chinese government's recent increased focus on improving the country's environmental conditions. Environmental regulations have the potential to increase the costs of active ingredient contract manufacturing companies that produce our active ingredients. (Result) FMC could potentially need to increase capital investment in emission reduction technology to reduce its GHG emissions. FMC has also set overall 25 percent energy intensity and GHG reduction goals. By reducing our emissions of greenhouse gases and investing in energy and process efficient equipment, we lessen the likelihood of a material risk from greenhouse gas legislation. FMC has and will continue to implement energy and process efficiency projects to reduce our energy consumption and GHG emissions. FMC has a dedicated budget for process improvements at its established Tech Center, which conduct research in energy efficiency and emissions reductions activities. The Tech Center performs energy audits and process improvement at FMC facilities and findings are implemented at other FMC locations as needed.
Emerging regulation	Relevant, always included	In December 2019, the European Commission approved the European Green Deal and Farm to Fork Strategy, with the goal of making the EU carbon neutral by 2050. Task: The Deal includes investment plans and a roadmap to fight against climate change and includes goals and strategies related to GHG and pesticide use reductions. 22% of our 2019 revenue is derived from Europe, the Middle East and Africa. Action & Result: FMC is closely following updates and the discussion surrounding the Green Deal and the Farm to Fork Strategy. This is an emerging regulation and hence, costs of complying with possible future requirements are difficult to estimate at this time. These risks are monitored carefully by the organization
Technology	Relevant, always included	Our ability to compete successfully depends in part upon our ability to maintain a superior technological capability and to continue to identify, develop and commercialize new and innovative, high value-added products for existing and future customers. Climate change may impact markets in which we sell our products. For example our markets are affected by climatic conditions, which could adversely impact crop pricing and pest infestations. Drought may reduce the need for fungicides, which could result in fewer sales and greater unsold inventories in the market, whereas excessive rain could lead to increased plant disease or weed growth with growers requiring different pest management needs. (Situation) Our investment in the discovery and development of new pesticidal active ingredients relies on discovery of new chemical molecules. It is important for FMC to place a high priority on developing sustainably-advantaged products to ensure that products coming out of our pipeline are addressing climate related risks and are efficacious against target pests without creating any undue risks to human health and the environment, and then meeting applicable regulatory criteria. (Task) FMC is committed to helping solve issues of food security related to climate change through increased R&D investment. We have set an innovation goal to dedicate 100% of our R&D expenses on sustainably advantaged products by 2025. (Action) FMC utilizes the award-winning Product Stewardship and Sustainability Assessment Tool (PSSA). This tool compares our R&D projects to a benchmark product currently in the market through a series of 38 questions in the following categories: Food Expectations, Health and Safety Expectations, Scarce Resources, Climate Change, Land Competition and Environmental Consciousness. A product is considered sustainably-advantaged if it is better than the benchmark in at least one area, but it cannot retreat in any of the other areas. If a product is not considered sustainable because its attributes are not as good as the benchmark, then FMC works to mitigate the area of concern. (Result) In 2019, we dedicated 93 percent of our R&D spend to developing sustainably advantaged products and technologies which surpassed our initial 2020 goal to increase the percentage of our R&D spend to 80 percent or more on developing sustainably advantaged products. We have reset the goal to 100% R&D spend on developing sustainably advantaged products by 2025.
Legal	Not relevant, included	We are subject to extensive federal, state, local and foreign environmental and safety laws, regulations, directives, rules and ordinances concerning, among other things, emissions in the air, discharges to land and water, and the generation, handling, treatment, disposal and remediation of hazardous waste and other materials. We take our environmental responsibilities very seriously, but there is a risk of environmental impact inherent in our manufacturing operations and transportation of chemicals. Any substantial liability for environmental damage could have a material adverse effect on our financial condition, results of operations and cash flow. The evaluation of this risk is included in the Enterprise Risk Management annual risk assessment process
Market	Relevant, always included	Our markets are affected by climatic conditions, which could adversely impact crop pricing and pest infestations. For example, drought may reduce the need for fungicides, which could result in fewer sales and greater unsold inventories in the market, whereas excessive rain could lead to increased plant disease or weed growth requiring growers to purchase and use more pesticides. Drought and/or increased temperatures may change insect pest pressures, requiring growers to use more, less, or different insecticides. Climate change may also impact markets in which we sell our products, where, for example, a prolonged drought may result in decreased demand for our products. The more gradual effects of persistent temperature change in geographies with significant agricultural lands may result in changes in lands suitable for agriculture or changes in the mix of crops suitable for cultivation and the pests that may be present in such geographies. For example, prolonged increase in average temperature may make northern lands suitable for growing crops not grown historically in such climes, leading farmers to shift from crops such as wheat to soybean and may result in new or different weed, plant disease or insect pressures on such crops – such changes would impact the mix of pesticide products farmers would purchase, which may be adverse for us, depending on the local market and our product mix. Since close to 100% of our business is in agriculture, this represents a material issue for us. The evaluation of this risk is included in the Enterprise Risk Management annual risk assessment process.
Reputation	Relevant, always included	We have set an innovation goal to dedicate 100% of our R&D expenses on sustainably advantaged products by 2025 Climate change and its impacts have the potential to induce changes in customer preferences for products and/or services. People are increasingly concerned about the environment and the impact that companies' products and operations have on the environment. In the future, some consumers' preferences could change, and they could prefer to support products, technologies and companies that they perceive as "friendlier" and/or less impactful on the environment. These potential changes in consumer preferences would have an impact on all industries and the chemical sector in particular. (Situation) The potential risks associated with changing consumer behavior depend on the time frame and extent to which consumers decide to switch to products they perceive as "greener" or more "climate-friendly" because of increased concern for society's negative impacts on the environment. The financial impacts on FMC will also depend on our product portfolio and our ability to adapt our products with changing consumer behavior. Since close to 100% of our business is in agriculture, this represents a material risk for us. The evaluation of this risk is included in the Enterprise Risk Management annual risk assessment process. (Task) FMC is committed to developing sustainable solutions in our portfolio (Action) For example, Our Precision Agriculture solutions enable growers and their advisors to operate more effectively and sustainably through the power of data and machine learning. (Result) FMC is currently working with cotton growers in Greece to help predict bollworm pressure using Arc(TM) farm intelligence. In other countries, including Brazil, Spain and the United States, the platform is being piloted on a broad range of crops from brassicas to corn to lettuce. Arc™ farm intelligence enables growers to monitor insects and make pest management decisions with a higher level of precision and confidence. This proprietary mobile platform is a first in the agricultural industry to deliver real-time data that predicts insect pressure one week in advance with more than 90 percent confidence for key insects to help growers enhance yield, which results in significant reduction in greenhouse gas emission and other environmental footprints.
Acute physical	Relevant, sometimes included	We manufacture products through a combination of FMC owned facilities and contract manufacturers. We own and operate large-scale active ingredient manufacturing facilities with a wide geographic spread such as in the U.S. (Mobile, AL), Puerto Rico (Manati), China (Pudong and Jinshan), Denmark (Ronland), and India (Panoli). Interruptions at these facilities may materially reduce their productivity, or the profitability of our business as a whole. Although we take precautions to enhance the safety of our operations and minimize the risk of disruptions, our operations and those of our contract manufacturers are subject to hazards inherent in chemical manufacturing and the related storage and transportation of raw materials, products and wastes. These potential hazards include (among many others) explosions, fires, severe weather and natural disasters (due to climate change), other environmental risks and public health epidemics/pandemics. Some of these hazards may cause severe damage to or destruction of property and equipment or personal injury and loss of life and may result in suspension of operations or the shutdown of affected facilities. FMC is committed to evaluating the risk of each of our production facilities from acute physical risks. The evaluation of this risk is included in the Enterprise Risk Management annual risk assessment process. FMC has also set environmental intensity goals for all of our manufacturing sites and monitor their footprint on a monthly basis
Chronic physical	Relevant, sometimes included	Our markets are affected by climatic conditions, which could adversely impact crop pricing and pest infestations; for example, drought may reduce the need for fungicides, which could result in fewer sales and greater unsold inventories in the market, whereas excessive rain could lead to increased plant disease or weed growth requiring growers to purchase and use more pesticides. Drought and/or increased temperatures may change insect pest pressures, requiring growers to use more, less, or different insecticides. The effects of climate change such as rising sea levels, drought, flooding and general volatility in seasonal temperatures could adversely affect our operations globally. Extreme weather events attributable to climate change may result in, among other things, physical damage to our property and equipment, and interruptions to our supply chain. Climate change may also impact markets in which we sell our products, where, for example, a prolonged drought may result in decreased demand for our products. The evaluation of this risk is included in the Enterprise Risk Management annual risk assessment process.

C2.3

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

Yes

C2.3a

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

Identifier
Risk 1

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

Risk type & Primary climate-related risk driver

Emerging regulation	Carbon pricing mechanisms

Primary potential financial impact
Increased indirect (operating) costs

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

Company-specific description
FMC is currently subject to the European Union (EU) Emission Trading Scheme (ETS), which has a goal to reduce greenhouse gas emissions by 43 percent by 2030 from 2005 emission levels. Started in 2005, the EU ETS was designed to be implemented in a series of four phases. The third phase (2013-2020) of the EU ETS is currently in effect and the emissions allowances decline by 1.74 percent annually. As of now, each member nation participating in the EU ETS sets the cap and distributes free emissions allowances. FMC's Ronland, Denmark plant is subject to the EU ETS and is below Phase III's emissions cap. In 2021, Phase IV of the EU ETS will come into effect and allowances will decrease by 2.2 percent annually from 2021 to 2030. Our Ronland, Denmark plant will continue to be subject to the EU ETS and the new emissions limits in Phase IV may increase costs at this plant, depending on the new EU-wide emissions cap and the cost of procuring allowances. Additionally, China is in the process of expanding the implementation of the country's cap and trade program across the country in order to limit emissions. General environmental regulations in China and the country's cap-and-trade program are designed to improve air quality and the environment and they are quickly becoming more prevalent throughout the country. FMC realizes the potential impacts on the company's operations due to government's recent increased focus on improving the country's environmental conditions. Environmental regulations have the potential to increase the costs of active ingredient contract manufacturing companies that produce our active ingredients. Depending on how additional countries implement cap and trade in the long-term, FMC could potentially need to increase capital investment in emission reduction technology to reduce its GHG emissions.

