

# Climate Change 2015 Information Request

## The Mosaic Company

### Module: Introduction

#### Page: Introduction

##### CC0.1

###### Introduction

**Please give a general description and introduction to your organization.**

The Mosaic Company is one of the world's leading producers and marketers of potash and phosphate crop nutrients. Our mission is to help the world grow the food it needs. The combination of our substantial company-owned mineral reserves, our production capacity, geographic locations and worldwide supply chain and distribution network differentiates Mosaic from other crop nutrient companies. Net sales for calendar year 2014 were approximately \$9 billion, representing approximately 21.5 million tonnes of finished product. Our business engages in every phase of crop nutrition development, from the mining of resources to the production of crop nutrients, feed and industrial products for customers around the globe. Our customer base includes wholesalers, retail dealers and individual growers in approximately 40 countries.

Mosaic's Commitment on Climate Change states that global climate change creates uncertainty for our business and poses challenges for the health and well-being of the world's populations - ecologically, socially and economically. Mosaic is committed to making informed choices that improve our operational efficiency, environmental stewardship, financial strength, community engagement and resource management. Through these efforts, we intend to sustain our business and experience lasting success.

Mosaic remains committed to the United Nations Global Compact and the ten universal principles it supports, including human rights, labor, environment and anticorruption. In 2014, Mosaic was recognized in Corporate Responsibility Magazine's 100 Best Corporate Citizens List for the fifth consecutive year.

##### CC0.2

###### Reporting Year

**Please state the start and end date of the year for which you are reporting data.**

**The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first.**

**We request data for more than one reporting period for some emission accounting questions. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered a CDP information request. (This does not apply if you have been offered and selected the option of answering the shorter questionnaire). If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year.**

**Please enter dates in following format: day(DD)/month(MM)/year(YYYY) (i.e. 31/01/2001).**

**Enter Periods that will be disclosed**

Wed 01 Jan 2014 - Wed 31 Dec 2014

##### CC0.3

###### Country list configuration

**Please select the countries for which you will be supplying data. If you are responding to the Electric Utilities module, this selection will be carried forward to assist you in completing your response.**

Select country
United States of America
Brazil
Canada
China
Argentina
Chile
India

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## CC0.4

### Currency selection

Please select the currency in which you would like to submit your response. All financial information contained in the response should be in this currency.

USD(\$)

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## CC0.6

### Modules

As part of the request for information on behalf of investors, electric utilities, companies with electric utility activities or assets, companies in the automobile or auto component manufacture sub-industries, companies in the oil and gas sub-industries, companies in the information technology and telecommunications sectors and companies in the food, beverage and tobacco industry group should complete supplementary questions in addition to the main questionnaire.

If you are in these sector groupings (according to the Global Industry Classification Standard (GICS)), the corresponding sector modules will not appear below but will automatically appear in the navigation bar when you save this page. If you want to query your classification, please email [respond@cdp.net](mailto:respond@cdp.net).

If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below. If you wish to view the questions first, please see <https://www.cdp.net/en-US/Programmes/Pages/More-questionnaires.aspx>.

### Further Information

## Module: Management

### Page: CC1. Governance

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## CC1.1

Where is the highest level of direct responsibility for climate change within your organization?

Board or individual/sub-set of the Board or other committee appointed by the Board

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### CC1.1a

Please identify the position of the individual or name of the committee with this responsibility

- i. Board/ Executive Board: The Environmental Health, Safety, and Sustainable Development Committee (EHSS Committee) of the Mosaic Board of Directors
- ii. The EHSS Committee of the Mosaic Board of Directors (the Board) provides oversight of our environmental, health, safety and sustainable development (EHSS) strategic vision and performance, including the safety and health of employees and contractors; environmental performance; the systems and processes designed to manage EHSS risks, commitments, public responsibilities and compliance; relationships with and impact on communities with respect to EHSS matters; public policy and advocacy strategies related to EHSS issues; and achieving societal support of major projects.

The EHSS Committee's responsibilities include, among others:

- overseeing the effectiveness of management's systems, policies and processes that support our EHSS goals, commitments and compliance obligations;
- conducting an annual environment, health and safety management system review;
- reviewing with management compliance with environmental, health and safety laws, and pending or threatened environmental, health and safety administrative, regulatory, or judicial proceedings;
- overseeing the management of EHSS risks
- overseeing sustainability issues, including product stewardship;
- overseeing our interactions relating to EHSS matters with communities, customers and other key stakeholders;
- reviewing the disclosures in the Company's annual report on Form 10-K relating to EHSS matters, and periodically review other material public

disclosures by the Company relating to corporate social responsibility and sustainable development; and

- Review the disclosures in the Company's annual report on Form 10-K relating to EHSS matters, and periodically review other material public disclosures by the Company relating to corporate social responsibility and sustainable development;

The Board and the Senior Leadership Team (SLT) consisting of the CEO, SVP-Phosphate, SVP-Potash, SVP-PA, EVP, VP, SVP-Commercial, COO and SVP-HR, review the EHSS Committee's recommendations in order to develop new company-wide policies, initiatives, targets and goals.

## CC1.2

**Do you provide incentives for the management of climate change issues, including the attainment of targets?**

Yes

## CC1.2a

**Please provide further details on the incentives provided for the management of climate change issues**

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
Chief Executive Officer (CEO)	Monetary reward	Energy reduction target Other: Controlling operating costs	Our Compensation Committee believes that the inclusion of a broader range of performance measures including non-financial performance measures enhances the mitigation of risk under our executive compensation program. Therefore, performance measures for members of Mosaic's management team and all salaried employees are based not only on financial results but also on operational excellence measures including safety, integrity and the achievement of strategic priorities, specifically including sustainability and environmental performance, as these are core values at Mosaic. Management incentives and compensation inform performance against these goals including GHG reduction and other sustainability initiatives. GHG reduction is further linked to compensation through the goal of reducing energy use and of controlling operating costs. These goals are also linked to Mosaic's continuous improvement programs that

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
			emphasize energy efficiency and conservation (such as Continuous Improvement).
Management group	Monetary reward	Energy reduction project	As part of our strategic priority of Investing in People, we have a performance management process called EDGE – Evaluating, Developing and Growing Excellence. Our performance management process has evolved to include scaled competencies, goal alignment and an emphasis on employee and career development. Management and employees at various levels can establish individual goals, including achievement of or progress towards energy reduction projects and/or targets, results of which are linked to their respective annual incentives.
Other: Crews at mining facilities	Other non-monetary reward	Energy reduction project Efficiency target	In 2014, operating crews at our Florida mining facilities initiated an energy conservation contest – a friendly competition across shifts and locations to see which crew runs its shift using the least amount of energy. Before the start of each shift, crews use a performance scorecard to communicate energy saving successes and opportunities for improvement. The winning crews are awarded with a meal at the end of the contest.

#### Further Information

### Page: CC2. Strategy

#### CC2.1

Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities

Integrated into multi-disciplinary company wide risk management processes

#### CC2.1a

Please provide further details on your risk management procedures with regard to climate change risks and opportunities

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
Annually	Board or individual/sub-set of the Board or committee appointed by the Board	Mosaic's mission is to help the world grow the food it needs. As a company with operations and customers and farmers located throughout the world, we assess climate change risks and opportunities globally.	> 6 years	Climate, including climate changes, and associated risks and opportunities are monitored regularly and the results are reported to the Board, the SLT and the EHSS Committee and to additional stakeholders through our Annual Report on Form 10-K, Annual Report to Shareholders and annual Sustainability Report.

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
				Mosaic considers risks and opportunities well into the future and understands that many of the impacts of climate change on our operations and those affecting our customers are uncertain.

## CC2.1b

**Please describe how your risk and opportunity identification processes are applied at both company and asset level**

Company level: The EHSS Committee of the Mosaic Board of Directors as warranted reviews and discusses with management and the internal auditor, policies regarding risk assessment and risk management, including sustainability issues and climate change. While it is the responsibility of management to assess and manage the Company's exposure to risk, the Committee will discuss and review guidelines and policies that govern the process. The discussion may include the Company's financial risk exposures and the steps management has taken to monitor and control such exposures.

Mosaic's SLT addresses environmental risks and opportunities while defining priorities, needs and performance gaps across the company, which are presented to the Board and EHSS committee throughout the year. Mosaic's Enterprise Risk Management (ERM) Committee, consisting of a cross-functional team of executives and senior leaders, assists in achieving business objectives through a systematic approach to anticipate, analyze and review material risks.

Further, Mosaic's Social Responsibility, Environmental Affairs and Public Affairs professionals interact with policy makers and global thought leaders to encourage the transfer of knowledge and to bring the latest thinking on climate and sustainability into the Mosaic risk management process.

Asset (facility) level: Mosaic has an EHS Management system through which it sets EHS procedures and protocols. Our business units are responsible for implementing day-to-day elements of our EHS program, assisted by an integrated staff of EHS professionals. We conduct audits to verify that each facility has identified risks, achieved regulatory compliance, implemented continuous EHS improvement and incorporated EHS management systems into day-to-day functions.

## CC2.1c

**How do you prioritize the risks and opportunities identified?**

Priorities are set based on the assessment of the materiality of the risk or opportunity, including the potential impact of the risk or opportunity as well as the probability of the risk or opportunity occurring. Criteria for materiality (for sustainability reporting purposes) are informed by the EHSS committee within the broad areas of Mosaic's sustainability focus, which include: Food, Environment, People, Community and Company.

## CC2.2

**Is climate change integrated into your business strategy?**

Yes

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**CC2.2a****Please describe the process of how climate change is integrated into your business strategy and any outcomes of this process**

Fertilizer production is an energy-intensive endeavor. Mosaic is committed to making informed choices that improve our operational efficiency, environmental stewardship, financial strength, community engagement and resource management. Through these efforts we intend to sustain our business and experience lasting success. Mosaic's strategy has been influenced by climate change in several key ways:

i. Influence: Mosaic's climate change business strategy is influenced by interaction with stakeholders, including key leaders from other global companies, universities, INGOs and NGOs. The EHSS Committee provides oversight of our environmental, health, safety and sustainable development strategic vision and performance. The Committee's recommendations and reports are reviewed by the Board of Directors and the Senior Leadership Team of the corporation.

ii. Aspects: Climate change aspects being assessed include new product opportunities, regulatory changes, and the potential impacts to our business due to change in physical climate parameters.

iii. Short-term strategy: In anticipation of changing weather patterns, potential shortages of water, the possibility of increasing energy costs and possible carbon/energy taxes and their potential effects on our business, Mosaic employs a strategy that focuses on operational excellence. For example, in an effort to mitigate potential climate change impacts and plan for associated regulation, we continuously work to identify opportunities to improve our use of energy and lower our emissions footprint – both today and well into the future. Engineers at individual facilities continuously help identify energy efficiency projects, like energy efficient upgrades, installation of cogeneration and process improvements.

