

Investor CDP 2014 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 2013 were approximately \$9 billion, representing approximately 16,300,000 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 2012 publication "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.

In May 2012, Mosaic became a signatory to the United Nations Global Compact, affirming our deep commitment to operate according to universally accepted principles in the areas of human rights, labour, environment and anticorruption. In 2013, Mosaic was recognized in Corporate Responsibility Magazine's 100 Best Corporate Citizens List for the fourth 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

Tue 01 Jan 2013 - Tue 31 Dec 2013

CC0.3

Country list configuration

Please select the countries for which you will be supplying data. 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

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(\$)

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 sectors, companies in the oil and gas industry, companies in the information technology and telecommunications sectors and companies in the food, beverage and tobacco sectors should complete supplementary questions in addition to the main questionnaire.

If you are in these sectors (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.

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

CC1.1

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

Individual/Sub-set of the Board or other committee appointed by the Board

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 (EHSS) Committee of the Mosaic Board of Directors

ii. The EHSS Committee of the Mosaic Board of Directors 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 proceedings;
- overseeing management’s responses to significant emerging EHSS issues;
- reviewing sustainability issues, including product stewardship;
- reviewing our interactions relating to EHSS matters with communities, customers and other key stakeholders; and
- overseeing the management of EHSS risks.

Board of Directors and the Senior Leadership Team consisting of the CEO, SVP-Phosphate, SVP-Potash, SVP-PA, EVPc, 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
Management group	Monetary reward	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 emphasize energy efficiency and conservation (such as Continuous Improvement).
Chief Executive Officer (CEO)	Monetary reward	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 are based not only on financial results but also on operational excellence measures and achievement of strategic priorities. Mosaic’s CEO has written sustainability goals set with Board approval, which include a broad range of sustainability initiatives including GHG performance and setting air emission targets. The CEO’s compensation informs the achievement of these goals. As such, the CEO incentive plan is directly linked to climate change mitigation.

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
Sporadically, not defined	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.	3 to 6 years	Climate change risks and opportunities are monitored yearly and as needed and the results are reported to the Board, the SLT and the EHSS and to additional stakeholders through our Annual Form 10-K report, Annual Report to Investors and Annual Sustainability Report. 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 Senior Leadership Team (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, analyse 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 are informed by the EHSS committee within the broad areas of Mosaic's focus, which include: Food, Environment, People, Community and Company.

CC2.2

Is climate change integrated into your business strategy?

Yes

CC2.2a

Please describe the process of how climate change is integrated into your business strategy and any outcomes of this process

- Influence: Mosaic's climate change business strategy is influenced by interaction with 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 potential changes in weather patterns, potential water shortages, and the need to reduce greenhouse gas emissions, energy use, and fuel use from transportation. Regulatory changes and new product opportunities also shape our strategy.
- iii. Short-term Strategy:
 - In anticipation of changing weather patterns and potential shortages of water, Mosaic has made water recycling, reuse and reductions a key strategic goal. In 2013, Mosaic recycled/reused approximately 90% of water used in our Florida Phosphates manufacturing operations and approximately 80% in our Canadian shaft mining Potash operations. We have implemented site specific projects such as "Water Matters" with a large focus on staff involvement working to achieve clear targets in water conservation.
 - In anticipation of increasing energy costs and possible carbon/energy taxes, Mosaic is committed to continuously working to improve our use of energy and lower our emissions. This will help with preparing for and mitigating potential climate change and associated regulation. We have employed utility engineers at individual facilities to help identify and execute energy efficiency projects. Examples include energy efficiency upgrades, cogeneration and the use of electricity generated by hydroelectric sources. Mosaic's Sustainability Goals, published in 2012, outline our short-term emission reduction target of reducing Mosaic's absolute greenhouse gas emissions by 10% and our GHG intensity by 5% in our North American Phosphates Business Unit from 2005 levels by 2015 (Intensity per tonne of product, GHG targets exclude ammonia production.).
- iv. Long-term strategy:
 - 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. As part of Mosaic's sustainability strategy, in 2012 Mosaic published our "Commitment on Climate Change," which reiterates our commitment to finding ways to meet the demands of crop nutrient production and distribution in the context of the need for reduced greenhouse gas emissions.
 - Innovation is one of Mosaic's Strategic Priorities. Built on our industry-leading 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 while delivering unique value to our stakeholders. Thus, climate change has influenced our product planning strategy.
 - Mosaic is currently developing our 2020 climate change related targets and goals.

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 may also translate to 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 2013:

- Company-wide conservation goals- In 2012, Mosaic published our Sustainability Goals, which addressed a number of sustainability initiatives relating to climate change. In 2013, we continued to work towards our goal to reduce, by 2015, our absolute GHG emissions by 10% and our GHG intensity by 5% in our North American Phosphates Business Unit from 2005 levels (Intensity per tonne of product, GHG targets exclude ammonia production). We are on track to outperform our goals. At the end of CY 2013, Mosaic's Phosphate Business Unit has reduced annual absolute Scope 1 and 2 GHG emissions by 21% since 2005(excluding ammonia). Emissions intensity for the same period has decreased over 15%. Mosaic's recent acquisition of CF Industries Florida Phosphate operations will increase absolute emissions in CY 2014. Impacts of this acquisition will be evaluated at the end of CY 2014.
- Investment- In 2013, Mosaic completed construction of a new interconnection station to transport cogenerated output for use at our largest Phosphate mining facility at Four Corners. Mosaic has established relationships with key universities and research organizations around the globe to develop and test innovative products like Aspire™ which was introduced to the market in 2013. In another effort to address greenhouse gas emissions and reduce fuel use from transportation, 2013 was the year Mosaic, in conjunction with a third party transportation vender, completed the conversion to a natural gas-powered truck fleet for raw materials and finished products in our Central Florida operations. The 50 trucks (operated by a third party transportation vender) have increased capacity and are powered by clean-burning CNG. Benefits of the conversion include significantly lower emissions of particulates and nitrogen oxides (up to 50% lower) and GHGs (potentially up to 25% lower). Based on forecasted shipping volumes, we estimate that this change will save at least \$1 million annually.