Time horizon
Medium-term

Likelihood
Virtually certain

Magnitude of impact
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
Requirements of cap and trade schemes may result in increased costs of energy, increased costs for purchasing emissions allowances, and additional capital costs for emissions controls or new equipment. At this point in time, our plant in Denmark is below the EU ETS designated emissions cap for the EU ETS Phase III. The potential financial implications of complying with a lower cap will be determined as the Phase IV of the EU ETS is finalized in 2021. Each member country of the EU ETS sets the emissions cap and the price of allowances. Depending on the yet-to-be determined requirements of cap-and-trade schemes of the EU ETS's Phase IV and China's cap-and-trade scheme, a percentage of FMC's revenues in EMEA ($584.4 million) and Asia Pacific ($718.5 million) could be impacted.

Cost of response to risk
0

Description of response and explanation of cost calculation
FMC continues to follow legislative and regulatory developments regarding climate change because the regulation of greenhouse gases, depending on their nature and scope, could subject FMC manufacturing operations to additional costs or limits on operations. FMC has also set overall 25 percent energy and GHG intensity reduction goals by 2030. By reducing our emissions of greenhouse gases and investing in energy and process efficient equipment for our manufacturing facilities by 2030, we lessen the likelihood of a material risk from greenhouse gas legislation. FMC has and will continue to implement energy and process efficiency projects to reduce our energy consumption and GHG emission generation. FMC has a dedicated budget for process improvements at its established Technical Center, which conduct research in energy efficiency and emissions reductions activities. The Technical Center perform energy audits and process improvement at FMC facilities and findings from these audits are implemented at other FMC locations as needed. FMC's total annual investment in the Technical Center can range, from approximately $30 to $35 million. The direct cost of management is not known as this time.

Comment
FMC's total annual investment in the technical centers can range, from approximately $30 to $35 million. Direct cost of management of this this in unknown.

Identifier
Risk 2

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

Risk type & Primary climate-related risk driver

Chronic physical	Rising mean temperatures

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
According to the U.S. Global Change Research Program's National Climate Assessment, climate change is projected to cause many changes in physical climate parameters. These include increases in extreme weather events as well as changes in sea levels, mean temperatures, precipitation levels and precipitation patterns. The interaction of these physical parameters could have significant impacts on natural resources in the locations in which FMC operates. We own and operate large-scale active ingredient manufacturing facilities with a wide geographic spread such as in the U.S. (Mobile, AL), Puerto Rico (Manati), China (Pudong and Jinshan), Denmark (Ronland), and India (Panoli). Our operating results are dependent in part on the continued operation of these production facilities. Interruptions at these facilities may materially reduce the productivity of a particular manufacturing facility, or the profitability of our business as a whole. Although we take precautions to enhance the safety of our operations and minimize the risk of disruptions, our operations and those of our contract manufacturers are subject to hazards inherent in chemical manufacturing and the related storage and transportation of raw materials, products and wastes. These potential hazards include (among many others) explosions, fires, severe weather and natural disasters (due to climate change), other environmental risks and public health epidemics/pandemics. Some of these hazards may cause severe damage to or destruction of property and equipment or personal injury and loss of life and may result in suspension of operations or the shutdown of affected facilities. (Situation) For example, FMC recognizes that the long-term physical impacts of climate change will continue to manifest themselves going forward, including sea level rise, which may put some of our facilities at risk. (Task) FMC is examining options to protect our resources close to sea level against sea level changes and stronger storm surges. (Action) For example, plans are in place at our Ronland, Denmark site to strengthen its dike system to improve the resilience of this site to the impacts of sea level rise or stronger storm surges. (Result) FMC has already repaired the dike to ensure ensure a minimum height of 1.9m above normal sea level around the Ronland peninsular. In 2020, there are plans to increase the dike to 2.3m above sea level. The project will be carried out in collaboration with the Danish Coastal Authority.

Time horizon
Long-term

Likelihood
Very likely

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
As noted in the International Panel on Climate Change Fifth Assessment Report, quantitative estimates to measure the private costs of climate change may be incomplete due to difficulty in measuring all relevant effects over time. FMC could experience higher costs with adapting to sea level rise, storm surges, rise in mean temperatures and changes in natural resources as we will need to fortify our sites near sea level. The percentage of FMC's revenue that would be impacted would depend on the severity of changes in natural resources. (FMC's 2019 full year segment revenue was USD$4.6 billion)

Cost of response to risk
0

Description of response and explanation of cost calculation
Situation: FMC recognizes that the long-term physical impacts of climate change will continue to manifest themselves going forward, including sea level rise, which may put some of our facilities at risk. Task: FMC is examining options to protect our resources and sites close to sea level against sea level changes and stronger storm surges. Action: For example, at our Ronland, Denmark site, plans are in place to strengthen its dike system. Result: This will improve the resilience of this site to the future impacts of sea level rise or stronger storm surges. FMC has a dedicated budget for process improvements at its established Technical Center, which conduct research in energy efficiency and emissions reductions activities. The Technical Center perform energy audits and process improvement at FMC facilities and findings from these audits are implemented at other FMC locations as needed. FMC's total annual investment in the technical center can range, from approximately $30 to $35 million. The direct cost of management is not known as this time. Additional Info: To mitigate potential risks to water quality and supply, we first conducted a Water Risk Assessment in 2013 that compared our sites' water use with the World Resources Institute's Aqueduct™ water mapping tool. In 2019, we updated the assessment and created a 2030 goal to reduce water use in high risk areas by 20 percent from our 2018 baseline. Additionally, FMC has allocated over 93% of its 2019 R&D spend on developing sustainably advantaged products, which are products that address global challenges like climate concerns, scarce resources, food and health expectations, land competition or environmental consciousness. FMC can impact these challenges with our products and technologies as well as by decreasing our operations' environmental footprint. We surpassed our initial 2020 goal to increase the percentage of our R&D spend to 80 percent or more on developing sustainably advantaged products. We have reset the goal to 100% R&D spend on developing sustainably advantaged products by 2025.

Comment
Direct cost of management of this this in unknown.

Identifier
Risk 3

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

Risk type & Primary climate-related risk driver

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

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

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description
Induced changes in natural resources could be both a risk and an opportunity for FMC's Agricultural Sciences business depending on the geographic location and the severity of climate change impacts on our customers. With a worldwide manufacturing and distribution infrastructure, we are better able to respond rapidly to global customer needs, offset downward economic trends in one region with positive trends in another and match local revenues to local costs to reduce the impact of currency volatility. FMC's revenue by region for 2019 is as follows: Asia (23%), North America (24%), Latin America (31%) and Europe, Middle East and Africa (22%). The National Climate Assessment projects that growers in many regions will face impacts on crop yields and livestock development because of changes in growing seasons, insect vectors and species distributions due to increasing extreme weather, changing mean temperatures, precipitation patterns and mean precipitation levels. FMC Agricultural Sciences develops agricultural products and technologies to help growers combat the effects of these changes on their crops and we could experience greater market uncertainty because an increase in unpredictable growing conditions would negatively affect our customers. The severity and extent of induced changes in natural resources would affect our customers and in turn, it could affect their need for our products and technologies. Agricultural Sciences could experience a decrease in demand if our products and technologies do not align with the solutions that growers need.

Time horizon
Long-term

Likelihood
Virtually certain

Magnitude of impact
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
As noted in the International Panel on Climate Change Fifth Assessment Report, quantitative estimates measuring private costs of climate change may be incomplete due to the difficulty in measuring all relevant effects over time. FMC could be impacted by changes in natural resources. If impacts on growers are significant and FMC did not have products in the market to address these impacts, then it could be a material risk to our business. The financial impact on our customers is difficult to project at this point in time because of the difficulty in estimating the potential costs to our growers in different geographic locations, in what time frame and the severity of impacts. However, with a worldwide manufacturing and distribution infrastructure, we are better able to respond rapidly to global customer needs, offset downward economic trends in one region with positive trends in another and match local revenues to local costs to reduce the impact of currency volatility. The percentage of FMC's revenue that would be impacted would depend on the severity of the changes in natural resources. (FMC's 2019 full year segment revenue was $4.6 billion.)

Cost of response to risk
277230000

Description of response and explanation of cost calculation
(Situation) Induced changes in natural resources could be both a risk and an opportunity for FMC's Agricultural Sciences business depending on the geographic location and the severity of climate change impacts on our customers. (Task) FMC is committed to finding and developing sustainable solutions in our portfolio that among other benefits, mitigate the effects of climate change for farmers. (Action) FMC utilizes the award-winning Product Stewardship and Sustainability Assessment Tool (PSSA). This tool compares our R&D projects to a benchmark product currently in the market through a series of 38 questions in the following categories: Food Expectations, Health and Safety Expectations, Scarce Resources, Climate Change, Land Competition and Environmental Consciousness. A product is considered sustainably-advantaged if it is better than the benchmark in at least one area, but it cannot retreat in any of the other areas. If a product is not considered sustainable because its attributes are not as good as the benchmark, then FMC works to mitigate the area of concern. (Result) In 2019 FMC spent US$298.1 million on total Research and Development Expenses. In addition, FMC utilized 93 percent of its 2019 R&D spend on developing sustainably advantaged products, which address global challenges like climate change, scarce resources, land competition, environmental consciousness and food & health expectations. Examples of FMC's sustainably-advantaged product portfolio: FMC's biological proudcts feature new modes of action and excellent sustainability profiles. Several FMC biological products on the market are performing extremely well. Biologicals offer benefits beyond their environmental profile. They can help plants overcome difficult growing conditions, fight disease and even assist in regulating the plant's uptake of nutrients and use of limited water. Several FMC biological products on the market are performing extremely well. We recently launched Accudo® biostimulant in the South Korea market, and have submitted a series of new bacterial strains to European Union regulatory authorities for evaluation and approval as bionematicides and biofungicides, a major step prior to commercial launch. The direct cost of management pf this risk is not known as this time. Instead, a proxy figure of the estimated amount of R&D spend on sustainably-advantaged (93% of total R&D spend - US$298.1 million x 0.93 = ~$277,230,000) products has been used.

Comment
Direct cost of management of this this in unknown.

Identifier
Risk 4

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

Risk type & Primary climate-related risk driver

Market	Changing customer behavior

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

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

Company-specific description
The potential risks associated with changing consumer behavior depend on the time frame and extent to which consumers decide to switch to products they perceive as

“greener” or more “climate-friendly” because of increased concern for society’s negative impacts on the environment. The financial impacts on FMC will also depend on our product portfolio and our ability to adapt our products with changing consumer behavior. The actual financial implications are difficult to quantify and could change over time. The risk of changing consumer behavior has the potential to impact a percentage of FMC’s sales of its products. Losses in product sales could be compensated by increased sales of our sustainably advantaged products, including biologicals and Precision Agriculture application technologies. The financial impact of this risk has not been calculated at this time.