Our efforts to lower our emissions footprint extend into our supply chain, and we've made investments that have resulted in significant improvements. For example, we operate a fleet of 50 trucks that run on clean-burning compressed natural gas. In 2014, we moved 2.9 million tonnes of product by compressed natural gas fleet, resulting in fewer transportation-associated GHG emissions. We continue to seek opportunities to convert additional shipping volumes to compressed natural gas.

iv. Long-term strategy: Our business strategy has been influenced by climate change in several key ways. Sustainability is one of Mosaic's core values and it shapes our long term strategy. From water conservation and energy efficiency to stringent safety programs and community investment, sustainability is embedded in virtually everything we do. We strive for long term operational excellence as a way to mitigate potential climate change impacts, too, and have identified future cogeneration projects to further our progress towards energy independence. In 2012, we published our "Commitment on Climate Change," which reiterates our pledge to find ways to meet the demands of crop nutrient production and distribution in the context of the need for reduced greenhouse gas emissions. As another example of how climate change has influenced our business strategy, in 2014, Mosaic conducted workshops to develop our 2020 sustainability targets, establishing, in part, our long-term focus on energy management through cogeneration, conservation and greater efficiency. We published these targets in 2015. Innovation is one of Mosaic's Strategic Priorities. Built on our leadership in product, process and sustainability solutions, innovation shapes our long term strategy and response to climate change as we seek to reduce energy use and greenhouse gas emissions in operations while delivering unique value to our stakeholders. For example, we partner with key universities to develop innovative fertilizer formulations that improve nutrient use efficiency in a variety of climate regimes, which could potentially allow for growing crops in increasingly difficult growing conditions. In 2014, Mosaic invested more than \$500,000 in a University-based Fertilizer Technology and Research Centre.

Climate change also influences the topics on which we engage with governments, peer companies and other stakeholders. For example, Mosaic is committed to educating farmers, retailers and stakeholders about the "4Rs" (right fertilizer source at the right rate, at the right time and in the right place) to achieve timely, ongoing and long-term sustainable plant nutrition while protecting natural resources and reducing GHGs. We also engage lawmakers on renewable energy and tax policies that incentivize and expand the generation and use of existing low-cost renewables, like non-GHG emitting cogeneration, and promote fairer pricing for third-party renewable producers when selling power back to the electrical grid. Both of these examples are included in our short and long-term strategies.

v. Strategic advantage: Mosaic's strategic advantages align with our climate change strategy in several key ways. By continuously improving efficiencies, we are realizing operating cost savings that may be redirected to other company

initiatives. Operating efficiencies and innovation may also translate to opportunities such as higher margins for our products. By developing new products that respond to anticipated climate change risks, we are better equipped to capitalize on new opportunities.

vi. Substantial decisions during 2014: As another example of how climate change has influenced our business strategy, in 2014, Mosaic conducted workshops to develop our 2020 sustainability targets, establishing, in part, our long-term focus on energy management through cogeneration, conservation and greater efficiency. These targets, which address GHG emissions reductions, will continue to drive companywide improvements. In 2014, Mosaic began operation of a new turbo generator (TG) at our New Wales facility. The TG, which cost approximately \$120 million and was part of a much larger investment in Mosaic's energy independence, adds 35 megawatts of GHG emissions-free electrical generation capacity using heat recovered from sulfuric acid manufacturing. This decision was influenced, in part, by the possibility of regulatory changes and the potential impacts to our business due to change in physical climate parameters

## CC2.2c

### Does your company use an internal price of carbon?

No, and we currently don't anticipate doing so in the next 2 years

## CC2.3

### Do you engage in activities that could either directly or indirectly influence public policy on climate change through any of the following? (tick all that apply)

Direct engagement with policy makers  
Trade associations  
Funding research organizations

## CC2.3a

### On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
Clean energy generation	Support with minor exceptions	As one of the world's leading crop nutrient companies, Mosaic has a responsibility to be actively engaged in the promotion of sound and sustainable public policies. We are proactive in educating government officials and staff at all levels on our company's operations, the key issues our company faces, our company's importance to local communities and the critical role we play in the world's food supply.	It is Mosaic's belief that the production of electrical energy from high efficiency cogeneration sources should be considered a renewable energy source. Mosaic could have additional opportunities for harnessing emissions-free power under a more supportive regulatory construct. We advocate for a balanced renewable energy policy that encourages the generation, transmission, and consumption of existing, low-cost renewables, such as waste heat recovery, and promotes fairer pricing for third-party renewable producers when selling power back to the electrical grid.

## CC2.3b

### Are you on the Board of any trade associations or provide funding beyond membership?

Yes

CC2.3c

Please enter the details of those trade associations that are likely to take a position on climate change legislation

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
International Fertilizer Industry Association (IFA)	Consistent	Per the IFA's website, "The significant risks and opportunities that climate change presents for agriculture, food supplies and the global fertilizer industry create an imperative for the International Fertilizer Industry Association (IFA) and its member companies to contribute to mitigation and adaptation in the context of achieving a more sustainable path to global food security."	Mosaic is a member of IFA and James T. Prokopanko, President and Chief Executive Officer of The Mosaic Company, serves as the Chairman of the Technical and Safety, Health & Environment (SHE) Committee for the International Fertilizer Industry Association. The Technical & SHE Committee promotes the efficient, safe and secure production, storage and transportation of plant nutrients in a sustainable manner.
Canadian Fertilizer Institute (CFI)	Consistent	Per the CFI website, "Member companies of the Canadian Fertilizer Institute (CFI) have made significant investments over the years to improve manufacturing energy efficiency and to reduce emissions. These efforts to improve energy efficiency and reduce emissions are recognized by the federal and applicable provincial governments."	Walter Precourt, Sr. Vice President of Potash Operations, serves on the Board of Directors for CFI.
International Plant Nutrition Institute (IPNI)	Consistent	Per the IPNI website, "IPNI is a global organization with initiatives addressing the world's growing need for food, fuel, fiber and feed. There is widespread concern for issues such as climate change and the relationship of crop production to the environment and ecosystems, and IPNI programs are achieving positive results. Best management practices (BMPs) for nutrient stewardship encourages the concept of applying the right product (source), at the right rate, at the right time, and in the right place."	Mosaic is a member of IPNI and James T. Prokopanko, President and Chief Executive Officer of The Mosaic Company, was elected Vice Chairman of the IPNI Board. Programs of IPNI are funded by member companies that are dedicated to the efficient and responsible use of fertilizers in plant nutrition.
The Fertilizer Institute (TFI)	Consistent	Per the TFI website, "TFI is the leading voice in the U.S. fertilizer industry, representing the public policy, communication and statistical needs of producers, manufacturers, retailers and transporters of fertilizer. Issues of interest to TFI members include security, international trade, energy, transportation, the environment, worker health and safety, and farm bill and conservation programs to promote the use of enhanced efficiency fertilizer."	Mosaic is a member of TFI and James T. Prokopanko, President and Chief Executive Officer of The Mosaic Company, was elected to serve a two-year term as chairman of TFI's Board of Directors in February of 2012. Programs of TFI are funded by member companies that are dedicated advocating for the fertilizer industry.



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**CC2.3d**

**Do you publicly disclose a list of all the research organizations that you fund?**

No

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**CC2.3e**

**Do you fund any research organizations to produce or disseminate public work on climate change?**

Yes

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**CC2.3f**

**Please describe the work and how it aligns with your own strategy on climate change**

i. Mosaic established and continues to fund a university-based Fertilizer Technology and Research Centre. The Centre focuses on soil chemistry and fertilizer technology, and uses the latest technology to develop innovative fertilizer formulations to improve nutrient use efficiency. Success of such efforts can potentially allow for growing crops in a diversity of climate regimes. In 2014, Mosaic invested more than \$500,000 in a university-based Fertilizer Technology and Research Centre.

ii. Since Mosaic's balanced approach to crop nutrition can be considered a strategy to mitigate the adverse effects of drought, floods, and plant disease caused by climate change, this work directly aligns with our strategy on climate change.

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**CC2.3h**

**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?**

The Mosaic Company strives to be the global leader in the crop nutrient industry. As such, we recognize the importance of being active in industry associations and cross-sector business forums that provide common platforms to advance cutting-edge scientific research and best management practices within our company and our industry. In addition to having a publicly available Commitment on Climate Change that states our position on climate change, Mosaic has a process in place to carefully consider, on a case-by-case basis, the relevance of the engagement opportunities and alignment with our values and business strategies and pursues mutually beneficial partnerships.

Mosaic takes part in industry efforts to address the challenges of climate change and commits to further engage with policy makers and stakeholders on the issue of climate change. Mosaic recognizes that our action on climate change is good for the environment and for the long term financial health and viability of our company.

For example, Mosaic participated in and presented at the Climate Leadership Conference in 2014. The Climate Leadership Conference is a forum for annual exchange for addressing global climate change through policy, innovation, and business solutions. Forward-thinking leaders from business, government, academia and the non-profit sector convene to share energy and climate-related solutions, introduce new opportunities, and provide support for those addressing climate change in their operations. In 2014 Mosaic presented on a panel related to greenhouse gas management in the supply chain.

Agronomy, EHS, and Public Affairs professionals interact with policymakers and global thought leaders to encourage the transfer of knowledge and to bring the latest thinking on sustainability into the Mosaic risk management process.

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**CC2.4**

**Would your organization's board of directors support an international agreement between governments on climate change, which seeks to limit global temperature rise to under two degree Celsius from pre-industrial levels in line with IPCC scenarios such as RCP2.6?**

No opinion

#### CC2.4a

**Please describe your board's position on what an effective agreement would mean for your organization and activities that you are undertaking to help deliver this agreement at the 2015 United Nations Climate Change Conference in Paris (COP 21)**

Though Mosaic's Board of Directors has not discussed this issue specifically, our Commitment on Climate Change acknowledges that global climate change creates uncertainty for our business and poses challenges for the health and well-being of the world's populations - ecologically, socially and economically. Mosaic is committed to making informed choices that improve our operational efficiency, environmental stewardship, financial strength, community engagement and resource management. We continue to work towards reducing our own greenhouse gas emissions footprint and have established goals (published in 2015) to reduce our combined Scope 1 and Scope 2 GHG intensity by 10% per tonne of product by 2020.

#### Further Information

### Page: CC3. Targets and Initiatives

#### CC3.1

**Did you have an emissions reduction target that was active (ongoing or reached completion) in the reporting year?**

Absolute and intensity targets

#### CC3.1a

**Please provide details of your absolute target**

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions (metric tonnes CO2e)	Target year	Comment
Abs1	Scope 1+2	45%	11.9%	2005	2464655	2015	2015 is our target year for our North American Phosphates business unit only and excludes ammonia production. Target assumes stable (+/-10%) phosphate production. We have excluded ammonia production from our interim target because when the target was being set Mosaic's strategic opportunities related to ammonia production were not being considered. Possibly shifting from purchasing ammonia to producing ammonia would be reflected in greater Scope 1 emissions and reduced (offset)

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions (metric tonnes CO2e)	Target year	Comment
							Scope 3 emissions. Until we have determined what percentage of our ammonia requirements we will produce, we have excluded this aspect. This allows the GHG target to be more focused on energy efficiency improvements rather than changes between accounting for emissions in Scope 3 to Scope 1. Of note, we have assumed 1.8 t CO2e per US short ton of ammonia for calculations. We excluded potash production based on the significant potash expansion projects underway at the start of target setting and as a consequence we are currently evaluating the effect those expansion projects will have on absolute GHG emissions and GHG intensities.