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 cogeneration sources should be considered a renewable energy source. We have advocated in the United States for comprehensive, rational renewable energy policies that would incentivize and expand the generation and uses of existing, low-cost renewables, such as non-GHG-emitting waste heat electricity generated from industrial operations, and promote fairer pricing for third-party renewable producers when selling power to the electrical grid.
Other: Water quality	Support with minor exceptions	It is Mosaic's belief that the production of electrical energy from cogeneration sources should be considered a renewable energy source. We have advocated in the United States for comprehensive, rational renewable energy	We have advocated in the United States for science-based policies that are protective of precious water resources in the communities in which we live and operate, while also allowing for the continued growth of job-creating

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
		policies that would incentivize and expand the generation and uses of existing, low-cost renewables, such as non-GHG-emitting waste heat electricity generated from industrial operations, and promote fairer pricing for third-party renewable producers when selling power to the electrical grid.	businesses and the local and regional economies.
Other: Growth/land use	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.	We have advocated in the United States for balanced growth and land use policies that would maintain and ensure the continued extensive local, state and federal reviews of our mining activities, while streamlining areas that have become unnecessarily redundant and costly.

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	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 on the Executive Committee for the International Fertilizer Industry Association. The Executive Committee discusses the issues facing the industry and is responsible for ensuring that the General Standing Committees' work achieves the goals set by the Council.
Canadian Fertilizer Institute	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	Walter Precourt, Sr. Vice President of Potash Operations, serves on the Board of Directors for the Canadian Fertilizer Institute (CFI).

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?
		applicable provincial governments."	
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	Mixed	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 of the fertilizer industry.

CC2.3d

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

No

CC2.3e

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

Yes

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 utilizes the latest technology to develop innovative fertilizer formulations to improve nutrient use efficiency in a variety of climate regimes. Success of such efforts can potentially allow for growing crops in a diversity of climate regimes. In 2013, 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.

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. Mosaic considers the relevance of the engagement opportunities to our 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.

Mosaic has participated and presented in the Climate Leadership Conference in 2013 and 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, Social Responsibility and Public Affairs professionals interact with policymakers and global thought leaders at key universities to encourage the transfer of knowledge and to bring the latest thinking on sustainability into the Mosaic risk management process.

Further Information

• On an average day, Mosaic and our vendors move approximately 50,000 tonnes of crop nutrients and raw materials around the world through one of the largest delivery networks in the industry. We work with our transportation and logistics providers to help minimize fuel costs and maximize fuel efficiencies. • Procurement- Climate change influenced our procurement strategy. As part of our effort to address resource scarcity and lower our environmental footprint, Mosaic's Florida Corporate Headquarters continued the use of recyclable and biodegradable office supplies and also completed the Energy Star Certification process. Mosaic's Colonsay Mill Dry building was also designed and constructed according to LEED standards. The LEED certification process for the Colonsay Mill Dry building and Mosaic's leased Regina, Canada offices is underway.

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%	10%	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) 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 CO2eq 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%	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

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions	Target year	Comment
								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 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 CO ₂ eq 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 Co ₂ e/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	80%	100%	2013 absolute emissions indicate Mosaic is on track to reach annualized absolute emissions by 2015 based on current forecasting. Recent acquisitions may require the goal to be re-established prior to 2015.
Int1	80%	100%	Based on 2013 emissions inventory, Mosaic is on track to meet the intensity target. Recent acquisitions may require the goal to be re-established prior to 2015.

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

A. MicroEssentials® has been shown to increase crop yields by approximately 2-5% over traditional fertilizers. Assuming a 3.5% yield advantage with MicroEssentials®, a corn farmer with a 350 acre farm can theoretically produce yields similar to those from a 362.25 acre farm. By using MicroEssentials®, this farmer could avoid approximately 0.1478 tonnes of Scope 1 carbon emissions per year. The farmer with that size farm can also theoretically avoid on average 0.1478 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.

B. 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. The 4Rs is an innovative and science-based approach to fertilizer use that offers enhanced environmental protection including potential reduction of greenhouse gas emission, increased production, increased farmer profitability and improved sustainability. For fertilizer use to be sustainable, it must support cropping systems that provide economic, social and environmental benefits. Mosaic is supporting 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.

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

A. Based on diesel fuel savings from farm equipment a 350 acre corn field could potentially avoid approximately 0.1478 tonnes of Scope 1 carbon emissions per year, through reduced corn harvesting equipment usage (through greater yield) If there are 100 farms similar to this example that is a combined savings of 14.78 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 CO₂e avoided.

iii. Methodology, assumptions, emission factors and GWPs used for the estimations.

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 CO₂ or carbon compounds

Assumptions:

A. The estimate takes into consideration the tonnes of CO₂e/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 362.25 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 tonnesCO₂e/gallon of diesel fuel. Assuming a 3.5% yield advantage with MicroEssentials®, a corn farmer with a 350 acre farm can theoretically produce yields similar to those from a 362.25 acre farm. This farmer could avoid approximately 0.1478 tonnes of Scope 1 carbon emissions per year, by picking the same tonnage on a smaller area. If there are 100 farms similar to this example, which is a combined savings of 14.78 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.

CC3.3

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

Yes

CC3.3a

Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO₂e savings

Stage of development	Number of projects	Total estimated annual CO ₂ e savings in metric tonnes CO ₂ e (only for rows marked *)
Under investigation	26	0
To be implemented*	3	150000
Implementation commenced*	4	235537
Implemented*	10	91248
Not to be implemented	0	0

CC3.3b

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

Activity type	Description of activity	Estimated annual CO ₂ e savings (metric tonnes CO ₂ e)	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, years	Comment
Energy	By revamping the	4883	285000	120000	<1 year	This	

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	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, years	Comment
efficiency: Processes	exhaust system and increasing the flow of combustion air into the product drying furnace, the Fospar facility reduced its fuel oil consumption by 3.8 kg per metric tonne of finished product. The revamping of the exhaust system at the Fospar facility was a voluntary improvement and reduced Scope 1 emissions.					project is expected to be in effect for greater than 10 years.	
Energy efficiency: Processes	By switching from forklift to truck and trailer to move bags of finished product, Mosaic's Qinhuangdao, China, facility saved .018 liters of fuel per tonne of product. The improvement also resulted in annual maintenance cost savings. The process change was voluntary and reduced Scope 1 emissions.	0.10	1000	0	<1 year	This project is expected to be in effect for greater than 10 years.	
Energy efficiency: Processes	A preheater installed at one of our Bartow facility's sulfuric acid plants recovers heat from the product acid stream by heating evaporator condensate, which is distributed to the system's water heaters. By eliminating the need to extract low pressure steam from existing	3195	300000	1840000	1-3 years	This project is expected to be in effect for greater than 10 years..	