Time horizon
Long-term

Likelihood
Likely

Magnitude of impact
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
The potential risks associated with changing consumer behavior depend on the time frame and extent to which consumers decide to switch to products they perceive as “greener” or more “climate-friendly” because of increased concern for society’s negative impacts on the environment. The financial impacts on FMC will also depend on our product portfolio and our ability to adapt our products with changing consumer behavior. The actual financial implications are difficult to quantify and could change over time. The risk of changing consumer behavior has the potential to impact a percentage of FMC’s sales of its products. Losses in product sales could be compensated by increased sales of our sustainably advantaged products, including biologicals and Precision Agriculture application technologies. The financial impact of this risk has not been calculated at this time.

Cost of response to risk
277230000

Description of response and explanation of cost calculation
Situation: The cost of managing changing consumer behavior is difficult to predict and quantify over time to include in an overall strategy. We do track changes affecting customer preferences and are conscious of changing consumer preferences due to climate change and its impacts. Task: In response, we are also developing sustainably advantaged products and technologies to help address consumers’ increasing interest in agricultural products that are less impactful on the environment. Action & Result: We increased our R&D spending on developing sustainably advantaged products to 93 percent in 2019, surpassing our initial 2020 goal to increase our R&D spending to 80 percent, so we can address potential market and other-climate related developments, including changing consumer behavior. The direct cost of management pf this risk is not known as this time. Instead, a proxy figure of the estimated amount of R&D spend on sustainably-advantaged (93% of total R&D spend - US$298.1 million x 0.93 = ~$277,230,000) products has been used.

Comment
Direct cost of management of this this in unknown.

C2.4

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

C2.4a

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

Identifier
Opp1

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Markets

Primary climate-related opportunity driver
Access to new markets

Primary potential financial impact
Increased revenues through access to new and emerging markets

Company-specific description
Climate change is predicted to cause more extreme weather conditions as well as changing temperatures, precipitation patterns and mean precipitation levels. This is expected to result in changes in the pest spectrum for crops With increasing food production pressures to feed a rising population, farmers will also have to sustainably grow more crops on less land using crop protection products, thus significantly increasing crop yields. It is likely that FMC and its customers will be impacted by resource and pest pressures from climate change. FMC has a well-diversified portfolio (both evenly spread across regions and product type) that can help growers adapt to more unpredictable growing conditions. For example, as temperatures increase in the Northern Hemisphere, crops like soybeans/corn could be grown in more northern latitudes, creating an opportunity for FMC to sell its agricultural products to promote plant health and development in new growing regions. Overall, the geographic range, time frame and significance of climate impacts on regions where our customers are located remain to be determined.

Time horizon
Medium-term

Likelihood
Very likely

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
Our growth efforts focus on developing environmentally compatible and sustainable solutions that can effectively increase farmers' yields and provide cost-effective alternatives to chemistries which may be prone to resistance. We are committed to providing unique, differentiated products to our customers by acquiring and further developing technologies as well as investing in innovation to extend product life cycles. Our long range growth strategy expects a Revenue CAGR of 5-7%. We have not yet quantified the direct financial growth attributed specifically to climate related opportunities

Cost to realize opportunity
0

Strategy to realize opportunity and explanation of cost calculation
Situation: Pest problems that Brazilian growers must address are very different from those faced by growers in the U.S. They have their own weed species, insect pressures, and disease strains to control, as well as unique soil conditions, weather patterns, and farming practices. Task: Internally, Global and Regional Portfolio/Product managers work to have current knowledge about emerging grower needs and include climate related risks in their analysis. Action: They work very closely with FMC's R&D personnel to share information about emerging agronomic trends and determine how FMC's portfolio of existing and upcoming products can best address the needs of our customers in light of climate change and related pest pressures. For example - FMC Pakistan introduced a mobile lab unit called "Dr. Soil," which travels and offers soil fertility analysis and counsel to growers. Result: This initiative enables farmers to have a deeper understanding of soil science and shift many out of unsustainable farming practices. It also provides our commercial team with a deeper understanding of grower needs. We reach over 155,000 farmers annually. However, in a country with 14 million smallholder farmers, there are significant opportunities to grow in Pakistan and beyond.

Comment
Not currently known

Identifier
Opp2

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

Opportunity type
Products and services

Primary climate-related opportunity driver
Development of new products or services through R&D and innovation

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
As people become more aware of product impacts on the environment, they are demanding more natural and benign materials to reduce individuals' impacts on the environment. Changing consumer behavior presents an opportunity for FMC to develop products that are less impactful on the environment and/or products with a low-carbon life cycle. Growers prefer agricultural products with a lighter environmental footprint and ones that reduce labor, time, water, fuel use and GHG emissions. FMC's business almost fully operates within the agricultural sciences/crop protection industry and thus will be able to realize the benefit from the new demand for environmentally lighter, more benign products. Furthermore, FMC has a significant presence in Europe (Approximately 22% of revenue), where the EU Green Deal and the Farm to Fork Program has legislated a move towards lower carbon intensive products and alternative chemistries.

Time horizon
Medium-term

Likelihood
Likely

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
How FMC will benefit from these opportunities financially will depend on our ability to adapt our products with consumers' changing behavior. More dramatic climate-change

effects in the short-term could accelerate consumers' preference for FMC's sustainably advantaged products and technologies. We have not yet quantified the direct financial growth attributed specifically to changes in demand. As noted in the IPCC's Fifth Assessment Report, quantitative estimates measuring the financial impact of climate change on companies may be incomplete because of difficulties in measuring all relevant climate-change effects over time.

Cost to realize opportunity
0

Strategy to realize opportunity and explanation of cost calculation
Situation: As people become more aware of product impacts on the environment, they are demanding more natural and benign materials to reduce individuals' impacts on the environment. Task: FMC is committed to develop products that are less impactful on the environment and/or products with a low-carbon life cycle. Action and Result: Biologicals represent a diverse group of plant protection products derived from microorganisms and other naturally occurring materials. FMC discovers and develops biologicals in its Plant Health business, which has grown significantly in the last several years. Today, we are working on new bioinsecticides, bionematicides, biofungicides and biostimulants at our European Innovation Center in Hørsholm, Denmark. These biological products feature new modes of action and excellent sustainability profiles. Several FMC biological products on the market are performing extremely well. We recently launched Accudo® biostimulant in the South Korea market, and have submitted a series of new bacterial strains to European Union regulatory authorities for evaluation and approval as bionematicides and biofungicides, a major step prior to commercial launch. Biologicals offer benefits beyond their environmental profile. They can help plants overcome difficult growing conditions, fight disease and even assist in regulating the plant's uptake of nutrients and use of limited water. The direct cost of FMC's plant health business is unavailable

Comment
Not currently known.

Identifier
Opp3

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

Opportunity type
Products and services

Primary climate-related opportunity driver
Development of new products or services through R&D and innovation

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
Farmers around the world face major productivity challenges. Demand for food is sharply increasing due to a rising population and growing middle class. This, along with climate pressures, results in fewer acres of arable land per capita. Helping farmers produce more food, feed and fuel for a growing world population is a tall order. Growers rely on many tools to help meet this challenge, but nothing is more important than having the right technologies to combat threats of disease, insects and weeds. Any one of these invasive threats can impact yields and potentially destroy a farmer's crops in a matter of days. FMC is committed to addressing these challenges within our current portfolio and in our R&D pipeline. FMC provides products and technologies that increase crop yields and/or water efficiency, which will help to reduce the effects of climate change on growers and support them in meeting increasing food demand. FMC will continue to develop agricultural products and technologies designed to help growers combat the effects of climate-related changes on their crops. Explanation of Financial Impact: We have not yet quantified the direct financial growth attributed specifically to changes in demand due to climate change. However, as part of our long range growth strategy we aim to spend $1.8 billion in Research and Development from 2019 – 2023.

Time horizon
Medium-term

Likelihood
Virtually certain

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
We have not yet quantified the direct financial growth attributed specifically to changes in demand due to climate change. However, as part of our long range growth strategy we aim to spend $1.8 billion in Research and Development from 2019 – 2023.

Cost to realize opportunity
0

Strategy to realize opportunity and explanation of cost calculation
Situation: Demand for food is sharply increasing due to a rising population and growing middle class. This, along with climate pressures, results in fewer acres of arable land per capita. Task: FMC is committed to helping solve issues of food security related to climate change through increased R&D investment. Action: FMC utilizes the award-winning Product Stewardship and Sustainability Assessment Tool (PSSA). This tool compares our R&D projects to a benchmark product currently in the market through a series of 38 questions in the following categories: Food Expectations, Health and Safety Expectations, Scarce Resources, Climate Change, Land Competition and Environmental Consciousness. A product is considered sustainably-advantaged if it is better than the benchmark in at least one area, but it cannot retreat in any of the other areas. If a product is not considered sustainable because its attributes are not as good as the benchmark, then FMC works to mitigate the area of concern. Result: In 2019, we dedicated 93 percent of our R&D spend to developing sustainably advantaged products and technologies. A sustainably advantaged product addresses the previously mentioned six major global challenges. By addressing these challenges in our R&D spend for developing sustainably advantaged products and technologies, we are better able to address potential market and other-climate related developments, including changing consumer behavior. The cost of these R&D programs has already been incorporated into our business strategy. The direct cost of management pf this risk is not known as this time. Instead, a proxy figure of the estimated amount of R&D spend on sustainably-advantaged (93% of total R&D spend - US$298.1 million x 0.93 = ~$277,230,000) products has been used.

Comment
Not currently known.

C3. Business Strategy

C3.1

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

C3.1a

(C3.1a) Does your organization use climate-related scenario analysis to inform its strategy?
No, but we anticipate using qualitative and/or quantitative analysis in the next two years

C3.1c

(C3.1c) Why does your organization not use climate-related scenario analysis to inform its strategy?

Due to the changes in our business, including the Initial Public Offering of our Lithium business in late 2018 and business changes related to the acquisition from DuPont, FMC has not undertaken a full climate-related scenario analysis to inform its business strategy at this time. We intend to complete a qualitative and quantitative analysis in the next two years and incorporate our finding into our overall strategy.