#### CC3.1b

Please provide details of your intensity target

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions	Target year	Comment
Int1	Scope 1+2	45%	14.5%	metric tonnes CO2e per metric tonne of product	2005	.24	2015	2015 is our target year for our North American Phosphates business unit only and excludes ammonia production. Target assumes stable (+/-10%) phosphate production. We have excluded ammonia production from our interim target because when the target was being set Mosaic's strategic opportunities related to ammonia production were not being considered. Possibly shifting from purchasing ammonia to producing ammonia would be reflected in greater Scope 1 emissions and reduced (offset) Scope 3 emissions. Until we have determined what percentage of our ammonia requirements we will

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions	Target year	Comment
								produce, we have excluded this aspect. This allows the GHG target to be more focused on energy efficiency improvements rather than changes between accounting for emissions in Scope 3 to Scope 1. Of note, we have assumed 1.8 t CO2e per US short ton of ammonia for calculations. We excluded potash production based on the significant potash expansion projects underway at the start of target setting and as a consequence we are currently evaluating the effect those expansion projects will have on absolute GHG emissions and GHG intensities.

#### CC3.1c

Please also indicate what change in absolute emissions this intensity target reflects

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment
Int1	Decrease	10	Decrease	0	Based on 2005 production levels, the target of 5% reduction in intensity (tonnes Co2e/tonnes of product) would result in an overall decrease in absolute emissions by approximately 10%. Scope 3 emissions not considered in this target.

#### CC3.1d

For all of your targets, please provide details on the progress made in the reporting year

ID	% complete (time)	% complete (emissions)	Comment
Abs1	90%	100%	Since 2005, our Phosphates Business Unit reduced absolute Scope 1 and Scope 2 GHG emissions by a total of 11.9% - exceeding our 2015 goal by 19%.

ID	% complete (time)	% complete (emissions)	Comment
Int1	90%	100%	Since 2005, we improved the Phosphate Business Unit's GHG emissions intensity by 14.5% - surpassing our goal by nearly 45%.

## CC3.2

**Does the use of your goods and/or services directly enable GHG emissions to be avoided by a third party?**

Yes

### CC3.2a

**Please provide details of how the use of your goods and/or services directly enable GHG emissions to be avoided by a third party**

i. Explanation of how emissions are/were avoided

Mosaic's mission is to help the world grow the food it needs. To meet the demands of a population that's expected to swell toward nine billion people by 2050, the world's food supply will have to double. Since over half of the world's crop yields are attributable to fertilizer, we acknowledge the role we play in meeting the world's demand for food.

Though a crucial agricultural input, fertilizer use can be a significant source of emissions on a typical farm. Mosaic is committed to taking a leadership role to minimize the GHGs associated with fertilizers, thereby reducing the environmental impact of fertilizers on the global food supply. Our approach to minimizing GHGs is multifaceted with focus on production, distribution and use activities. We continuously work to identify opportunities to improve our use of energy and lower our emissions so the carbon footprint of our products is minimized. Mosaic supports the minimization of greenhouse gas emissions from the global food supply by encouraging stakeholders to enhance their understanding, adoption and promotion of 4R Nutrient Stewardship. By applying the right fertilizer at the right rate, right time and in the right place, farmers minimize environmental impacts associated with fertilizer use, including potential greenhouse gas emissions.

Innovation is one of Mosaic's strategic priorities. Built on our industry-leading product, process and sustainability solutions, it shapes our strategy as we seek to reduce energy use and GHG emissions while delivering unique value to our stakeholders. For example, Mosaic's premium product MicroEssentials® has been shown to increase corn yields an average of 7.2 bushels per acre, or 4.3%, compared to traditional fertilizer. Assuming a 4.3% yield advantage with MicroEssentials®, a corn farmer with a 350 acre farm can theoretically produce yields similar to those from a 365.05 acre farm. By using MicroEssentials®, this farmer could avoid approximately 0.1816 tonnes of Scope 1 carbon emissions per year, through reduced corn harvesting equipment usage, resulting in greater yields with MicroEssentials® and fewer acres farmed. This theoretical example is fleshed out below to give an idea of annual scale of avoided emissions for 100 farms.

ii. An estimate of the amount of emissions that are/were avoided

A. Assuming fuel savings from a reduction of farm equipment use (thanks to higher yields), a 350 acre corn field could potentially avoid approximately 0.1816 tonnes of Scope 1 carbon emissions per year. 100 farms similar to this example would equal an approximate combined savings of 18.16 tonnes of Scope 1 carbon emissions per year for the farmers. This is a theoretical example only. Utilizing this example logic, sales of 1 million tonnes of MicroEssentials® sold equates to approximately 4,500 tonnes of CO<sub>2</sub>e avoided.

iii. Methodology:

US EPA Climate Leaders: Direct HFC and PFC Emissions from Manufacturing Refrigeration and Air Conditioning Equipment

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

US EPA Climate Leaders: Direct Emissions from Mobile Combustion Sources

US EPA Mandatory Greenhouse Gas Reporting Rule: Subpart G (Ammonia) and Z (Phosphoric Acid)

US EPA Climate Leaders: Indirect Emissions from Purchases/Sales of Electricity and Steam

Stoichiometric mass balance for reactive species containing CO<sub>2</sub> or carbon compounds

**Assumptions:**

A. The estimate takes into consideration the tonnes of CO<sub>2</sub>e/gallon generated by the diesel fuel needed for the operation of a corn harvester per acre. The potential yield of a 350 acre farm yielding 365.05 acres worth of crops was used as the baseline for this Scope 1 emissions savings.

**Emission Factors:**

A. A 2.5 mph corn harvester (farming equipment) uses 1.15 gallons/acre of diesel fuel, which equates to 0.0120648 tonnesCO<sub>2</sub>e/gallon of diesel fuel. Assuming a 4.3% yield advantage with MicroEssentials®, a corn farmer with a 350 acre farm can theoretically produce yields similar to those from a 365.05 acre farm. This farmer could avoid approximately 0.1816 tonnes of Scope 1 carbon emissions per year by harvesting the same yield on a smaller area. 100 farms similar to this example equals a combined savings of 18.16 tonnes of Scope 1 carbon emissions per year for the farmers. This is a theoretical example only.

iv. Whether considering originating CERs or ERUs within the framework of CDM or JI.

We will not be generating Certified Emissions Reductions (CERs) or Emission Reduction Units (ERUs) within the framework of CDM or JI (UNFCCC) in this reporting period

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**CC3.3**

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

Yes

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**CC3.3a**

**Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO<sub>2</sub>e savings**

Stage of development	Number of projects	Total estimated annual CO <sub>2</sub> e savings in metric tonnes CO <sub>2</sub> e (only for rows marked *)
Under investigation	20	
To be implemented*	5	190000
Implementation commenced*	4	120000
Implemented*	13	389000
Not to be implemented	0	

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**CC3.3b**

**For those initiatives implemented in the reporting year, please provide details in the table below**

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
Energy efficiency: Building services	Mosaic's YMF bulk blending plant replaced high pressure sodium lights with LED lights.	1.7	Scope 2	Voluntary	479	1000	1-3 years	6-10 years	
Transportation: fleet	Mosaic invested in a new crane at our Fospar port terminal in Paranagua, which is more efficient and uses less diesel than its predecessor. Also, installing a regenerative brake system in one of the cranes at our Fospar port operations resulted in diesel savings.	400	Scope 1 Scope 3	Voluntary	120000	7300000	4-10 years	11-15 years	
Energy efficiency: Building services	Our Phosphates BU replaced over 1800 lights with LED fixtures, resulting in energy and GHG savings.	740	Scope 2	Voluntary	80000	1000000	4-10 years	6-10 years	
Low carbon energy installation	In 2014, our New Wales plant	96000	Scope 2	Voluntary	10400000	120000000	4-10 years	Ongoing	

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	brought two heat recovery systems online to increase the amount of waste heat recovered from sulfuric acid production. Also in 2014, we began operation of a new turbo generator at our New Wales facility, which adds 35 MW of electrical generation capacity using heat recovered from sulfuric acid manufacturing.								
Behavioral change	Employees at our Belle Plaine facility saved an estimated 2,986,228 km traveled per year by carpooling, resulting in less fuel consumption and GHG savings.	25000	Scope 3	Voluntary	0	0	<1 year	Ongoing	
Energy efficiency: Processes	Through an agreement with an industrial	30000	Scope 1	Voluntary	0	0	<1 year	Ongoing	



Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	partner in Saskatchewan, Mosaic's Belle Plaine facility sends water to be used in a cooling process at a nearby plant. The heated water returns to Mosaic's facility to be used as part of the potash production process. This synergy allows Mosaic to reduce the amount of energy that would have otherwise been spent on heating the water while allowing the industrial partner to avoid cooling costs.								
Energy efficiency: Processes	In 2014, we moved 2.9 million tonnes of product by compressed natural gas fleet, resulting in fewer transportation	118000	Scope 3	Voluntary	0	0	<1 year	Ongoing	

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	n-associated emissions.								
Energy efficiency: Processes	In 2014, our Colonsay site implemented several process engineering improvements that reduced site-wide energy intensity.	33660	Scope 2	Voluntary	0	0	1-3 years	Ongoing	
Energy efficiency: Processes	Various efforts at our mining pumping pits resulted in improvement in solids pumping rates. Pumping the same amount of solids in less time translates to energy and GHG savings.	10000	Scope 1	Voluntary	900000	0	<1 year	Ongoing	
Energy efficiency: Processes	By operating the sandpoint clay dredge at an optimized off-peak/on-peak times, our Wingate facility saved \$32k in energy costs. Also, the purchase of smaller, more	40	Scope 1	Voluntary	40000	8000	<1 year	Ongoing	

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	efficient sealing water pumps decreased the amount of power required to seal matrix pumps.								
Energy efficiency: Processes	Engineering teams at our Four Corners mining facility developed a system for tracking energy associated with equipment use. The tool, used as a scorecard to communicate successes and opportunities for savings, resulted in improvements in daily site energy use.	75000	Scope 2	Voluntary	125000	0	<1 year	Ongoing	

### CC3.3c

What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Employee engagement	Mosaic emphasizes continuous energy improvements in our manufacturing facilities and support functions and recognizes that employees on the front line often have the best ideas. Mosaic fosters a culture which encourages employees to come forward with ideas, and this open dialogue has driven investments that result in energy savings and/or emissions reductions.

Method	Comment
Dedicated budget for energy efficiency	Mosaic has implemented innovative efficiency programs in our Phosphate facilities and Potash facilities to target improving energy efficiencies. With a dedicated budget and staff allocation, the goal of these programs, collectively, is to make our businesses more efficient and effective by growing value, increasing our return, transforming business practices, reinventing our culture and promoting accountability.