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	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, years	Comment
	equipment, the turbo generator can produce more power. The installation was voluntary and reduced Scope 1 emissions.						
Energy efficiency: Processes	Re-rating of a turbine at the Bartow facility resulted in annual energy and CO2e savings. The re-rating was voluntary and reduced Scope 1 emissions.	4768	434000	0	<1 year	This project is expected to be in effect for greater than 10 years.	
Energy efficiency: Processes	The Four Corners facility reduced the energy consumption associated with transporting tailings to reclamation sites by using fewer 1500 horsepower pumps when possible, while maintaining overall efficiency. The process change was voluntary and reduced Scope 1 emissions.	980	250000	0	<1 year	This project is expected to be in effect for greater than 10 years.	
Energy efficiency: Processes	Replacing a motor on the tailings transportation system saved approximately 245kw in annual energy consumption at Mosaic's Wingate facility. By voluntarily replacing the motor at the Wingate facility, Scope 1 emissions were reduced.	779		140000	<1 year	This project is expected to be in effect for greater than 10 years.	
Energy efficiency: Processes	Through an agreement with an industrial partner in	34488				This project is expected	

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	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, years	Comment
	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. In 2013, this arrangement allowed Mosaic to save approximately 34,000 GJ in indirect energy consumption. The agreement was voluntary and reduced Scope 1 emissions.					to be in effect for greater than 10 years.	
Low carbon energy installation	In February 2013, Mosaic began full operation of an 11 megawatt per hour turbine generator for heat recovery cogeneration at the Uncle Sam sulfuric acid plant in Louisiana, which reduced the plant's energy consumption in 2013. The low carbon energy project at Uncle Sam was a voluntary project and reduced Scope	39958	3400000	15000000	4-10 years	This project is expected to be in effect for greater than 10 years.	

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	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, years	Comment
	2 emissions.						
Process emissions reductions	Mosaic's Four Corners facility used electric pumps run by cogenerated energy instead of diesel pumps to transport water from a clay settling area, saving approximately 20,000 gallons of diesel fuel and associated GHGs. By voluntarily using waste heat as power the Four Corners facility will continue to increase production while decreasing Scope 1 emissions.	197	38477	0	<1 year	This project is expected to be in effect for greater than 10 years.	
Transportation: fleet	In 2013 Mosaic, in conjunction with a third party transportation vender, completed the conversion to a natural gas-powered truck fleet for raw materials and finished products in our Central Florida operations. The 50 trucks (operated by a third party transportation vender) have increased capacity and are powered by clean-burning CNG. Benefits of the conversion include significantly lower emissions of particulates and nitrogen oxides (a greenhouse gas). The fleet conversion was a voluntary project	2000	1000000	0	<1 year	This project is expected to be in effect for greater than 10 years.	

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	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, years	Comment
	and reduced Scope 3 emissions.						

CC3.3c

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

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

-In 2013, Mosaic continued full-scale production of Nexfos®, the next generation feed-grade phosphate that is characterized as being a combined source of highly available phosphorous, calcium and sodium. Not only is Nexfos® the first innovation in feed-grade phosphate in 40 years, the product is helping Mosaic meet its commitment to sustainability by reducing its environmental footprint. The Nexfos® production process has significantly reduced the carbon footprint associated with the production of comparable feed phosphates by requiring approximately 60 percent less water, 70 percent less natural gas and 55 percent less electricity per tonne to produce. Therefore, by using Nexfos® instead of comparable feed ingredients, our customers have an opportunity to reduce their Scope 3 emissions. -Mosaic has taken the concept of the 4Rs and our fertilizer to agrarian societies in Guatemala, Brazil and India to put the 4Rs to use. Since 2011 when these programs began Mosaic has been instrumental in transforming small subsistence farms in these countries into farms that generate jobs, increased yields and surplus food for their communities. At Mosaic, fertilizer stewardship is not just providing customers with the product but promoting the best practices to achieve higher yields, healthier crops and minimizing the footprint on the environment, including greenhouse gas emissions.
(http://www.fhwa.dot.gov/environment/climate_change/mitigation/resources_and_publications/carbon_sequestration/)

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	Page/Section reference	Attach the document
In mainstream financial reports	2013 Form 10-KT, pages 37-38, F-36,	https://www.cdp.net/sites/2014/82/12382/Investor CDP 2014/Shared Documents/Attachments/CC4.1/10K_Report.pdf

Publication	Page/Section reference	Attach the document
(complete)	F-37, F-38	
In other regulatory filings (complete)	2013 Proxy Statement, pages 21-22	https://www.cdp.net/sites/2014/82/12382/Investor CDP 2014/Shared Documents/Attachments/CC4.1/Proxy_Statement_2013.pdf
In voluntary communications (complete)	2013 GRI, pages 45-80	https://www.cdp.net/sites/2014/82/12382/Investor CDP 2014/Shared Documents/Attachments/CC4.1/gri-2013.pdf

Further Information

Module: Risks and Opportunities

Page: CC5. Climate Change Risks

CC5.1

Have you identified any 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 risks 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	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	In order to manage the potential risks from changing regulations (driven by climate change), Mosaic is taking a proactive approach with particular emphasis on	Cogeneration is part of Mosaic's three-pronged approach of energy management. As a specific example of our management efforts, in 2013, Mosaic completed

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	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.						and through suppliers.	improving energy efficiency and waste management. These initiatives will assist Mosaic in emissions reduction and improving our operating performance. 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.	construction of a 69,000 volt interconnection station to transport cogenerated output to our largest phosphate mining facility at Four Corners. This investment, which cost approximately \$6,000,000, 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	Increased operational cost	>6 years	Direct	Unknown	Medium	Any agreement, regulation or program that limits or taxes direct and indirect GHG emissions from our	In order to manage the potential risks from changing regulations (driven by climate change); Mosaic engages	Cogeneration is part of Mosaic's three-pronged approach of energy management. As a specific example of

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	material adverse effect on our business, financial condition and results of operations. Initiatives in the US: Various legislative or regulatory initiatives relating to greenhouse gases have been adopted or considered by the U.S. Congress, the EPA or various states. We do not believe that any such legislation or regulation that has been adopted has had, or is reasonably likely to have, a material adverse effect on our results of operations, liquidity or capital resources. It is possible that further legislation or regulation						facilities could increase operating costs directly and through suppliers.	government officials and legislators at the state/ provincial and federal level to develop climate change related legislation. We continue to work with the Canadian Fertilizer Institute, Saskatchewan Mining Association and Saskatchewan Potash Producers Association in negotiating with Canadian federal and provincial governments, focusing on, among other matters, energy reduction initiatives as a means for reducing greenhouse gas emissions and addressing the implications of implementation of greenhouse gas emissions regulations	our management efforts, in 2013, Mosaic completed construction of a 69,000 volt interconnection station to transport cogenerated output to our largest phosphate mining facility at Four Corners. This investment, which cost approximately \$6,000,000, will allow us to create more cogenerated power to use internally and offset the purchase of electricity from third-party utilities.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>addressing climate change 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. Initiatives in Canada: Public announcements from the Canadian federal government have indicated that future federal targets will align with previously stated reduction targets for 2020 of 17 percent below 2005 levels through a sector-by-sector approach aligned with the United States, where appropriate. Our Saskatchewan Potash</p>							in Canada on the competitiveness of Canadian industry in the global marketplace.	