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	FMC considers impact of climate change in its long-, medium- and short-term product and services strategy. (Situation) Our markets are affected by climatic conditions, which could adversely impact crop pricing and pest infestations. For example, a prolonged drought may result in decreased demand for our products. The more gradual effects of persistent temperature change in geographies with significant agricultural lands may result in changes in lands suitable for agriculture or changes in the mix of crops suitable for cultivation and the pests that may be present in such geographies. (Task) As a leading agricultural sciences company, we are committed to developing environmentally compatible and sustainable solutions that can effectively increase farmers' yields and provide cost-effective alternatives to chemistries which may be prone to resistance. Due to the nature of crop protection product development (It typically takes approximately 10 years to bring a product from discovery to commercialization), our product strategy affects both medium- and long-term time horizons. (Action) FMC's plant health business is developing new bioinsecticides, bionematicides, biofungicides and biostimulants at our European Innovation Center in Hørsholm, Denmark. These biological products feature new modes of action and excellent sustainability profiles. Biologicals offer benefits beyond their environmental profile. They can help plants overcome difficult growing conditions, fight disease and even assist in regulating the plant's uptake of nutrients and use of limited water. (Result) In 2019, FMC opened a pilot fermentation facility at the FMC European Innovation Center in Hørsholm, Denmark, to support our Plant Health business in developing natural biological product solutions. FMC also launched Accudo® biostimulant in the South Korea market. Accudo® biostimulant was developed to have a significantly lower dosage rate (approximately 1 liter per hectare) compared to competitive products in the market. FMC designed Accudo® bio-stimulant with a two-year shelf life whereas other biologicals in the market typically have a shelf-life of approximately one year. The extended shelf life minimizes the risk of dealing with expired product, avoiding financial losses for growers and also reduces costs and emissions associated with destroying obsolete product.
Supply chain and/or value chain	Evaluation in progress	We have made supply arrangements to meet planned operating requirements, an inability to obtain the critical raw materials or operate under contract manufacturing arrangements could adversely impact our ability to produce certain products. We are increasingly sourcing critical intermediates and finished products from a number of suppliers, largely outside the United States and principally in China. However, we are working towards developing a more comprehensive strategy for evaluating climate risk across our entire value chain. We anticipate completing this over the next two years.
Investment in R&D	Yes	FMC considers impact of climate change in its long-, medium- and short-term R&D strategy. (Situation) Demand for food is sharply increasing due to a rising population and growing middle class. This, along with climate pressures, results in fewer acres of arable land per capita. Increased innovation is required to protect growers from associated climate risks and tap into climate opportunities (Task) FMC is committed to addressing climate related risk and opportunities in our R&D pipeline. FMC provides products and technologies that increase crop yields and/or water efficiency, which will help to reduce the effects of climate change on growers and support them in meeting increasing food demand. FMC will continue to develop agricultural products and technologies designed to help growers combat the effects of climate-related changes on their crops. In our product portfolio, we also see market opportunities for our products to address climate change and its impacts. For example, FMC's agricultural products can help customers increase yield, energy and water efficiency, and decrease greenhouse gas emissions. Our products can also help growers adapt to more unpredictable growing conditions and the effects these types of threats have on crops. (Action) To determine if a project is sustainably-advantaged, FMC utilizes the award-winning Product Stewardship and Sustainability Assessment Tool (PSSA). This tool compares our R&D projects to a benchmark product currently in the market through a series of 38 questions in 6 categories with Climate change being a key category. (Result) FMC has dedicated over 93% of its 2019 R&D spend on developing sustainably advantaged products, which are products that address global challenges like climate concerns, scarce resources, food and health expectations, land competition or environmental consciousness. We surpassed our initial 2020 goal to increase the percentage of our R&D spend to 80 percent or more on developing sustainably advantaged products. We have reset the goal to 100% R&D spend on developing sustainably advantaged products by 2025.
Operations	Yes	FMC considers impact of climate change in its long-, medium- and short-term operational strategy. (Situation) We produce products through a combination of owned facilities and contract manufacturers. We own and operate large-scale active ingredient manufacturing facilities with a wide geographic spread. FMC recognizes that the long-term physical impacts of climate change will continue to manifest themselves going forward, including sea level rise, which may put some of our facilities at risk. (Situation) FMC recognizes that the long-term physical impacts of climate change will continue to manifest themselves going forward, including sea level rise, which may put some of our facilities at risk. (Task) FMC is examining options to protect our resources close to sea level against sea level changes and stronger storm surges. (Action) For example, plans are in place at our Ronland, Denmark site to strengthen its dike system to improve the resilience of this site to the impacts of sea level rise or stronger storm surges. (Result) FMC has already repaired the dike to ensure ensure a minimum height of 1.9m above normal sea level around the Ronland peninsular. In 2020, there are plans to increase the dike to 2.3m above sea level. The project will be carried out in collaboration with the Danish Coastal Authority.

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 Indirect costs Capital expenditures Capital allocation Acquisitions and divestments Access to capital Assets Liabilities	Every 3-5 years, FMC develops a long range (5-year) growth plan that incorporates a multi-disciplinary company-wide risk assessment process. The assessment takes into account many factors, including the diversity of our supply network and trends in customer demand. Many of these risks incorporate the effects of climate change. For example, the effects of climate change such as rising sea levels, drought, flooding and general volatility in seasonal temperatures could adversely affect our operations globally. Extreme weather events attributable to climate change may result in, among other things, physical damage to our property and equipment, and interruptions to our supply chain. Climate change may also impact markets in which we sell our products, where, for example, a prolonged drought may result in decreased demand for our products. The more gradual effects of persistent temperature change in geographies with significant agricultural lands may result in changes in lands suitable for agriculture or changes in the mix of crops suitable for cultivation and the pests that may be present in such geographies. For example, prolonged increase in average temperature may make northern lands suitable for growing crops not grown historically in such climes, leading farmers to shift from crops such as wheat to soybean and may result in new or different weed, plant disease or insect pressures on such crops – such changes would impact the mix of pesticide products farmers would purchase, which may be adverse for us, depending on the local market and our product mix. Additionally, changes in the governmental regulation of greenhouse gases, depending on their nature and scope, could subject our manufacturing operations to significant additional costs or limits on operations.

C3.1f

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

Research and Development

Climate Change impacts the short-term execution of field research with trials being rendered useless due to adverse weather conditions which results in extra costs and delays. For example, in North America, we have embedded adverse weather risk into our strategy and conduct extra field trials each year so that we have backup locations in case a research plot is lost due to unforeseen environmental conditions. We also distribute these trials across as broad an area as possible to minimize the risk of losing multiple trials to the same weather event.

In the long-term, our Agricultural Sciences products will be needed by growers in locations that are experiencing changes in existing physical environments. FMC is developing products that improve agricultural productivity by helping growers increase crop yields to feed a growing global population. Growers must adapt to less available arable land because of climate change impacts, like temperature and rainfall shifts as well as impacts like increased urbanization. FMC researchers also developed the award-winning Product Stewardship and Sustainability Assessment (PSSA) tool to ensure each new product introduction is more sustainable than the current benchmark. The PSSA tool includes questions that address FMC's identified six major global challenges. A product must show progress in at least one of the areas without regressing in another before it continues in the development process. R&D scientists and development managers must complete the PSSA at each development stage. More complete answers to the PSSA questions are developed as the product moves forward and more insights are gained into the product's attributes.

FMC's Environmental Footprint and Goals

FMC collects site wise information on our environmental impacts, such as energy usage, GHG emissions, water usage and waste generation, which are our key sustainability performance indicators. We used this data to develop our sustainability goals for 2030 to reduce our environmental impacts. Our 2030 environmental sustainability goals and strategies were developed using a quantitative model that sets our 2018 environmental footprint as the baseline. Subsequently we have identified sustainability projects at our high footprint sites that will positively impact our sustainability metrices. We are in the process of incorporating the identified initiatives in our capital planning that will ensure their implementation during the target period. As an example: in 2018 and 2019 FMC hired a third-party consultant company to perform energy audits at two of our high intensity sites at Mobile, Alabama and Ronland, Denmark and at our Stine, Delaware R&D Facility. These audits helped the sites identify and quantify opportunities that will significantly reduce the energy, GHG, water and waste footprints at these sites. As a result of these audits, we have invested in energy-efficient process equipment, heating, ventilation, and air conditioning (HVAC) systems and boiler replacements. Our 2030 goals will ensure FMC's operations and business strategies are more efficient and resilient so we can address potential market, climate, and regulatory-based changes.

Business Operations

Climate change has influenced FMC's short-term strategy in that we are making changes in our business operations to reduce our energy and GHG emissions intensities, conducting life cycle analyses on our products, and third-party assurance assessments of our environmental data, conducting energy assessments to reduce energy intensity at our high energy use manufacturing sites and updating our Water Risk Assessment for our manufacturing sites.

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
2019

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
2018

Intensity figure in base year (metric tons CO2e per unit of activity)
0.52

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure
100

Target year
2030

Targeted reduction from base year (%)
25

Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]
0.39

% change anticipated in absolute Scope 1+2 emissions
-6

% change anticipated in absolute Scope 3 emissions
0

Intensity figure in reporting year (metric tons CO2e per unit of activity)
0.44

% of target achieved [auto-calculated]
61.5384615384616

Target status in reporting year
New

Is this a science-based target?
No, but we anticipate setting one in the next 2 years

Please explain (including target coverage)
We set our 2030 target to reduce our greenhouse gas intensity by 25 percent based on our 2018 emissions baseline year. The amount of absolute emissions is highly dependent upon several factors such as Product mix: FMC's goal is to modify product mix that will be more sustainable not only during the use phase, but also during product design and manufacturing phase. This will significantly affect how much absolute reduction in GHG emission we can achieve. Energy Mix: FMC uses a variety of energy sources with a wide range of emission factors (CO2e/unit of energy). We are currently evaluating sustainability projects that will help us change our energy mix (in addition to reduction in energy through enhanced efficiency) and achieve maximum reduction in GHG emission. Location: FMC has a global manufacturing footprint. Where we choose to execute our sustainability projects will have impact on the absolute GHG emission. Science Based Target: FMC will make a determination about Science Based Target once the guidance for Chemical sector is published by SBT (expected Fall 2020).

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
2019

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 (Kilogram of waste disposed)

Target denominator (intensity targets only)
metric ton of product

Base year
2018

Figure or percentage in base year
154.59

Target year
2030

Figure or percentage in target year
152

Figure or percentage in reporting year
137

% of target achieved [auto-calculated]
679.150579150578

Target status in reporting year
Achieved

Is this target part of an emissions target?
The waste included solid and liquid waste that has no beneficial end use and was not part of the emission target. FMC had a separate GHG emission target.