#### Further Information

### Page: CC4. Communication

#### CC4.1

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	Status	Page/Section reference	Attach the document
In mainstream financial reports but have not used the CDSB Framework	Complete	34 of 174	<a href="https://www.cdp.net/sites/2015/82/12382/Climate Change 2015/Shared Documents/Attachments/CC4.1/CY '14 10-K.pdf">https://www.cdp.net/sites/2015/82/12382/Climate Change 2015/Shared Documents/Attachments/CC4.1/CY '14 10-K.pdf</a>
In voluntary communications	Complete	5 of 12	<a href="https://www.cdp.net/sites/2015/82/12382/Climate Change 2015/Shared Documents/Attachments/CC4.1/2014_CEO_Review_and_Outlook_PDF.pdf">https://www.cdp.net/sites/2015/82/12382/Climate Change 2015/Shared Documents/Attachments/CC4.1/2014_CEO_Review_and_Outlook_PDF.pdf</a>
In voluntary communications	Underway - previous year attached	17-19 of 42	<a href="https://www.cdp.net/sites/2015/82/12382/Climate Change 2015/Shared Documents/Attachments/CC4.1/Environment SR Page.pdf">https://www.cdp.net/sites/2015/82/12382/Climate Change 2015/Shared Documents/Attachments/CC4.1/Environment SR Page.pdf</a>

#### Further Information

### Module: Risks and Opportunities

### Page: CC5. Climate Change Risks

#### CC5.1

Have you identified any inherent climate change risks that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Risks driven by changes in regulation  
Risks driven by changes in physical climate parameters  
Risks driven by changes in other climate-related developments

#### CC5.1a

Please describe your inherent risks that are driven by changes in regulation

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
General environmental regulations, including planning	Various governmental initiatives to mitigate climate change risk are underway or under consideration around the world. These initiatives could restrict our operating activities, require us to make changes in our operating activities that would increase our operating costs, reduce our efficiency or limit our output, require us to make capital improvements to our facilities, increase our energy, raw material and	Increased operational cost	>6 years	Direct	Unknown	Medium	Any agreement, regulation or program that limits or taxes direct and indirect GHG emissions from our facilities could increase operating costs directly and through suppliers. Hypothetical regulatory changes that required installation of technology such as additional heat recovery systems and related equipment could cost Mosaic more than \$100 million.	In order to manage the potential risks from changing regulations (driven by climate change), Mosaic is taking a proactive approach with particular emphasis on improving energy efficiency. Mosaic's three-pronged approach of energy management through cogeneration, conservation and greater efficiency aims to lead the industry in reducing the energy we use and maximizing the	Cogeneration is part of Mosaic's three-pronged approach of energy management. As a specific example of our management efforts, in 2014, Mosaic began operation of a new turbo generator (TG) at our New Wales facility. This investment, which cost approximately \$120 million, adds 35 megawatts of electrical generation capacity using heat recovered from sulfuric acid manufactu

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	transportation costs or limit their availability, or otherwise adversely affect our results of operations, liquidity or capital resources, and these effects could be material to us.							clean energy we generate.	ring. Adding this TG will allow us to create more cogenerated power to use internally and offset the purchase of electricity from third-party utilities.
Uncertainty surrounding new regulation	Environmental regulations (driven by climate change) with which we comply could potentially have a material adverse effect on our business, financial condition and results of operations, and the results could be material to us. There are various initiatives under consideration in the United States, Canada and internationally that, if adopted,	Increased operational cost	>6 years	Direct	Unknown	Medium	Any agreement, regulation or program that limits or taxes direct and indirect GHG emissions from our facilities could increase operating costs directly and through suppliers. Hypothetical regulatory changes that required installation of technology such as additional heat recovery systems and related equipment could cost Mosaic	Mosaic's approach to the risk of regulatory uncertainty is multi-faceted. In addition to engaging government officials and legislators at the state/provincial and federal level to develop climate change related legislation, Mosaic is taking a proactive approach with particular emphasis on improving energy efficiency.	Cogeneration is part of Mosaic's three-pronged approach of energy management. As a specific example of our management efforts, in 2014, Mosaic began operation of a new turbo generator (TG) at our New Wales facility. This investment, which cost approximately \$120 million, adds 35 megawatts of electrical generation

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	could adversely affect our operating activities, energy, raw material and transportation costs, results of operations, liquidity or capital resources, and these effects could be material to us.						more than \$100 million.		capacity using heat recovered from sulfuric acid manufacturing. Adding this TG will allow us to create more cogenerated power to use internally and offset the purchase of electricity from third-party utilities.
Carbon taxes	China has considered the implementation of a carbon tax of 5 Yuan per tonne of carbon emitted. Though modest compared to previous estimates, this tax could affect our operating costs, both directly and through suppliers.	Increased operational cost	Unknown	Direct	Unknown	Low	The possible implementation of a carbon tax in China that would tax 5 Yuan (\$0.80 USD) per tonne of carbon emitted is predicted to have a minimal financial impact of approximately 2,000-3,000 Yuan (approximately \$300-400 USD) per year on our operations in China, based on 2014	In order to manage the potential risks from changing regulations (driven by climate change), Mosaic is taking a proactive approach with particular emphasis on improving energy efficiency. As an example of one such project, in 2014, our Yantai bulk blending plant	The cost of replacing these lights, which reduced energy use and associated GHGs, was approximately \$1,000.

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							emissions. At this time, these effects are not material to us. This value excludes any financial implications passed on to us by suppliers and is an approximation only.	replaced several high pressure sodium lamps with LED lights. This initiative saved energy and associated GHGs.	
Cap and trade schemes	In order to mitigate the potential risks of climate change, the California Air Resource Board implemented a cap and trade program that is enforceable as of January 1, 2013. While this program does not currently affect our operations, if a similar program were implemented throughout the rest of the United States, our operations would be	Increased operational cost	>6 years	Direct	Unknown	Medium	A cap and trade scheme like the one implemented in California could have a modest impact on our operations. Covered entities under the California program were initially granted 90 percent of their emissions allowances without penalty, allocated based on historical emissions, while the remaining 10 percent were purchased via auction.	Mosaic's approach to this risk is multi-faceted. In addition to engaging government officials and legislators at the state/provincial and federal level to develop climate change related legislation, Mosaic is taking a proactive approach with particular emphasis on improving energy efficiency.	Cogeneration is part of Mosaic's three-pronged approach of energy management. As a specific example of our management efforts, in 2014, Mosaic began operation of a new turbo generator (TG) at our New Wales facility. This investment, which cost approximately \$120 million, adds 35 megawatts of electrical generation



Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	affected. Such initiatives could restrict our operating activities, require us to make changes in our operating activities that would increase our operating costs, reduce our efficiency or limit our output, require us to make capital improvements to our facilities, increase our energy, raw material and transportation costs or limit their availability, or otherwise adversely affect our results of operations, liquidity or capital resources, and these effects could be material to us.						Permits to offset 10% of Mosaic's emissions would require an approximate investment in the range of \$1.5 to 2 million USD based on normalized production rates.		capacity using heat recovered from sulfuric acid manufacturing. Adding this TG will allow us to create more cogenerated power to use internally and offset the purchase of electricity from third-party utilities.

#### CC5.1b

Please describe your inherent risks that are driven by change in physical climate parameters

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Change in mean (average) precipitation	Mosaic's main product is fertilizer, and fertilizer demand can be directly affected by the potential impact of climate change risks on agriculture, including temperature changes. Changing growing seasons in already dry areas could make growing crops using traditional methods increasingly difficult.	Reduced demand for goods/services	Unknown	Indirect (Client)	Unknown	Low-medium	Drastic temperature changes could result in reduced demand for Mosaic's products, as certain farming activities may be reduced significantly or displaced to other regions of the world where we may or may not have a presence. Such reduced demand could adversely affect our operating results and financial condition and the effects could be material to us. As an example, Mosaic's 2014 net sales totaled approximately \$9 billion. A theoretical decrease	Mosaic's balanced approach to crop nutrition is part of our strategy to mitigate the adverse effects of potential climate change risks, such as temperature changes, drought, floods, and plant disease. Mosaic has established relationships with key universities and research organizations around the globe to develop and test innovative products like our MicroEssentials® line. Mosaic established and continues to fund a University-based Fertilizer Technology and Research Centre, which focuses on soil chemistry and fertilizer	In 2014, Mosaic invested more than \$500,000 in a university-based Fertilizer Technology and Research Centre. Our investment in the MicroEssentials® production capacity is not currently available as a separate line item.

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							in demand that resulted in 10% lower sales company wide could translate to approximately \$900 million less revenue based on 2014 performance.	technology and utilizes the latest technology to develop innovative fertilizer formulations to improve nutrient use efficiency in a variety of climate regimes. To further respond to and manage this risk, Mosaic has invested in expansion projects to increase MicroEssentials® production capacity. In 2014, Mosaic announced plans to expand MicroEssentials® capacity, adding an incremental 1.2 million tonnes, and bringing total capacity to 3.5 million tonnes by 2017.	
Change in mean (average) precipitation	Mosaic's main product is fertilizer, and fertilizer	Reduced demand for goods/services	Unknown	Indirect (Client)	Unknown	Low-medium	Drastic changes in precipitation could result in	Mosaic's balanced approach to crop nutrition is a strategy	In 2014, Mosaic invested more than \$500,000 in a

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>demand can be directly affected by the potential impact of climate change risks on agriculture, including changes in mean precipitation. Unstable growing seasons could make growing crops using traditional methods increasingly difficult.</p>						<p>reduced demand for Mosaic's products, as certain farming activities may be reduced significantly or displaced to other regions of the world where we may or may not have a presence. Such reduced demand could adversely affect our operating results and financial condition and the effects could be material to us. As an example, Mosaic's 2014 net sales totaled approximately \$9 billion. A theoretical decrease in demand that resulted in 10% lower</p>	<p>to mitigate the adverse effects of potential climate change risks, such as temperature changes, drought, floods, and plant disease. Mosaic has established relationships with key universities and research organizations around the globe to develop and test innovative products like our MicroEssentials® line. To further respond to and manage this risk, Mosaic has invested in expansion projects to increase MicroEssentials® production capacity. In 2014, Mosaic announced plans to expand MicroEssentials® capacity, adding an incremental</p>	<p>university-based Fertilizer Technology and Research Centre. Our investment in the MicroEssentials® production capacity is not currently available as a separate line item.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							sales company wide could translate to approximately \$900 million less revenue based on 2014 performance.	1.2 million tonnes, and bringing total capacity to 3.5 million tonnes by 2017.	
Change in mean (average) precipitation	Mosaic's main product is fertilizer, and fertilizer demand can be directly affected by the potential impact of climate change risks on agriculture, including changes in mean precipitation. Unstable growing seasons could make growing crops using traditional methods increasingly difficult. Changes in precipitation resulting in	Increased operational cost	Unknown	Indirect (Client)	Unknown	Medium	Changes in precipitation resulting in droughts or water shortages at our mines in Florida or Saskatchewan where we use water in our operations could restrict our operating activities, require us to make changes in our operating activities that would increase our operating costs, reduce our efficiency	We are committed to responsible water use. We manage these potential climate change risks by recycling high percentages of the water used in our Phosphates and Potash businesses and by exploring the use of alternative water sources like reclaimed water, where possible. Mosaic reuses or recycles approximately 90 percent of	It cost approximately \$8.5 million to run the RO plant at our Bartow facility in 2014. Savings from reduced reagent use for that period were over \$100,000.