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>facilities continue to work with the Canadian Fertilizer Institute and Environment Canada on a sector based approach. We also continue to work with the Canadian Fertilizer Institute, Saskatchewan Mining Association and Saskatchewan Potash Producers Association in negotiating with the Canadian federal and provincial governments, focusing on, among other matters, energy reduction initiatives as a means for reducing greenhouse gas emissions and addressing the implications of implementation of greenhouse gas emissions</p>								

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	regulations in Canada on the competitiveness of Canadian industry in the global marketplace. International Initiatives: International negotiations concerning greenhouse gas emission reductions and other responses to climate change are underway. Any new international agreements addressing climate change 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.								
Carbon taxes	In order to mitigate the potential	Increased operation	1 to 3 years	Direct	Unknown	Low	The possible implement	In order to manage the potential	Mosaic maintains offices at

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	risks of climate change, China is considering the implementation of a carbon tax in 2014 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.	nal cost					ation 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 2,460 Yuan (\$393.60 USD) per year on our operations in China, based on 2013 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.	risks from changing regulations (driven by climate change), Mosaic is taking a proactive approach with particular emphasis on improving energy efficiency and waste management. These initiatives will assist Mosaic in emissions reduction and improving our operating performance. 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. For example, by switching	our facilities in China. Our facilities comply with all applicable regulations. Costs associated with complying with any such carbon tax are not available as a separate line item, but are not expected to be material

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								from forklift to truck and trailer to move bags of finished product, Mosaic's Qinhuangdao, China, facility saved .018 liters of fuel per tonne of product. The improvement also resulted in annual maintenance cost savings.	
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 doesn't currently affect our operations, if a similar program were implemented throughout the rest of the United States then	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	In addition to engaging government officials and legislators at the state/provincial and federal level to develop climate change related legislation, 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	Cogeneration is part of Mosaic's three-pronged approach of energy management. As a specific example of our management efforts, in 2013, Mosaic completed construction of a 69,000 volt interconnection station to transport cogenerated output to our largest phosphate mining facility at Four Corners. This investment

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	operations would be 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.						were purchased via auction. 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.	and waste management. These initiatives will assist Mosaic in emissions reduction and improving our operating performance. 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. As a specific example of our management efforts, in 2013, Mosaic completed construction of a 69,000 volt interconnection station to transport cogenerated output to our largest phosphate mining facility at	, which cost approximately \$6,000,000, will allow us to create more cogenerated power to use internally.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								Four Corners. This investment, which cost approximately \$6,000,000, will allow us to create more cogenerated power to use internally.	

CC5.1b

Please describe your 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) temperature	Mosaic's main product is fertilizer, and fertilizer demand can be directly affected by the potential impact of climate change risks on agriculture. Physical risks from climate change that can affect agricultural production and the demand for fertilizer products	Reduced demand for goods/services	Unknown	Indirect (Client)	Unknown	Low-medium	A change in temperature could adversely impact the stability of growing seasons and the ability of farmers to grow crops successfully, making it difficult for them to afford fertilizers. This could result in a material loss of revenue to Mosaic.	Mosaic's balanced approach to crop nutrition produces a strategy to mitigate the adverse effects of potential climate change risks, such as drought, floods, and plant disease. Mosaic has established relationships with key universities and research organizations around the globe to develop and	In 2013, 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
	include changes in temperature. Changing growing seasons in already dry areas could make growing crops using traditional methods increasingly difficult.							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 technology and utilizes the latest technology to develop innovative fertilizer formulations to improve nutrient use efficiency in a variety of climate regimes.	
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. Physical	Reduced demand for goods/services	Unknown	Indirect (Client)	Unknown	Low-medium	Changes in temperature or precipitation patterns could adversely impact the stability of growing seasons and the ability of farmers to grow	Mosaic's balanced approach to crop nutrition is a strategy to mitigate the adverse effects of potential climate change risks, such as of drought, floods, and plant disease.	In 2013, 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
	risks from climate change that can affect agricultural production and the demand for fertilizer products include changes in mean precipitation. Unstable growing seasons could make growing crops using traditional methods increasingly difficult.						crops successfully, making it difficult for them to afford fertilizers. This could result in a material loss of revenue to Mosaic.	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. Mosaic established and continues to fund the 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	

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								to improve nutrient use efficiency in a variety of climate regimes.	
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. Physical risks from climate change that can affect agricultural production and the demand for fertilizer products include changes in mean precipitation. Unstable growing seasons could make growing crops using traditional methods increasingly difficult. Changes in precipitation resulting in droughts or water shortages	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 or limit our output. These effects could be material to us.	We manage these potential climate change risks by recycling high percentages of the water used in our Phosphates and Potash businesses. Mosaic reuses or recycles approximately 90 percent of all water used in our Florida phosphates manufacturing facilities and more than 80 percent in our Canadian potash shaft mines. As part of their larger "Water Matters" program efforts, the Bartow facility used reverse osmosis to produce 70 gallons per minute of treated water back	This recycling initiative cost approximately \$140,000.