Is this target part of an overarching initiative?
No, it's not part of an overarching initiative

Please explain (including target coverage)
In 2019, FMC set a waste disposed goal to not exceed the waste disposed intensity by 2030 compared to our base year 2018 waste disposed intensity. This is despite the fact that, due to market demand, FMC will increase production of certain products that are very waste intensive during manufacturing. In effect, FMC's waste reduction goal is equivalent to reducing our absolute waste disposed by 55%.

Target reference number
Oth 2

Year target was set
2019

Target coverage
Company-wide

Target type: absolute or intensity
Intensity

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

Energy consumption or efficiency	GJ

Target denominator (intensity targets only)
metric ton of product

Base year
2018

Figure or percentage in base year
7.13

Target year
2030

Figure or percentage in target year
5.35

Figure or percentage in reporting year
6.14

% of target achieved [auto-calculated]
55.6179775280899

Target status in reporting year
Underway

Is this target part of an emissions target?
All energy usage in FMC is either Scope 1 or 2 emissions.

Is this target part of an overarching initiative?
No, it's not part of an overarching initiative

Please explain (including target coverage)
In 2019, FMC set a goal to reduce our energy intensity by 25% by 2030 compared to base year 2018. We intend to achieve this through energy efficiency improvement project, changes in our product portfolio and the use of low carbon or renewable energy.

Target reference number
Oth 3

Year target was set
2019

Target coverage
Company-wide

Target type: absolute or intensity
Intensity

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

R&D investments	Other, please specify (Percentage of R&D spend to develop sustainable products)

Target denominator (intensity targets only)
USD($) value-added

Base year
2018

Figure or percentage in base year
93

Target year
2025

Figure or percentage in target year
100

Figure or percentage in reporting year
93

% of target achieved [auto-calculated]
0

Target status in reporting year
Underway

Is this target part of an emissions target?
No. However, the R&D activities to develop sustainable product will positively affect our energy, GHG emission, waste and water targets.

Is this target part of an overarching initiative?
No, it's not part of an overarching initiative

Please explain (including target coverage)
FMC commits to creating products that are sustainably advantaged compared to existing products currently in the market place. FMC utilizes the Sustainability Assessment Tool to determine if new active ingredients and formulated products in our R&D pipeline are sustainably-advantaged. This assessment, along with other stewardship processes and tools, ensures the introduction and continued use of environmentally sustainable agricultural solutions. The R&D spend used in the metric is inclusive of all variable and fixed costs related to the discovery and development process across all regions.

Target reference number
Oth 4

Year target was set
2019

Target coverage
Company-wide

Target type: absolute or intensity
Intensity

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

Other, please specify	Other, please specify (Cubic Meter of Water Used at High-Risk Locations)

Target denominator (intensity targets only)
metric ton of product

Base year
2018

Figure or percentage in base year
3.67

Target year
2030

Figure or percentage in target year
2.75

Figure or percentage in reporting year
2.78

% of target achieved [auto-calculated]
96.7391304347826

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)
FMC uses WRI's aqueduct tool to determine our high risk locations for water use. More information can be found in our CDP water report

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	31	
To be implemented*	2	41
Implementation commenced*	7	2570
Implemented*	7	560
Not to be implemented		

C4.3b

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

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
560

Scope(s)
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
81000

Investment required (unit currency – as specified in C0.4)
250000

Payback period
1-3 years

Estimated lifetime of the initiative
6-10 years

Comment
The list of projects include: * Waste: Modification of molecular sieves discharge lines to Refined Tank * Water: Softener System plan replacement and surge tank installation to return condensate * Energy: Hot brine pump motor replacement with less HP * Water: Use azeotrope or solvent instead of water to back flush the centrifuge * Energy, Waste: Increase product A slurry concentration to 16.7% from 12.5% * Energy: Decrease product B centrification step time * Energy: HVAC system change

C4.3c

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

Method	Comment
Compliance with regulatory requirements/standards	We are in compliance with regulatory requirements and standards. The global regulatory environment is becoming increasingly complex and requires more resources to effectively manage. FMC recently expanded our government affairs team in our Asia Pacific, EMEA and Latin America regions to better engage and advise on changing regulatory requirements.
Internal incentives/recognition programs	FMC recognizes its employees' contributions to EHS and sustainability throughout the year. Sites and individual employees are eligible to be nominated for awards for their achievements in these areas. The awards recognizes the exceptional performance and/or improvement of a plant location, laboratory, and business unit or staff functional department within a Group/Business in the areas of EHS and sustainability.
Other (Process Improvement)	FMC has a dedicated budget for process improvements at its established Technical Centers, which conduct research in energy efficiency and emissions reductions activities. The Technical Centers perform energy audits and process improvement at FMC facilities and findings from these audits are implemented at other FMC locations as needed. In 2019 FMC launched several Manufacturing Excellence projects at our manufacturing sites to reduce our environmental footprint. Example includes recovery of solvent from waste, recovery of fuel value from waste, condensate recovery and use.
Dedicated budget for low-carbon product R&D	In 2015, FMC established its first set of long-term sustainability targets in safety, R&D, and community engagement. We have achieved significant progress while planning how FMC can contribute to a more sustainable future. One of these goals was to increase the percentage of our R&D spend on new solutions that positively impact FMC's six identified major global challenges climate change, scarce resources, land competition, environmental consciousness, food expectations and health expectations that we can address with our products and technologies. Success in this area indicates that FMC is developing products that ensure more sustainable options for our customers. In 2019, 93 percent of FMC's R&D spend was on developing sustainably advantaged products, as defined by our sustainability assessment tool. https://www.fmcsustainability.com/wp-content/uploads/2019/06/PSSA-template-3.15.19.xlsx

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

FMC has started to build a strong biological product and technology portfolio through BioSolutions. This portfolio is one component of FMC's comprehensive Plant Health (PH) platform. PH is dedicated to advancing plant yields using biological products and microbes, which protect and stimulate crops using products derived from natural bacteria found in plants and soil. The seed treatment portfolio in PH uses bacteria to protect the seed and nurture an emerging plant once in the ground. In addition plant nutrition products add basic nutrients to the soil to ensure optimal conditions for healthy crop growth. FMC's biologicals include Fracture (a fungicide derived from sweet lupine plants), VGR Soil Amendment (a strain of the beneficial bacterium Bacillus licheniformis that creates an improved living seedbed to help increase root system size), and Ethos XB (an insecticide/fungicide that protects corn from a broad spectrum of seedling diseases). We are following the Climate Bonds Initiative and the development of the Initiative's sector-specific taxonomy for Agriculture, Forestry & Other Land Use (AFOLU). As the parameters of what constitutes a low carbon product are further refined, we will work to further differentiate our sustainably-advantaged products that address climate change, scarce resources, land competition, environmental consciousness and food and health expectations from each other.

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

Addressing the Avoided Emissions Challenge- Chemicals sector

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

0

% of total portfolio value

<Not Applicable>

Asset classes/ product types

<Not Applicable>

Comment

We are currently assessing our portfolio to estimate percentage of our product that is sustainability advantaged and contribute directly or indirectly in reducing our customer's GHG emissions.

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 2018

Base year end
December 31 2018

Base year emissions (metric tons CO2e)
87000

Comment
The above emission includes FMC's operational footprint associated with manufacturing and R&D activities.

Scope 2 (location-based)

Base year start
January 1 2018

Base year end
December 31 2018

Base year emissions (metric tons CO2e)
73000

Comment
The above emission includes FMC's operational footprint associated with manufacturing and R&D activities.

Scope 2 (market-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
US EPA Mandatory Greenhouse Gas Reporting Rule

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)
82989

Start date
<Not Applicable>

End date
<Not Applicable>

Comment
This emissions includes all assets under FMC's operational control.

C6.2

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

Row 1

Scope 2, location-based
We are reporting a Scope 2, location-based figure

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

Comment
FMC will investigate reporting a Scope 2, market-based figure next year

C6.3

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

Reporting year

Scope 2, location-based
69834

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

Start date
<Not Applicable>

End date
<Not Applicable>

Comment
Scope 2 emission includes FMC electricity and imported steam purchases.

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?
No

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
709525

Emissions calculation methodology
a) Production related products (Includes the purchase of chemicals, packaging and related products that are directly related to FMC's end products) FMC used the Average-Data Method to estimate emission for production related products and Spend based method for non-production related products. The amounts (weight, dollar) of individual purchased goods were multiplied by their respective emission factors and the total summed to obtained corporation wide purchased good emission. Source data consisted of purchasing data and volumes obtained from procurement. Emissions factors were obtained from supplier specific LCA data and external databases such as EcoInvent. b) Non-production related products (All other spend related to the running of FMC's business e.g. Consulting spend, office supplies, financial services, etc). FMC uses the Spend-based method for calculating emissions from capital goods. Dollar spend from each capital goods expenditure category was matched to emissions factor provided by the U.S EEIO emissions factor database. Supply chain emissions factors without margins (cradle to gate) were utilized in line with the boundary of this category. Emissions include carbon dioxide, methane and nitrous oxides and other GHGs. While a portion of our capital good expenditure originates from regions outside the U.S, USEEIO factors were utilized due to lack of region-specific spend data.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
26

Please explain
44% of the total spend on raw materials was captured in the above Category 1 emission. Out of this 44%, 59% of the emission data was based on supplier provided data. Emission factors (cradle to gate) of major items purchased were obtained from: * LCA data for major raw materials purchased for diamides, using supplier provided data specific to their geography of operations (China (CN), India(IN), Mexico (MEX), Europe (RER) * EcoInvent data for commonly available chemicals (solvents, acids and bases, common catalysts, etc.), generally using Global (GLO) or European (RER) values, and, when available, values specific to the region of purchase. Details given in the calculation sheet. * EcoInvent data for generic pesticides purchased by FMC, European data (RER) * DEFRA for remaining available emission factors

Capital goods

Evaluation status
Relevant, calculated

Metric tonnes CO2e
11616

Emissions calculation methodology
FMC used the Spend-based method for calculating emissions from capital goods. Dollar spend from each capital goods expenditure category was matched to emissions factor provided by the U.S EEIO emissions factor database. Supply chain emissions factors without margins (cradle to gate) were utilized in line with the boundary of this category. Emissions include carbon dioxide, methane and nitrous oxides and other GHGs. While a portion of our capital good expenditure originates from regions outside the U.S, USEEIO factors were utilized due to lack of region-specific spend data.