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	droughts or water shortages could adversely affect our operations, principally our mines in Florida and Saskatchewan where we use water.						or limit our output.	all water used in our Florida phosphates manufacturing facilities and Canadian potash facilities. As part of their larger "Water Matters" program efforts, the Bartow facility uses reverse osmosis (RO) to produce 300 gallons per minute of treated water back for use at the facility's sulfuric acid plant, thereby reducing freshwater needs by the same amount.	
Change in precipitation extremes and droughts	Potential climate change risks including, flooding and drought may cause a loss of production and/or increase in operating costs due to disruptions in our	Reduction/disruption in production capacity	Unknown	Direct	Unknown	Medium	Based on current production levels, if the Faustina plant were shut down for a week and production could not be diverted to another facility, quantifiab	We manage these potential climate change risks by engaging Mosaic's team of Supply Chain professionals to closely monitor product supply and demand and any	Drought or flood conditions may require us to implement certain solutions to ensure we maintain acceptable inventory levels and meet customer demand. Mosaic may send

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	supply chain.						le business interruption costs could be greater than \$1 million.	weather conditions or seasonal patterns/risks (potentially climate change related) that could interfere with products reaching our customers.	product early, in anticipation of possible suspension of river traffic later in the season. This scenario could result in increased inventory storage expenses of \$250 per day per barge. As a theoretical example, if we send 50 barges for 1 month (30 days) additional costs would be \$375,000.
Change in precipitation extremes and droughts	Potential climate change risks contribute to water treatment costs, particularly at our Florida operations due to elevated water balances (caused, in part, by excess precipitation from hurricanes and other adverse weather).	Increased operational cost	Unknown	Indirect (Client)	Unknown	Medium-high	If additional excess rainfall or hurricanes occur in coming years, our facilities may be required to take additional measures to manage process water to comply with existing or future requirements and	We manage these potential climate change risks by taking a proactive approach to monitoring our phosphogypsum management systems, following applicable regulatory requirements. Additionally, Mosaic has	As water management efforts are considered within the scope of Mosaic's engineering team's workflows and part of the normal course of operations, there is no incremental cost specific to climate change associated with them. It cost approximat

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	The Florida Department of Environmental Protection has adopted new rules requiring phosphate production facilities to meet more stringent process water management objectives for phosphogypsum management systems.						these measures could potentially have a material effect on our business and financial condition. Such requirements could adversely affect our results of operations, liquidity or capital resources.	implemented a voluntary Rainfall Preparedness Plan, designed to forecast how each of our facilities will perform with 30 percent above-normal rainfall rates. Prior to the start of the peak rainfall season, Mosaic models the impact of above average rainfall on a site's storage capacity (measured in inches of rain), as well as the contingency plan for each site (where applicable) and takes action as appropriate to mitigate potential risks. Other initiatives like the ongoing "Water Matters" program at our Bartow facility focus on identifying	ely \$8.5 million to run the RO plant at our Bartow facility in 2014. Savings from reduced reagent use for that period were over \$100,000.



Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								new opportunities to reduce fresh water usage and reuse process water, as well as reducing process water inventory through the use of RO and evaporation.	
Tropical cyclones (hurricanes and typhoons)	Potential climate change risks that contribute to adverse weather conditions, including the impact of potential hurricanes and excess rainfall, have in the past and may in the future adversely affect our operations, particularly our Phosphates business. In the past, hurricanes have resulted in physical damage to our	Reduction/disruption in production capacity	Unknown	Direct	Unknown	Medium	Mosaic has approximately \$6-7 billion in assets in hurricane-prone areas. Mosaic's insurance deductible for a covered wind event is, at a minimum, \$25 million per occurrence. Although our containmentments are built to withstand storms, additional sustained hurricane activity could	We manage these potential climate change risks by focusing on hurricane preparedness at all facilities that are within the zone of risk. Each site's preparation process includes the establishment of procedures and guidelines for the direction, control, and coordination for securing, shutdown, safe evacuation	The cost of hurricane preparedness is not available as a separate line item at this stage. The costs associated with the backup generator rentals at our Louisiana location are approximately \$120,000 annually.

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	facilities in Florida and Louisiana.						force a change in design standards for containments. This could result in increased costs per tonne of product.	(if required), and the orderly restoration of plant operations in the event of a storm. Our Louisiana Operations' plan includes the pre-season rental of seven backup generators to supply power to the facility's critical areas in the event of a power failure.	
Tropical cyclones (hurricanes and typhoons)	Adverse weather may also cause a loss of production due to disruptions in our supply chain. For example, a widespread event which affected pipeline infrastructure in Gulf regions could adversely impact supplies of natural gas.	Reduction/disruption in production capacity	Unknown	Direct	Unknown	Medium	Based on current production levels, if the Faustina plant were shut down for a week due to and production could not be diverted to another facility, quantifiable business interruption costs could be greater	In order to avoid and/or minimize the risk of suspension or interference of natural gas supply, Mosaic exercises a strategy of pipeline redundancy, diversity in our portfolio of suppliers and preference for suppliers with onshore production.	Employing this strategy is one part of our supply chain's day-to-day responsibilities and therefore, costs are not available as a separate line item.

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							than \$1 million.		

#### CC5.1c

Please describe your inherent risks that are driven by changes in other climate-related developments

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Fluctuating socio-economic conditions	Mosaic's main product is fertilizer, and fertilizer demand can be directly affected by the potential impact of climate change risks on agriculture. Due to temperature and/or precipitation volatility, regions of previously viable agricultural land may eventually become unsuitable for growing, leaving local or regional	Reduced demand for goods/services	Unknown	Direct	Unknown	Low-medium	This risk could result in reduced demand for Mosaic's products, as certain farming activities may be reduced significantly or displaced to other regions of the world where we may or may not have a presence. Such reduced demand could adversely affect our operating results and financial condition and the effects could be material to us. As an	Mosaic's balanced approach to crop nutrition is a strategy to mitigate the adverse effects of drought, floods, and plant disease. Mosaic has established relationships with key universities and research organizations around the globe to develop and test innovative products like our MicroEssentials® line, which features crop nutrient blends specially designed for the soils of various parts of the world.	In 2014, Mosaic invested more than \$500,000 in a university-based Fertilizer Technology and Research Centre.

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	farming communities in widespread financial distress. This could drastically change the landscape of the agriculture and fertilizer industries.						example, Mosaic's 2014 net sales totaled approximately \$9 billion. A theoretical decrease in demand resulting in 10% lower sales company wide could translate to approximately \$900 million less revenue based on 2014 performance.		
Reputation	Fertilizer production is an energy-intensive endeavor. If the potential effects of climate change risks worsen, companies like Mosaic may become more susceptible to potential impacts associated with	Reduced demand for goods/services	Unknown	Direct	Unknown	Unknown	Mosaic's sales for 2014 were approximately \$9 billion, representing approximately 21.5 million tonnes of finished product. Negative public perceptions could potentially lead to reduced demand for goods, decrease	As part of our effort to manage these potential reputational risks caused by climate change, Public Affairs (PA) professionals work with employees across the company to clearly communicate our progress on matters related to sustainability, energy reduction,	In 2014 Mosaic had approximately 40 full time employees on the PA team globally. In 2014, Mosaic targeted to invest 1% of profits over a three-year rolling average into our communities. The Mosaic Company,

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	negative perceptions of the public.						d revenue, and could negatively impact our profit. For example, a 1% decrease in sales due to a negative reputation event could cost us approximately \$90 million in annual revenue based on 2014 performance.	greenhouse gases and climate change. We publish an annual sustainability report and respond to CDP regularly. Mosaic's mission is to help the world grow the food it needs, and we communicate this mission worldwide. As the world's largest combined producer and marketer of concentrated phosphate and potash, this is both a business and social mission. Our PA team also manages the company's community investment activities, which have the potential to have a positive impact on our reputation. We focus our community investments in three core areas that	The Mosaic Company Foundation and The Mosaic Institute in Brazil make investments in our global communities through philanthropic funding, employee engagement and in-kind donations. Combined contributions in 2014 reached \$17 million.

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								help us achieve this goal: Food, Water and Local Community Investments.	

#### Further Information

### Page: CC6. Climate Change Opportunities

#### CC6.1

Have you identified any inherent climate change opportunities that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Opportunities driven by changes in regulation

Opportunities driven by changes in physical climate parameters

Opportunities driven by changes in other climate-related developments

#### CC6.1a

Please describe your inherent opportunities that are driven by changes in regulation

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Fuel/energy taxes and regulations	Various proposed legislation in the US promoting and incentivizing renewable energy production (potentially reduced greenhouse gas emissions) could provide Mosaic tax	Reduced operational costs	1 to 3 years	Direct	Likely	Low-medium	In 2014, Mosaic produced approximately 1.6 million MWh of electrical energy from cogeneration in our Phosphate's business unit. Hence, in this business unit alone,	In order to manage this opportunity, Mosaic has been actively involved in dialogues at the legislative and executive branch levels. We strongly support the enactment of a	In 2014 we made substantial investments in cogeneration rebuilds and upgrades and also identified future cogeneration investment opportunities. As a specific

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	incentives and/or fairer pricing for surplus electricity that Mosaic supplies to local utility grids.						the potential positive impacts (tax incentives and/or fairer pricing) of energy legislation could be upwards of \$10 million.	reasonable state energy policy in Florida, in which cost effective and abundant sources of renewable energy are encouraged and incentivized to diversify the state's generation portfolio, while also advocating that ratepayer impacts be closely watched and minimized to avoid harm to Florida's residents and businesses. We have engaged on a myriad of different issues in the energy arena, from fairer pricing for the power we export to the utility grid, to tax credits and incentives to encourage the production of	example of our management efforts, in 2014, Mosaic began operation of a new TG at our New Wales facility. This investment, which cost approximately \$120 million, adds 35 megawatts of electrical generation capacity using heat recovered from sulfuric acid manufacturing. Adding this TG will allow us to create more cogenerated power to use internally and offset the purchase of electricity from third-party utilities.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								renewable power. Mosaic's three-pronged approach of energy management through cogeneration, conservation and greater efficiency aims to lead the industry in reducing the energy we use and maximizing the clean energy we generate.	
International agreements	Adoption of international climate change agreements requiring reductions in GHGs by states in which competitors operate could provide Mosaic a competitive advantage over our global competitors due to our current environmental performance and/or planned performance	Other: increase in competitive capacity	Unknown	Direct	Unlikely	Low-medium	Mosaic's Phosphate business unit has amongst the lowest cost of production per tonne product in the industry while adhering to strict North American environmental standards. If the same EPA standards were applied internationally then it is possible our competitor	In order to manage this opportunity, Mosaic's PA group engages with organizations such as the International Fertilizer Industry Association to promote best practice environmental management in our industry.	Mosaic has a full time Public Affairs staff that work with various stakeholders. As these efforts are considered part of the normal course of doing business as a global organization, there are no incremental costs specific to climate change associated with them.



Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	ce and initiative related to environment and greenhouse gas emissions.						s' cost of production would increase even further, thus making Mosaic even more cost competitive. This scenario would likely have a positive effect on our operating results and financial conditions in relation to our competitors.		
Product labelling regulations and standards	Changes in the regulation of fertilizers to mandate minimum yields could favor premium products such as Mosaic's MicroEssentials®.	Increased demand for existing products/services	Unknown	Direct	Unknown	High	If international pressure on regulation to improve fertilizer yields occurred, then Mosaic's production of MicroEssentials® as a percentage of total production maybe further improved. Mosaic can potentially command a premium	In order to manage this opportunity, Mosaic has established relationships with key universities around the globe to develop and test high-yield premium products, like MicroEssentials®. To further respond to and manage this risk, Mosaic has	In 2014, Mosaic invested more than \$500,000 in a university-based Fertilizer Technology and Research Centre. Our investment in the MicroEssentials® production capacity is not currently available as a separate line item.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							price and higher margins for our higher-yield products, potentially resulting in an overall increase of our gross margin as a percent of net sales. Therefore, this change in production percentage for higher-yield products like MicroEssentials® could have a positive effect on our operating results and financial condition. Our sales of MicroEssentials® have increased steadily over the past few years, reaching 1.5 million tonnes in North America during 2014. Our 2014 Phosphate	invested in expansion projects to increase MicroEssentials® production capacity. In 2014, Mosaic announced plans to expand MicroEssentials® capacity, adding an incremental 1.2 million tonnes, and bringing total capacity to 3.5 million tonnes by 2017.	