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	could adversely affect our operations, principally our mines in Florida and Saskatchewan where we use water.							for use at the facility's sulfuric acid plant, 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 supply chain.	Increased operational cost	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, quantifiable business interruption could be in greater than \$1 million.	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 weather conditions or seasonal patterns/risks (potentially climate change related) that could interfere with products reaching our customers. The team also communicates regularly with the Coast Guard and Army Corps of	Drought or flood conditions may require us to implement certain solutions to ensure we maintain acceptable inventory levels and meet customer demand. Mosaic may decide to send product early in anticipation of possible suspension of river traffic later in the season. This scenario could result in increased inventory storage expenses

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								Engineers to stay apprised of issues that might result in supply chain delays and/or disruption. As an example of our upstream supply management efforts, 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.	of \$250 per day per barge. A theoretical example if we send 50 barges for 1 month (30 days) it would cost \$375,000.
Change in precipitation extremes and droughts	Potential climate change risks contribute to water treatment costs, particularly at our Florida operations, due to high water	Increased operational cost	Unknown	Indirect (Client)	Unknown	Medium	If additional excess rainfall or hurricanes occur in coming years, our facilities may be required to take additional measures	We manage these potential climate change risks by taking a proactive approach to monitoring our Phosphogypsum management	Water management efforts are considered within the scope of Mosaic's engineering team's workflows and

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>balances tend to increase significantly following excess precipitation from hurricanes and other adverse weather. 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. If additional excess rainfall or hurricanes continue to occur in coming years, our facilities may be required to take additional measures to manage process water to comply with</p>						<p>to manage process water to comply with existing or future requirements and 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.</p>	<p>ment systems, following applicable regulatory requirements. Additionally, Mosaic has 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</p>	<p>part of the normal course of operating as one of the world's leading producers of phosphate and potash, there is no incremental cost specific to climate change associated with them. An initiative at the Bartow facility that used reverse osmosis to recycle 300 gal/min back for use at the sulfuric acid plant cost approximately \$140,000 (additional to the capital cost of the RO treatment facility).</p>

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	existing or future requirements and these measures could potentially have a material effect on our business and financial condition.							“Water Matters” program at our Bartow facility focus on identifying new opportunities to reduce fresh water usage and reuse process water, as well as reducing process water inventory through the use of reverse osmosis (RO) and evaporation.	
Tropical cyclones (hurricanes and typhoons)	Potential climate change risks 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 Phosphate business. In the past, hurricanes have	Reduction/disruption in production capacity	Unknown	Direct	Unknown	Medium	Mosaic has approximately \$5 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	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	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.

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	resulted in physical damage to our facilities in Florida and Louisiana. Adverse weather may also cause a loss of production due to disruptions in our supply chain. For example, oil refineries that supply sulfur to us can be closed as a result of a hurricane and incoming shipments of ammonia can be delayed, disrupting production at our Florida or Louisiana facilities.						storms, additional sustained hurricane activity could force a change in design standards for containmentments. This could result in increased costs per tonne of product. Hurricanes, may also cause a loss of production due to disruptions in our supply chain.	securing, shutdown, safe evacuation (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.	

CC5.1c

Please describe your 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	Mosaic's main product is fertilizer,	Reduced demand for goods/services	Unknown	Direct	Unknown	Low-medium	This risk could result in reduced demand	We manage these potential climate change risks	In 2013, Mosaic invested more than \$500,000

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated Financial Implications	Management method	Cost of management
conditions	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 farming communities in widespread financial distress. This could drastically change the landscape of the agriculture and fertilizer industries.						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.	by a 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. 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	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
								to develop innovative fertilizer formulations to improve nutrient use efficiency in a variety of climate regimes.	
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 negative perceptions of the public.	Reduced demand for goods/services	Unknown	Direct	Unknown	Medium	Mosaic's sales for CY2013 were approximately \$9 billion, representing approximately 16,300,000 tonnes of finished product. Negative public perceptions could potentially lead to reduced demand for goods, decreased revenue, and could have a negative material impact on our profit. For example, a 1% decrease in sales due to a negative reputation example event could cost us approximately \$90 million in	We manage these potential climate change risks by Public Affairs, Environmental Affairs and Social Responsibility professionals work with employees across the company to clearly communicate our progress on matters related to sustainability, energy reduction, greenhouse gases and climate change, through our annual GRI Sustainability Report. Public Affairs, Environmental Affairs and Social Responsibility professionals work with employees across the company to clearly	In 2013 Mosaic had 42 full time employees on the public affairs team globally. In 2013, Mosaic targeted to invest 1% of earnings before interest and taxes (EBIT) over a three-year rolling average into our communities. The Mosaic Company, The Mosaic Company Foundation and The Mosaic Institute in Brazil make investments in our global communities through philanthropic funding, employee

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated Financial Implications	Management method	Cost of management
							annual revenue based on 2013 numbers.	communicate our progress on matters related to sustainability, energy reduction, greenhouse gases and climate change.	engagement and in-kind donations. Combined contributions in 2013 reached \$27.16 million.

Further Information

Page: CC6. Climate Change Opportunities

CC6.1

Have you identified any 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 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	Reduced operational costs	1 to 3 years	Direct	Likely	Low-medium	In 2013, Mosaic produced 1.4 million MWh of electrical energy from cogeneration in our Phosphate 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	In 2013, Mosaic completed construction of a new interconnection station to transport cogenerated output for use at our largest

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	provide Mosaic tax 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 \$10,000,000.	enactment of a 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 renewable power. We	phosphate mining facility at Four Corners. This investment, which cost approximately \$6,000,000, will allow us to use more cogenerated power internally.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								often work with a coalition of varied interests, ranging from renewable advocates and those in the environmental community, to other large businesses and industrial power users and ratepayer groups. 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. In 2013 we made substantial investments in cogeneration rebuilds and upgrades and also identified future	

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								cogeneration investment opportunities.	
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 and initiative related to environment and greenhouse gas emissions.	Other: Increase in competitive capacity	Unknown	Direct	Unlikely	Low-medium	Mosaic's Phosphates 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 competitors' cost of production would increase even further, which would make Mosaic even more cost competitive. This scenario would likely have a positive effect on our operating results and financial	In order to manage this opportunity, Mosaic's Public Affairs 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 our stakeholders in the International Fertilizer Industry Association. 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
							conditions in relation to our competitors.		
Product efficiency regulations and standards	Changes in the regulation of fertilizers to mandate minimum yields would 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 price and higher margins for our higher-yield products. Therefore, this change in production percentage for higher-yield products like MicroEssentials® could have a positive effect on our operating results and financial condition.	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®. In addition to product development Mosaic has taken the concept of the 4Rs and our fertilizer to agrarian societies in Guatemala, Brazil and India to put the 4Rs to use. Since 2011 when these programs began Mosaic has been instrumental in transforming these small subsistence farms into farms that generate jobs and surplus	In 2013, 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
								food for their communities. At Mosaic fertilizer stewardship is not just providing people with the product but teaching the best practices to get higher yields, healthier crops, while reducing the footprint on the environment.	