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

Please explain
Dollar spend from each capital goods expenditure category (Secondary data) was matched to emissions factor provided by the U.S EEIO emissions factor database.

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

Evaluation status
Relevant, calculated

Metric tonnes CO2e
25942

Emissions calculation methodology
Average-data method is used for this calculation. FMC utilized DEFRA (2018, 1.01 Version) GHG Conversion Factors for the calculation. Where a direct emissions factor was not available, factors were chosen based on the closest equivalent. Categories included in this calculation: 1. Well to Tank (WTT) emissions for all fuel types consumed by FMC 2. T&D losses associated with purchaed electricity and steam

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

Please explain
DEFRA (2018, 1.01 Version) GHG Conversion Factors used to calculate emission in this category

Upstream transportation and distribution

Evaluation status
Relevant, calculated

Metric tonnes CO2e
108182.58

Emissions calculation methodology
Carbon emissions calculated per region (North America, Latin America, EMEA and Asia Pacific-Excluding Australia/NZ) and transportation type (Shipping, Trucking, Air). Utilized Global Logistics Emissions Council (GLEC) methodology and associated emission factors. Multiplied weight of goods (metric tonnes) by distance (kilometer) from internal databases. Result (tonne-kilometer) was multiplied by relevant emission factors. Where possible, utilized carbon emissions calculations directly from 3PL provider. Calculation only included transportation paid for by FMC.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
20

Please explain
Majority of data obtained from internal databases/tracking sheets. Where possible, utilized carbon emissions calculations directly from 3PL provider.

Waste generated in operations

Evaluation status
Relevant, calculated

Metric tonnes CO2e
13000

Emissions calculation methodology
Utilized average data method. * Emissions associated with each waste disposal method were calculated using corresponding DEFRA emissions factor. * For landfill, the factors include collection, transportation and landfill emissions (‘gate to grave’) – As per DEFRA’s methodology. * For combustion and recycling, the factors consider transport to an energy recovery or materials reclamation facility only. This is in line with GHG Protocol Guidelines, with subsequent emissions attributed to electricity generation or recycled material production respectively. * For all other waste types, a default factors for Combustion of municipal waste was used Emissions associated with onsite waste treatment (e.g. wastewater treatment) are accounted for in Scope 1 & 2

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

Please explain
Emission Factor Reference: DEFRA (2018, 1.01 Version)

Business travel

Evaluation status
Relevant, calculated

Metric tonnes CO2e
7720

Emissions calculation methodology
FMC utilizes the distance-based method of calculating emissions from business travel. Boundary included scope 1 and scope 2 emissions of transportation carriers that occur during use of vehicles. Travel data and emissions factors were provided by the travel agency. Emission factors were sourced from DEFRA (2018, 1.01 Version) GHG Conversion factors. * Travel distances for each route were multiplied with relevant emissions factors provided by the travel vendor. * Air: Miles were converted to CO2e emissions using separate conversion factors for short-haul, medium-haul and long-haul flights. * Train: Rail miles were converted into CO2e emissions and only include rail travel in the U.S and Europe.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
95

Please explain
1. The calculated emissions only include travel book through FMC's external travel agency and does not include booking made outside the agency. 2. The calculated emissions do not include buses, rental cars and other miscellaneous methods of travel.

Employee commuting

Evaluation status
Relevant, calculated

Metric tonnes CO2e
21651

Emissions calculation methodology
A survey was sent out to all full-time FMC employees that asked for employee location, distance traveled, and mode of transportation used (e.g. car, train, bus, bicycle, walking, etc). Approximately 20% of FMC employees were surveyed. FMC utilized the distance-based method of calculating emissions from employee commuting. 1. Individual Employee commuting carbon emissions for one year were calculated based on multiplying traveling distances (both to and from the office), relevant transportation emissions factors and the average number of working days in a year. 2. The average carbon footprint was rolled up to a regional level (North America, Latin America, EMEA and Asia Pacific) and this figure was used to extrapolate emissions from the entire organization based on employee count by region as at 31 December 2019. For North American employees, EPA (March 2018 Version) emission factors were used. For all other regions, DEFRA (2018, 1.01 Version) factors were used.

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

Please explain
Data was obtained directly from FMC employees via the above mentioned survey.

Upstream leased assets

Evaluation status
Not evaluated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

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

Please explain
FMC has upstream leased assets that have a small footprint compared to our overall footprint.

Downstream transportation and distribution

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

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

Please explain
Not assessed at this time due to complexity and uncertainty of data.

Processing of sold products

Evaluation status
Not evaluated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

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

Please explain
Not calculated as the WBCSD Chemical Sector Standard “Guidance for Accounting and Reporting Corporate GHG Emissions in the Chemical Sector Value Chain” emphasizes that “chemical companies are not required to report Scope 3, category 10 emissions, since reliable figures are difficult to obtain, due to the diverse application and customer structure.

Use of sold products

Evaluation status
Relevant, calculated

Metric tonnes CO2e
35890

Emissions calculation methodology
The active ingredients (AI) contained in FMC's products typically have very low vapor pressure, and therefore not likely to evaporate and produce greenhouse gas. A well-defined emission factor for such AIs could not be found in open literature. A team of internal specialists have a developed a conservative method to account for maximum possible contribution of sold products to Scope 3 emission during use phase. It was assumed that a fraction of the applied product remains as residue in the soil, the remaining product either is absorbed by the plants, or goes with the water. The fraction remaining with the soil, known as Non-Extractable Residue (NRE) ultimately degrades to CO2 over its lifetime, contributing to the Scope 3 direct emissions. These internally developed emissions factors were applied to volume of product sold (by AI) in the reporting year.

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

Please explain
FMC estimates that the use of sold products is relevant to FMC in considering the size of our overall footprint.

End of life treatment of sold products

Evaluation status
Not evaluated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

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

Please explain
FMC Agricultural Sciences products are used directly in the field, requiring no end-of-life treatment. Packaging materials and waste are recycled when possible. At this time, FMC is investigating methods to measure the emissions associated with these activities

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
FMC has downstream leased assets that have a small footprint compared to our overall footprint.

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
FMC does not have franchises.

Investments

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
FMC does not have emissions from investments that are not captured elsewhere in this response.

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

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?
Yes

C6.7a

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

	CO2 emissions from biogenic carbon (metric tons CO2)	Comment
Row 1	12905	FMC uses briquette as a significant source of energy at one of its manufacturing plants in India. Briquettes are made from an agricultural by product (groundnut shells) that would otherwise be combusted by local farmers without heat recovery. Briquette represents captured CO2 and constitutes 34 percent of site GHG emissions.

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
0.0000329718

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
152000

Metric denominator
unit total revenue

Metric denominator: Unit total
4610000000

Scope 2 figure used
Location-based

% change from previous year
63

Direction of change
Decreased

Reason for change
In 2019, FMC achieved significant reductions in gross global combined Scope 1 and 2 emissions in metric tons CO2e. This achievement is due to efficiency improvements and changes to cleaner burning fuels. Some examples of efficiency improvement projects include: * Waste: Modification of molecular sieves discharge lines to Refined Tank * Water: Softener System plan replacement and surge tank installation to return condensate * Energy: Hot brine pump motor replacement with less HP * Use azeotrope or solvent instead of water to back flush the centrifuge * Increase product A slurry concentration to 16.7% from 12.5% * Decrease product B centrification step time

C7. Emissions breakdowns

C7.1

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

C7.1a

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

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	82732	IPCC Fifth Assessment Report (AR5 – 100 year) *In addition, US EPA GWP was also used*
CH4	103	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	154	IPCC Fifth Assessment Report (AR5 – 100 year)

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
North America	40120
Europe, Middle East and Africa (EMEA)	26993
Asia Pacific (or JAPA)	15784
Latin or South America (LSA)	92

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)
Agricultural Sciences	82989

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Net Scope 1 emissions , metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	82989	<Not Applicable>	All FMC operations were related to chemical production activities
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Electric utility activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

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)
North America	39694	0	105053	0
Latin America (LATAM)	515	0	4251	0
Other, please specify (EMEA)	3527	0	18677	0
Other, please specify (Asia Pacific)	26098	0	45941	0

C7.6

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

By business division

C7.6a

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

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Agricultural Sciences	69834	0

C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	69834	0	No market based scope 2 was estimated
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C-CH7.8

(C-CH7.8) Disclose the percentage of your organization's Scope 3, Category 1 emissions by purchased chemical feedstock.

Purchased feedstock	Percentage of Scope 3, Category 1 tCO2e from purchased feedstock	Explain calculation methodology
Specialty chemicals	100	We do not have category level data for individual chemical

C-CH7.8a

(C-CH7.8a) Disclose sales of products that are greenhouse gases.

	Sales, metric tons	Comment
Carbon dioxide (CO2)	0	There has been no sale of Greenhouse containing products
Methane (CH4)	0	There has been no sale of Greenhouse containing products
Nitrous oxide (N2O)	0	There has been no sale of Greenhouse containing products
Hydrofluorocarbons (HFC)	0	There has been no sale of Greenhouse containing products
Perfluorocarbons (PFC)	0	There has been no sale of Greenhouse containing products
Sulphur hexafluoride (SF6)	0	There has been no sale of Greenhouse containing products
Nitrogen trifluoride (NF3)	0	There has been no sale of Greenhouse containing products

C7.9

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

Decreased

C7.9a

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

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	0	No change	0	FMC did not use renewable energy
Other emissions reduction activities	7400	Decreased	4.8	In 2019, we completed energy audits at two AI sites and one R&D site. As a result of these audits, we have invested in energy-efficient process equipment, heating, ventilation, and air conditioning (HVAC) systems and boiler replacements. We estimate that our emissions reductions initiatives have cumulatively saved us 7,400 MT CO2e and our total Scope 1 and 2 emissions in 2019 were 152,823. Therefore (7400/152823*100) = 4.8%
Divestment	112400	Decreased	41.3	FMC divested its Lithium business thereby reducing Scope 1 +2 GHG emission by 112,400 MT CO2e, out of total of 271,875 MT CO2e reported in 2018, thereby reducing by 41.3%
Acquisitions	0	No change	0	There was no acquisition
Mergers	0	No change	0	There was no mergers
Change in output	0	No change	0	There was no change in output
Change in methodology	0	No change	0	There was no change in methodology
Change in boundary	0	No change	0	There was no change in boundary
Change in physical operating conditions	0	No change	0	There was no change in operating condition
Unidentified	0	No change	0	There was no unidentified
Other	0	No change	0	There was no other reason

C7.9b

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

Location-based

C8. Energy

C8.1

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

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

C8.2

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

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

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)	HHV (higher heating value)	0	408745	408745
Consumption of purchased or acquired electricity	<Not Applicable>	0	157172	157172
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	0	16750	16750
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>	<Not Applicable>	<Not Applicable>
Total energy consumption	<Not Applicable>	0	582667	582667

C-CH8.2a

(C-CH8.2a) Report your organization's energy consumption totals (excluding feedstocks) for chemical production activities in MWh.