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							s gross margin was more than \$1 billion, compared to approximately \$900 million in 2013. (Note: due to the change in our fiscal year in 2014, CY 2013 financial results are reported in our Annual Report on Form 10K as unaudited.)		

#### CC6.1b

Please describe the inherent opportunities that are driven by changes in physical climate parameters

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Change in mean (average) precipitation	The efficient use of fertilizers in precision agriculture allows for greater uptake of water by plants, which means less water is needed	Premium price opportunities	Unknown	Direct	Unknown	Medium	Changes in rainfall patterns may make some regions of the world that have not been traditionally suited to large scale agriculture potentially productive. This change could have a positive effect on	Mosaic's balanced approach to crop nutrition and development of new innovative products is a strategy to manage potential opportunities driven by the effects of climate change, such as	In 2014, Mosaic invested more than \$500,000 in a university-based Fertilizer Technology and Research Centre.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	to grow the plant over its life. Unstable precipitation patterns may require farmers to place more of an emphasis on precision agriculture, which would provide expanded premium product opportunities for Mosaic.						sales of products like MicroEssentials®. We sold 1.5 million tonnes of MicroEssentials® during 2014, an increase of 14% from the prior twelve months. MicroEssentials® fertilizer reached an approximately 12% share of the phosphate sales in 2014, and it is gaining traction. A hypothetical increase of 10% in sales volume of MicroEssentials® from 2014 levels could result in over \$70 million in additional sales (calculated by using the average selling price per tonne for crop nutrient blends FOB destination, per our 2014 10-K).	change in precipitation. Mosaic has established relationships with key universities and research organizations around the globe to develop and test innovative products like our MicroEssentials® line, which features crop nutrient blends specially designed for the soils of various parts of the world. Mosaic established and continues to fund a University-based Fertilizer Technology and Research Centre, which focuses on soil chemistry and fertilizer technology, and utilizes the latest technology to develop innovative fertilizer formulations to improve nutrient use	

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								efficiency in a variety of climate regimes.	
Change in precipitation pattern	Unstable temperature conditions that put agricultural yields at risk may require farmers to place more of an emphasis on precision agriculture, which would provide expanded premium product opportunities for Mosaic	Premium price opportunities	Unknown	Direct	Unknown	Medium	Changes in rainfall may make some regions of the world that have not been traditionally suited to large scale agriculture potentially productive. This change in production percentage for higher-yield products like MicroEssentials® may have a positive effect on our operating results and financial condition and the effects could be significant to us. We sold 1.5 million tonnes of MicroEssentials® in North America during 2014, an increase of 14% from the prior twelve months. A hypothetical increase of 10% in sales volume of MicroEssentials® from 2014 levels could result	Mosaic's balanced approach to crop nutrition is a strategy to manage potential opportunities driven by the effects of climate change, such as change in precipitation pattern. Mosaic has established relationships with key universities and research organizations around the globe to develop and test innovative products like our MicroEssentials® line, which features crop nutrient blends specially designed for the soils of various parts of the world. Mosaic established and continues to fund more than \$500,000 a year in a	In 2014, Mosaic invested more than \$500,000 in a university-based Fertilizer Technology and Research Centre.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							in over \$70 million in additional sales (calculated by using the average selling price per tonne for crop nutrient blends FOB destination, per our 2014 Annual Report on Form 10-K).	university-based Fertilizer Technology and Research Centre, which focuses on soil chemistry and fertilizer technology, and utilizes the latest technology to develop innovative fertilizer formulations to improve nutrient use efficiency in a variety of climate regimes.	

#### CC6.1c

Please describe the inherent opportunities that are driven by changes in other climate-related developments

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Changing consumer behavior	Due to changing consumer behavior spurred by the public's better understanding of the importance of mineral fertilizers and precision agriculture--not only in helping the world grow	Increased demand for existing products/services	Unknown	Direct	Unknown	Medium-high	The consumer-driven demand for more efficient fertilizer products could directly increase demand for Mosaic's key products, which could	Innovation is one of Mosaic's strategic priorities. As part of our management of this opportunity, Mosaic has established relationships with key universities and research organizations	In 2014, Mosaic invested more than \$500,000 in a university-based Fertilizer Technology and Research Centre.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	the food it needs but also in combating climate change-- climate change may provide an opportunity for Mosaic in the form of increased demand for our innovative products. Mosaic has developed high yield premium products such as the MicroEssentials® brand.						have a positive effect on our operating results and financial condition. As an example, Mosaic's 2014 net sales totaled approximately \$9 billion. A theoretical increase in demand that resulted in 10% higher sales company wide could translate to approximately \$900 million in additional revenue based on 2014 numbers.	ns around the globe to develop and test innovative products like our MicroEssentials® line, which features crop nutrient blends specially designed for the soils of various parts of the world. Mosaic established and continues to fund more than \$500,000 a year in a university-based Fertilizer Technology Center, which focuses on soil chemistry and fertilizer technology, and uses the latest technology to develop innovative fertilizer formulations to improve nutrient use efficiency in a variety of climate regimes.	

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Increasing humanitarian demands	Considering that the world will have to feed nine billion people by 2050, it is easy to see the importance of properly used mineral fertilizers in reducing future greenhouse gas emissions and preventing deforestation. Mosaic is one of the world's leading producers and marketers of concentrated phosphate and potash. As the number of people to feed in the world increases, Mosaic has an opportunity in the form of increased demand for existing products and services.	Increased demand for existing products/services	Unknown	Direct	Unknown	Medium-high	Governments understand the importance of increasing crop yields on our current agricultural footprint to feed nine billion people by 2050. It is possible that production or tax credits will emerge to encourage high yield sustainable agricultural practices including the efficient use of quality fertilizers. These tools could increase demand for Mosaic's products, which would have a positive effect on sales volumes	As part of our efforts to manage this opportunity, Mosaic is actively promoting education on the importance of mineral fertilizers in increasing crop yields. Educating farmers on the concept of 4R Nutrient Stewardship (4Rs) encourages them to be good stewards of the environment while maximizing their yields. Ensuring farmers use the Right Fertilizer, at the Right Rate, applied at the Right Time and in the Right Place in the soil profile will minimize environmental impacts associated with fertilizer use, including potential greenhouse gas emissions.	Costs associated with efforts related to our promotion of 4Rs are not available as a separate line item at this time.



Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							and therefore our financial condition. As a theoretical example, increase in demand that resulted in 10% higher sales company wide could translate to approximately \$900 million in additional revenue based on 2014 numbers.		

#### Further Information

## Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading

### Page: CC7. Emissions Methodology

#### CC7.1

Please provide your base year and base year emissions (Scopes 1 and 2)

Scope	Base year	Base year emissions (metric tonnes CO2e)
Scope 1	Sat 01 Jan 2005 - Sat 31 Dec 2005	2747830
Scope 2	Sat 01 Jan 2005 - Sat 31 Dec 2005	1951662

#### CC7.2

**Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions**

<b>Please select the published methodologies that you use</b>
US EPA Climate Leaders: Direct HFC and PFC Emissions from Manufacturing Refrigeration and Air Conditioning Equipment
US EPA Climate Leaders: Direct Emissions from Mobile Combustion Sources
US EPA Mandatory Greenhouse Gas Reporting Rule
US EPA Climate Leaders: Indirect Emissions from Purchases/Sales of Electricity and Steam
US EPA Mandatory Greenhouse Gas Reporting Rule
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
Other

#### **CC7.2a**

**If you have selected "Other" in CC7.2 please provide details of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions**

Other 1: By Stoichiometric mass balance for reactive species containing CO<sub>2</sub> or carbon compounds to estimate emissions from materials used in water treatment  
 Other 2: Mass Balance from European Fertilizer Manufacturers Association Guidance for Ammonia Manufacturing to estimate emissions from ammonia production

#### **CC7.3**

**Please give the source for the global warming potentials you have used**

<b>Gas</b>	<b>Reference</b>
CO <sub>2</sub>	IPCC Second Assessment Report (SAR - 100 year)
CH <sub>4</sub>	IPCC Second Assessment Report (SAR - 100 year)
N <sub>2</sub> O	IPCC Second Assessment Report (SAR - 100 year)
SF <sub>6</sub>	IPCC Second Assessment Report (SAR - 100 year)

#### **CC7.4**

**Please give the emissions factors you have applied and their origin; alternatively, please attach an Excel spreadsheet with this data at the bottom of this page**

<b>Fuel/Material/Energy</b>	<b>Emission Factor</b>	<b>Unit</b>	<b>Reference</b>
Other: Fuel Oil (CH <sub>4</sub> )	0.003	Other: kg CO <sub>2</sub> e per kg	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C
Other: Gasoline (N <sub>2</sub> O)	0.00016	Other: kg CO <sub>2</sub> e per gallon	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C
Motor gasoline	0.00886	Other: Metric tonnes CO <sub>2</sub> per gallon	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C
Other: Gasoline (CH <sub>4</sub> )	0.00015	Other: kg CO <sub>2</sub> e per gallon	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C
Propane	0.00579	Other: metric tonnes CO <sub>2</sub> per gallon	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C
Other: Propane (CH <sub>4</sub> )	0.00001	kg CO <sub>2</sub> e per liter	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C

Fuel/Material/Energy	Emission Factor	Unit	Reference
Other: Limestone	0.39917	Other: metric tonne CO2 per short tone	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C
Other: Soda Ash	0.37649	Other: metric tonne CO2 per short ton	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C
Electricity	0.53598	metric tonnes CO2e per MWh	Climate Registry 2013 Conversion Factors
Other: Natural Gas (N2O)	0.0001	Other: kg CO2e per MMBTU	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C
Natural gas	0.05302	Other: metric tonnes CO2 per MMBTU	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C
Other: Natural Gas (CH4)	0.001	Other: kg CO2e per MMBTU	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C
Other: Diesel (N2O)	0.00008	Other: kg CO2e per gallon	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C
Other: Diesel (CO2)	0.01021	Other: metric tonnes CO2 per gallon	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C
Other: Diesel (CH4)	0.00041	Other: kg CO2e per gallon	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C
Other: Fuel Oil (N2O)	0.0006	kg CO2e per liter	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C
Other: Fuel Oil (CO2)	0.00320	Other: metric tonnes CO2 per kg	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C

#### Further Information

**Page: CC8. Emissions Data - (1 Jan 2014 - 31 Dec 2014)**

#### CC8.1

**Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory**

Operational control

#### CC8.2

**Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e**

2901368

#### CC8.3

**Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e**

1819730

#### CC8.4

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

Yes

#### CC8.4a

Please provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure

Source	Relevance of Scope 1 emissions from this source	Relevance of Scope 2 emissions excluded from this source	Explain why the source is excluded
Leased office space and leased offices	No emissions excluded	Emissions are not relevant	Data for purchased electricity for leased offices and office space were not included as data for these offices was not available. Estimated Scope 2 emissions are not relevant, less than 0.01% of Scope 2 total.