CC6.1b

Please describe the 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	Unstable precipitation patterns may require farmers to place more of an emphasis on precision agriculture, which would provide expanded premium	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 our higher-yield products like	Mosaic's balanced approach to crop nutrition and development of new innovative products is a strategy to mitigate the adverse effects of climate change risks, such as, drought, floods, and plant disease.	In 2013, 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
	product opportunities for Mosaic. The efficient use of fertilizers in precision agriculture allows for greater uptake of water by plants, which means less water is needed to grow the plant over its life.						MicroEssentials®. We sold 1.4 million tonnes of MicroEssentials® (“MES”), during CY2013, an increase of 18% from the prior twelve months. MicroEssentials® fertilizer reached an 11% share of the phosphate sales in FY2013, and it is gaining traction.	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 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
Change in precipitation pattern	Unstable temperatures 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® ("MES") may have a positive effect on our operating results and financial condition and the effects could be significant to us. We sold 1.4 million tonnes of "MES" in North America, in CY 2013, an increase of 18% from the prior twelve months.	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. Mosaic established and continues to fund a University-based Fertilizer Technology and Research Centre, which focuses on soil chemistry and fertilizer technology,	In 2013, 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
								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 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 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 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 have a positive effect on our operating results and financial condition. As an example, the Phosphate and Potash business segments' FY 2013 net	In order to manage this opportunity, Mosaic is investing in the research and development associated with products to work with farmers across the globe on best practice application in order to maximize yields. Mosaic partners with key universities and research organizations in	In 2013, 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
	increased demand for our innovative products. Mosaic has developed high yield premium products such as the MicroEssentials® brand.						sales totaled \$9 billion. A theoretical example' increase in demand that resulted in 10% higher sales in these product categories would translate to approximately \$900 million based on 2013 numbers.	researching improved fertilizer blends that maximize yields. Mosaic has developed premium products, including MicroEssentials® and KMAG® that promote higher yields in almost any agricultural application. In addition, Mosaic has developed a new line of animal feed ingredient, Nexfos®. These products are safe to handle and easy to apply and as effective in developing countries as they are in countries with precision agricultural practices. The Nexfos® production process has significantly reduced the carbon footprint associated with the production	

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								of comparable feed phosphates by requiring approximately 60 percent less water, 70 percent less natural gas and 55 percent less electricity per tonne to produce. The power savings and natural gas savings for the production of Nexfos® will be in the order of \$19/U.S. ton or \$1 million per annum at current production.	
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	Increased demand for existing products/services	Unknown	Direct	Unknown	Medium-high	Governments are understanding 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	In order to manage this opportunity, Mosaic is actively promoting education on the importance of mineral fertilizers in increasing crop yields. An example of our education and outreach is the creation of a mobile education facility which	Mosaic spent over \$500,000 creating a mobile education facility which travels in the US providing an educational resource tool relating to the importance of mineral fertilizers.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	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.						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 and therefore our financial condition.	travels in the US providing an educational resource tool relating to the importance of mineral fertilizers. We have a full-time educational resource allocated to the mobile education facility.	

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)

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

Please select the published methodologies that you use
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
US EPA Climate Leaders: Indirect Emissions from Purchases/Sales of Electricity and Steam
US EPA Mandatory Greenhouse Gas Reporting Rule
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 CO₂ 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

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

Fuel/Material/Energy	Emission Factor	Unit	Reference
Electricity	0.53598	metric tonnes CO ₂ e per MWh	Climate Registry 2013 Conversion Factors
Other: Natural Gas (N ₂ O)	0.0001	Other: kg CO ₂ e per MMBTU	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C
Natural gas	0.05302	Other: metric tonnes CO ₂ per MMBTU	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C
Other: Natural Gas (CH ₄)	0.001	Other: kg CO ₂ e per MMBTU	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C
Other: Diesel (N ₂ O)	0.00008	Other: kg CO ₂ e per gallon	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C
Other: Diesel (CO ₂)	0.01021	Other: metric tonnes CO ₂ per gallon	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C
Other: Diesel (CH ₄)	0.00041	Other: kg CO ₂ e per gallon	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C
Other: Fuel Oil (N ₂ O)	0.0006	kg CO ₂ e per liter	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C

Fuel/Material/Energy	Emission Factor	Unit	Reference
Other: Fuel Oil (CO2)	0.00320	Other: metric tonnes CO2 per kg	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C
Other: Fuel Oil (CH4)	0.003	Other: kg CO2e per kg	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C
Other: Gasoline (N2O)	0.00016	Other: kg CO2e per gallon	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C
Motor gasoline	0.00886	Other: metric tonnes CO2 per gallon	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C
Other: Gasoline (CH4)	0.00015	Other: kg CO2e per gallon	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C
Propane	0.00579	Other: metric tonnes CO2 per gallon	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C
Other: Propane (CH4)	0.00001	kg CO2e per liter	US EPA Mandatory Greenhouse Gas Reporting Rule Subpart C
Other: Limestone	0.39917	Other: metric tonne CO2 per short ton	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

Further Information

Attachments

[https://www.cdp.net/sites/2014/82/12382/Investor_CDP_2014/Shared Documents/Attachments/InvestorCDP2014/CC7.EmissionsMethodology/CDP_GHG_CC7.4.xlsx](https://www.cdp.net/sites/2014/82/12382/Investor_CDP_2014/Shared_Documents/Attachments/InvestorCDP2014/CC7.EmissionsMethodology/CDP_GHG_CC7.4.xlsx)

Page: CC8. Emissions Data - (1 Jan 2013 - 31 Dec 2013)

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

2793949

CC8.3

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

1616303

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	Emissions are not relevant	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 1 emissions: Uncertainty range	Scope 1 emissions: Main sources of uncertainty	Scope 1 emissions: Please expand on the uncertainty in your data	Scope 2 emissions: Uncertainty range	Scope 2 emissions: Main sources of uncertainty	Scope 2 emissions: Please expand on the uncertainty in your data
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.	Less than or equal to 2%	Data Gaps Metering/ Measurement Constraints	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	https://www.cdp.net/sites/2014/82/12382/Investor CDP 2014/Shared Documents/Attachments/CC8.6a/Mosaic 2014 CDP and GRI Assurance Statement AA1000-4.pdf	Pages 1 and 2	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 Scope 2 emissions verified (%)
Moderate assurance	https://www.cdp.net/sites/2014/82/12382/Investor CDP 2014/Shared Documents/Attachments/CC8.7a/Mosaic 2014 CDP and GRI Assurance Statement AA1000-4.pdf	Pages 1 and 2	AA1000AS	100