	Heating value	Total MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	408745
Consumption of purchased or acquired electricity	<Not Applicable>	157172
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	16750
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	<Not Applicable>
Total energy consumption	<Not Applicable>	582667

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	Yes
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)
Agricultural Waste

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
36137

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
36137

MWh fuel consumed for self-generation of cooling
0

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

Emission factor
1.66

Unit
kg CO2e per metric ton

Emissions factor source
IPCC 2006

Comment
All Agricultural waste is used to produce steam in boiler, most of which is used for heating. Used for internal accounting

---

Fuels (excluding feedstocks)
Diesel

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
5909

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

MWh fuel consumed for self-generation of cooling
0

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

Emission factor
2.67687

Unit
metric tons CO2 per m3

Emissions factor source
IPCC 2006

Comment
Diesel / Gas oil is primarily used for transportation Used for internal accounting

---

Fuels (excluding feedstocks)
Jet Kerosene

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
12146

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

MWh fuel consumed for self-generation of cooling
0

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

Emission factor
2.51975

Unit
metric tons CO2e per m3

Emissions factor source
IPCC 2006

Comment
Mainly used in boiler to produce steam, but we do not track exact distribution for various purposes. Used for internal accounting.

Fuels (excluding feedstocks)
Liquefied Petroleum Gas (LPG)

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
11077

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

MWh fuel consumed for self-generation of cooling
0

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

Emission factor
1.61183

Unit
metric tons CO2e per m3

Emissions factor source
IPCC 2006

Comment
Mostly used for heating Used for internal accounting

Fuels (excluding feedstocks)
Natural Gas

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
342442

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
342442

MWh fuel consumed for self-generation of cooling
0

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

Emission factor
0.00185

Unit
metric tons CO2e per m3

Emissions factor source
IPCC 2006.

Comment
Used in steam boilers and to run CHP units. Used for internal accounting. FMC uses some quantity of natural gas to produce electricity, but we do not track the amount separately that is used to produce electricity.

Fuels (excluding feedstocks)
Petrol

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
716

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

MWh fuel consumed for self-generation of cooling
0

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

Emission factor
2.27214

Unit
metric tons CO2e per m3

Emissions factor source
IPCC 2006

Comment
For transportation Used for internal accounting

Fuels (excluding feedstocks)
Propane Liquid

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
317

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

MWh fuel consumed for self-generation of cooling
0

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

Emission factor
1.61183

Unit
metric tons CO2e per m3

Emissions factor source
IPCC 2006

Comment
For heating and use in flares.

C-CH8.3

(C-CH8.3) Does your organization consume fuels as feedstocks for chemical production activities?
Yes

C-CH8.3a

(C-CH8.3a) Disclose details on your organization's consumption of fuels as feedstocks for chemical production activities.

Fuels used as feedstocks
Natural gas

Total consumption
140000

Total consumption unit
cubic metres

Inherent carbon dioxide emission factor of feedstock, metric tons CO2 per consumption unit
1.88

Heating value of feedstock, MWh per consumption unit
0.01

Heating value
LHV

Comment
We use a small amount of Natural gas for production for one of our Active Ingredient.

C-CH8.3b

(C-CH8.3b) State the percentage, by mass, of primary resource from which your chemical feedstocks derive.

	Percentage of total chemical feedstock (%)
Oil	0
Natural Gas	100
Coal	0
Biomass	0
Waste (non-biomass)	0
Fossil fuel (where coal, gas, oil cannot be distinguished)	0
Unknown source or unable to disaggregate	0

C9. Additional metrics

C9.1

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

C-CH9.3a

(C-CH9.3a) Provide details on your organization's chemical products.

Output product
Specialty chemicals

Production (metric tons)
341412

Capacity (metric tons)
400000

Direct emissions intensity (metric tons CO2e per metric ton of product)
0.24

Electricity intensity (MWh per metric ton of product)
0.19

Steam intensity (MWh per metric ton of product)
0.02

Steam/ heat recovered (MWh per metric ton of product)
0

Comment
Calculated based on reported production and Scope 1/2 emissions.

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	In 2019, 93% of FMC's R&D spend was devoted to developing sustainably advantaged products. The criteria for being a sustainably advantaged product includes better resource utilization and positive contribution to climate change mitigation. The tool can be found through the link below. https://www.fmcsustainability.com/wp-content/uploads/2019/06/PSSA-template-3.15.19.xlsx

C-CH9.6a

(C-CH9.6a) Provide details of your organization's investments in low-carbon R&D for chemical production activities over the last three years.

Technology area	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (optional)	Comment

C10. Verification

C10.1

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

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

C10.1a

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

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
ERM CVS 2019 CDP Assurance Statement FMC_FINAL.pdf

Page/ section reference
Attached 1 page document.

Relevant standard
ISAE3000

Proportion of reported emissions verified (%)
100

C10.1b

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

Scope 2 approach
Scope 2 location-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
ERM CVS 2019 CDP Assurance Statement FMC_FINAL.pdf

Page/ section reference
Attached File

Relevant standard
ISAE3000

Proportion of reported emissions verified (%)
100

C10.2

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

C10.2a

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

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C5. Emissions performance	Year on year change in emissions (Scope 1)	ERM CVS verified - WBCSD/WRI GHG Protocol (2004, updated 2015) for the Scope 1 and 2 GHG emissions (excluding refrigerants and process emissions); FMC's internal reporting criteria and definitions	We assure our Scope 1 and 2 emissions every year. Please find attached the verification letter. DRAFT ERM CVS 2019 Assurance Statement FMC_21Apr2020.pdf
C6. Emissions data	Year on year change in emissions (Scope 2)	ERM CVS' assurance methodology, based on the International Standard on Assurance Engagements ISAE 3000 (Revised).	We assure our Scope 1 and 2 emissions every year. Please find attached the verification letter.
C8. Energy	Energy consumption	ERM CVS' assurance methodology, based on the International Standard on Assurance Engagements ISAE 3000 (Revised).	ERM-CVS verification engagement summary, that includes verification of Total Energy and Energy Intensity, is attached (previous link)
C5. Emissions performance	Year on year emissions intensity figure	ERM CVS' assurance methodology, based on the International Standard on Assurance Engagements ISAE 3000 (Revised).	We assure our Scope 1 and 2 emissions every year. Please find attached the verification letter. (previous link)

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

31

% of Scope 2 emissions covered by the ETS

3

Period start date

January 1 2019

Period end date

December 31 2019

Allowances allocated

76401

Allowances purchased

0

Verified Scope 1 emissions in metric tons CO2e

26099

Verified Scope 2 emissions in metric tons CO2e

2326

Details of ownership

Facilities we own and operate

Comment

FMC's manufacturing facility based in Ronland, Denmark, participates in the European Union (EU) Emissions Trading Scheme (ETS)

C11.1d

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

FMC has regional Sustainability teams to study local regulations affecting FMC operations. Where applicable, FMC participates in local carbon price related reguations as well as voluantary adoptation. For example, in 2015, FMC acquired Cheminova, a chemical company based in Denmark. One of Cheminova's facilities in Ronland, Denmark, participates in the European Union (EU) Emissions Trading Scheme (ETS) and falls below the current emissions cap. In 2021, the next phase of the EU ETS will come into effect. FMC will continue to invest and make improvements in its energy use and greenhouse gas emission levels prior to 2021 to prepare for the lower emissions cap. FMC has already undertaken energy audits at Ronland and identified projects to improve the emission footprint at Ronland.

C11.2

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

No

C11.3

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

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

C12. Engagement

C12.1

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

Yes, our suppliers
Yes, 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
Climate change is integrated into supplier evaluation processes

% of suppliers by number
60

% total procurement spend (direct and indirect)
58

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

Rationale for the coverage of your engagement
Collaboration and strong partnerships with suppliers are very important to FMC to ensure we meet our sustainability commitments, from sourcing, to manufacturing, to transportation and product stewardship. FMC chooses to work only with suppliers who share our commitment to ethical and sustainable business practices. FMC is committed to continuous improvement of its health, safety and environmental performance, listening and responding to public concerns, and reporting on our specific goals and progress toward meeting those goals. Accordingly, the Global Procurement Group has set high standards for the way we conduct business in the areas of social and environmental responsibility. As a member of the United Nations Global Compact, FMC expects our suppliers to conduct their business with similar standards of integrity and ethical behavior. Our FMC Supplier Code of Conduct provides clarity on FMC's expectations from its suppliers. FMC encourages our suppliers to collaborate with us to eliminate waste and cost from our supply chain. We expect our suppliers to work to reduce emissions and waste and use energy and natural resources efficiently and to work with their employees, customers, contractors and commercial partners to promote responsible management of their products and processes through their entire life cycle, and for their intended end use. In addition to the prequalification screening, FMC partners with Sedex, an external screening and risk management provider to continuously qualify key raw material suppliers including assessment of emissions, including GHG, targets to reduce energy usage, and if they have a biodiversity action plan among other business practices (labor standards, health and safety, human rights, and business ethics). We are continuing to grow this program. FMC has initiated relationships with suppliers that are current members of Sedex and has successfully engaged with 67% of those current members. Sedex regularly updates FMC on changes to supplier profiles. In phase two of this partnership, we identify Sedex members and ask them to initiate a partnership with FMC during the supplier evaluation process.

Impact of engagement, including measures of success
We measure our success by tracking the percentage of our suppliers covered by our Supplier evaluation process and percent of suppliers who are compliant with our standards. Since 2012, 450 of our direct material suppliers (~ 60%) and approximately 58% of the total spend were evaluated for their environmental sustainability commitment using our Supplier evaluation process. We also have Key Performance Metrics on the % of new suppliers who have a formal sustainability program. Since we began tracking, 68% of our direct material suppliers have a sustainability program. During the Supplier Evaluation process, FMC encourages our new suppliers to visit our FMC's Sustainability Report to learn more about our commitment to producing food, feed, fiber and fuel for an expanding world population through any challenge that comes our way.

Comment
We are continuing to engage all our suppliers to respond to our sustainability questionnaire.