#### CC8.5

Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	More than 2% but less than or equal to 5%	Data Gaps Assumptions Sampling	Undocumented sources of Scope 1 emissions at facilities may fall outside of data collection systems, such as contractor fuels, averages sampling for CO2 content of phosphate rock and/or emissions associated with land clearing and remediation.
Scope 2	Less than or equal to 2%	Data Gaps Metering/ Measurement Constraints Sampling	Purchased electricity for seldom used accounts may not be reflected in data collection. Estimates are below 0.2% of Scope 2 total.

#### CC8.6

Please indicate the verification/assurance status that applies to your reported Scope 1 emissions

Third party verification or assurance complete

#### CC8.6a

Please provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements

Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportion of reported Scope 1 emissions verified (%)
Moderate assurance	<a href="https://www.cdp.net/sites/2015/82/12382/Climate%20Change%202015/Shared%20Documents/Attachments/CC8.6a/Mosaic%202015%20CDP%20and%20GRI%20Assurance%20Statement%20AA1000-3.pdf">https://www.cdp.net/sites/2015/82/12382/Climate Change 2015/Shared Documents/Attachments/CC8.6a/Mosaic 2015 CDP and GRI Assurance Statement AA1000-3.pdf</a>	2/3	AA1000AS	100

#### CC8.7

Please indicate the verification/assurance status that applies to your reported Scope 2 emissions

Third party verification or assurance complete

#### CC8.7a

Please provide further details of the verification/assurance undertaken for your Scope 2 emissions, and attach the relevant statements

Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 2 emissions verified (%)
Moderate assurance	<a href="https://www.cdp.net/sites/2015/82/12382/Climate%20Change%202015/Shared%20Documents/Attachments/CC8.7a/Mosaic%202015%20CDP%20and%20GRI%20Assurance%20Statement%20AA1000-3.pdf">https://www.cdp.net/sites/2015/82/12382/Climate Change 2015/Shared Documents/Attachments/CC8.7a/Mosaic 2015 CDP and GRI Assurance Statement AA1000-3.pdf</a>	2/3	AA1000AS	100

#### CC8.8

Please identify if any data points have been verified as part of the third party verification work undertaken, other than the verification of emissions figures reported in CC8.6, CC8.7 and CC14.2

Additional data points verified	Comment
No additional data verified	

#### CC8.9

Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

No

#### Further Information

**CC9.1**

Do you have Scope 1 emissions sources in more than one country?

Yes

**CC9.1a**

Please break down your total gross global Scope 1 emissions by country/region

Country/Region	Scope 1 metric tonnes CO2e
United States of America	1970090
India	36
China	182
Canada	889507
Brazil	38193
Argentina	3360

**CC9.2**

Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)

By business division

By facility

By GHG type

**CC9.2a**

Please break down your total gross global Scope 1 emissions by business division

Business division	Scope 1 emissions (metric tonnes CO2e)
Phosphate	1909898
Potash	948638
International and Distribution	42832

**CC9.2b**

Please break down your total gross global Scope 1 emissions by facility

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
Faustina	973566	30.083384	-90.914391
New Wales	411081	27.832701	-82.051048
Bartow	144352	27.907545	-81.800537
Plant City	111998	28.168056	-82.141667
Uncle Sam	106921	30.037428	-90.827377
Riverview	99189	27.860191	-82.393600
Four Corners	20681	27.646202	-82.087097
Green Bay	10790	27.820769	-81.784767

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
South Fort Meade	8831	27.647848	-81.756477
South Pierce	8766	27.765583	-81.940331
South Pasture	6979		
Wingate	3361	27.504131	-82.130203
Hookers Prairie	3116	27.917828	-82.437286
Big Bend	265		
Taft	2		
Belle Plaine	692538	50.427658	-105.198296
Esterhazy K2	93486	50.658768	-101.848412
Colonsay	56349	51.934105	-105.763496
Esterhazy K1	45082	50.729282	-101.933723
Carlsbad	39550	32.412258	-103.939217
Hersey	19581	43.834412	-85.354065
Esterhazy K3	2052		
Fospar	37454	-25.510841	-48.521633
Quebracho	3360	-32.671803	-60.729890
Tampa Marine	318		
Houston	299	29.744053	-95.114723
Savage	203	44.779415	-93.336426
Henderson	183	37.815159	-87.658173
Paranagua	172	-25.510841	-48.521633
QMF	164	39.919504	119.608111
Uberaba	123	-19.982393	-47.900391
Alto Araguaia	122	-17.151678	53.192689
Rio Verde	102	-17.807942	-51.008695
Candeias	92	-12.662950	-38.519440
Sorriso	82	-12.604993	55.749907
Pekin	58	40.587875	-89.660637
Campo Grande	48	-21.258281	-48.492311
Rozi	36	22.466667	70.066667
YMF	18	37.550464	121.38648

## CC9.2c

Please break down your total gross global Scope 1 emissions by GHG type

GHG type	Scope 1 emissions (metric tonnes CO2e)
CO2	2899002
CH4	703
N2O	1663

## Further Information

Page: CC10. Scope 2 Emissions Breakdown - (1 Jan 2014 - 31 Dec 2014)

## CC10.1

Do you have Scope 2 emissions sources in more than one country?

Yes

#### CC10.1a

Please break down your total gross global Scope 2 emissions and energy consumption by country/region

Country/Region	Scope 2 metric tonnes CO2e	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted for in CC8.3 (MWh)
Argentina	610	1638	
Brazil	3105	32449	
Canada	832019	1084714	
China	260	346	
United States of America	983736	1791048	

#### CC10.2

Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)

By business division

By facility

#### CC10.2a

Please break down your total gross global Scope 2 emissions by business division

Business division	Scope 2 emissions (metric tonnes CO2e)
Phosphate	956045
Potash	850560
International and Distribution	13125

#### CC10.2b

Please break down your total gross global Scope 2 emissions by facility

Facility	Scope 2 emissions (metric tonnes CO2e)
Four Corners	221796
South Pasture	169209
South Fort Meade	127869
Wingate	69835
Faustina	43725
Hookers Prairie	43813
Uncle Sam	32101
Bartow	44034
Plant City	34200
New Wales	33861
Riverview	17192
Green Bay	10762



Facility	Scope 2 emissions (metric tonnes CO2e)
South Pierce	968
Big Bend	751
Nichols	399
Hopewell	29
Taft	16
Esterhazy K2	451651
Esterhazy K1	179054
Colonsay	134501
Carlsbad	107029
Belle Plaine	43925
Esterhazy K3	22888
Hersey	16997
Fospar	2598
Henderson	2120
Paranagua	233
Quebracho	610
Savage	841
Sorriso	77
Uberaba	65
Rio Verde	60
Candeias	37
Pekin	209
Alto Araguaia	31
QMF	155
Houston	47
YMF	105
Tampa Marine	0
Campo Grande	4
Hookers Point	0
Streamsong	4846
Fishhawk	1087

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#### Further Information

Some facilities with Scope 1 emissions have no purchased electricity and therefore have no Scope 2 emissions. This is why some facilities appear on Scope 1 emissions inventory but not on Scope 2 inventory.

#### Page: CC11. Energy

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##### CC11.1

What percentage of your total operational spend in the reporting year was on energy?

More than 5% but less than or equal to 10%

#### CC11.2

Please state how much fuel, electricity, heat, steam, and cooling in MWh your organization has purchased and consumed during the reporting year

Energy type	MWh
Fuel	822941
Electricity	2910195
Heat	0
Steam	0
Cooling	0

#### CC11.3

Please complete the table by breaking down the total "Fuel" figure entered above by fuel type

Fuels	MWh
Distillate fuel oil No 2	328877
Natural gas	7771689
Motor gasoline	33434
Liquefied petroleum gas (LPG)	2869
Distillate fuel oil No 4	85935

#### CC11.4

Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor in the Scope 2 figure reported in CC8.3

Basis for applying a low carbon emission factor	MWh associated with low carbon electricity, heat, steam or cooling	Comment
Grid connected low carbon electricity generation owned by company, no instruments created	1435638	Sulfuric acid (H <sub>2</sub> SO <sub>4</sub> ) is required for the production of phosphoric acid (P <sub>2</sub> O <sub>5</sub> ) which is then granulated to produce concentrated phosphate crop nutrients and animal feed products. Mosaic manufactures sulfuric acid from elemental sulfur produced as by-product of petroleum refining. Mosaic has not estimated the emissions associated with the production of sulfur to date. Mosaic transports molten sulfur to our facilities via rail, river barge and truck. Emissions associated with transportation of this raw material are included in our Scope 3 inventory. The molten sulfur (270-285 deg F) is sprayed into a furnace that maintains a range of 2,050-2,080 deg F. The furnace mixes sulfur with hot, dry air to produce SO <sub>2</sub> gas. The SO <sub>2</sub> gas is then combined with more air in the presence of a catalyst and converted to SO <sub>3</sub> gas and then absorbed and diluted with water to form H <sub>2</sub> SO <sub>4</sub> . Each step in this process is exothermic. During a cold start-up of a plant, natural gas is combusted to heat the furnace. The gas used during start-ups is metered and the max metered natural gas input per start up is 800 scf (over max period of 20 hours at 40 scf/hr). Once the furnace is heated and molten sulfur is injected with air, the chemical reaction is exothermic, and no additional gas is required for heat input. All

Basis for applying a low carbon emission factor	MWh associated with low carbon electricity, heat, steam or cooling	Comment
		natural gas consumed in the H2SO4 production process is reported in Mosaic's Scope 1 inventory. Advanced heat recovery systems convert excess heat to steam for use in mechanical functions and is also used in steam turbo generators. In CY2014, Mosaic produced 1.63 million MWh of cogenerated electricity through waste heat capture and consumed 1.44 million MWh of this energy. 0.21 million MWh was exported to utilities through the electrical grid.

#### Further Information

### Page: CC12. Emissions Performance

#### CC12.1

**How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to the previous year?**

Increased

#### CC12.1a

**Please 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**

Reason	Emissions value (percentage)	Direction of change	Comment
Emissions reduction activities	5.67	Decrease	Scope 1 and 2 emissions reductions activities summarized in Section 3.3 of this Investor questionnaire totaled approximately 250,000, or a 5.67% decrease from 2013 emissions(4,410,252). $(250,000/4,410,252 = 5.67\%)$ . Please note, this calculation includes Scope 1 and 2 activities only. The total related to Scope 3 activities is summarized in Section 14, hence the total emissions used in this calculation(250,000) not matching those from 3.3a (389,000).
Divestment	.92	Decrease	Mid-year divestment of production facilities in North and South America reduced scope 1 and 2 emissions by approximately 40,000 CO2e, or 0.92%. $(40,458/4,410,252 = 0.92\%)$
Acquisitions	7.32	Increase	Acquisitions of production and distribution facilities in CY2014 increased Scope 1 and 2 emissions by 322,703, representing a 7.32% increase. $(322,703/4,410,252 = 7.32\%)$
Mergers	0.0	No change	not applicable
Change in output	5.18	Increase	Increased production of intermediate materials and finished products, fluctuation in ore quality and a net energy increase resulted in increased absolute Scope 1 and 2 emissions -- approximately 228,500 CO2e or 5.18%. $(228,500/4,410,252 = 5.18\%)$
Change in methodology	0	No change	not applicable

Reason	Emissions value (percentage)	Direction of change	Comment
Change in boundary	0	No change	not applicable
Change in physical operating conditions	0	No change	not applicable
Unidentified	0	No change	not applicable
Other	1.14	Increase	Disruption to generation of low carbon energy source increased Scope 2 emissions through increased consumption of grid supplied electricity, resulting in an approximately 50,000 tonnes CO2e, or 1.14%, increase of Scope 2 emissions. (50,111/4,410,252 = 1.14%)

#### CC12.2

Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per unit currency total revenue

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
0.00052	metric tonnes CO2e	unit total revenue	6	Increase	Year over year emissions related to energy consumption increased, primarily due to acquisitions in 2014, while revenue stayed relatively flat (9.02 billion in 2013 vs. 9.06 billion in 2014). Emissions increase was offset was partially offset by emissions reduction activities.