CC8.8

Please identify if any data points other than emissions figures have been verified as part of the third party verification work undertaken

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

Page: CC9. Scope 1 Emissions Breakdown - (1 Jan 2013 - 31 Dec 2013)

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	1903028
Canada	833705
Brazil	43779
China	193
Argentina	12228
Chile	219
India	797

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)
Potash	929950
Phosphate	1804960
U.S. Distribution	1824
International Distribution	13436
Brazil	43779

CC9.2b

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

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
BEL-Belle Plaine	657918.82	50.427658	-105.198296
CAR-Carlsbad	49333.44	32.412258	-103.939217
CBB-Big Bend	181.29	27.804174	-82.397057
CBR-Bartow	132865.41	27.907545	-81.800537
CFA-Faustina	957650.67	30.083384	-90.914391
CGB-Green Bay	10473.12	27.820769	-81.784767
CLN-Colonsay	40521.84	51.934105	-105.763496
CNI-Nichols	26	27.880489	-82.026855
CNW-New Wales	383653.56	27.832701	-82.051048

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
CRV-Riverview	107548.24	27.860191	-82.393600
CSP-South Pierce	16017.75	27.765583	-81.940331
CUS-Uncle Sam	124680.89	30.037428	-90.827377
DHD-Henderson	984.14	37.815159	-87.658173
DHS-Houston	372.46	29.744053	-95.114723
DPK-Pekin	83.86	40.587875	-89.660637
DSV-Savage	202.06	44.779415	-93.336426
EH1-Esterhazy K1	38100.53	50.729282	-101.933723
EH2-Esterhazy K2	97163.90	50.658768	-101.848412
HSY-Hersey	46910.78	43.834412	-85.354065
IAA-Alto Arguaia	151.09	-17.151678	53.192689
ICD-Candeias	62.10	-12.662950	-38.519440
ICG-Campo Grande	76.20	-21.258281	-48.492311
ICM-Cosmito	137.74	-36.775751	-73.017046
IFP-Fospar	42925.02	-25.510841	-48.521633
IPG-Paranagua	233.15	-25.510841	-48.521633
IQB-Quebracho	12227.35	-32.671803	-60.729890
IQH-Qinhaungdao(QMF)	175.81	39.919504	119.608111
IRV-Rio Verde	81.16	-17.807942	-51.008695
IRZ-Rozi(Jamnagar)	797.00	22.466667	70.066667
ISA-San Antonio	80.57	-33.567663	-71.568836
ISR-Sorriso	105.69	-12.604993	55.749907
IUB-Uberaba	144.85	-19.982393	-47.900391
IYT-Yantay(YMF)	17.59	37.550464	121.38648
MFC-Four Corners	39052.11	27.646202	-82.087097
MFG-Fort Green	25	27.686264	-81.957321
MHP-Hookers Prairie	2508.50	27.917828	-82.437286
MHW-Hopewell	511.89	27.916702	-82.126312
KF-Kingsford	797.08	27.832701	-82.051048
MNO-Noralyn	72.37	27.831031	-81.023067
MSF-South Fort Meade	19896.17	27.647848	-81.756477
MWG-Wingate	9181.33	27.504131	-82.130203

CC9.2c

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

GHG type	Scope 1 emissions (metric tonnes CO2e)
CO2	2790274
CH4	1123
N2O	2552

Further Information

SF6 consumption not inventoried for CY2013. PFC and HFC release inventoried bi-annually, calculated in CO2e using GHG Protocol HFC/PFC factors and methodology (January 2005) Global Warming Potentials for CH4 (21) and N2O (310) based on EPA Climate Registry factors and GWPS (2010)

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 CO ₂ e	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted for CC8.3 (MWh)
United States of America	878925	1630365	0
Canada	730556	952435	0
Brazil	2875	30039	0
China	299	397	0
Argentina	3477	9329	0
Chile	171	411	0
India	0	0	0

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 CO ₂ e)
Phosphate	732653
Potash	873159
U.S. Distribution	3669
International Distribution	3947
Brazil	2875

CC10.2b

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

Facility	Scope 2 emissions (metric tonnes CO ₂ e)
BEL-Belle Plaine	37303
CAR-Carlsbad	113009
CBB-Big Bend	737
CBR-Bartow	52245
CFA-Faustina	43174
CGB-Green Bay	10572

Facility	Scope 2 emissions (metric tonnes CO2e)
CLN-Colonsay	98242
CNI-Nichols	681
CNW-New Wales	58856
CRV-Riverview	10433
CSP-South Pierce	1095
CUS-Uncle Sam	31901
DHD-Henderson	1770
DHS-Houston	68
DPK-Pekin	351
DSV-Savage	743
EH1-Esterhazy K1	175054
EH2-Esterhazy K2	419956
HSY-Hersey	29595
IAA-Alto Arguaia	31
ICD-Candeias	19
ICG-Campo Grande	4
ICM-Cosmito	100
IFP-Fospar	2413
IPG-Paranagua	214
IQB-Quebracho	3477
IQH-Qinhaungdao(QMF)	194
IRV-Rio Verde	56
IRZ-Rozi(Jamnagar)	0
ISA-San Antonio	72
ISR-Sorriso	69
IUB-Uberaba	69
IYT-Yantay(YMF)	105
MFC-Four Corners	275225
MFG-Fort Green	20419
MHP-Hookers Prairie	41753
MHW-Hopewell	60
MKF-Kingsford	0
MNO-Noralyn	0
MSF-South Fort Meade	115744
MWG-Wingate	72495

Further Information

Facilities: IRZ-Rozi (Jamnagar), MKF-Kingsford, and MNO-Noralyn do not purchase any electricity therefore they do not produce Scope 2 emissions only Scope 1.