C12.1b

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

Type of engagement
Collaboration & innovation

Details of engagement
Run a campaign to encourage innovation to reduce climate change impacts

% of customers by number
0

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

Portfolio coverage (total or outstanding)
<Not Applicable>

Please explain the rationale for selecting this group of customers and scope of engagement
Our Precision Agriculture solutions enable growers and their advisors to operate more effectively and sustainably through the power of data and machine learning. FMC is currently working with cotton growers in Greece to help predict bollworm pressure using Arc(TM) farm intelligence. In other countries, including Brazil, Spain and the United States, the platform is being piloted on a broad range of crops from brassicas to corn to lettuce. Arc™ farm intelligence enables growers to monitor insects and make pest management decisions with a higher level of precision and confidence. This proprietary mobile platform is a first in the agricultural industry to deliver real-time data that predicts insect pressure one week in advance with more than 90 percent confidence for key insects to help growers enhance yield, which results in significant reduction in greenhouse gas emission and other environmental footprints.

Impact of engagement, including measures of success
Reduced use rate of our product, reduced environmental footprint.

Type of engagement
Collaboration & innovation

Details of engagement
Run a campaign to encourage innovation to reduce climate change impacts

% of customers by number
25

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

Portfolio coverage (total or outstanding)
<Not Applicable>

Please explain the rationale for selecting this group of customers and scope of engagement
The packaging materials are a measurable source of end-of-life environmental footprint that should be addressed in a responsible manner. In 2012, FMC Agricultural Sciences in Brazil initiated a project to replace the existing 100 percent fossil packages, Virgin Polyethylene HDPE, with more sustainable materials. This effort resulted in FMC developing two types of packages. “Family Green” packages made of at least 51 percent Polyethylene Green, produced from sugarcane. In 2019, Family Green packages represented 100% percent of the packages used in Brazil. It is produced with at least 83 percent of recycled polyethylene and 17 percent of virgin fossil material. In the US, FMC supports Ag Container Recycling Council (ACRC), not-for-profit trade association of crop protection companies. A network of ACRC contractors collects and recycles empty, triple rinsed HDPE agricultural chemical containers at no cost to consumers. We estimate that ACRC recycles about 34% of the packaging materials in the US, thereby significantly reducing the end of life environmental footprint. We are currently not measuring Scope 3 emissions for this workstream.

Impact of engagement, including measures of success
From 2012 to 2019 the Family Green packaging program in Brazil have contributed to the reduction of about 17,000 metric tons of CO2 in the atmosphere.

C12.1d

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

FMC sources active ingredients (AIs) for FMC-owned formulation sites globally through contract manufacturers. The synthesis of these complex chemicals has a material environmental footprint compared to FMC-owned formulation and packaging operations, so we work with our contract manufacturers to monitor and reduce these impacts. We also disclose their energy, GHG and waste footprints in our annual report as a means to encourage reductions in these metrices. In 2019, FMC undertook an initiative to estimate and disclose our Scope 3 emissions, that involved close engagement with our suppliers. We have incorporated environmental related data disclosure clause in our contract template for Formulation and Packaging contract manufacturers.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?
Direct engagement with policy makers
Trade associations
Funding research organizations
Other

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

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
American Chemistry Council (ACC)

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
The American Chemistry Council (ACC) and its members believe that chemistry plays an integral role in solving our world's sustainability challenges. The ACC is committed to advancing safe, innovative, effective, and economically viable chemical products and technologies that are key to unlocking sustainability solutions. The ACC's sustainability principles call on its members to address the environmental impacts from operations by achieving measurable reductions in greenhouse gas emissions and distribution of products, conserving materials and resources, reducing waste through re-use and recycling, and collaborating to reduce marine debris and its impacts. The ACC has supported a number of proposals designed to reduce greenhouse gases, and improve energy generation and efficiency. The ACC has not endorsed a specific climate change policy proposal.

How have you influenced, or are you attempting to influence their position?
FMC is a member of numerous trade and business associations that relate to the chemical, manufacturing, agricultural and consumer industries and their associated priority issues. FMC supports the ACC in its mission to deliver business value through advocacy, political engagement, communications and scientific research. The members of ACC are a diverse group of companies with differing positions on issues that impact the chemical industry. Overall, FMC supports the ACC's sustainability principles that call on ACC members to address their environmental impacts.

Trade association
CropLife America (CLA)

Is your position on climate change consistent with theirs?
Mixed

Please explain the trade association's position
CropLife America (CLA) supports a number of proposals designed to impact greenhouse gas generation, energy generation and energy efficiency.

How have you influenced, or are you attempting to influence their position?
FMC is a member of numerous trade and business associations that relate to the chemical, manufacturing, agricultural and consumer industries and their associated priority issues. FMC's Vice President, Chief Marketing Officer, serves on CLA's Board of Directors and was elected the 46th Chair of the board in 2015 to serve a 2-year term. She was the first woman to hold this position. FMC supports CLA in its efforts to engage with policy makers at the federal, state and local levels to develop policies and regulations. CLA is comprised of a diverse group of members that could potentially differ on certain issues that impact its members. In situations of conflict, all members have the right to advocate for an alternative position.

Trade association
CropLife International (CLI) (Farming First)

Is your position on climate change consistent with theirs?
Mixed

Please explain the trade association's position
CropLife International (CLI) supports and is a member of Farming First, a coalition of multi-stakeholder organizations that articulates, endorses and promotes practical, actionable programs and activities to further sustainable agricultural development worldwide. Farming First has a set of recommendations on climate change to all governments: 1) Support the unique role of agriculture in the global climate change response, 2) Encourage the use of all available and applicable climate change solutions, 3) Promote funding mechanisms which support the needs of all levels and forms of farming, 4) Reward resource-based productivity improvements as the direct contributor to climate-change effectiveness, and 5) Invest in capability sharing to encourage all farmers to play a role in climate change while safeguarding local and global security.

How have you influenced, or are you attempting to influence their position?
FMC is a member of numerous trade and business associations that relate to the chemical, manufacturing, agricultural and consumer industries and their associated priority issues. FMC's President and Chief Operating Officer, is a member of CLI's Strategy committee. FMC supports CLI in its efforts to engage with policy makers to develop policies and regulations. CLI is comprised of a diverse group of members that could potentially differ on certain issues that impact its members. In situations of conflict, all members have the right to advocate for an alternative position.

C12.3d

(C12.3d) Do you publicly disclose a list of all research organizations that you fund?
No

C12.3e

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

The communities in which FMC operates are vital to the company's success. To understand how FMC can positively influence those communities, each FMC-owned manufacturing site reports quarterly on community activities, which are organized into four categories: safety, operational transparency, community partnership and community leadership. If a site completes an activity in each of the four categories, thus providing diverse and valuable interactions with the community they earn a 100 on the Community Engagement Index. The 2019 FMC achieved a score of 81 on the Index against a stated goal of 100 by the year 2025. In addition to the four categories in a calendar year, promoting food security and improved nutrition across our locations is an important part of FMC's community engagement strategy. One of our long-term partnership is Philabundance – an impactful and collaborative organization distributing more than 24 million pounds of food each year to those in need – in Philadelphia, Pennsylvania, United States.

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?

FMC has an established set of strategic and governance processes that ensure the collaboration of FMC's Governmental Affairs team with FMC's executive leadership team, business leaders, and sustainability group on many issues, including sustainability and climate change-related issues. For example, members of FMC's Governmental Affairs Group participate on FMC's Sustainability Steering Team alongside leaders of FMC's executive leadership, as well as group leaders from Manufacturing, EHS, R&D, Finance, Communications, Procurement, Human Resources, and Legal. In addition, members of FMC's Corporate Government Affairs have regular interactions with FMC's leaders from each function and geography in which FMC operates to define and ensure the priorities of the company are advocated for in our interactions with policy makers, trade associations, and research organizations. Through these interactions and meetings, FMC is able to discuss and ensure the company's common approach to climate change is consistent.

C12.4

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

Publication
In mainstream reports

Status
Complete

Attach the document
FMC-Statement-on-Climate-Change.pdf
FMC_2019_Sustainability_Report FINAL PUBLISHED.pdf
FMC-2019-Annual-Report-10-K.pdf

Page/Section reference
* Sustainability report - throughout the report, specifically pages 35, 36 * Annual Report - page 3 * FMC's Climate Change statement

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets

Comment
We provide summary of our current emissions, progress towards our environmental, social and governance goals and our future strategies in our annual report.

Publication
In mainstream reports, incorporating the TCFD recommendations

Status
Complete

Attach the document
FMC-TCFD-Reference-Document-2019.pdf

Page/Section reference
Throughout the report

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets

Comment
Our TCF publication can be found in our website https://www.fmcsustainability.com/wp-content/uploads/2020/06/FMC-TCFD-Reference-Document-2019.pdf

---

Publication
Other, please specify (Sustainability Accounting Standard Board (SASB) filling)

Status
Complete

Attach the document
SASB-Reporting-Metrics-2019.pdf

Page/Section reference
Page 1

Content elements
Strategy
Risks & opportunities
Emissions figures
Other metrics

Comment
We have, for the first time this year, published our SASB report. https://www.fmcsustainability.com/wp-content/uploads/2020/07/SASB-Reporting-Metrics-2019.pdf

---

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	Chief Executive Officer and Chairman of the Board, FMC Corporation	Chief Executive Officer (CEO)

SC. Supply chain module

SC0.0

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

Please refer to the introduction in C 0.2 for company introduction.

SC0.1

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

	Annual Revenue
Row 1	4609800000

SC0.2

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

No

SC1.1

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

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	An accurate product trail that will help us understand where our products are going and the corresponding quantities. Currently, majority of our products are sold through intermediate distributors.
Customer base is too large and diverse to accurately track emissions to the customer level	An accurate product trail that will help us understand where our products are going and the corresponding quantities. Currently, majority of our products are sold through intermediate distributors.
Managing the different emission factors of diverse and numerous geographies makes calculating total footprint difficult	We have manufacturing and R&D operations in more than 26 sites throughout the world.

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.

Corporate Sustainability group within FMC has undertaken a project to quantify FMC's Scope 3 emissions. Among the 15 categories that makes up Scope 3, Use of sold goods quantifies the emissions associated with our product when used by our customers. FMC has partnered with external consultancy service provider to quantify our Scope 3 emissions that would include the emissions to our customers. We are also performing Life Cycle Assessment (LCA) of select products.

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?

Yes

SC2.2a

(SC2.2a) Specify the requesting member(s) that have driven organizational-level emissions reduction initiatives, and provide information on the initiatives.

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