#### CC12.3

Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per full time equivalent (FTE) employee

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
518.8	metric tonnes CO2e	FTE employee	1	Decrease	Year over year emissions related to energy consumption increased, primarily due to acquisitions in 2014, while the number of employees increased to 9100.

#### CC12.4

Please provide an additional intensity (normalized) metric that is appropriate to your business operations

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
0.26	metric tonnes CO2e	unit of production	9	Increase	Year over year emissions increased, primarily as a result of increased energy consumption due to acquisitions in 2014, while production denominator decreased due to a change in our method of determining production tonnes for the purpose of calculating intensity figures. Specifically, whereas we used to include co-products, moving forward we will only include our primary products. Emissions increase was partially offset by emissions reduction activities.

#### Further Information

### Page: CC13. Emissions Trading

#### CC13.1

##### Do you participate in any emissions trading schemes?

No, and we do not currently anticipate doing so in the next 2 years

#### CC13.2

##### Has your organization originated any project-based carbon credits or purchased any within the reporting period?

No

#### Further Information

### Page: CC14. Scope 3 Emissions

#### CC14.1

##### Please account for your organization's Scope 3 emissions, disclosing and explaining any exclusions

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Purchased goods and services	Relevant, calculated	2201664	CO2e from purchases of anhydrous ammonia based on IPCC factor for emissions from modern ammonia plants utilizing natural gas. Source data based on anhydrous ammonia purchased and consumed in reporting period. Assumes purchased ammonia was produced in modern, natural gas. Note: Mosaic updated to the IPCC emissions factor in 2014 and has applied the factor to prior year's emissions from purchased ammonia.	100.00%	Purchases of anhydrous ammonia represent the most carbon intensive purchased materials in Mosaic's supply chain by percentage of total Scope 3 emissions.
Capital goods	Relevant, not yet calculated				Vehicles, equipment and other capital goods used in mining, manufacturing and distribution have not been evaluated to date for Scope 3 emissions. Per our 2015 Sustainability Targets, we plan to evaluate additional sources of Scope 3 emissions.
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Relevant, not yet calculated				Fuel consumption by contractors and partners not quantified at this time. Estimated to be between 1% and 5% of calculated emissions.
Upstream transportation and distribution	Relevant, calculated	13409	Transport of raw materials (ammonia, phosphate rock, sulfur) and finished goods via rail in Central Florida. Use its annual average fuel efficiency in conjunction with specific customer data (Revenue Ton Miles shipped) to allocate carbon emissions to that customer. Use average fuel efficiency for 2012 was 466 RTM/ gallon diesel fuel consumed. Use a measure called Revenue Ton Miles (RTM) to normalize annual carbon	100.00%	Rail accounts for 44% of Mosaic's transport of raw materials and finished product. Transport of materials by rail for mines, fertilizer plants, the ports and other locations in central North America were included in inventory. Used records from transportation vendor and validated using internal financial records. This year we expanded our reporting to include truck transport in Florida.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			emissions and determine carbon emission intensity. A Revenue Ton Mile or Lading Ton Mile is a calculation of Tons of lading x Miles it moves. For example, if you move 10 tons 20 miles you would have 200 ton miles (10 tons * 20 Miles = 200 Revenue Ton Miles).		
Waste generated in operations	Not relevant, explanation provided		GHG Technical Guidance for Calculating Scope 3 Emissions: Waste Generated in Operations: GHG Protocol (2008)		Wastes with significant CO2e impacts make up a very small percentage of waste profile. Waste treatment at Mosaic facilities included Scope 1 emissions inventory. HFCs emissions associated with disposal of refrigeration and air conditioning units included in Scope 1 inventory. Other wastes and fate of wastes are tracked and reported. Scope 3 emissions from waste generated in operations are estimated to be less than 5% of current Scope 3 inventory.
Business travel	Relevant, calculated	4652	Corporate travel by air and rail for all business units in all areas of operations. CO2e Calculations are based on the 2011 (July) guidelines produced by DEFRA/DECC's GHG Conversion Factors. This methodology is applied on transactions since July 2011. The method uses the airport locations and is more accurate as the emissions are based upon the actual distance flown.	100.00%	Includes all corporate travel for Mosaic employees by rail and air.
Employee commuting	Relevant, calculated	17244	Mileage and associated carpool savings calculated through a facility survey. CO2e calculations are based on EPA Climate	0.00%	This figure represents GHG emissions associated with employees commuting at

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			Leaders Greenhouse Gas Inventory Protocol Core Module Guidance. An average was established based on emissions for passenger car and light-duty trucks.		our Belle Plaine, Saskatchewan facility.
Upstream leased assets	Not relevant, explanation provided				Emissions from the operation of leased assets are included in Scope 1 and 2 inventories.
Downstream transportation and distribution	Relevant, calculated	14255	GHG Technical Guidance for Calculating Upstream and Distribution Emissions (Category 4): Fuel and distanced based method. Trucking of raw materials, in process goods and finished product by truck in central Florida. Fuel (diesel and Compressed Natural Gas) and distance data supplied by contracted transportation vendors and validated by company financial records. Total ton/miles x fuel efficiency of vehicle x GHG emission factors for N2O, CH4 and CO2=Co2e. All vehicle trips with empty backhaul are doubled. Mosaic utilizes vehicles with dual compartments to reduce empty backhauling, reducing unladen backhaul.	100.00%	Trucking emissions have reduced from previous years due to Mosaic working in conjunction with a third party transportation vendor to convert the fleet to natural gas trucks. Re-engineered trailers with dual compartments avoid unladen backhauls
Processing of sold products	Not relevant, explanation provided				The processing (blending) by third parties of crop nutrients sold by Mosaic has a limited greenhouse gas footprint as compared to the fertilizer production. Greenhouse gas estimates for fertilizer blending are less than 1% of Scope 1 emissions.



Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Use of sold products	Not relevant, explanation provided				The reduction in tonnes of CO2e/ton associated with the change in production from Multifos® at 0.76, compared to the production of our new product Nexfos® at 0.33 is a CO2e savings of 0.43 tonnes per ton of Nexfos®.
End of life treatment of sold products	Not relevant, explanation provided				Mosaic participated in industry studies to identify the downstream footprint of products. Mosaic advocates for the 4Rs; Right Source, Right Rate, Right Time and Right Place to reduce the environmental footprint of agriculture including greenhouse gas emissions.
Downstream leased assets	Not relevant, explanation provided				Most emissions from leased assets under Mosaic's operational control are included in Scope 1 and 2 inventories. The remainder are not material to total emissions footprint.
Franchises	Not relevant, explanation provided				Mosaic does not operate franchises.
Investments	Relevant, not yet calculated				We are in the process of collecting information on the GHGs associated with our investment in joint ventures.
Other (upstream)					
Other (downstream)					

#### CC14.2

Please indicate the verification/assurance status that applies to your reported Scope 3 emissions

Third party verification or assurance complete

#### CC14.2a

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of Scope 3 emissions verified (%)
Moderate assurance	<a href="https://www.cdp.net/sites/2015/82/12382/Climate%20Change%202015/Shared%20Documents/Attachments/CC14.2a/Mosaic%202015%20CDP%20and%20GRI%20Assurance%20Statement%20AA1000-3.pdf">https://www.cdp.net/sites/2015/82/12382/Climate Change 2015/Shared Documents/Attachments/CC14.2a/Mosaic 2015 CDP and GRI Assurance Statement AA1000-3.pdf</a>	1 of 3	AA1000AS	100

#### CC14.3

Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources?

Yes

#### CC14.3a

Please identify the reasons for any change in your Scope 3 emissions and for each of them specify how your emissions compare to the previous year

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Upstream transportation & distribution	Acquisitions	33	Increase	Emissions associated with rail transport in Florida increased, largely due to the acquisition of CF's Florida phosphate assets.
Upstream transportation & distribution	Emissions reduction activities	1	Decrease	Voluntary initiatives resulted in Scope 3 emissions reductions. In 2014, we moved 2.9 million tonnes of product by compressed natural gas fleet, resulting in fewer transportation-associated emissions. Calculated by dividing the Estimated CO2e savings (24,845.90) by 2013's scope 3 emissions (2,382,225)

#### CC14.4

Do you engage with any of the elements of your value chain on GHG emissions and climate change strategies? (Tick all that apply)

Yes, our suppliers

Yes, other partners in the value chain

#### CC14.4a

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**Please give details of methods of engagement, your strategy for prioritizing engagements and measures of success**

i. Mosaic's success is rooted in our commitment to high quality products and supported by strong supplier relationships. We foster supplier relationships based on trust, fairness and mutual respect. We hold our suppliers, their employees and subcontractors to the same high standards of business integrity to which we hold ourselves. Priorities are set and success measured based on the assessment of the materiality of the engagement, including the following four principles: Safety & Environmental Stewardship; Lowest Total Cost of Ownership; Proactive and Reliable Service; and Relationship Focused on Innovation and Continuous Improvement.

Mosaic works with a transport contractor to reduce emissions by using only natural gas powered tractors for use in our Florida locations. Mosaic works with contractors and suppliers to quantify Scope 1 and 2 emissions associated with the goods and services. Success is measured, in part, by year-over-year reduction in transportation-associated emissions.

ii. Mosaic is engaging with downstream members of our supply chain. These include retailers separated by two and three tiers from our products to quantify the lifecycle impacts from our products. We support stakeholders to enhance their understanding, adoption and promotion of 4R Nutrient Stewardship. By applying the right fertilizer at the right rate, right time and in the right place, farmers minimize environmental impacts associated with fertilizer use, including potential greenhouse gas emissions.

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**CC14.4b**

**To give a sense of scale of this engagement, please give the number of suppliers with whom you are engaging and the proportion of your total spend that they represent**

Number of suppliers	% of total spend	Comment
14	5%	Transportation of goods and purchases of raw materials, by percentage, are the most material areas for Scope 3 emissions. We strive to engage additional suppliers

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**CC14.4c**

**If you have data on your suppliers' GHG emissions and climate change strategies, please explain how you make use of that data**

How you make use of the data	Please give details
Identifying GHG sources to prioritize for reduction actions	Expanding our measurement of our upstream and downstream transportation impacts helps us identify and prioritize areas of improvement.

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**Further Information**

**Module: Sign Off**

**Page: CC15. Sign Off**

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**CC15.1**

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**Please provide the following information for the person that has signed off (approved) your CDP climate change response**

<b>Name</b>	<b>Job title</b>	<b>Corresponding job category</b>
Jim T. Prokopanko	Chief Executive Officer	Chief Executive Officer (CEO)

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**Further Information**