Page: CC11. Energy

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	8179167
Electricity	2622976
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	490302
Biodiesels	1481
Propane	11335
Motor gasoline	40692
Natural gas	7635357

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	1240000	<ul style="list-style-type: none"> • Sulfuric acid (H₂SO₄) is required for the production of phosphoric acid (P₂O₅) 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 SO₂ gas. The SO₂ gas is then combined with more air in the presence of a catalyst and converted to SO₃ gas and then absorbed and diluted with water to form H₂SO₄. 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 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 CY2013, Mosaic generated 1.43 million MWh. Mosaic consumed 86% of this electricity at fertilizer plants or transmitted it to Mosaic mining operations. The remainder was sent

Basis for applying a low carbon emission factor	MWh associated with low carbon electricity, heat, steam or cooling	Comment
		to local utility grids. Only electricity consumed by Mosaic is reported in CDP. • The maximum number of cold starts per year was 5 per production facility and the average is 2.5 start-ups per year per facility. Using the maximum gas consumption and maximum start-ups per year, Mosaic estimates 1.08691 tonnes of CO2e were emitted in CY2013 from all 5 Mosaic crop nutrient facilities combined. • Average CO2e emissions per MWh produced is 0.76g CO2e/MWh.

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?

Decreased

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	4.00	Decrease	1-Investment in generation infrastructure and transmission capacity the allowed Mosaic increase net cogeneration production and consumption of carbon neutral electricity produced from waste heat, resulting in Scope 2 emissions reductions. 2- Utilization of waste heat resulted in a reduction of natural gas consumed and reduction to Scope 1 emissions.
Divestment	0	No change	
Acquisitions	0	No change	
Mergers	0	No change	
Change in output	1.41	Increase	Increased production at facilities in Louisiana and Saskatchewan increased consumption of energy and raw materials; resulting in increase in Scope 1 and 2 emissions.
Change in methodology	0.41	Increase	Revisions to US EPA GHG Reporting rule Subpart Z, resulted in an increase of CO2 emissions from phosphate rock digestion in the phosphoric acid production.
Change in boundary	0	No change	
Change in physical operating conditions	0	No change	

Reason	Emissions value (percentage)	Direction of change	Comment
Unidentified			
Other			

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
0.00049	metric tonnes CO2e	unit total revenue	8.6	Increase	Net carbon emissions declined 2% due greenhouse gas reduction activities, while revenue fell due to global fertilizer prices in 2013.

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
520.69	metric tonnes CO2e	FTE employee	7.6	Decrease	Net carbon emissions declined 2% due to greenhouse gas reduction activities, while number of full time employees increased as a result of expansion and acquisitions in some business units.

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
0.242	metric tonnes CO2e	unit of production	3.2	Increase	Net emissions fell 2% in 2013, while international production rates decreased. In addition, energy consumption at facilities with no production, such as our Streamsong resort in FL and our K3 shaft mine in Saskatchewan, contributed to Scope 1 and 2 emissions.

Further Information

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

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 primary data	Explanation
Purchased goods and services	Relevant, calculated	2356710	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		N/A		Vehicles, equipment and other capital goods utilized in mining, manufacturing and distribution have not been evaluated to date for Scope 3 emissions.
Fuel-and-energy-related	Relevant, not yet		N/A		Fuel consumption by contractors and partners

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using primary data	Explanation
activities (not included in Scope 1 or 2)	calculated				not quantified at this time. Estimated to be between 1% and 5% of calculated
Upstream transportation and distribution	Relevant, calculated	10037	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 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).	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. Utilized records from transportation vender and validated using internal financial records.
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	5140	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	100.00%	All corporate travel for Mosaic employees by rail and air.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using primary data	Explanation
			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.		
Employee commuting	Not relevant, calculated		Technical Guidance for Calculating Scope 3 Emissions- GHG Protocol. Estimated distance travelled by vehicle type (vehicle-km) times 2 times number of working days per year.		Conservative calculations indicate total would be less than 0.1% of Scope 1 and 2 emissions, regarded as not relevant.
Upstream leased assets	Not relevant, explanation provided		N/A		Emissions from the operation of leased assets are included in Scope 1 and 2 inventories.
Downstream transportation and distribution	Relevant, calculated	10338	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.	0.00%	Trucking emissions have reduced from previous years due to Mosaic working in conjunction with a third party transportation vender 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		N/A		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 and 2 emissions based on

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using primary data	Explanation
					Mosaic's own production and blending data.
Use of sold products	Not relevant, explanation provided		N/A		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	Relevant, not yet calculated		N/A		Mosaic participated in industry studies to identify downstream foot print 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		N/A		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		N/A		Mosaic does not operate franchises.
Investments	Relevant, not yet calculated		N/A		N/A
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	https://www.cdp.net/sites/2014/82/12382/Investor CDP 2014/Shared Documents/Attachments/CC14.2a/Mosaic 2014 CDP and GRI Assurance Statement AA1000-4.pdf	Pages 1 and 2	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
Purchased goods & services	Emissions reduction activities	31	Decrease	Emissions reduced through purchases of anhydrous ammonia from manufacturers.
Upstream transportation & distribution	Change in output	6	Increase	Emissions increased for transportation and distribution due to increased sales to regions requiring transport over land.
Business travel	Emissions reduction activities	4	Decrease	Emissions reduced by decreases in the amount of business travel. Use of video conferencing contributed to reductions in emissions from business travel.
Downstream transportation and distribution	Change in methodology	7	Increase	Emissions from rail transportation of goods increased in absolute terms due to increased volumes of materials moved over land and initiatives to move materials by rail for land transport over truck.

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

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

1-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 transport contractor to reduce emissions by utilizing 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.

2- 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.

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
9	5%	Transportation of goods and purchases of raw materials, by percentage, are the most material areas for Scope 3 emissions.

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	Mosaic's Florida phosphate manufacturing business units are working with transportation contractors to address options for reducing the footprint of Mosaic's transportation network. These initiatives include the completion of working in conjunction with a third party transportation vendor to convert the fleet to natural gas, increasing rail capacity and utilizing alternative fuels, maximizing transportation efficiency and other measures.
Use in supplier scorecards	Mosaic utilizes Riteship scoring methodology of environmental performance of ships contracted for transporting materials and finished goods. Ships with low scoring environmental performance are not contracted by Mosaic.

Further Information

Mosaic updated emission factors used to calculate Scope 3 emissions from purchased ammonia in 2013 to more recent internationally accepted factors (IPCC). The change in factors reduced emissions associated with this source. The changes noted in 14.3 for Purchased Goods reflect the reduction from the quantity of ammonia purchased year over year and is not an artifact of a change in methodology. Prior year's purchased goods emissions were also adjusted to reflect more accurate factors.

Module: Sign Off

Page: CC15. Sign Off

CC15.1

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

Name	Job title	Corresponding job category
Neil Beckingham	Sr. Manager Sustainability	Environment/Sustainability manager

Further Information

CDP